Rancho Diamante (TTM No. 36841)

TRAFFIC IMPACT ANALYSIS

CITY OF HEMET

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DIF	Development Impact Fee
E+P	Existing Plus Project
FHWA	Federal Highway Administration
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
MUTCD	Manual on Uniform Traffic Control Devices
N/A	Not Applicable
NP	Without Project
PHF	Peak Hour Factor
Project	Rancho Diamante (TTM No. 36841)
RCTC	Riverside County Transportation Commission
RivTAM	Riverside County Transportation Analysis Model
RTA	Riverside Transit Authority
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCS	Sustainable Communities Strategy
SHS	State Highway System
TIA	Traffic Impact Analysis
TTM	Tentative Tract Map
TUMF	Transportation Uniform Mitigation Fee
v/c	Volume to Capacity
WP	With Project
WRCOG	Western Riverside Council of Governments

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1 INTRODUCTION

This report presents the results of the traffic impact analysis (TIA) for the proposed Rancho Diamante (TTM No. 36841) ("Project") located on the southwest corner of Warren Road and the new Stetson Avenue extension in the City of Hemet as shown on Exhibit 1-1.

The purpose of this TIA is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and recommend improvements to achieve acceptable circulation system operational conditions. This TIA has been prepared in accordance with the approved scoping agreement (see Appendix 1.1).

1.1 PROJECT OVERVIEW

The Project is proposed to include the development of 588 single family detached residential dwelling units and approximately 100,000 square feet (sf) of neighborhood commercial retail. For the purposes of this analysis, potential impacts have been assessed for two development phases. The two phases and their anticipated opening years are as follows:

- Phase 1 (2024) – 588 single family residential dwelling units
- Phase 2 (2026) – 100,000 sf neighborhood retail

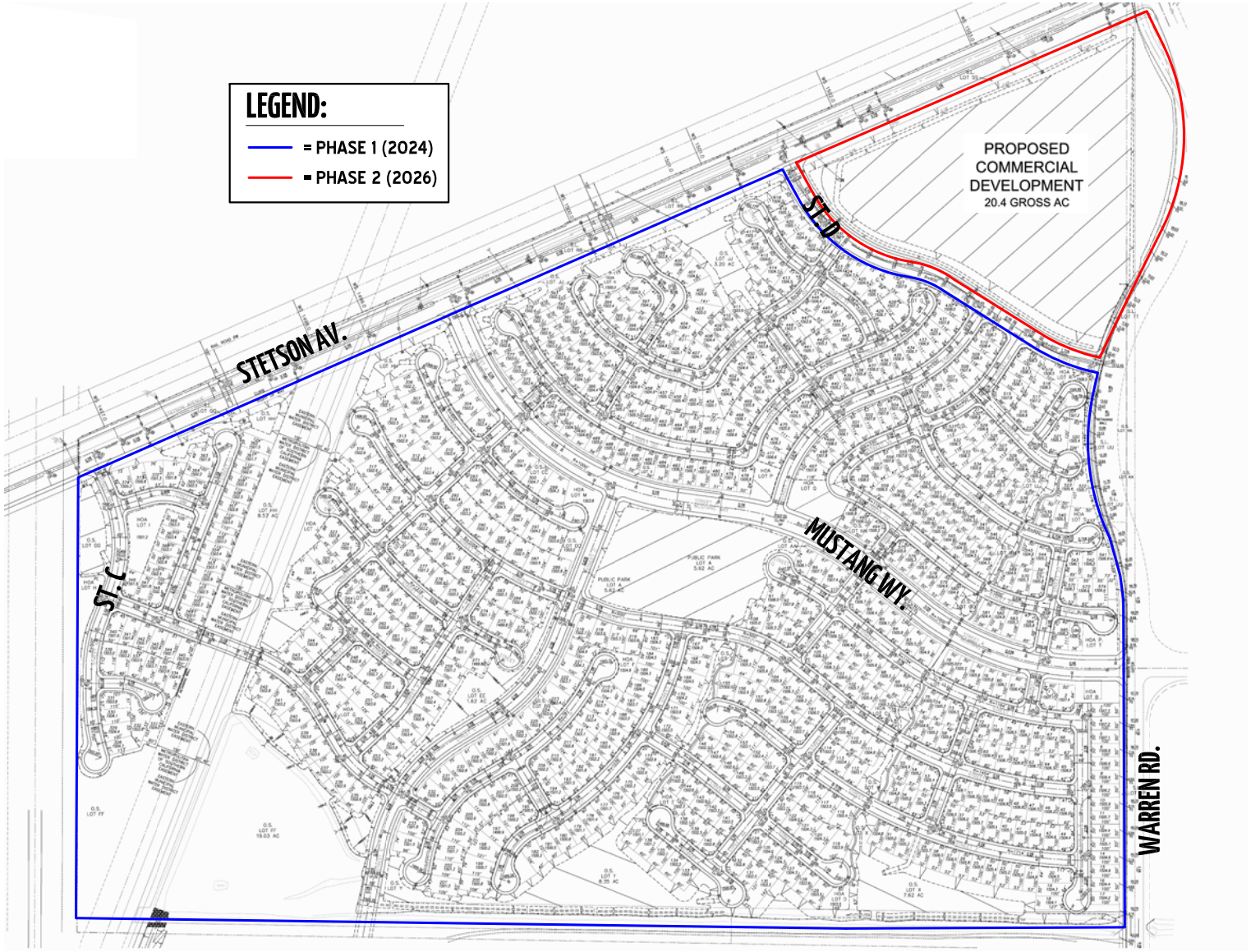
Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 9th Edition, 2012. (1) Phase 1 (2024) of the Project is estimated to generate a net total of 5,598 trip-ends per day on a typical weekday with approximately 441 AM peak hour trips and 588 PM peak hour trips. Project (Buildout) is estimated to generate a net total of 8,211 trip-ends per day with 587 AM peak hour trips and 810 PM peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.2 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential impacts to traffic and circulation have been evaluated for each of the following conditions:

- Existing (2017) Conditions
- Existing plus Project (E+P) (Phase 1) Conditions
- E+P (Project Buildout) Conditions
- Opening Year Cumulative (2024) Without Project Conditions
- Opening Year Cumulative (2024) With Project (Phase 1) Conditions
- Opening Year Cumulative (2026) Without Project Conditions
- Opening Year Cumulative (2026) With Project (Project Buildout) Conditions
- General Plan Buildout (2040) Without Project Conditions
- General Plan Buildout (2040) With Project (Project Buildout) Conditions

EXHIBIT 1-1: TENTATIVE TRACT MAP NO. 36841



All study area intersections will be evaluated using the Highway Capacity Manual (HCM) 2010 analysis methodology.

1.2.1 EXISTING CONDITIONS

Existing physical conditions have been disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared.

1.2.2 EXISTING PLUS PROJECT CONDITIONS

The E+P analysis determines circulation system deficiencies that would occur on the existing roadway system in the scenario of the Project (both Phase 1 and Project Buildout) being placed upon Existing conditions.

1.2.3 OPENING YEAR CUMULATIVE CONDITIONS

The Opening Year Cumulative (2024 and 2026) traffic conditions analyses determine potential near-term cumulative circulation system deficiencies. To account for background traffic growth, an ambient growth factor from Existing conditions of 14.87% (2 percent per year over 7 years, compounded annually) for 2024 conditions and 19.51% (2 percent per year over 9 years, compounded annually) for 2026 conditions are included for Opening Year Cumulative traffic conditions. In addition, traffic associated with other cumulative projects that were determined to be in process was also added in conjunction with Project traffic for each of the proposed development phases, in an effort to identify the traffic deficiencies associated with each phase. An absorption percentage of 15% of total cumulative development project traffic has been utilized for Opening Year Cumulative (2024) traffic conditions and 30% for Opening Year Cumulative (2026) traffic conditions.

1.2.4 GENERAL PLAN BUILDOUT (2040) CONDITIONS

Traffic projections for General Plan Buildout (2040) with Project conditions were derived from the County of Riverside refined version of the Riverside County Transportation Analysis Model (RivTAM) assuming buildout of the City of Hemet using accepted procedures for model forecast refinement and smoothing. The General Plan Buildout forecasts are consistent with the City of Hemet General Plan Buildout forecasts.

The General Plan Buildout conditions analysis will be utilized to determine if improvements funded through regional transportation mitigation fee programs, such as the Transportation Uniform Mitigation Fee (TUMF), City of Hemet Development Impact Fee (DIF) programs, or other approved funding mechanism (Community Facilities District, etc.) can accommodate the long-range cumulative traffic at the target Level of Service (LOS) identified in the City of Hemet (lead agency) General Plan. Other improvements needed beyond the "funded" improvements (such as localized improvements to non-TUMF or non-DIF facilities) are identified as such. Each of these regional transportation fee programs are discussed in more detail in Section 1.6 *Local and Regional Funding Mechanisms*.

1.3 STUDY AREA

The Project study area was defined in coordination with the City of Hemet. Consistent with County of Riverside traffic study guidelines, the study area includes any intersection of "Collector" or higher classification street, with "Collector" or higher classification streets, at which the proposed project will add 50 or more peak hour trips. Exhibit 1-2 presents the study area and intersection analysis locations.

The "50 peak hour trip" criteria generally represents a minimum number of trips at which a typical intersection would have the potential to be substantively impacted by a given development proposal. Although each intersection may have unique operating characteristics, this traffic engineering rule of thumb is a widely utilized tool for estimating a potential area of impact (i.e., study area).

To ensure that this TIA satisfies the needs of the City of Hemet, Urban Crossroads, Inc. prepared a Project specific traffic study scoping agreement for review by City staff prior to the preparation of this TIA. The agreement provides an outline of the study area, trip generation, trip distribution, and analysis methodology. The agreement approved by the City of Hemet is included in Appendix 1.1

1.3.1 INTERSECTIONS

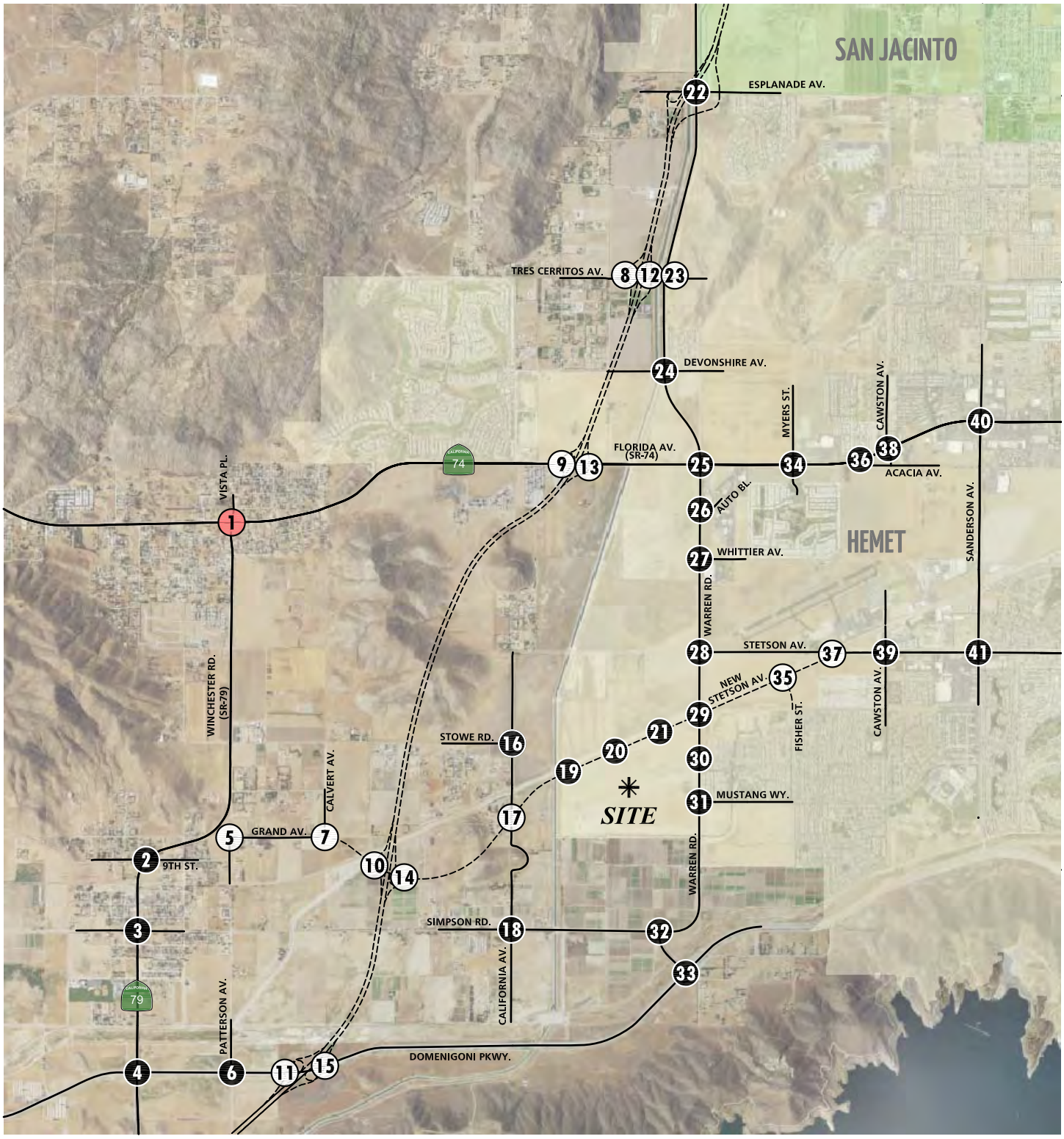
The following 41 study area intersections shown on Exhibit 1-2 and listed in Table 1-1 were selected for this TIA based on consultation with City of Hemet staff. In general, the study area includes intersections where the Project is anticipated to contribute 50 or more peak hour trips, and input from the City of Hemet Engineering Department. The Congestion Management Program (CMP) study area intersections are anticipated to operate at LOS E or better with the implementation of planned improvements or improvements recommended in this traffic study. Otherwise, non-CMP intersections are anticipated to operate at LOS D or better with the implementation of planned improvements or improvements recommended in this traffic study, consistent with the City of Hemet's LOS standards.

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction	CMP
1	Winchester Rd (SR-79) / Florida Av. (SR-74)	County of Riverside, Caltrans	Yes
2	Winchester Rd. (SR-79) / 9th St.	County of Riverside, Caltrans	No
3	Winchester Rd. (SR-79) / Simpson Rd.	County of Riverside, Caltrans	No
4	Winchester Rd. (SR-79) / Domenigoni Pkwy.	County of Riverside, Caltrans	No
5	Patterson Av. / Grand Av. – 2040 Analysis Location	County of Riverside	No
6	Patterson Av. / Domenigoni Pkwy.	County of Riverside	No
7	Calvert Av. / Grand Av. – 2040 Analysis Location	County of Riverside	No
8	SR-79 SB Ramps / Tres Cerritos Av. – 2040 Analysis Location	County of Riverside, Caltrans	No
9	SR-79 SB Ramps / Florida Av. (SR-74) – 2040 Analysis Location	Hemet, County of Riverside, Caltrans	No

ID	Intersection Location	Jurisdiction	CMP
10	SR-79 SB Ramps/ Stetson Av. – 2040 Analysis Location	County of Riverside, Caltrans	No
11	SR-79 SB Ramps / Domenigoni Pkwy. – 2040 Analysis Location	County of Riverside, Caltrans	No
12	SR-79 NB Ramps / Tres Cerritos Av. – 2040 Analysis Location	County of Riverside, Caltrans	No
13	SR-79 NB ramps / Florida Av. (SR-74) – 2040 Analysis Location	Hemet, County of Riverside, Caltrans	No
14	SR-79 NB Ramps / Stetson Av. – 2040 Analysis Location	County of Riverside, Caltrans	No
15	SR-79 NB Ramps / Domenigoni Pkwy. – 2040 Analysis Location	County of Riverside, Caltrans	No
16	California Av. / Stowe Rd. – 2040 Analysis Location	County of Riverside	No
17	California Av. / Stetson Av. – 2040 Analysis Location	County of Riverside	No
18	California Av. / Simpson Rd.	County of Riverside	No
19	St. C / New Stetson Av. – Future Analysis Location	City of Hemet	No
20	Mustang Wy. / New Stetson Av. – Future Analysis Location	City of Hemet	No
21	St. D / New Stetson Av. – Future Analysis Location	City of Hemet	No
22	Warren Rd. / Esplanade Av.	City of Hemet, City of San Jacinto, County of Riverside	No
23	Warren Rd. / Tres Cerritos Av. – 2040 Analysis Location	City of Hemet, County of Riverside	No
24	Warren Rd. / Devonshire Av.	City of Hemet, County of Riverside	No
25	Warren Rd. / Florida Av. (SR-74)	City of Hemet, Caltrans	No
26	Warren Rd. / Auto Bl.	City of Hemet	No
27	Warren Rd. / Whittier Av.	City of Hemet	No
28	Warren Rd. / Stetson Av.	City of Hemet	No
29	Warren Rd. / New Stetson Av. – Future Analysis Location	City of Hemet	No
30	Warren Rd. / Street D – Future Analysis Location	City of Hemet	No
31	Warren Rd. / Mustang Wy.	City of Hemet	No
32	Warren Rd. / Simpson Rd.	County of Riverside	No
33	Warren Rd. / Domenigoni Pkwy.	County of Riverside	No
34	Myers St. / Florida Av. (SR-74)	City of Hemet, Caltrans	No
35	Fisher St. / New Stetson Av. – 2040 Analysis Location	City of Hemet	No
36	Acacia Av. / Florida Av. (SR-74)	City of Hemet, Caltrans	No
37	New Stetson Av. / Stetson Av. – 2040 Analysis Location	City of Hemet	No
38	Cawtson Av. / Florida Av. (SR-74)	City of Hemet, Caltrans	No
39	Cawtson Av. / Stetson Av.	City of Hemet	No
40	Sanderson Av. / Florida Av. (SR-74)	City of Hemet, Caltrans	No
41	Sanderson Av. / Stetson Av.	City of Hemet	No

EXHIBIT 1-2: LOCATION MAP



LEGEND:

- 0 = ANALYSIS LOCATION
- 0 = CMP INTERSECTION
- 0 = 2040 ANALYSIS LOCATION ONLY

N

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URBAN CROSSROADS

1.3.2 ROADWAY SEGMENTS

The roadway segment study area utilized for this analysis is based on a review of the key roadway segments in which the Project is anticipated to contribute 50 or more peak hour trips as shown on Table 1-2. The study area identifies a total of 49 existing/future roadway segments.

TABLE 1-2: ROADWAY SEGMENT ANALYSIS LOCATIONS

ID	Roadway Segment Location	Jurisdiction
1	Winchester Rd. (SR-79), South of Florida Av. (SR-74)	County of Riverside, Caltrans
2	Winchester Rd. (SR-79), North of 9th St.	County of Riverside, Caltrans
3	Patterson Av., South of Grand Av.	County of Riverside
4	California Av., Stowe Rd. to New Stetson Av.	County of Riverside
5	California Av., New Stetson Av. to Simpson Rd.	County of Riverside
6	Mustang Wy., South of New Stetson Av.	City of Hemet
7	Mustang Wy., West of Warren Rd.	City of Hemet
8	Warren Rd., South of Esplanade Av.	City of Hemet, County of Riverside
9	Warren Rd., North of Tres Cerritos Av.	City of Hemet, County of Riverside
10	Warren Rd., Tres Cerritos Av. to Devonshire Av.	City of Hemet, County of Riverside
11	Warren Rd., Devonshire Av. to Florida Av. (SR-74)	City of Hemet
12	Warren Rd., Florida Av. (SR-74) to Auto Bl.	City of Hemet
13	Warren Rd., Auto Bl. To Whittier Av.	City of Hemet
14	Warren Rd., Whittier Av. to Stetson Av.	City of Hemet
15	Warren Rd., Stetson Av. to New Stetson Av.	City of Hemet
16	Warren Rd., New Stetson Av. to Street D	City of Hemet
17	Warren Rd., Street D to Mustang Wy.	City of Hemet
18	Warren Rd., South of Mustang	City of Hemet
19	Warren Rd., Simpson Rd. to Domenigoni Pkwy.	County of Riverside
20	Florida Av. (SR-74), Warren Rd. to Myers St.	City of Hemet
21	Florida Av. (SR-74), Myers St. to Acacia Av.	City of Hemet
22	Florida Av., Acacia Av. to Cawtson Av.	City of Hemet
23	Florida Av., East of Cawtson Av.	City of Hemet
24	Florida Av., West of Sanderson Av.	City of Hemet
25	Stetson Av., East of Warren Rd.	City of Hemet
26	Stetson Av., West of New Stetson Av.	City of Hemet
27	Stetson Av., New Stetson Av. to Cawtson Av.	City of Hemet
28	Stetson Av., East of Cawtson Av.	City of Hemet
29	Stetson Av., West of Sanderson Av.	City of Hemet
30	9th St., East of Winchester Rd. (SR-79)	County of Riverside
31	Grand Av., Patterson Av. to Calvert Av.	County of Riverside
32	Grand Av., Calvert Av. to SR-79	County of Riverside
33	New Stetson Av., East of SR-79	County of Riverside
34	New Stetson Av., West of California Av.	County of Riverside

ID	Roadway Segment Location	Jurisdiction
35	New Stetson Av., California Av. to Street C	County of Riverside
36	New Stetson Av., Street C to Mustang Wy.	City of Hemet
37	New Stetson Av., Mustang Wy. To Street D	City of Hemet
38	New Stetson Av., Street D to Warren Rd.	City of Hemet
39	New Stetson Av., Warren Rd. to Fisher St.	City of Hemet
40	New Stetson Av., Fisher St. to Stetson Av.	City of Hemet
41	Simpson Rd., East of Winchester Rd. (SR-79)	County of Riverside
42	Simpson Rd., West of California Av.	County of Riverside
43	Simpson Rd., East of California Av.	County of Riverside
44	Simpson Rd., West of Warren Rd.	County of Riverside
45	Simpson Rd., East of Warren Rd.	County of Riverside
46	Domenigoni Pkwy., Winchester Rd. (SR-79) to Patterson Av.	County of Riverside
47	Domenigoni Pkwy., Patterson Av. to SR-79	County of Riverside
48	Domenigoni Pkwy., East of SR-79	County of Riverside
49	Domenigoni Pkwy., West of Warren Rd.	County of Riverside

1.4 ANALYSIS FINDINGS

This section provides a summary of the analysis results for Existing (2017), E+P (Phase 1), E+P (Project Buildout), Opening Year Cumulative (2024), Opening Year Cumulative (2026), and General Plan Buildout (2040) traffic conditions.

1.4.1 INTERSECTIONS

Existing (2017) Conditions

For Existing (2017) traffic conditions, the following intersections are currently operating at an unacceptable LOS (i.e., LOS E or worse) during one or both of the peak hours:

- Winchester Rd. (SR-79) / 9th St. (#2) – LOS E PM peak hour only
- Winchester Rd. (SR-79) / Domenigoni Pkwy. (#4) – LOS F AM and PM peak hours
- Warren Rd. / Devonshire Av. (#24) – LOS F AM and PM peak hours
- Warren Rd. / Stetson Av. (#28) – LOS F PM peak hour only*

*A traffic signal is to be constructed by Tract 31807/31808 as a required by their mitigation measure.

E+P (Phase 1) Conditions

The intersection analysis results indicate that the addition of Project (Phase 1) traffic is anticipated to result in the following LOS deficiency, in addition to those previously identified under Existing (2017) conditions:

- Warren Rd. / Esplanade Av. (#22) – LOS E AM and PM peak hours
- Warren Rd. / Auto Bl. (#26)* – LOS E PM peak hour only

*This intersection is a City CIP-sponsored project (Project 5613-TS16), however, the Project will contribute its fair share.

E+P (Project Buildout) Conditions

The intersection analysis results indicate that the addition of Project (Buildout) traffic is not anticipated to result in any new LOS deficiencies, in addition to those previously identified under Existing (2017) and E+P (Phase 1) conditions.

Opening Year Cumulative (2024) Without Project Conditions

The following study area intersections are anticipated to operate at an unacceptable LOS (LOS E or worse) during one or more peak hours under Opening Year Cumulative (2024) Without Project conditions, in addition to those previously identified under Existing (2017) and E+P conditions:

- Winchester Rd. (SR-79) / Florida Av. (SR-74) (#1) – LOS F PM peak hour only
- Warren Rd. / Florida Av. (SR-74) (#25) – LOS E AM and PM peak hours
- Warren Rd. / Simpson Rd. (#32) – LOS F AM and PM peak hours*
- Warren Rd. / Domenigoni Pkwy. (#33) – LOS F AM and PM peak hours
- Myers St. / Florida Av. (SR-74) (#34) – LOS F PM peak hour only
- Cawston Av. / Florida Av. (SR-74) (#38) – LOS E AM peak hour; LOS F PM peak hour
- Sanderson Av. / Florida Av. (SR-74) (#40) – LOS F AM and PM peak hours
- Sanderson Av. / Stetson Av. (#41) – LOS F AM and PM peak hours

*A traffic signal is to be constructed by Tract 31807/31808 as a required by their mitigation measure.

Opening Year Cumulative (2024) With Project Conditions

The intersection analysis results indicate that the addition of Project (Phase 1) traffic is not anticipated to result in any additional LOS deficiencies, in addition to those previously identified under Existing (2017), E+P, and Opening Year Cumulative (2024) Without Project conditions.

Opening Year Cumulative (2026) Without Project Conditions

The following study area intersections are anticipated to operate at an unacceptable LOS (LOS E or worse) during one or more peak hours under Opening Year Cumulative (2026) Without Project conditions, in addition to those previously identified under Existing (2017), E+P, and Opening Year Cumulative (2024) conditions:

- Warren Rd. / Mustang Wy. (#31) – LOS E PM peak hour only

Opening Year Cumulative (2026) With Project Conditions

The intersection analysis results indicate that the addition of Project (Project Buildout) traffic is anticipated to result in the following LOS deficiency, in addition to those previously identified under Existing (2017), E+P, Opening Year Cumulative (2024), and Opening Year (2026) Without Project conditions:

- Warren Rd. / Whittier Av. (#27) – LOS E PM peak hour only

General Plan Buildout (2040) Without Project Conditions

The following study area intersections are anticipated to operate at an unacceptable LOS (LOS E or worse) during one or more peak hours under General Plan Buildout (2040) Without Project conditions, in addition to those previously identified under Existing (2017), Opening Year Cumulative (2024) Without Project, and Opening Year Cumulative (2026) Without Project traffic conditions:

- Patterson Av. / Domenigoni Pkwy. (#6) – LOS F AM and PM peak hours
- California Av. / Stowe Rd. (#16) – LOS F AM peak hour only
- California Av. / Simpson Rd. (#18) – LOS F AM and PM peak hours
- Warren Rd. / Whittier Av. (#27) – LOS E AM peak hour; LOS F PM peak hour
- Warren Rd. / New Stetson Av. (#29) – LOS F AM peak hour; LOS E PM peak hour
- Cawston Av. / Stetson Av. (#39) – LOS F PM peak hour only

General Plan Buildout (2040) With Project Conditions

The intersection analysis results indicate that the addition of Project (Buildout) traffic is not anticipated to result in any additional LOS deficiencies, in addition to those previously identified under Existing (2017), Opening Year Cumulative (2024) Without Project, Opening Year (2026) Without Project, and General Plan Buildout (2040) Without Project traffic conditions.

1.4.2 ROADWAY SEGMENTS

Existing (2017) Conditions

For Existing (2017) traffic conditions, the following roadway segments are currently operating at an unacceptable LOS (i.e., LOS D or worse):

- Simpson Rd., East of Warren Rd. (#45) – LOS E
- Domenigoni Pkwy., Winchester Rd. (SR-79) to Patterson Av. (#46) – LOS F
- Domenigoni Pkwy., Patterson Av. to SR-79 (#47) – LOS F
- Domenigoni Pkwy., West of Warren Rd. (#49) – LOS F

E+P (Phase 1) Conditions

The roadway segments analysis results indicate that the addition of Project (Phase 1) traffic is anticipated to result in the following LOS deficiencies, in addition to those previously identified under Existing (2017) conditions:

- Warren Rd., South of Esplanade Av. (#8) – LOS D
- Warren Rd., North of Tres Cerritos Av. (#9) – LOS D
- Warren Rd., Tres Cerritos Av. to Devonshire Av. (#10) – LOS D
- Warren Rd., Auto Bl. to Whittier Av. (#13) – LOS E
- Warren Rd., Whitter Av. to Stetson Av. (#14) – LOS E

E+P (Project Buildout) Conditions

The roadway segments analysis results indicate that the addition of Project (Buildout) traffic is anticipated to result in the following LOS deficiencies, in addition to those previously identified under Existing (2017) and E+P (Phase 1) conditions:

- Warren Rd., Stetson Av. to New Stetson Av. (#15) – LOS D
- Stetson Av., East of Warren Rd. (#25) – LOS D
- Stetson Av., West of New Stetson Av. (#26) – LOS D

Opening Year Cumulative (2024) Without Project Conditions

The following study area roadway segments are anticipated to operate at an unacceptable LOS (LOS D/E or worse) under Opening Year Cumulative (2024) Without traffic conditions, in addition to those previously identified under Existing (2017) and E+P conditions:

- Winchester Rd. (SR-79), South of Florida Av. (SR-74) (#1) – LOS F
- Winchester Rd. (SR-79), North of 9th St. (#2) – LOS F
- Warren Rd., Devonshire Av. to Florida Av. (SR-74) (#11) – LOS F
- Warren Rd., Florida Av. (SR-74) to Auto Bl. (#12) – LOS E
- Warren Rd., New Stetson Av. to Street D (#16) – LOS F
- Warren Rd., Street D to Mustang Wy. (#17) – LOS F
- Warren Rd., South of Mustang Wy. (#18) – LOS F
- Warren Rd., Simpson Rd. to Domenigoni Pkwy. (#19) – LOS D
- Florida Av. (SR-74), Warren Rd. to Myers St. (#20) – LOS F
- Florida Av. (SR-74), Myers St. to Acacia Av. (#21) – LOS F
- Florida Av. (SR-74), Acacia Av. to Cawston Av. (#22) – LOS F
- Florida Av. (SR-74), East of Cawston Av. (#23) – LOS F
- Florida Av. (SR-74), West of Sanderson Av. (#24) – LOS F

Opening Year Cumulative (2024) With Project Conditions

The roadway segment analysis results indicate that the addition of Project (Phase 1) traffic is not anticipated to result in any additional LOS deficiencies, in addition to those previously identified under Existing (2017), E+P, and Opening Year Cumulative (2024) Without Project conditions.

Opening Year Cumulative (2026) Without Project Conditions

There are no additional study area roadway segments are anticipated to operate at an unacceptable LOS (LOS D/E or worse) under Opening Year Cumulative (2026) Without Project conditions, in addition to those previously identified under Existing (2017), E+P, and Opening Year Cumulative (2024) conditions.

Opening Year Cumulative (2026) With Project Conditions

The following study area roadway segments are anticipated to operate at an unacceptable LOS (LOS D/E or worse) under Opening Year Cumulative (2026) With traffic conditions, in addition to those previously identified under Opening Year Cumulative (2026) Without Project conditions:

- Simpson Rd., East of Winchester Rd. (SR-79) (#41) – LOS D

General Plan Buildout (2040) Without Project Conditions

The following study area roadway segments are anticipated to operate at an unacceptable LOS (LOS D/E or worse) under General Plan Buildout (2040) Without Project conditions, in addition to those previously identified under Existing (2017), Opening Year Cumulative (2024), and Opening Year Cumulative (2026) conditions:

- Patterson Av., South of Grand Av. (#3) – LOS F
- California Av., Stowe Rd. to New Stetson Av. (#4) – LOS F
- California Av., New Stetson Av. to Simpson Rd. (#5) – LOS F
- Stetson Av., New Stetson Av. to Cawston Av. (#27) – LOS F
- Stetson Av., East of Cawston Av. (#28) – LOS E
- Stetson Av., West of Sanderson Av. (#29) – LOS E
- Grand Av., Patterson Av. to Calvert Av. (#31) – LOS F
- New Stetson Av., California Av. to Street C (#35) – LOS F
- New Stetson Av., Street C to Mustang Wy. (#36) – LOS F
- New Stetson Av., Mustang Wy. to Street D (#37) – LOS E
- New Stetson Av., Street D to Warren Rd. (#38) – LOS E
- New Stetson Av., Warren Rd. to Fisher St. (#39) – LOS D
- New Stetson Av., Fisher St. to Stetson Av. (#40) – LOS D
- Simpson Rd., East of Winchester Rd. (SR-79) (#41) – LOS F
- Simpson Rd., West of California Av. (#42) – LOS F
- Simpson Rd., East of California Av. (#43) – LOS D
- Simpson Rd., West of Warren Rd. (#44) – LOS F
- Domenigoni Pkwy., East of SR-79 (#48) – LOS F

General Plan Buildout (2040) With Project Conditions

The roadway segment analysis results indicate that the addition of Project (Buildout) traffic is anticipated to result in the following additional LOS deficiencies, in addition to those previously identified under Existing (2017), Opening Year Cumulative (2024), Opening Year (2026), and General Plan Buildout (2040) Without Project conditions:

- New Stetson Av., East of SR-79 (#33) – LOS E

1.5 IMPACTS AND RECOMMENDED IMPROVEMENTS

This section provides a summary of recommended improvements necessary to address Project impacts for E+P traffic conditions. Section 2.0 *Methodologies* provides information on the methodologies used in the analysis and Section 5.0 *E+P Traffic Conditions,* Section 6 *Opening Year Cumulative (2024) Traffic Analysis*, Section 7 *Opening Year Cumulative (2026) Traffic Analysis*, and Section 8 *General Plan Buildout (2040) Traffic Analysis* includes the detailed analyses. The recommended mitigation measures necessary to reduce impacts to less-than-significant are discussed in Section 1.5.2. The mitigation measures that were identified in the EIR for Tentative Tract Map No. 35394 will become requireements of this Project.

A summary of off-site improvements needed to address intersection operational deficiencies for each analysis scenario is included in Table 1-3. These recommended improvements are consistent with or less than the geometrics assumed in the City of Hemet and County of Riverside General Plan Circulation Elements. Improvements found to be included in the City of Hemet's (lead agency) DIF program and Western Riverside Council of Governments (WRCOG) TUMF fee program have been identified as such.

For improvements that do not appear to be in DIF or TUMF programs, a fair share financial contribution based on the Project's fair share impact may be imposed in order to mitigate the Project's share of impacts in lieu of construction. These fees (both to the City of Hemet, TUMF, and as determined, to surrounding agencies as fair-share contributions) are collected as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected vehicle trip increases. The City shall review the proposed mitigation measures to determine if the Project shall construct certain improvements, including traffic signals or contribute fair share. Additional information related to these various fee programs are contained in Section 1.6 *Local and Regional Funding Mechanisms* of this report.

1.5.1 IMPACTS

Potential Impact 1.1 – Winchester Road (SR-79) / 9th Street (#2) – Although this intersection was found to operate at an unacceptable LOS (LOS E) during the PM peak hour under Existing traffic conditions, the intersection is anticipated to continue to operate at unacceptable levels during one or more of the peak hours with the addition of Project traffic, for both Phase 1 and Project Buildout. As such, the impact is considered cumulatively significant (Impact 1.1).

Potential Impact 2.1 – Winchester Road (SR-79) / Domenigoni Parkway (#4) – Although this intersection was found to operate at an unacceptable LOS (LOS F) during the AM and PM peak hours under Existing traffic conditions, the intersection is anticipated to continue to operate at unacceptable levels during one or more of the peak hours with the addition of Project traffic, for both Phase 1 and Project Buildout. As such, the impact is considered cumulatively significant (Impact 2.1).

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Table 1-3

Summary of Intersection Improvements

#	Intersection Location	Jurisdiction	Recommended Improvements[1]									Improvements in TUMF[2] or DIF?	Total Cost[3]	Fair Share %[4,5]	Fair Share Cost[6]
			Existing (2017)	E+P (Phase 1)	E+P (Phase 2)	2024 Without Project	2024 With Project	2026 Without Project	2026 With Project	2040 Without Project	2040 With Project				
1	Winchester Rd. (SR-79) / Florida Av. (SR-74)	Riverside County, Caltrans	None	None	None	- Modify the traffic signal to protect the NB and SB left turn lanes and implement overlap phasing on the NB right turn lane	Same	Same	Same	Same	Same	No	$7,500	1.9%	$143
						- 3rd EB through lane	Same	Same	Same	Same	Same	Yes (TUMF)[9]	$0		$0
						- 3rd WB through lane	Same	Same	Same	Same	Same	Yes (TUMF)[9]	$0		$0
										- NB left turn lane	Same	No	$56,000		$1,068
										- 2nd NB left turn lane	Same	No	$112,500		$2,145
										- EB right turn lane	Same	No	$75,000		$1,430
										- 2nd WB left turn lane	Same	No	$112,500		$2,145
												Total:	**$363,500**		**$6,931**
2	Winchester Rd. (SR-79) / 9th St.	Riverside County, Caltrans	- Traffic Signal	Same	Same	Same	Same	Same	Same	Same	Same	No	$250,000	3.4%	$8,414
										- 2nd NB through lane	Same	No	$90,000		$3,029
										- 2nd SB through lane	Same	No	$90,000		$3,029
										- EB left turn lane	Same	No	$56,000		$1,885
										- 2nd EB through lane	Same	No	$90,000		$3,029
										- EB right turn lane	Same	No	$75,000		$2,524
										- WB left turn lane	Same	No	$56,000		$1,885
										- 2nd WB through lane	Same	No	$90,000		$3,029
												Total:	**$797,000**		**$26,825**
4	Winchester Rd. (SR-79) / Domenigoni Pkwy.	Riverside County, Caltrans	- Modify the traffic signal to implement overlap phasing on the NB right turn lane	Same	Same	Same	Same	Same	Same	Same	Same	No	$7,500	10.2%	$767
			- Implement 2-stage crosswalks on all approaches	Same	Same	Same	Same	Same	Same	Same	Same	No	$7,500		$767
										- 3rd WB through lane	Same	Yes (TUMF[9]/DIF)	$0		$0
												Total:	**$15,000**		**$1,533**
5	Patterson Av. / Grand Av.	Riverside County	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	- Traffic Signal	Same	No	$250,000	2.7%	$6,768
										- NB right turn lane with overlap phasing	Same	No	$82,500		$2,233
										- SB left turn lane	Same	No	$56,000		$1,516
										- WB left turn lane	Same	No	$56,000		$1,516
										- WB right turn lane with overlap phasing	Same	No	$82,500		$2,233
												Total:	**$527,000**		**$14,267**
6	Patterson Av. / Domenigoni Pkwy.	Riverside County	None	None	None	None	None	None	None	- Traffic Signal	Same	No	$250,000	1.5%	$3,865
										- NB left turn lane	Same	No	$56,000		$866
										- NB through lane	Same	No	$90,000		$1,391
										- NB right turn lane with overlap phasing	Same	No	$82,500		$1,275
										- SB left turn lane	Same	No	$56,000		$866
										- SB through lane	Same	No	$90,000		$1,391
										- EB left turn lane	Same	No	$56,000		$866
										- 3rd EB through lane	Same	Yes (TUMF[9]/DIF)	$0		$0
										- 2 WB left turn lanes	Same	No	$165,000		$2,551
										- 3rd WB through lane	Same	Yes (TUMF[9]/DIF)	$0		$0
												Total:	**$845,500**		**$13,071**
7	El Callado Rd./Remington Wy. / Grand Av.	Riverside County	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	- Traffic Signal	Same	No	$250,000	3.6%	$8,990
										- NB left turn lane	Same	No	$56,000		$2,014
										- NB shared through-right turn lane	Same	No	$102,000		$3,668
										- SB left turn lane	Same	No	$56,000		$2,014
										- SB shared through-right turn lane	Same	No	$102,000		$3,668
										- EB left turn lane	Same	No	$56,000		$2,014
										- 2 EB through lanes	Same	No	$180,000		$6,473
										- EB right turn lane	Same	No	$75,000		$2,697
										- WB left turn lane	Same	No	$56,000		$2,014
										- 2 WB through lanes	Same	No	$180,000		$6,473
												Total:	**$1,113,000**		**$40,026**

Table 1-3

Summary of Intersection Improvements

#	Intersection Location	Jurisdiction	Recommended Improvements[1]									Improvements in TUMF[2] or DIF?	Total Cost[3]	Fair Share %[4,5]	Fair Share Cost[6]
			Existing (2017)	E+P (Phase 1)	E+P (Phase 2)	2024 Without Project	2024 With Project	2026 Without Project	2026 With Project	2040 Without Project	2040 With Project				
8	SR-79 SB Ramps / Tres Cerritos Av.	Riverside County, Caltrans	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	- Traffic Signal	Same	No	$250,000	1.6%	$4,102
										- SB left turn lane	Same	No	$56,000		$919
										- SB right turn lane	Same	No	$75,000		$1,231
										- 2 EB through lanes	Same	No	$180,000		$2,954
										- EB right turn lane	Same	No	$75,000		$1,231
										- 2 WB through lanes	Same	No	$180,000		$2,954
										- WB right turn lane	Same	No	$75,000		$1,231
												Total:	**$891,000**		**$14,621**
9	SR-79 SB Ramps / Florida Av. (SR-74)	Hemet, Riverside County, Caltrans	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	- Traffic Signal	Same	No	$250,000	1.0%	$2,547
										- SB left turn lane	Same	No	$56,000		$571
										- SB right turn lane	Same	No	$75,000		$764
										- 3 EB through lanes	Same	Yes (TUMF)[9]	$0		$0
										- EB right turn lane	Same	No	$75,000		$764
										- 3 WB through lanes	Same	Yes (TUMF)[9]	$0		$0
										- WB right turn lane	Same	No	$75,000		$764
												Total:	**$531,000**		**$5,410**
10	SR-79 SB Ramps / Stetson Av.	Riverside County, Caltrans	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	- Traffic Signal	Same	No	$250,000	4.7%	$11,727
										- SB left turn lane	Same	No	$56,000		$2,627
										- SB right turn lane	Same	No	$75,000		$3,518
										- 2 EB through lanes	Same	Yes (TUMF)[9]	$0		$0
										- EB right turn lane	Same	No	$75,000		$3,518
										- 2 WB through lanes	Same	Yes (TUMF)[9]	$0		$0
										- WB right turn lane	Same	No	$75,000		$3,518
												Total:	**$531,000**		**$24,907**
11	SR-79 SB Ramps / Domenigoni Pkwy.	Riverside County, Caltrans	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	- Traffic Signal	Same	Yes (TUMF)[9]	$0	1.7%	$0
										- SB left turn lane	Same	Yes (TUMF)[9]	$0		$0
										- SB right turn lane	Same	Yes (TUMF)[9]	$0		$0
										- 3 EB through lanes	Same	Yes (TUMF[9]/DIF)	$0		$0
										- EB right turn lane	Same	Yes (TUMF)[9]	$0		$0
										- 3 WB through lanes	Same	Yes (TUMF[9]/DIF)	$0		$0
										- WB right turn lane	Same	Yes (TUMF)[9]	$0		$0
												Total:	**$0**		**$0**
12	SR-79 NB Ramps / Tres Cerritos Av.	Riverside County, Caltrans	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	- Traffic Signal	Same	No	$250,000	2.0%	$5,086
										- NB left turn lane	Same	No	$56,000		$1,139
										- NB right turn lane	Same	No	$75,000		$1,526
										- EB left turn lane	Same	No	$56,000		$1,139
										- 2 EB through lanes	Same	No	$180,000		$3,662
										- 2 WB through lanes	Same	No	$180,000		$3,662
										- WB right turn lane	Same	No	$75,000		$1,526
												Total:	**$872,000**		**$17,740**
13	SR-79 NB Ramps / Florida Av. (SR-74)	Hemet, Riverside County, Caltrans	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	- Traffic Signal	Same	No	$250,000	1.0%	$2,467
										- NB left turn lane	Same	No	$56,000		$553
										- NB right turn lane	Same	No	$75,000		$740
										- 3 EB through lanes	Same	Yes (TUMF)[9]	$0		$0
										- EB right turn lane	Same	No	$75,000		$740
										- 3 WB through lanes	Same	Yes (TUMF)[9]	$0		$0
										- WB right turn lane	Same	No	$75,000		$740
												Total:	**$531,000**		**$5,239**
14	SR-79 NB Ramps / Stetson Av.	Riverside County, Caltrans	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	- Traffic Signal	Same	No	$250,000	5.1%	$12,631
										- NB left turn lane	Same	No	$56,000		$2,829
										- NB right turn lane	Same	No	$75,000		$3,789
										- 2 EB through lanes	Same	Yes (TUMF)[9]	$0		$0
										- EB right turn lane	Same	No	$75,000		$3,789
										- 2 WB through lanes	Same	Yes (TUMF)[9]	$0		$0
										- WB right turn lane	Same	No	$75,000		$3,789
												Total:	**$531,000**		**$26,829**
15	SR-79 NB Ramps / Domenigoni Pkwy.	Riverside County, Caltrans	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	- Traffic Signal	Same	Yes (TUMF)[9]	$0	0.9%	$0
										- NB left turn lane	Same	Yes (TUMF)[9]	$0		$0
										- NB right turn lane	Same	Yes (TUMF)[9]	$0		$0
										- 3rd EB through lane	Same	Yes (TUMF[9]/DIF)	$0		$0
										- EB right turn lane	Same	Yes (TUMF)[9]	$0		$0
										- 3rd WB through lane	Same	Yes (TUMF[9]/DIF)	$0		$0
										- WB right turn lane	Same	Yes (TUMF)[9]	$0		$0
												Total:	**$0**		**$0**

Table 1-3

Summary of Intersection Improvements

#	Intersection Location	Jurisdiction	Recommended Improvements[1]									Improvements in TUMF[2] or DIF?	Total Cost[3]	Fair Share %[4,5]	Fair Share Cost[6]
			Existing (2017)	E+P (Phase 1)	E+P (Phase 2)	2024 Without Project	2024 With Project	2026 Without Project	2026 With Project	2040 Without Project	2040 With Project				
16	California Av. / Stowe Rd.	Riverside County	None	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	- Traffic Signal	Same	No	$250,000	5.2%	$12,947
										- NB left turn lane	Same	No	$56,000		$2,900
												Total:	**$306,000**		**$15,848**
17	California Av. / Stetson Av.	Riverside County	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	- Traffic Signal	Same	No	$250,000	6.5%	$16,209
										- NB left turn lane	Same	No	$56,000		$3,631
										- 2 NB through lanes	Same	No	$180,000		$11,670
										- 2 SB left turn lanes	Same	No	$165,000		$10,698
										- 2 SB through lanes	Same	No	$180,000		$11,670
										- EB left turn lane	Same	No	$56,000		$3,631
										- 2 EB through lanes	Same	No	$180,000		$11,670
										- EB right turn lane	Same	No	$75,000		$4,863
										- 2 WB left turn lanes	Same	No	$165,000		$10,698
										- 2 WB through lanes	Same	No	$180,000		$11,670
												Total:	**$1,487,000**		**$96,409**
18	California Av. / Simpson Rd.	Riverside County	None	None	None	None	None	None	None	- Traffic Signal	Same	No	$250,000	3.0%	$7,486
										- NB left turn lane	Same	No	$56,000		$1,677
										- SB left turn lane	Same	No	$56,000		$1,677
										- 2 SB right turn lanes with overlap phasing	Same	No	$172,500		$5,166
										- 2 EB left turn lanes	Same	No	$165,000		$4,941
										- 2 EB through lanes	Same	Yes (DIF)	$0		$0
										- WB left turn lane	Same	No	$56,000		$1,677
										- 2 WB through lanes	Same	Yes (DIF)	$0		$0
												Total:	**$755,500**		**$22,624**
20	Mustang Wy. / New Stetson Av.	Hemet	Not Applicable	- Stop control on NB approach[7]	Same	Not Applicable	Same	Not Applicable	Same	Same	Same	No	$25,000	9.5%	$2,378
				- NB left turn lane[7]	Same		Same		Same	Same	Same	No	$56,000		$5,328
				- NB right turn lane[7]	Same		Same		Same	Same	Same	No	$90,000		$8,562
				- EB through lane[7]	Same		Same		Same	Same	Same	No	$90,000		$8,562
				- WB left turn lane[7]	Same		Same		Same	Same	Same	No	$56,000		$5,328
				- WB through lane[7]	Same		Same		Same	Same	Same	No	$90,000		$8,562
										- Traffic Signal	Same	No	$250,000		$23,784
										- 2nd EB through lane[7]	Same	No	$90,000		$8,562
										- 2nd WB through lane	Same	No	$90,000		$8,562
												Total:	**$837,000**		**$79,628**
22	Warren Rd. / Esplanade Av.	Hemet, San Jacinto, Riverside County	None	- Traffic Signal	Same	Same	Same	Same	Same	Same	Same	No	$250,000	1.1%	$250,000
				- NB left turn lane	Same	Same	Same	Same	Same	Same	Same	No	$56,000		$56,000
				- SB left turn lane	Same	Same	Same	Same	Same	Same	Same	No	$56,000		$56,000
				- EB left turn lane	Same	Same	Same	Same	Same	Same	Same	No	$56,000		$56,000
				- WB left turn lane	Same	Same	Same	Same	Same	Same	Same	No	$56,000		$56,000
						- 2nd NB through lane	Same	Same	Same	Same	Same	Yes (TUMF)[9]	$0		$0
						- 2nd SB through lane	Same	Same	Same	Same	Same	Yes (TUMF)[9]	$0		$0
										- 3rd NB through lane	Same	No	$90,000		$981
										- 3rd SB through lane	Same	No	$90,000		$981
										- 2nd EB through lane	Same	Yes (TUMF)[9]	$0		$0
										- EB right turn lane	Same	No	$75,000		$817
										- 2nd WB through lane	Same	Yes (TUMF)[9]	$0		$0
										- Modify the traffic signal to implement overlap phasing on the EB right turn lane	Same	No	$7,500		$82
												Total:	**$736,500**		**$476,860**
23	Warren Rd. / Tres Cerritos Av.	Hemet, Riverside County	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	- Traffic Signal	Same	No	$250,000	2.5%	$6,302
										- NB left turn lane	Same	No	$56,000		$1,412
										- 2nd and 3rd NB through lanes	Same	Yes (TUMF)[9]; No	$0		$0
										- 2nd and 3rd SB through lanes	Same	Yes (TUMF)[9]; No	$0		$0
										- EB left turn lane	Same	No	$56,000		$1,412
										- EB right turn lane	Same	No	$75,000		$1,891
												Total:	**$437,000**		**$11,015**
24	Warren Rd. / Devonshire Av.	Hemet, Riverside County	- Traffic Signal	Same	Same	Same	Same	Same	Same	Same	Same	Yes (DIF)	$0	3.0%	$0
			- NB left turn lane	Same	Same	Same	Same	Same	Same	Same	Same	No	$56,000		$1,699
			- SB left turn lane	Same	Same	Same	Same	Same	Same	Same	Same	No	$56,000		$1,699
						- 2nd NB through lane	Same	Same	Same	Same	Same	Yes (TUMF)[9]	$0		$0
						- 2nd SB through lane	Same	Same	Same	Same	Same	Yes (TUMF)[9]	$0		$0
						- EB left turn lane	Same	Same	Same	Same	Same	No	$56,000		$1,699
						- WB left turn lane	Same	Same	Same	Same	Same	No	$56,000		$1,699
										- 3rd NB through lane	Same	No	$90,000		$2,730
										- 3rd SB through lane	Same	No	$90,000		$2,730
										- 2nd EB through lane	Same	Yes (DIF)	$0		$0
										- 2nd WB through lane	Same	Yes (DIF)	$0		$0
												Total:	**$404,000**		**$12,254**

Table 1-3

Summary of Intersection Improvements

#	Intersection Location	Jurisdiction	Recommended Improvements[1]									Improvements in TUMF[2] or DIF?	Total Cost[3]	Fair Share %[4,5]	Fair Share Cost[6]
			Existing (2017)	E+P (Phase 1)	E+P (Phase 2)	2024 Without Project	2024 With Project	2026 Without Project	2026 With Project	2040 Without Project	2040 With Project				
25	Warren Rd. / Florida Av. (SR-74)	Hemet, Caltrans	None	None	None	- Modify the traffic signal to implement overlap phasing on the NB and WB right turn lanes	Same	Same	Same	Same	Same	No	$15,000	5.3%	$794
						- 3rd EB through lane	Same	Same	Same	Same	Same	Yes (TUMF)[9]	$0		$0
						- 2nd WB left turn lane	Same	Same	Same	Same	Same	Yes (TUMF)[9]	$0		$0
						- 3rd WB through lane	Same	Same	Same	Same	Same	Yes (TUMF)[9]	$0		$0
						- WB right turn lane	Same	Same	Same	Same	Same	No	$75,000		$3,969
								- 2nd EB left turn lane	Same	Same	Same	No	$112,500		$5,954
								- EB right turn lane	Same	Same	Same	No	$75,000		$3,969
										- 2nd NB left turn lane	Same	No	$112,500		$5,954
										- 2nd SB left turn lane	Same	No	$112,500		$5,954
												Total:	**$502,500**		**$26,595**
26	Warren Rd. / Auto Bl.	Hemet	None	- Traffic Signal	Same	Same	Same	Same	Same	Same	Same	Yes (CIP)[10]	$250,000	11.5%	$28,711
						- 2nd NB through lane	Same	Same	Same	Same	Same	Yes (TUMF)[9]	$0		$0
						- 2nd SB through lane	Same	Same	Same	Same	Same	Yes (TUMF)[9]	$0		$0
												Total:	**$250,000**		**$28,711**
27	Warren Rd. / Whittier Av.	Hemet	None	None	None	None	None	None	- 2nd NB through lane	Same	Same	Yes (TUMF)[9]	$0	9.8%	$0
									- 2nd SB through lane	Same	Same	Yes (TUMF)[9]	$0		$0
										- Traffic Signal	Same	Yes (TUMF)[9]	$0		$0
										- NB left turn lane	Same	Yes (TUMF)[9]	$0		$0
										- Shared EB left-through-right turn lane	Same	No	$102,000		$9,954
												Total:	**$102,000**		**$9,954**
28	Warren Rd. / Stetson Av.	Hemet	- Traffic Signal	Same	Same	Same	Same	Same	Same	Same	Same	Yes (DIF)	$0	5.8%	$0
			- NB left turn lane	Same	Same	Same	Same	Same	Same	Same	Same	No	$56,000		$3,269
			- SB left turn lane	Same	Same	Same	Same	Same	Same	Same	Same	No	$56,000		$3,269
			- EB left turn lane	Same	Same	Same	Same	Same	Same	Same	Same	No	$56,000		$3,269
						- 2nd NB through lane	Same	Same	Same	Same	Same	Yes (TUMF)[9]	$0		$0
						- 2nd SB through lane	Same	Same	Same	Same	Same	Yes (TUMF)[9]	$0		$0
										- 2nd NB left turn lane	Same	No	$112,500		$6,566
										- 2nd SB left turn lane	Same	No	$112,500		$6,566
										- SB right turn lane	Same	No	$75,000		$4,377
										- 2nd EB left turn lane	Same	No	$112,500		$6,566
										- 2nd EB through lane	Same	No	$90,000		$5,253
										- 2nd WB left turn lane	Same	No	$112,500		$6,566
										- 2nd WB through lane	Same	No	$90,000		$5,253
										- WB right turn lane	Same	No	$75,000		$4,377
										- Modify the traffic signal to implement overlap phasing on the SB and WB right turn lanes	Same	No	$15,000		$875
												Total:	**$963,000**		**$56,207**
29	Warren Rd. / New Stetson Av.	Hemet	None	None	None	- Traffic Signal[7]	Same	Same	Same	Same	Same	No	$250,000	8.5%	$21,203
						- NB left turn lane[7]	Same	Same	Same	Same	Same	No	$56,000		$4,749
						- NB through lane[7,8]	Same	Same	Same	Same	Same	N/A	$90,000		$7,633
						- SB through lane[7,8]	Same	Same	Same	Same	Same	N/A	$90,000		$7,633
						- EB left turn lane[7]	Same	Same	Same	Same	Same	No	$56,000		$4,749
						- EB shared through-right turn lane	Same	Same	Same	Same	Same	No	$102,000		$8,651
						- SB left turn lane	Same	Same	Same	Same	Same	No	$56,000		$4,749
						- WB left turn lane	Same	Same	Same	Same	Same	No	$56,000		$4,749
						- WB shared through-right turn lane	Same	Same	Same	Same	Same	No	$102,000		$8,651
										- 2nd NB left turn lane	Same	No	$112,500		$9,541
										- 2nd NB through lane	Same	Yes (TUMF)[9]	$0		$0
										- 2nd SB left turn lane	Same	No	$112,500		$9,541
										- 2nd SB through lane	Same	Yes (TUMF)[9]	$0		$0
										- SB right turn lane	Same	No	$75,000		$6,361
										- 2nd EB left turn lane	Same	No	$112,500		$9,541
										- 2nd EB through lane	Same	Yes (DIF)	$0		$0
										- 2nd WB left turn lane	Same	No	$112,500		$9,541
										- 2nd WB through lane	Same	Yes (DIF)	$0		$0
										- WB right turn lane	Same	No	$75,000		$6,361
										- Modify the traffic signal to implement overlap phasing on the SB and WB right turn lanes	Same	No	$15,000		$1,272
												Total:	**$1,473,000**		**$124,928**

URBAN CROSSROADS

Table 1-3

Summary of Intersection Improvements

#	Intersection Location	Jurisdiction	Recommended Improvements[1]									Improvements in TUMF[2] or DIF?	Total Cost[3]	Fair Share %[4,5]	Fair Share Cost[6]
			Existing (2017)	E+P (Phase 1)	E+P (Phase 2)	2024 Without Project	2024 With Project	2026 Without Project	2026 With Project	2040 Without Project	2040 With Project				
31	Warren Rd. / Mustang Wy.	Hemet	None	None	None	- NB left turn lane[7]	Same	Same	Same	Same	Same	No	$56,000	5.7%	$3,189
						- EB left turn lane[7]	Same	Same	Same	Same	Same	No	$56,000		$3,189
						- EB shared through-right turn lane[7]	Same	Same	Same	Same	Same	No	$102,000		$5,809
						- Restripe WB right turn lane as shared through-right turn lane[7]	Same	Same	Same	Same	Same	No	$102,000		$5,809
								- 2nd NB through lane	Same	Same	Same	Yes (TUMF)[9]	$0		$0
								- 2nd SB through lane	Same	Same	Same	Yes (TUMF)[9]	$0		$0
												Total:	**$316,000**		**$17,997**
32	Warren Rd. / Simpson Rd.	Riverside County	None	None	None	- Traffic Signal	Same	Same	Same	Same	Same	No	$250,000	1.5%	$3,627
						- Modify the traffic signal to implement overlap phasing on the NB right turn lane	Same	Same	Same	Not Applicable	Not Applicable	No	$7,500		$109
										- 2nd NB left turn lane	Same	No	$112,500		$1,632
										- 2 NB through lanes	Same	Yes (TUMF)[9]	$0		$0
										- SB left turn lane	Same	No	$56,000		$812
										- 2 SB through lanes	Same	Yes (TUMF)[9]	$0		$0
										- SB right turn lane	Same	No	$75,000		$1,088
										- 2 EB left turn lanes	Same	No	$112,500		$1,632
										- EB right turn lane	Same	No	$75,000		$1,088
										- WB right turn lane	Same	No	$75,000		$1,088
										- Modify the traffic signal to implement overlap phasing on the SB and EB right turn lanes	Same	No	$15,000		$218
												Total:	**$778,500**		**$11,294**
33	Warren Rd. / Domenigoni Pkwy.	Riverside County	None	None	None	- NB left turn lane	Same	Same	Same	Same	Same	No	$56,000	2.2%	$1,226
						- SB left turn lane	Same	Same	Same	Same	Same	No	$56,000		$1,226
						- SB right turn lane	Same	Same	Same	Same	Same	No	$75,000		$1,641
						- Modify the traffic signal to implement overlap phasing on the SB right turn lane	Same	Same	Same	Not Applicable	Not Applicable	No	$7,500		$164
						- 2nd EB left turn lane	Same	Same	Same	Same	Same	No	$112,500		$2,462
								- 3rd EB through lane	Same	Same	Same	Yes (TUMF)[9]	$0		$0
								- 3rd WB through lane	Same	Same	Same	Yes (TUMF)[9]	$0		$0
										- Modify the traffic signal to implement overlap phasing on the WB right turn lane	Same	No	$7,500		$164
												Total:	**$314,500**		**$6,883**
34	Myers St. / Florida Av. (SR-74)	Hemet, Caltrans	None	None	None	- 3rd EB through lane	Same	Same	Same	Same	Same	No	$90,000	2.1%	$1,848
						- 3rd WB through lane	Same	Same	Same	Same	Same	No	$90,000		$1,848
										- EB right turn lane	Same	No	$75,000		$1,540
												Total:	**$255,000**		**$5,236**
35	Fisher St. / New Stetson Av.	Hemet	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	- Traffic Signal	Same	Yes (DIF)	$0	3.1%	$0
										- NB shared left-right turn lane	Same	No	$102,000		$3,112
										- 2 EB through lanes	Same	Yes (TUMF[9]/DIF)	$0		$0
										- WB left turn lane	Same	No	$56,000		$1,709
										- 2 WB through lanes	Same	Yes (TUMF[9]/DIF)	$0		$0
												Total:	**$158,000**		**$4,820**
37	New Stetson Av. / Stetson Av.	Hemet	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	- Traffic Signal	Same	No	$250,000	3.4%	$8,441
										- NB left turn lane	Same	No	$56,000		$1,891
										- NB right turn lane with overlap phasing	Same	No	$82,500		$2,786
										- 2 WB left turn lanes	Same	No	$165,000		$5,571
												Total:	**$553,500**		**$18,688**
38	Cawston Av. / Florida Av. (SR-74)	Hemet, Caltrans	None	None	None	- 3rd EB through lane	Same	Same	Same	Same	Same	No	$90,000	1.7%	$1,568
						- 3rd WB through lane	Same	Same	Same	Same	Same	No	$90,000		$1,568
						- WB right turn lane	Same	Same	Same	Not Applicable	Not Applicable	No	$75,000		$1,306
										- 2nd NB left turn lane	Same	No	$112,500		$1,960
										- Modify the traffic signal to implement overlap phasing on the EB right turn lane	Same	No	$7,500		$131
												Total:	**$375,000**		**$6,532**

Table 1-3

Summary of Intersection Improvements

#	Intersection Location	Jurisdiction	Recommended Improvements[1]									Improvements in TUMF[2] or DIF?	Total Cost[3]	Fair Share %[4,5]	Fair Share Cost[6]
			Existing (2017)	E+P (Phase 1)	E+P (Phase 2)	2024 Without Project	2024 With Project	2026 Without Project	2026 With Project	2040 Without Project	2040 With Project				
39	Cawston Av. / Stetson Av.	Hemet	None	None	None	None	None	None	None	- 2nd WB through lane	Same	Yes (TUMF[9]/DIF)	$0	3.7%	$0
												Total:	**$0**		**$0**
40	Sanderson Av. / Florida Av. (SR-74)	Hemet, Caltrans	None	None	None	- 2nd NB left turn lane	Same	Same	Same	Same	Same	No	$112,500	3.0%	$3,334
						- 3rd NB through lane	Same	Same	Same	Same	Same	No	$90,000		$2,667
						- 2nd SB left turn lane	Same	Same	Same	Same	Same	No	$112,500		$3,334
						- 3rd SB through lane	Same	Same	Same	Same	Same	No	$90,000		$2,667
						- SB right turn lane	Same	Same	Same	Not Applicable	Not Applicable	No	$75,000		$2,223
						- 2nd EB left turn lane	Same	Same	Same	Same	Same	No	$112,500		$3,334
						- 2nd WB left turn lane	Same	Same	Same	Same	Same	No	$112,500		$3,334
						- WB right turn lane	Same	Same	Same	Same	Same	No	$75,000		$2,223
								- Modify the traffic signal to implement overlap phasing on the NB, SB, and WB right turn lanes	Same	Not Applicable	Not Applicable	No	$22,500		$667
												Total:	**$802,500**		**$23,781**
41	Sanderson Av. / Stetson Av.	Hemet	None	None	None	- 2nd NB left turn lane	Same	Same	Same	Same	Same	No	$112,500	4.3%	$4,828
						- 2nd SB left turn lane	Same	Same	Same	Same	Same	No	$112,500		$4,828
						- SB right turn lane	Same	Same	Same	Same	Same	No	$75,000		$3,219
						- Modify the traffic signal to implement overlap phasing on the SB right turn lane	Same	Same	Same	Same	Same	No	$7,500		$322
						- 2nd EB left turn lane	Same	Same	Same	Same	Same	No	$112,500		$4,828
						- 2nd WB left turn lane	Same	Same	Same	Same	Same	No	$112,500		$4,828
								- 3rd EB through lane	Same	Same	Same	No	$90,000		$3,862
								- 3rd WB through lane	Same	Same	Same	No	$90,000		$3,862
												Total:	**$712,500**		**$30,578**
												Total	**$19,817,000**		**$1,255,531**
												Fair Share Contribution to the City of Hemet (non-DIF/TUMF)[11]	$7,128,583		$540,212
												Fair Share Contribution to the City of San Jacinto[12]	$209,333		$140,096
												Fair Share Contribution to the County of Riverside[13]	$9,518,083		$506,581
												Fair Share Contribution to Caltrans[14]	$1,899,000		$65,466

[1] All recommended improvements are consistent with the General Plan designations of the respective jurisdictions in which they are located.

[2] Improvements are identified as being included in the WRCOG TUMF program.

[3] Costs have been estimated using current construction unit costs. Cost does not include right of way acquisition.

[4] Program improvements constructed by project may be eligible for fee credit, at discretion of City. See Table 1-4 for Fair Share Calculations.

[5] Fair share percentage based on General Plan Buildout (2040) traffic conditions.

[6] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at discretion of City. Represents the fair share cost for the Project during the most impacted peak hour.

[7] Fair share not applicable. Project improvement/design feature needed for site access.

[8] Through lanes currently exist along this segment of Warren Road, however, may need to be realigned.

[9] Although the improvement is identified as a TUMF facility, the improvement is not currently identified on the Hemet/San Jacinto Zone 5-Year Transportation Improvement Program Amendment (adopted January 6, 2014).

[10] Improvement is a CIP-sponsored Project.

[11] Total project fair share contribution consists of the improvements which are not already included in the City-wide DIF/County TUMF for those intersections wholly or partially within the City of Hemet.

[12] Total project fair share contribution consists of the improvements which are not already included in a fee program for those intersections wholly or partially within the City of San Jacinto.

[13] Total project fair share contribution consists of the improvements which are not already included in a fee program for those intersections wholly or partially within the County of Riverside.

[14] Total project fair share contribution consists of the improvements which are not already included in a fee program for those intersections wholly or partially within Caltrans.

Potential Impact 3.1 – Warren Road / Esplanade Avenue (#22) – The intersection is anticipated to operate at unacceptable levels (LOS E) during one or more of the peak hours with the addition of Project traffic, for both Phase 1 and Project Buildout. As such, the impact is considered significant (Impact 3.1).

Potential Impact 4.1 – Warren Road / Devonshire Avenue (#24) – Although this intersection was found to operate at an unacceptable LOS (LOS F) during the AM and PM peak hours under Existing traffic conditions, the intersection is anticipated to continue to operate at unacceptable levels during one or more of the peak hours with the addition of Project traffic, for both Phase 1 and Project Buildout. As such, the impact is considered cumulatively significant (Impact 4.1).

Potential Impact 5.1 – Warren Road / Auto Bl. (#26) – The intersection is anticipated to operate at unacceptable levels (LOS E or worse) during one or more of the peak hours with the addition of Project traffic, for both Phase 1 and Project Buildout. As such, the impact is considered significant (Impact 5.1).

Potential Impact 6.1 – Warren Road / Stetson Avenue (#28) – Although this intersection was found to operate at an unacceptable LOS (LOS E) during the PM peak hour under Existing traffic conditions, the intersection is anticipated to continue to operate at unacceptable levels during one or more of the peak hours with the addition of Project traffic, for both Phase 1 and Project Buildout. As such, the impact is considered cumulatively significant (Impact 6.1).

1.5.2 RECOMMENDED MITIGATION MEASURES

Mitigation Measure 1.1 – Winchester Rd. (SR-79) / 9th Street (#2) – The following improvements are necessary to reduce the Project's proportional share of the existing deficiency, thus reducing the Project's cumulative impact to less-than-significant:

- Fair share contribution to be applied towards the installation of a traffic signal to improve the existing deficiency.

Mitigation Measure 2.1 – Winchester Road (SR-79) / Domenigoni Parkway (#4) – The following improvements are necessary to reduce the Project's proportional share of the existing deficiency, thus reducing the Project's cumulative impact to less-than-significant:

- Fair share contribution towards modifying the traffic signal to implement overlap phasing on the northbound right turn lane and implementing 2-stage crosswalks on all approaches.

Mitigation Measure 3.1 – Warren Road / Esplanade Avenue (#22) – The following improvement is necessary during the first phase to reduce the Project's share of the new deficiency, thus reducing the Project's impact to less-than-significant:

- The installation of a traffic signal.
- Construction of a northbound left turn lane, southbound left turn lane, eastbound left turn lane, and westbound left turn lane.

Mitigation Measure 4.1 – Warren Road / Devonshire Avenue (#24) – The following improvements are necessary to reduce the Project's proportional share of the existing deficiency, thus reducing the Project's cumulative impact to less-than-significant:

- Payment of the Project's DIF fees to be applied towards the installation of a traffic signal to improve the existing deficiency.
- Fair share contribution towards a northbound left turn lane and southbound left turn lane.

Mitigation Measure 5.1 – Warren Road / Auto Boulevard (#26) – The following improvements are necessary to reduce the Project's share of the new deficiency, thus reducing the Project's impact to less-than-significant:

- Fair share contribution to be applied towards the installation of a traffic signal to improve the existing deficiency.

Mitigation Measure 6.1 – Warren Road / Stetson Avenue (#28) – The following improvement is necessary to reduce the Project's proportional share of the existing deficiency, thus reducing the Project's impact to less-than-significant:

- The traffic signal is to be constructed by Tract 31807/31808 per their mitigation measures.
- Fair share contribution towards a northbound left turn lane, southbound left turn lane, and eastbound left turn lane.

1.5.3 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON ROADWAYS

The recommended roadway improvements are consistent with the identified intersection improvements shown previously in Table 1-3, by traffic condition. In addition, Table 1-3 also indicates those improvements currently included in either the City of Hemet DIF or TUMF fee programs. In instances where improvement needs are not covered by DIF, the Project's fair share percentage has been calculated.

1.6 LOCAL AND REGIONAL FUNDING MECHANISMS

1.6.1 CITY OF HEMET DEVELOPMENT IMPACT FEE (DIF) PROGRAM

The Project will be subject to City of Hemet's Development Impact Fee (DIF) program which includes a component for Road Facilities Fees. The Road Facilities Fees finances highways, roads, bridges, and traffic signals. The most recent City of Hemet DIF Nexus Study was prepared by TischlerBise, Fiscal, and Economic and Planning Consultants, dated January 3, 2006 and subsequently adopted (Resolutions No. 3981 and 3837).

1.6.2 MEASURE A

Measure A, Riverside County's half-cent sales tax for transportation, was adopted by voters in 1988 and extended in 2002. It will continue to fund transportation improvements through 2039. Measure A funds a wide variety of transportation projects and services throughout the county. Riverside County Transportation Commission (RCTC) is responsible for administering the program. Measure A dollars are spent in accordance with a voter-approved expenditure plan that was adopted as part of the 1988 election. Among the programmed projects for Measure A is the realignment of SR 79.

1.6.3 CITY OF HEMET MEASURE C

On June 7, 1988, Hemet voters approved a measure to require updating the City's General Plan to incorporate performance measures related to traffic, drainage facilities, water storage and distribution facilities, park and recreational facilities, police services, fire services, and sanitary sewers. These performance standards were incorporated into the 1992 General Plan as a component of the Public Services and Facilities Element. They are incorporated into the various goals, policies, and implementation measures within General Plan 2030.

1.6.4 TRANSPORTATION UNIFORM MITIGATION FEE (TUMF) PROGRAM

The TUMF program is administered by the Western Riverside Council of Governments (WRCOG) based upon a regional Nexus Study most recently updated in 2009 to address major changes in right of way acquisition and improvement cost factors. WRCOG is currently in the process of completing a current Nexus Study update to the program. Final changes to network facilities, network cost allocations, and fee changes were not available at the time this assessment was prepared. This regional program was put into place to ensure that development pays its fair share and that funding is in place for construction of facilities needed to maintain the requisite level of service and critical to mobility in the region. TUMF is a truly regional mitigation fee program, and is imposed and implemented in every jurisdiction in Western Riverside County.

TUMF fees are imposed on new residential, industrial, and commercial development through application of the TUMF fee ordinance and fees are collected at the building or occupancy permit stage. In addition, an annual inflation adjustment is considered each year in February. In this way, TUMF fees are adjusted upwards on a regular basis to ensure that the development impact fees collected keep pace with construction and labor costs, etc.

A number of the facilities forecast to be impacted by the Project are programmed for improvements through the TUMF program. The Project Applicant will be subject to the TUMF fee program and will pay the requisite TUMF fees at the rates then in effect pursuant to the TUMF Ordinance. The Project is located in the Hemet/San Jacinto TUMF zone. The facilities planned through the TUMF program are constructed prior to the time at which the identified facility is expected to deteriorate to an inadequate level of service. WRCOG has a successful track record funding and overseeing the construction of improvements funded through the TUMF program. In total, the TUMF program is anticipated to generate nearly $5 billion in transportation projects for Western Riverside County.

1.6.5 FAIR SHARE CONTRIBUTION

The Project's mitigation will include fee payments to the City of Hemet DIF and construction of specific improvements to facilitate site access. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City's discretion). All off-site intersections and roadways evaluated in this study are included as part of the City's General Plan roadway network, and are therefore, assumed to be covered by one of the City's traffic fee programs. In the event a particular facility is not included in a fee program, fair share calculations have been provided on Table 1-4.

Table 1-4

Project Fair Share Calculations

#	Intersection		Existing (2017)	Project	2040 With Project	Total New Traffic	Project % of New[1]
1	Winchester Rd. (SR-79) / Florida Av. (SR-74)						
		AM:	2,231	52	5,353	3,122	1.7%
		PM:	2,758	70	6,429	3,671	**1.9%**
2	Winchester Rd. (SR-79) / 9th St.						
		AM:	1,016	60	3,256	2,240	2.7%
		PM:	1,168	90	3,842	2,674	**3.4%**
4	Winchester Rd. (SR-79) / Domenigoni Pkwy.						
		AM:	3,885	37	4,755	870	4.3%
		PM:	4,378	46	4,828	450	**10.2%**
5	Patterson Av. / Grand Av.						
		AM:	29	82	3,387	3,358	2.4%
		PM:	37	114	4,248	4,211	**2.7%**
6	Patterson Av. / Domenigoni Pkwy.						
		AM:	2,878	35	5,142	2,264	**1.5%**
		PM:	3,109	38	6,147	3,038	1.3%
7	El Callado Rd./Remington Wy. / Grand Av.						
		AM:	2	99	3,109	3,107	3.2%
		PM:	4	140	3,897	3,893	**3.6%**
8	SR-79 SB Ramps / Tres Cerritos Av.						
		AM:	0	7	1,005	1,005	0.7%
		PM:	0	17	1,036	1,036	**1.6%**
9	SR-79 SB Ramps / Florida Av. (SR-74)						
		AM:	0	27	4,848	4,848	0.6%
		PM:	0	59	5,791	5,791	**1.0%**
10	SR-79 SB Ramps / Stetson Av.						
		AM:	0	141	3,006	3,006	**4.7%**
		PM:	0	164	3,906	3,906	4.2%
11	SR-79 SB Ramps / Domenigoni Pkwy.						
		AM:	2,876	35	4,906	2,030	**1.7%**
		PM:	3,106	38	5,496	2,390	1.6%
12	SR-79 NB Ramps / Tres Cerritos Av.						
		AM:	0	26	1,278	1,278	**2.0%**
		PM:	0	28	1,438	1,438	1.9%
13	SR-79 NB Ramps / Florida Av. (SR-74)						
		AM:	0	27	4,950	4,950	0.5%
		PM:	0	59	5,980	5,980	**1.0%**
14	SR-79 NB Ramps / Stetson Av.						
		AM:	0	155	3,077	3,077	5.0%
		PM:	0	202	3,998	3,998	**5.1%**
15	SR-79 NB Ramps / Domenigoni Pkwy.						
		AM:	2,876	9	4,524	1,648	0.5%
		PM:	3,106	23	5,804	2,698	**0.9%**

Table 1-4

Project Fair Share Calculations

#	Intersection		Existing (2017)	Project	2040 With Project	Total New Traffic	Project % of New[1]
16	California Av. / Stowe Rd.						
		AM:	190	68	1,503	1,313	**5.2%**
		PM:	234	83	2,136	1,902	4.4%
17	California Av. / Stetson Av.						
		AM:	10	276	4,267	4,257	**6.5%**
		PM:	25	343	5,587	5,562	6.2%
18	California Av. / Simpson Rd.						
		AM:	363	61	2,400	2,037	**3.0%**
		PM:	366	73	2,987	2,621	2.8%
20	Mustang Wy. / New Stetson Av.						
		AM:	0	280	3,490	3,490	8.0%
		PM:	0	397	4,173	4,173	**9.5%**
22	Warren Rd. / Esplanade Av.						
		AM:	1,203	28	4,728	3,525	0.8%
		PM:	1,303	42	5,158	3,855	**1.1%**
23	Warren Rd. / Tres Cerritos Av.						
		AM:	1,050	54	3,720	2,670	2.0%
		PM:	1,071	70	3,848	2,777	**2.5%**
24	Warren Rd. / Devonshire Av.						
		AM:	1,474	66	4,333	2,859	2.3%
		PM:	1,571	96	4,736	3,165	**3.0%**
25	Warren Rd. / Florida Av. (SR-74)						
		AM:	2,420	135	7,452	5,032	2.7%
		PM:	3,092	228	7,400	4,308	**5.3%**
26	Warren Rd. / Auto Bl.						
		AM:	1,195	157	3,597	2,402	6.5%
		PM:	1,354	253	3,557	2,203	**11.5%**
27	Warren Rd. / Whittier Av.						
		AM:	1,043	166	3,595	2,552	6.5%
		PM:	1,130	263	3,825	2,695	**9.8%**
28	Warren Rd. / Stetson Av.						
		AM:	1,278	165	5,169	3,891	4.2%
		PM:	1,407	263	5,913	4,506	**5.8%**
29	Warren Rd. / New Stetson Av.						
		AM:	760	258	4,803	4,043	6.4%
		PM:	784	392	5,406	4,622	**8.5%**
31	Warren Rd. / Mustang Wy.						
		AM:	1,072	28	2,495	1,423	2.0%
		PM:	1,061	102	2,852	1,791	**5.7%**
32	Warren Rd. / Simpson Rd.						
		AM:	1,016	28	2,946	1,930	**1.5%**
		PM:	1,031	43	4,297	3,266	1.3%

Table 1-4

Project Fair Share Calculations

#	Intersection		Existing (2017)	Project	2040 With Project	Total New Traffic	Project % of New[1]
33	Warren Rd. / Domenigoni Pkwy.						
		AM:	2,986	20	4,367	1,381	1.4%
		PM:	3,145	26	4,333	1,188	**2.2%**
34	Myers St. / Florida Av. (SR-74)						
		AM:	1,449	43	5,768	4,319	1.0%
		PM:	2,144	76	5,845	3,701	**2.1%**
35	Fisher St. / New Stetson Av.						
		AM:	0	84	2,929	2,929	2.9%
		PM:	0	112	3,671	3,671	**3.1%**
37	New Stetson Av. / Stetson Av.						
		AM:	555	81	2,954	2,399	**3.4%**
		PM:	703	105	3,813	3,110	3.4%
38	Cawston Av. / Florida Av. (SR-74)						
		AM:	1,555	34	4,808	3,253	1.0%
		PM:	2,287	61	5,789	3,502	**1.7%**
39	Cawston Av. / Stetson Av.						
		AM:	1,217	80	3,643	2,426	3.3%
		PM:	1,257	105	4,111	2,854	**3.7%**
40	Sanderson Av. / Florida Av. (SR-74)						
		AM:	2,935	40	5,309	2,374	1.7%
		PM:	3,988	59	5,979	1,991	**3.0%**
41	Sanderson Av. / Stetson Av.						
		AM:	3,630	60	6,048	2,418	2.5%
		PM:	3,743	73	5,444	1,701	**4.3%**

* Highest deficient peak hour represented in **BOLD** and shown on Table 1-3.

[1] Fair share based on net new traffic for General Plan Buildout (2040) traffic conditions less Existing traffic conditions.

1.7 ON-SITE ROADWAY AND SITE ACCESS IMPROVEMENTS

The Project is proposed to have access on the future western extension of Mustang Way between the new Stetson Avenue and Warren Road. Access will also be provided to the new extension of Stetson Avenue via Street C, Mustang Way, and Street D. All driveways are proposed to allow for full access.

As part of the development, the Project will construct improvements on the site adjacent roadways of the new Stetson Avenue, Mustang Way, and Warren Road. Roadway improvements necessary to provide site access and on-site circulation are assumed to be constructed in conjunction with site development and are described below. These improvements should be in place prior to occupancy.

1.7.1 SITE ADJACENT ROADWAY IMPROVEMENTS

The recommended site-adjacent roadway improvements for the Project are described below. These improvements need to be incorporated into the Project description prior to Project approval or imposed as conditions of approval as part of the Project approval. Exhibit 1-3 illustrates the site adjacent roadway improvement recommendations for Phase 1 (2024) and Phase 2 (2026) (Project Buildout).

Phase 1 (2024) and Phase 2 (2026)

New Stetson Avenue – The new alignment of New Stetson Avenue is an east-west oriented roadway located along the Project's northern boundary. Construct New Stetson Avenue at its ultimate half-section width as an Arterial Highway (130 to 140-foot right-of-way) between the Project's western boundary and the Project's eastern boundary. Improvements along the Project's frontage (south side of Stetson Avenue) would be those required by final conditions of approval for the proposed Project and applicable City of Hemet standards.

Warren Road – Warren Road is a north-south oriented roadway located along the Project's eastern boundary. Construct Warren Road at its ultimate half-section width as a Secondary Highway (88-foot right-of-way) between New Stetson Avenue and the Project's southern boundary. Improvements along the Project's frontage (west side of Warren Road) would be those required by final conditions of approval for the proposed Project and applicable City of Hemet standards. It should be noted that the developer will have to work to extend Warren Road north of Stetson Avenue to its ultimate alignment in order to align the existing Warren Road and the future improvements. However, improvements to this portion of the roadway is not controlled by the Project and would affect a number of property owners. The Project has provided to the City plans showing the recommended improvements and the affected parcels. Warren Road shall be striped to its ultimate and include appropriate lane drops and transitions.

The City's traffic model (based on City of Hemet's version of the RivTAM) was updated to reflect the proposed re-classification of Warren Road from a 6-lane divided roadway to a 4-lane divided roadway. The analysis prepared for the purposes of this TIA indicates that no roadway segment capacity issues are anticipated due to the proposed re-classification of Warren Road from Florida Avenue (SR-74) to Simpson Road from a 6-lane divided Arterial Highway to a 4-lane divided

Secondary Highway based on the forecasted daily traffic along Warren Road. Further, peak hour intersection operations analysis at the study area intersections along Warren Road also indicates adequate peak hour capacity under General Plan Buildout (2040) traffic conditions with the proposed re-classification.

Mustang Way – Mustang Way is an east-west oriented roadway bisecting the Project. Construct Mustang Way at its ultimate full-section width as a Secondary Highway (94-foot right-of-way) between Stetson Avenue and the existing terminus at Warren Road. Improvements along Mustang Way would be those required by final conditions of approval for the proposed Project and applicable City of Hemet standards.

Street D – Street D is an east-west oriented roadway bisecting the Project. Construct Street D at its ultimate full-section width as a Local Street (66-foot right-of-way) between Stetson Avenue and Warren Road. Improvements along Street D would be those required by final conditions of approval for the proposed Project and applicable City of Hemet standards.

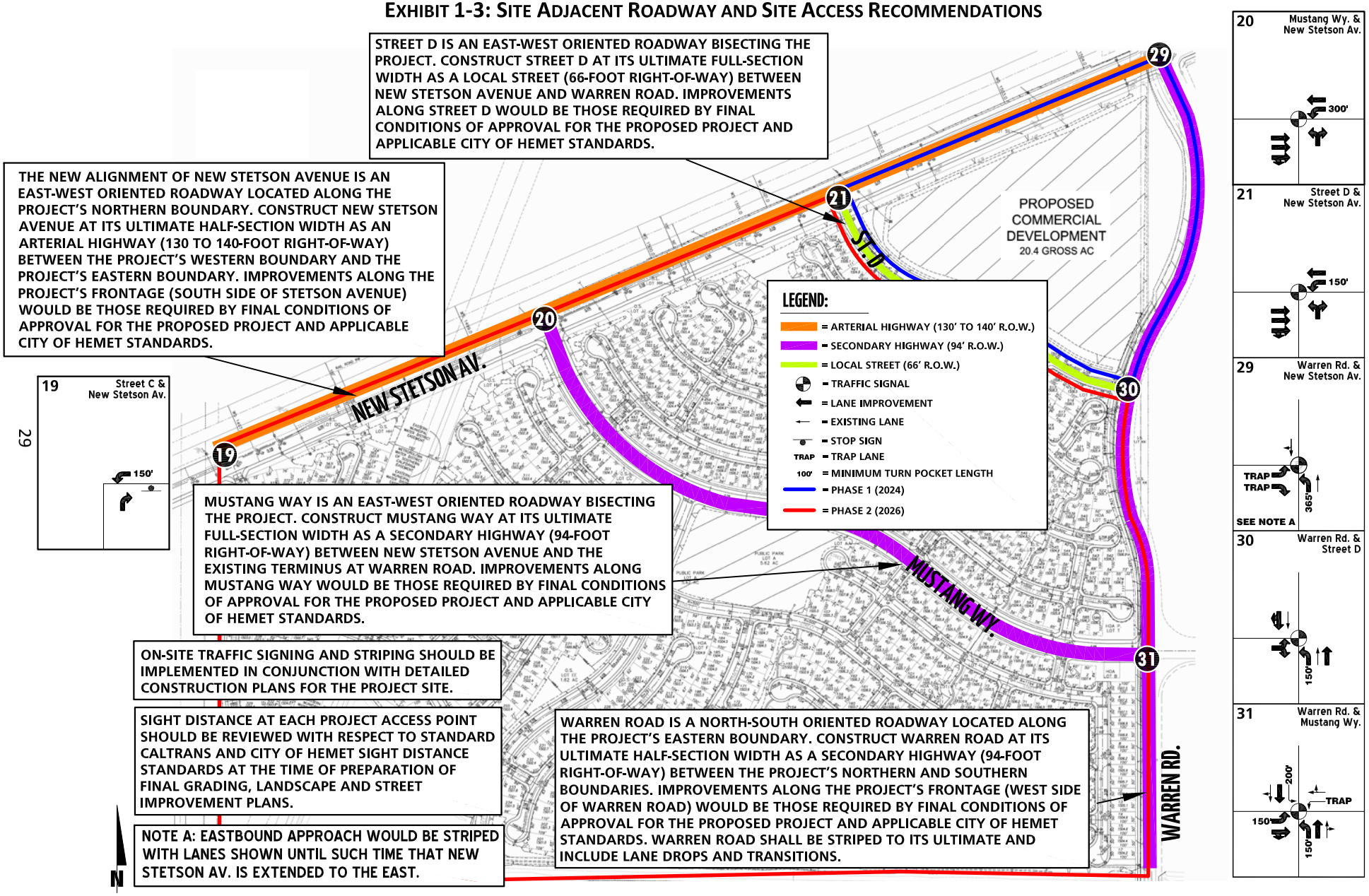
The Project is proposing to modify the General Plan by extending Mustang Way from its existing terminus at Warren Road to the new Stetson Avenue extension. The proposed classification is a Secondary Highway, which is consistent with the classification of Mustang Way to the east of Warren Road. The analysis prepared for this TIA indicates that acceptable peak hour intersection and roadway segment operations could be maintained with the proposed classification along Mustang Way as a 4-lane Secondary Highway.

1.7.2 SITE ACCESS IMPROVEMENTS

The recommended site access driveway improvements for the Project are described below. Exhibit 1-3 also illustrates the on-site and site adjacent recommended intersection lane improvements for Phase 1 (2024) and Phase 2 (2026) (Project Buildout). Construction of on-site and site adjacent improvements are recommended to occur in conjunction with adjacent Project development activity or as needed for Project access purposes.

The following intersection recommendations represent the minimum lanes that must be provided to achieve acceptable peak hour operations. As there is not anticipated to be sufficient receiving lanes beyond the Project on Warren Road, a minimum of one lane should be striped in each direction of travel until such time that the adjacent roadways are also widened to their ultimate General Plan roadway classification. However, the site adjacent roadways will be improved consistent with Section 1.8.1 *Site Adjacent Roadway Improvements* of this report.

EXHIBIT 1-3: SITE ADJACENT ROADWAY AND SITE ACCESS RECOMMENDATIONS



Phase 1 (2024) and Phase 2 (2026)

Street C / New Stetson Avenue – Install a stop control on the northbound approach and construct the intersection with the following geometrics:

Northbound Approach: One right turn lane.

Southbound Approach: N/A

Eastbound Approach: N/A

Westbound Approach: One left turn lane with a minimum of 150 feet of storage.

Mustang Way / New Stetson Avenue – Install a traffic signal (warranted under General Plan Buildout traffic conditions) and construct the intersection with the following geometrics:

Northbound Approach: One shared left-right turn lane.

Southbound Approach: N/A

Eastbound Approach: Two through lanes and one shared through-right turn lane.

Westbound Approach: One left turn lane with a minimum of 300 feet of storage and one through lane.

Street D / New Stetson Avenue – Install a traffic signal (warranted under General Plan Buildout traffic conditions) and construct the intersection with the following geometrics:

Northbound Approach: One shared left-right turn lane.

Southbound Approach: N/A

Eastbound Approach: Two through lanes and one shared through-right turn lane.

Westbound Approach: One left turn lane with a minimum of 150 feet of storage and one through lane.

Warren Road / New Stetson Avenue – Install a traffic signal and construct the intersection with the following geometrics:

Northbound Approach: One left turn lane with a minimum of 365 feet of storage and one through lane.

Southbound Approach: One shared through-right turn lane.

Eastbound Approach: One left turn lane and one right turn lane.

Westbound Approach: N/A

Warren Road / Street D – Install a traffic signal (warranted under E+P Phase 2 trafic conditions) and construct the intersection with the following geometrics:

Northbound Approach: One left turn lane with a minimum of 150 feet of storage and two through lanes.

Southbound Approach: One through lane and one shared through-right turn lane.

Eastbound Approach: One shared left-right turn lane.

Westbound Approach: N/A

Warren Road / Mustang Way – Maintain the existing traffic signal and construct the intersection with the following geometrics:

Northbound Approach: One left turn lane with a minimum of 150 feet of storage and one shared through-right turn lane.

Southbound Approach: One left turn lane with a minimum of 200 feet of storage, one through lane, and one shared through-right turn lane.

Eastbound Approach: One left turn lane with a minimum of 150 feet of storage and one shared through-right turn lane.

Westbound Approach: One left turn lane and one shared through-left turn lane.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the Project site.

Sight distance at each project access point should be reviewed with respect to standard Caltrans and City of Hemet sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

1.7.3 QUEUING ANALYSIS AT THE PROJECT DRIVEWAYS AND SITE ADJACENT INTERSECTIONS

A queuing analysis was conducted at the Project driveways along Stetson Avenue and along Warren Road for General Plan Buildout (2040) traffic conditions to determine the turn pocket length necessary to accommodate long-range 95th percentile peak hour volumes. The analysis was conducted for both the weekday AM and weekday PM peak hours. The 95th percentile queues for the intersection can be found in Appendix 1.2.

The traffic modeling and signal timing optimization software package Synchro (Version 9.1) has been utilized to assess queues at the Project driveways and site adjacent intersections. Synchro is a macroscopic traffic software program that is based on the signalized and unsignalized intersection capacity analyses as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length in Synchro. The LOS and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

SimTraffic is designed to model networks of signalized and unsignalized intersections, with the primary purpose of checking and fine tuning signal operations. SimTraffic uses the input parameters from Synchro to generate random simulations. The 95th percentile queue is not necessarily ever observed; it is simply based on statistical calculations (or Average Queue plus 1.65 standard deviations). However, the average queue is the average of all the two-minute

maximum queues observed by SimTraffic. The maximum back of queue observed for every two-minute period is recorded by SimTraffic.

SimTraffic has been utilized to assess peak hour queuing at the site access driveways for Horizon Year With Project traffic conditions. The random simulations generated by SimTraffic have been utilized to determine the 50th and 95th percentile queue lengths observed for each turn lane. A SimTraffic simulation has been recorded up to 5 times, during the weekday AM and weekday PM peak hours, and has been seeded for 15-minute periods with 60-minute recording intervals.

Although only the 95th percentile volume based queue has been utilized for purposes of determining the necessary turn pocket storage lengths, the 50th percentile volume based queues are also reported and can be found in Appendix 1.2. The 50th percentile queue is the maximum back of queue on a typical cycle during the peak hour, while the 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes during the peak hour. In other words, if traffic were observed for 100 cycles, the 95th percentile queue would be the queue experienced with the 95th busiest cycle (or 5% of the time). The 50th percentile, or average, queue represents the typical queue length for peak hour traffic conditions, while the 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed; it is simply based on statistical calculations. However, many jurisdictions utilize the 95th percentile queues for design purposes.

The storage length recommendations for the turning movements at the Project were shown previously on Exhibit 1-3.

2 METHODOLOGIES

This section documents the methodologies and assumptions used to perform this traffic assessment.

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The *Highway Capacity Manual* (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (2) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Hemet, City of San Jacinto, County of Riverside, and the California Department of Transportation (Caltrans) require signalized intersection operations analysis based on the methodology described in the HCM 2010. (3) Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-1.

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up	F	F

Source: HCM 2010

Study area intersections have been analyzed using the software package Synchro (Version 9.1). Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network. The LOS analysis for signalized intersections has been performed using optimized signal timing for existing traffic conditions. Signal timing optimization has considered pedestrian safety and signal coordination requirements. Appropriate time for pedestrian crossings has also been considered in the signalized intersection analysis. Signal timing for study area intersections have been requested and utilized. Where signal timing was unavailable, the local accepted standards were utilized in lieu of actual signal timing.

The peak hour traffic volumes have been adjusted using a PHF to reflect peak 15 minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Per Chapter 4 of the HCM 2010, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (3) However, in an effort to conduct a conservative analysis, Existing PHFs have been used for all analysis scenarios.

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Hemet, City of San Jacinto, County of Riverside, and Caltrans require the operations of unsignalized intersections be evaluated using the methodology described in the HCM 2010. (2) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2).

TABLE 2-2: UNSIGNALIZED INTERSECTION DESCRIPTION OF LOS

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F	F

Source: HCM 2010, Chapter 19 and Chapter 20

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole.

2.3 ROADWAY SEGMENT CAPACITY ANALYSIS

Daily volume-to-capacity (v/c) roadway analysis will be conducted for the roadway segments adjacent to the study area intersections. Roadway link analysis is performed by comparing the average daily traffic (ADT) projected for a segment with the maximum capacity identified by the County of Riverside's General Plan for each applicable street classification.

These roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. As such, where the ADT based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis and progression analysis are undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Therefore, for the purposes of this analysis, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes, unless the v/c ratio appears to be excessive and could potential result in capacity issues.

2.4 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TIA uses the signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices (MUTCD)*, as amended by *the MUTCD 2014 California Supplement*, for all study area intersections. (4)

The signal warrant criteria for Existing conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. Both the FHWA's *MUTCD* and the *MUTCD 2014 California Supplement* indicate that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (4) Specifically, this TIA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing study area intersections for all analysis scenarios. Warrant 3 criteria are basically identical for both the FHWA's *MUTCD* and the *MUTCD 2014 California Supplement*. Warrant 3 is appropriate to use for this TIA because it provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour). For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets.

As shown on Table 2-3, traffic signal warrant analyses were performed for the following study area intersections:

TABLE 2-3: UNSIGNALIZED INTERSECTION LOCATIONS

ID	Intersection Location	Jurisdiction	CMP
5	Patterson Av. / Grand Av. – 2040 Analysis Location	County of Riverside	No
7	Calvert Av. / Grand Av.	County of Riverside	No
8	SR-79 SB Ramps / Tres Cerritos Av. – 2040 Analysis Location	County of Riverside, Caltrans	No
9	SR-79 SB Ramps / Florida Av. (SR-74) – 2040 Analysis Location	County of Rviersdie, Hemet, Caltrans	No
10	SR-79 SB Ramps/ Stetson Av. – 2040 Analysis Location	County of Riverside, Caltrans	No
11	SR-79 SB Ramps / Domenigoni Pkwy. – 2040 Analysis Location	County of Riverside, Caltrans	No
12	SR-79 NB Ramps / Tres Cerritos Av. – 2040 Analysis Location	County of Riverside, Caltrans	No
13	SR-79 NB Ramps / Florida Av. (SR-74) – 2040 Analysis Location	County of Riverside, Hemet, Caltrans	No
14	SR-79 NB Ramps / Stetson Av. – 2040 Analysis Location	County of Riverside, Caltrans	No
15	SR-79 NB Ramps / Domenigoni Pkwy. – 2040 Analysis Location	County of Riverside, Caltrans	No
16	California Av. / Stowe Rd.	County of Riverside	No

ID	Intersection Location	Jurisdiction	CMP
17	California Av. / Stetson Av. – 2040 Analysis Location	County of Riverside	No
18	California Av. / Simpson Rd.	County of Riverside	No
19	St. C / New Stetson Av. – Future Analysis Location	City of Hemet	No
20	Mustang Wy. / New Stetson Av. – Future Analysis Location	City of Hemet	No
21	St. D / New Stetson Av. – Future Analysis Location	City of Hemet	No
22	Warren Rd. / Esplanade Av.	City of Hemet, City of San Jacinto	No
23	Warren Rd. / Tres Cerritos Av. – 2040 Analysis Location	City of Hemet, County of Riverside	No
24	Warren Rd. / Devonshire Av.	City of Hemet, County of Riverside	No
26	Warren Rd. / Auto Bl.	City of Hemet	No
27	Warren Rd. / Whittier Av.	City of Hemet	No
28	Warren Rd. / Stetson Av.	City of Hemet	No
29	Warren Rd. / New Stetson Av. – Future Analysis Location	City of Hemet	No
30	Warren Rd. / St. D – Future Analysis Location	City of Hemet	No
32	Warren Rd. / Simpson Rd.	County of Riverside	No
35	Fisher St. / New Stetson Av. – 2040 Analysis Location	City of Hemet	No
37	New Stetson Av. / Stetson Av. – 2040 Analysis Location	City of Hemet	No

The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Existing Conditions* of this report. The traffic signal warrant analysis for future conditions is presented in Section 5 *Existing Plus Project Traffic Analysis*, Section 6 *Opening Year Cumulative (2024) Traffic Analysis*, Section 7 *Opening Year Cumulative (2026) Traffic Analysis*, and Section 8 *General Plan Buildout (2040) Traffic Analysis* of this report.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.5 MINIMUM LEVEL OF SERVICE (LOS)

The definition of an intersection deficiency has been obtained from each of the applicable surrounding jurisdictions.

2.5.1 CITY OF HEMET

The City of Hemet has established LOS D as the lowest acceptable LOS for peak-hour intersection movements and LOS C as the lowest acceptable LOS for roadway segment operations. (5)

2.5.2 CITY OF SAN JACINTO

The City has established a peak hour Level of Service D or better as acceptable for all intersections along the designated street and highway system. (6)

2.5.3 COUNTY OF RIVERSIDE

County of Riverside General Plan Policy C 2.1 states that the following minimum target levels of service have been designated for the review of development proposals in the unincorporated areas of Riverside County:

- LOS C shall apply to all development proposals in any area of the Riverside County not located within the boundaries of an Area Plan, as well those areas located within the following Area Plans: REMAP, Eastern Coachella Valley, Desert Center, Palo Verde Valley, and those non- Community Development areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans.
- LOS D shall apply to all development proposals located within any of the following Area Plans: Eastvale, Jurupa, Highgrove, Reche Canyon/Badlands, Lakeview/Nuevo, Sun City/Menifee Valley, Harvest Valley/Winchester, Southwest Area, The Pass, San Jacinto Valley, Western Coachella Valley and those Community Development Areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans. LOS E may be allowed by the Board of Supervisors within designated areas where transit oriented development and walkable communities are proposed.

Notwithstanding the forgoing minimum LOS targets, the Board of Supervisors may, on occasion by virtue of their discretionary powers, approve a project that fails to meet these LOS targets in order to balance congestion management considerations in relation to benefits, environmental impacts and costs, provided an Environmental Impact Report, or equivalent, has been completed to fully evaluate the impacts of such approval. Any such approval must incorporate all feasible mitigation measures, make specific findings to support the decision, and adopt a statement of overriding considerations.

2.5.4 CALTRANS

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State Highway System (SHS) facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. Consistent with the City of Hemet minimum LOS of LOS D, LOS D will be used as the target LOS for both arterial-to-freeway ramps.

2.6 DEFICIENCY CRITERIA

To determine whether the addition of project traffic at a study intersection would result in a deficiency, the following will be utilized:

- A deficiency occurs at a study area intersections if the pre-Project condition is at or better than LOS D (i.e., acceptable LOS), and the addition of project trips causes the peak hour LOS of the study area intersection to operate at unacceptable LOS (i.e., LOS E or F). Per the County of Riverside traffic study guidelines, for intersections currently operating at unacceptable LOS (LOS E or F), a deficiency would occur if the Project contributes 50 or more peak hour trips to pre-project traffic conditions.

2.9 PROJECT FAIR SHARE CALCULATION METHODOLOGY

In cases where this TIA identifies that the Project would contribute additional traffic volumes to cumulative traffic deficiencies, Project fair share costs of improvements necessary to address deficiencies have been identified. The Project's fair share cost of improvements is determined based on the following equation, which is the ratio of Project traffic to new traffic, and new traffic is total future traffic less existing baseline traffic:

Project Fair Share % = Project Traffic / (2040 Total Traffic – Existing Traffic)

The Project fair share contribution calculations are presented in Section 1.6 *Local and Regional Funding Mechanisms* of this TIA.

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3 EXISTING CONDITIONS

This section provides a summary of the existing circulation network, the City of Hemet General Plan Circulation Network, and a review of existing peak hour intersection operations, roadway segment capacity, and traffic signal warrant analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the agreement with City of Hemet staff (Appendix 1.1), the study area includes a total of 41 existing and future intersections as shown on Exhibit 1-2. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF HEMET GENERAL PLAN CIRCULATION ELEMENT

Exhibit 3-2 shows the adopted City of Hemet General Plan Circulation Element, and Exhibit 3-3 illustrates the adopted City of Hemet General Plan roadway cross-sections.

3.3 COUNTY OF RIVERSIDE GENERAL PLAN CIRCULATION ELEMENT

Exhibit 3-4 shows the County of Riverside General Plan Circulation Element, and Exhibit 3-5 illustrates the County of Riverside General Plan roadway cross-sections.

3.4 CITY OF SAN JACINTO GENERAL PLAN CIRCULATION ELEMENT

Exhibit 3-6 shows the City of San Jacinto General Plan Circulation Element, and Exhibit 3-7 illustrates the City of San Jacinto General Plan roadway cross-sections.

3.5 BICYCLE AND PEDESTRIAN FACILITIES

Exhibit 3-8 illustrates the City of Hemet General Plan Bikeways, and Exhibit 3-9 shows the City of Hemet General Plan Bikeway Cross Sections. Exhibit 3-10 shows the County of Riverside Trails and Bikeway System. The City of San Jacinto General Plan Bikeways are illustrated on Exhibit 3-11, and Exhibit 3-12 shows the City of San Jacinto Bikeways Cross-Sections.

Field observations conducted in August 2017 indicate nominal pedestrian and bicycle activity within the study area. Existing pedestrian facilities currently exist in the northeast portion of the study area and along Florida Avenue (SR-74). The existing pedestrian facilities within the study area are shown on Exhibit 3-13. As shown on Exhibit 3-13, there are currently Class II (on-road, striped) bike lanes along Sanderson Avenue, south of Stetson Avenue, Domenigoni Parkway west of Winchester Road (SR-79), and along Winchester Road (SR-79) south of Domenigoni Parkway.

EXHIBIT 3-1 (1 OF 2): EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS

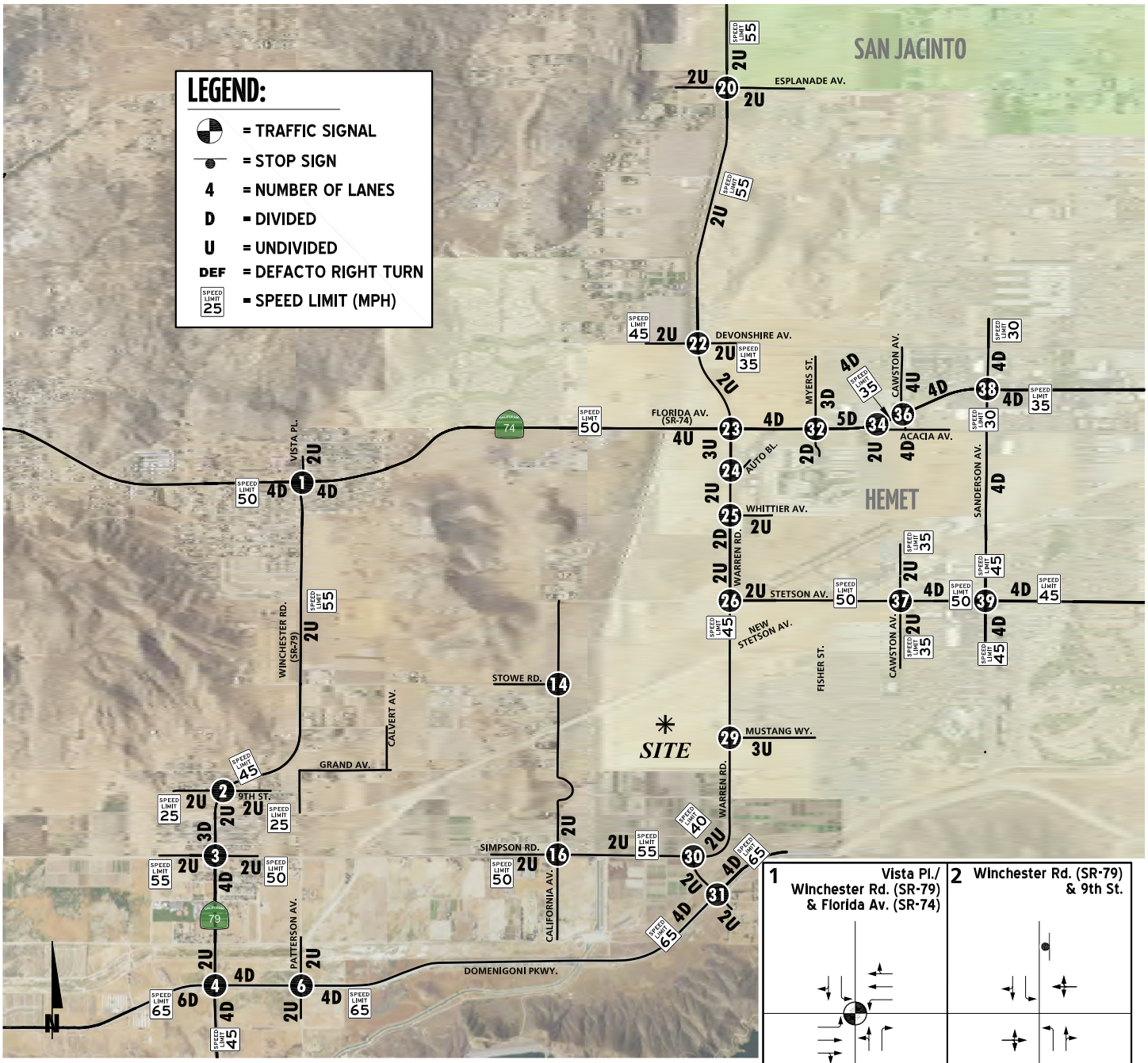
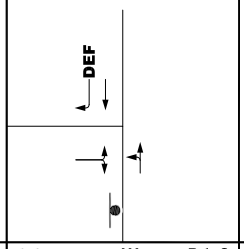
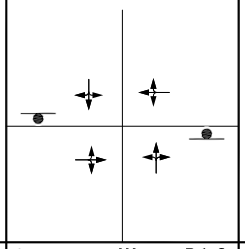
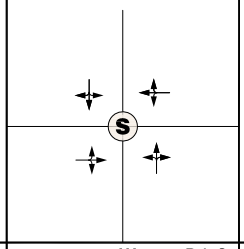
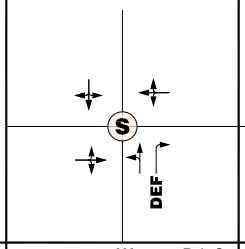
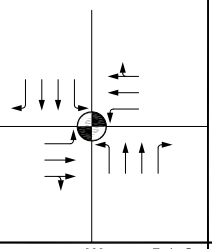
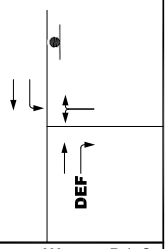
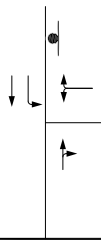
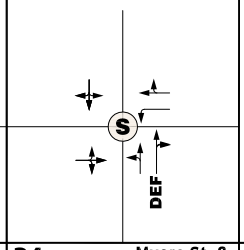
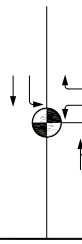
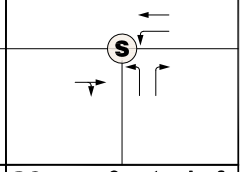
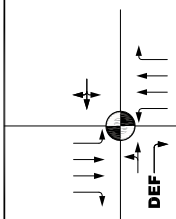
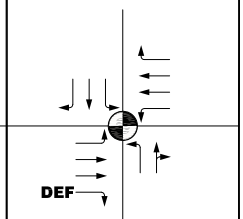
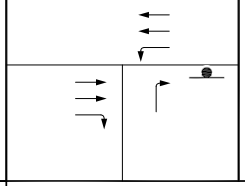
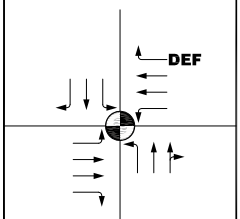
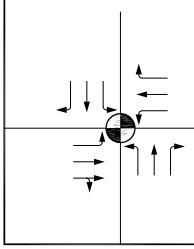
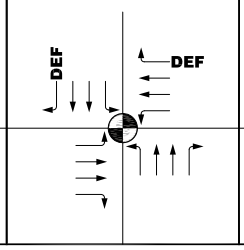
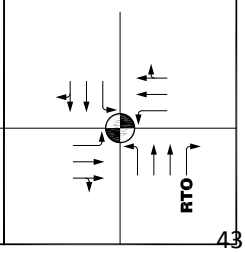


EXHIBIT 3-1 (2 OF 2): EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS

9 SR-79 SB Ramps & Florida Av. (SR-74) 2040 Analysis Location Only	10 SR-79 SB Ramps & Stetson Av. 2040 Analysis Location Only	11 SR-79 SB Ramps & Domenigoni Pkwy. 2040 Analysis Location Only	12 SR-79 NB Ramps & Tres Cerritos Av. 2040 Analysis Location Only	13 SR-79 SB Ramps & Florida Av. (SR-74) 2040 Analysis Location Only	14 SR-79 NB Ramps & Stetson Av. 2040 Analysis Location Only
15 SR-79 NB Ramps & Domenigoni Pkwy. 2040 Analysis Location Only	16 California Av. & Stowe Rd. 	17 California Av. & Stetson Av. Future Intersection	18 California Av. & Simpson Rd. 	19 Street "C" & New Stetson Av. Future Intersection	20 Mustang Wy. & New Stetson Av. Future Intersection
21 Street "D" & New Stetson Av. Future Intersection	22 Warren Rd. & Esplanade Av. 	23 Warren Rd. & Tres Cerritos Av. 2040 Analysis Location Only	24 Warren Rd. & Devonshire Av. 	25 Warren Rd. & Florida Av. (SR-74) 	26 Warren Rd. & Auto Bl. 
27 Warren Rd. & Whittier Av. 	28 Warren Rd. & Stetson Av. 	29 Warren Rd. & New Stetson Av. Future Intersection	30 Warren Rd. & Street D Future Intersection	31 Warren Rd. & Mustang Wy. 	32 Warren Rd. & Simpson Rd. 
33 Warren Rd. & Domenigoni Pkwy. 	34 Myers St. & Florida Av. (SR-74) 	35 Fisher St. & New Stetson Av. 2040 Analysis Location Only	36 Acacia Av. & Florida Av. (SR-74) 	37 New Stetson Av. & Stetson Av. 2040 Analysis Location Only	38 Cawston Av. & Florida Av. (SR-74) 
39 Cawston Av. & Stetson Av. 	40 Sanderson Av. & Florida Av. (SR-74) 	41 Sanderson Av. & Stetson Av. 			

LEGEND:

- = TRAFFIC SIGNAL
- S = ALL WAY STOP
- = STOP SIGN
- RTO = RIGHT TURN OVERLAP
- DEF = DEFACTO RIGHT TURN

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URBAN CROSSROADS

EXHIBIT 3-2: CITY OF HEMET GENERAL PLAN CIRCULATION ELEMENT

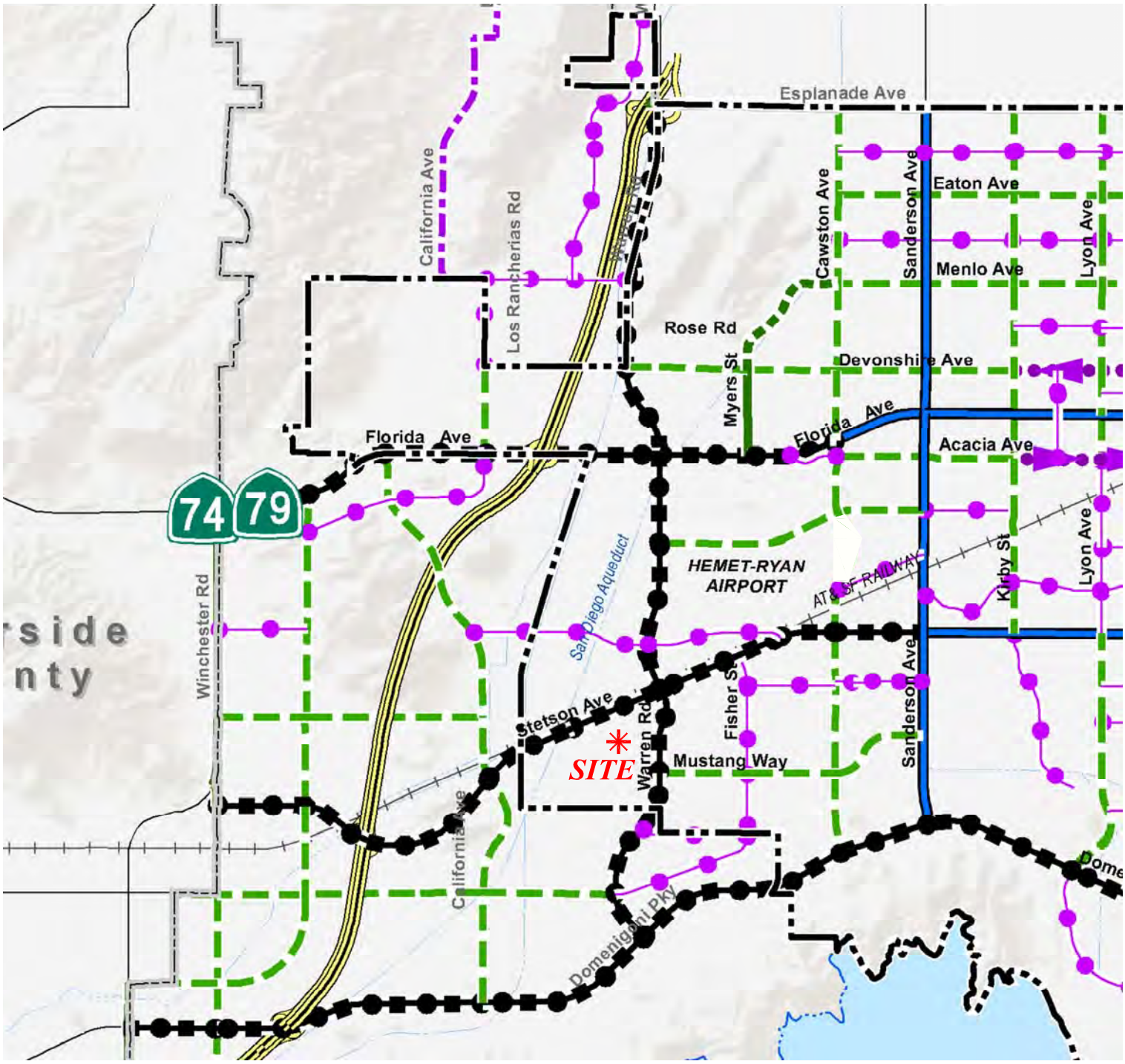
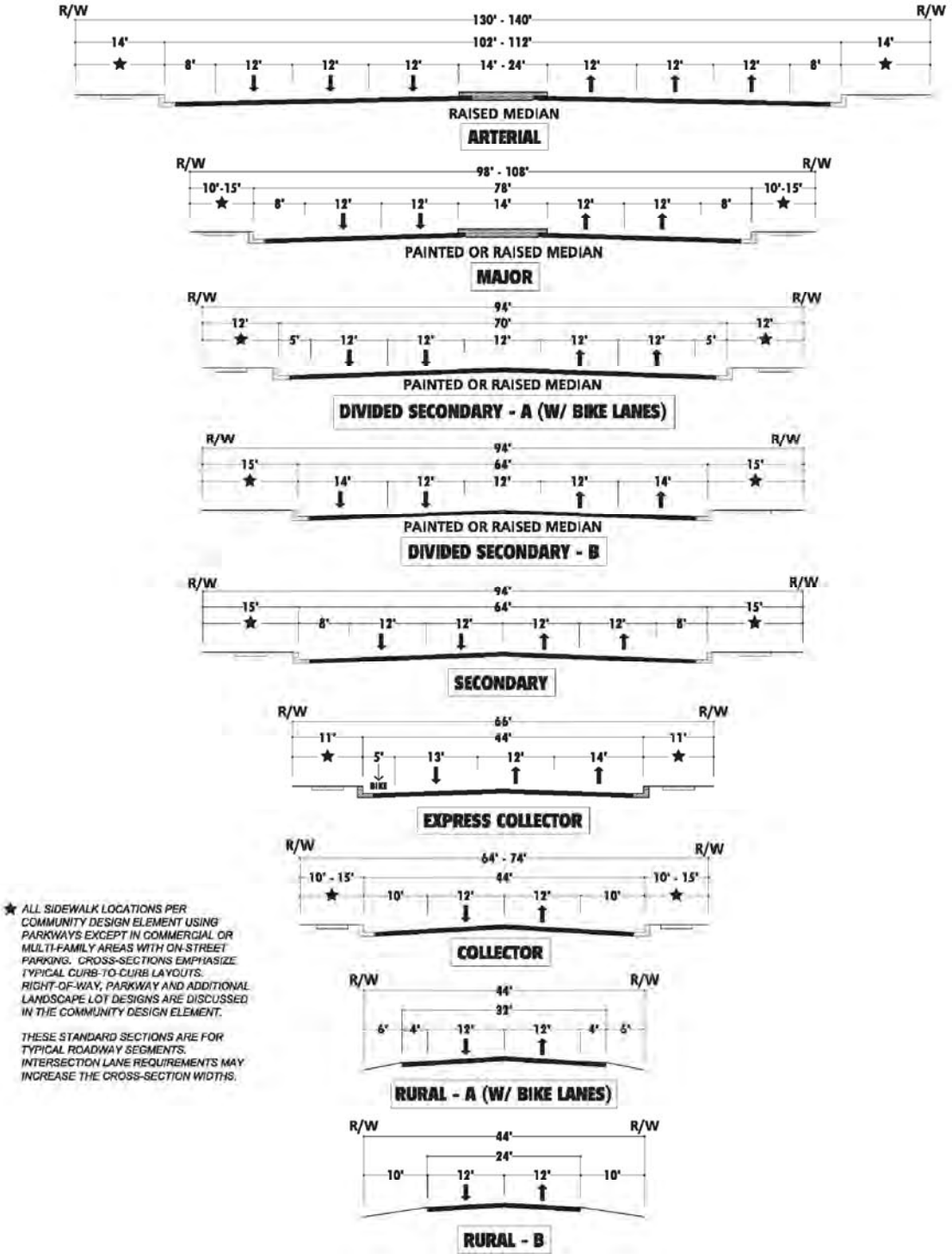


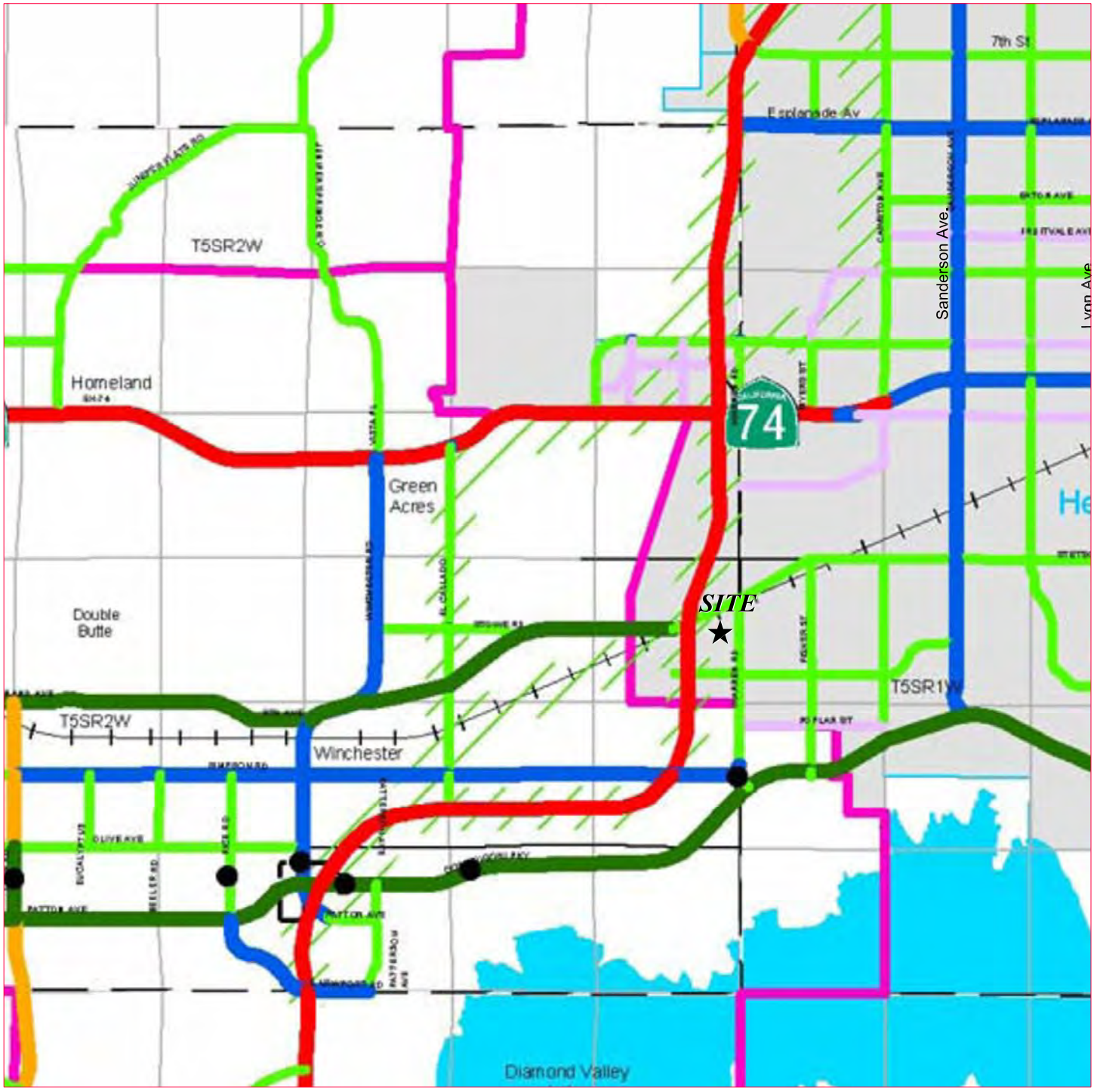
EXHIBIT 3-3: CITY OF HEMET GENERAL PLAN CROSS-SECTIONS



★ *ALL SIDEWALK LOCATIONS PER COMMUNITY DESIGN ELEMENT USING PARKWAYS EXCEPT IN COMMERCIAL OR MULTI-FAMILY AREAS WITH ON-STREET PARKING. CROSS-SECTIONS EMPHASIZE TYPICAL CURB-TO-CURB LAYOUTS. RIGHT-OF-WAY, PARKWAY AND ADDITIONAL LANDSCAPE LOT DESIGNS ARE DISCUSSED IN THE COMMUNITY DESIGN ELEMENT.*

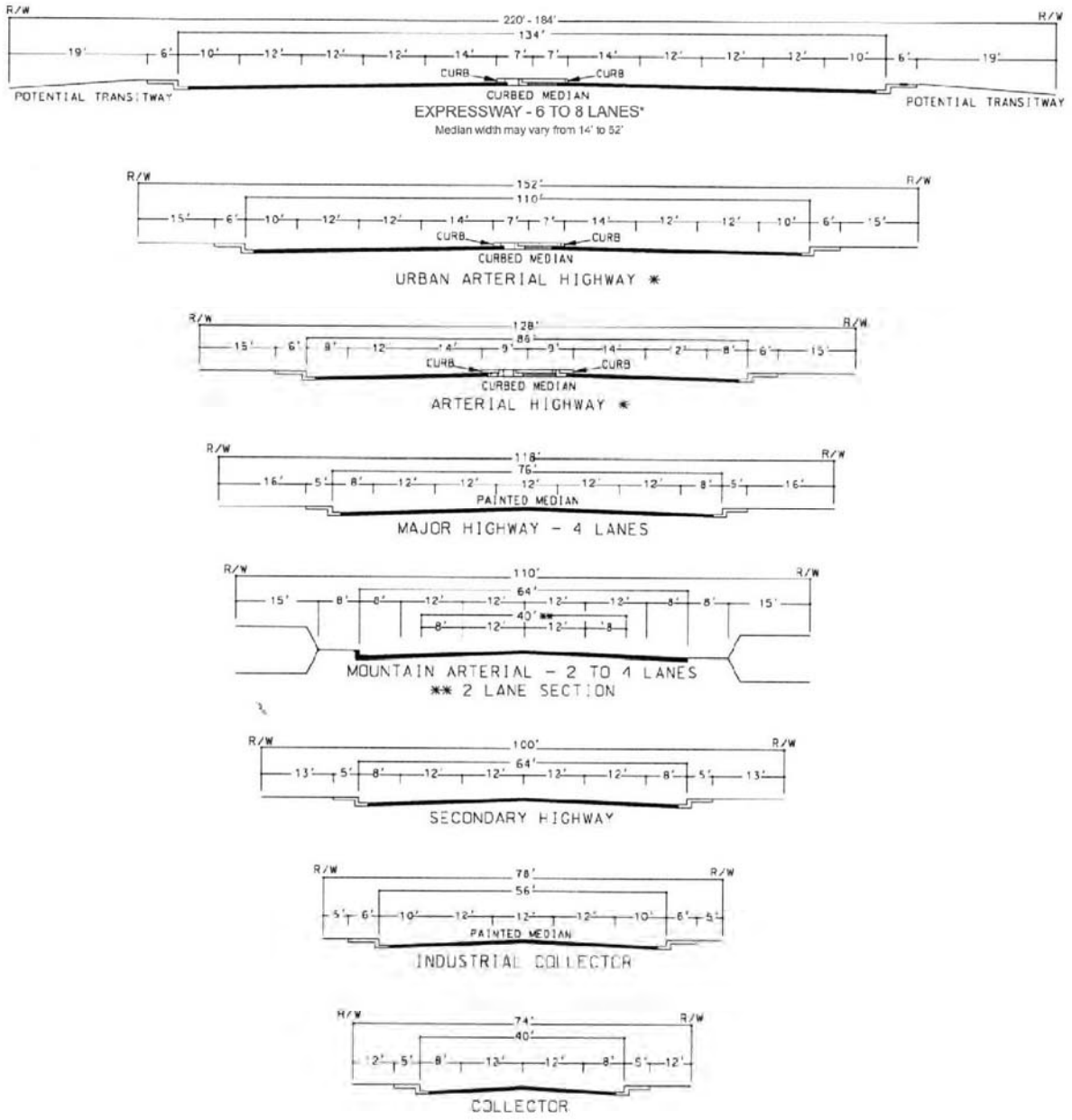
THESE STANDARD SECTIONS ARE FOR TYPICAL ROADWAY SEGMENTS. INTERSECTION LANE REQUIREMENTS MAY INCREASE THE CROSS-SECTION WIDTHS.

EXHIBIT 3-4: COUNTY OF RIVERSIDE GENERAL PLAN CIRCULATION ELEMENT



SOURCE: RIVERSIDE COUNTY INTEGRATED PROJECT (RCIP) (OCTOBER 7, 2003)

EXHIBIT 3-5: COUNTY OF RIVERSIDE GENERAL PLAN CROSS-SECTIONS



*IMPROVEMENTS MAY BE RECONFIGURED TO ACCOMMODATE EXCLUSIVE TRANSIT LANES OR ALTERNATIVE LANE ARRANGEMENTS. ADDITIONAL RIGHT OF WAY MAY BE REQUIRED AT INTERSECTIONS TO ACCOMMODATE. ULTIMATE IMPROVEMENTS FOR STATE HIGHWAYS SHALL CONFORM TO CALTRANS DESIGN STANDARDS.

Revised 7/3/2003

EXHIBIT 3-6: CITY OF SAN JACINTO GENERAL PLAN CIRCULATION ELEMENT

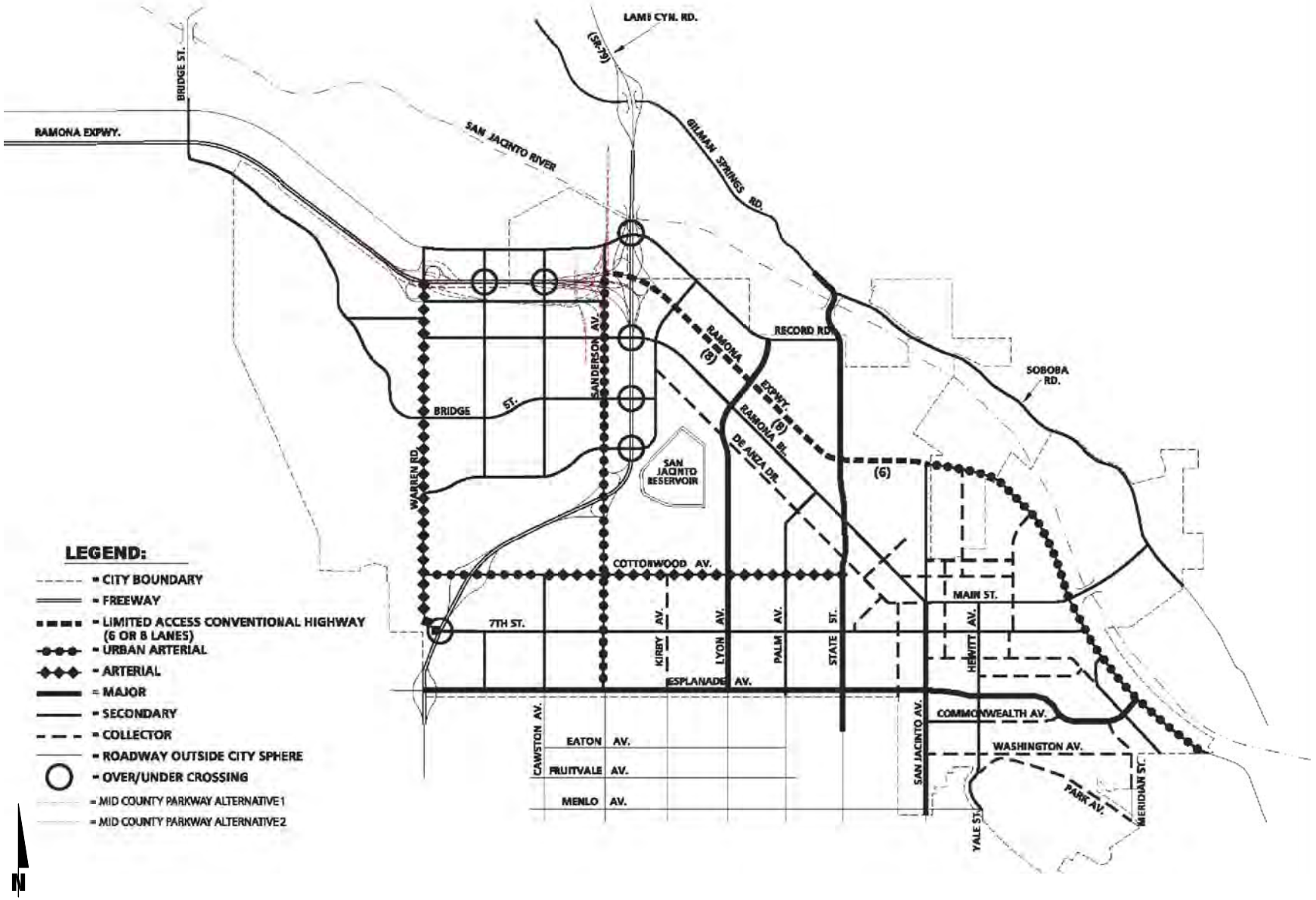


EXHIBIT 3-7: CITY OF SAN JACINTO GENERAL PLAN CROSS-SECTIONS

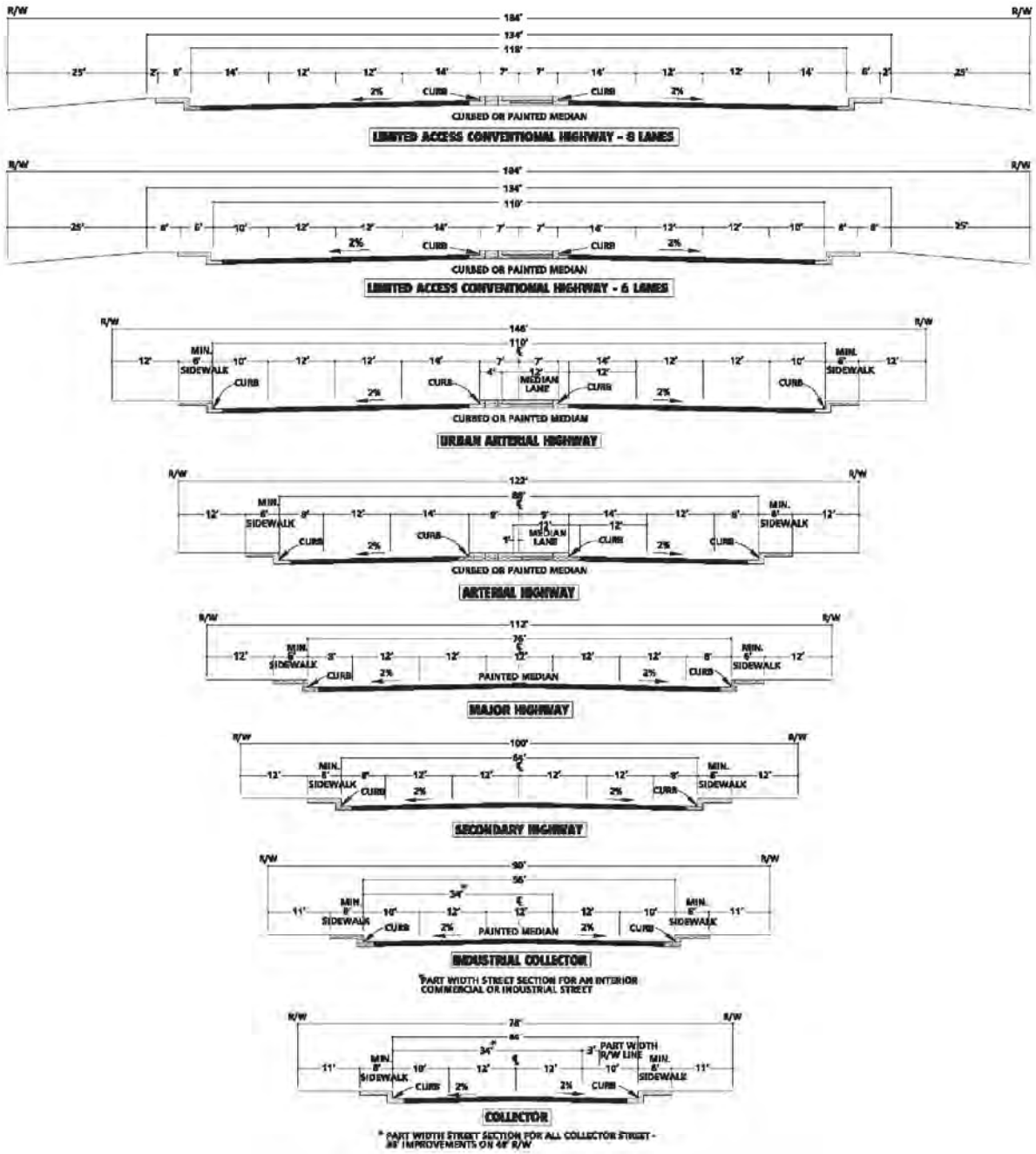
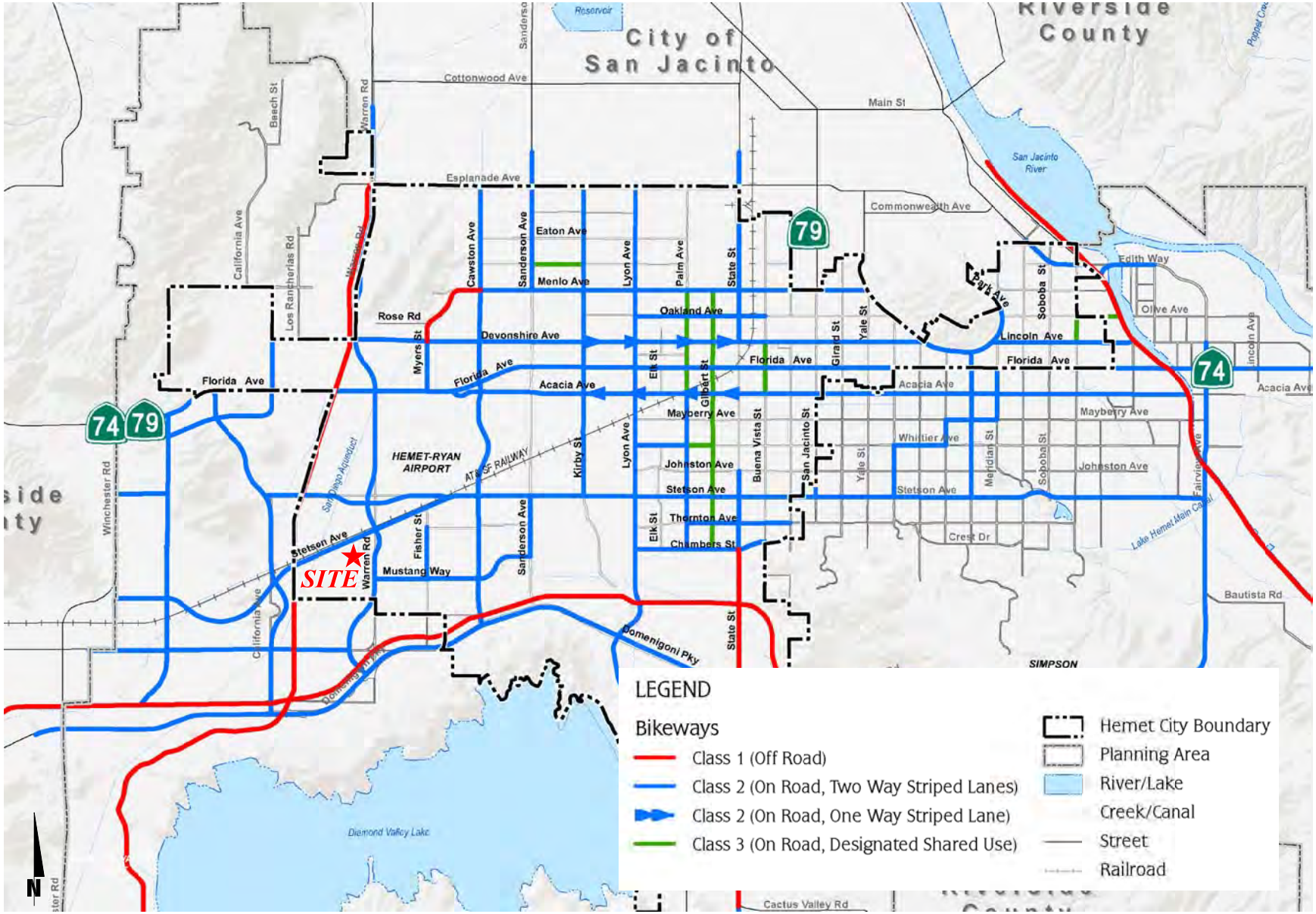


EXHIBIT 3-8: CITY OF HEMET GENERAL PLAN BIKEWAYS



URBAN CROSSROADS

EXHIBIT 3-9: CITY OF HEMET GENERAL PLAN BIKEWAY CROSS-SECTIONS

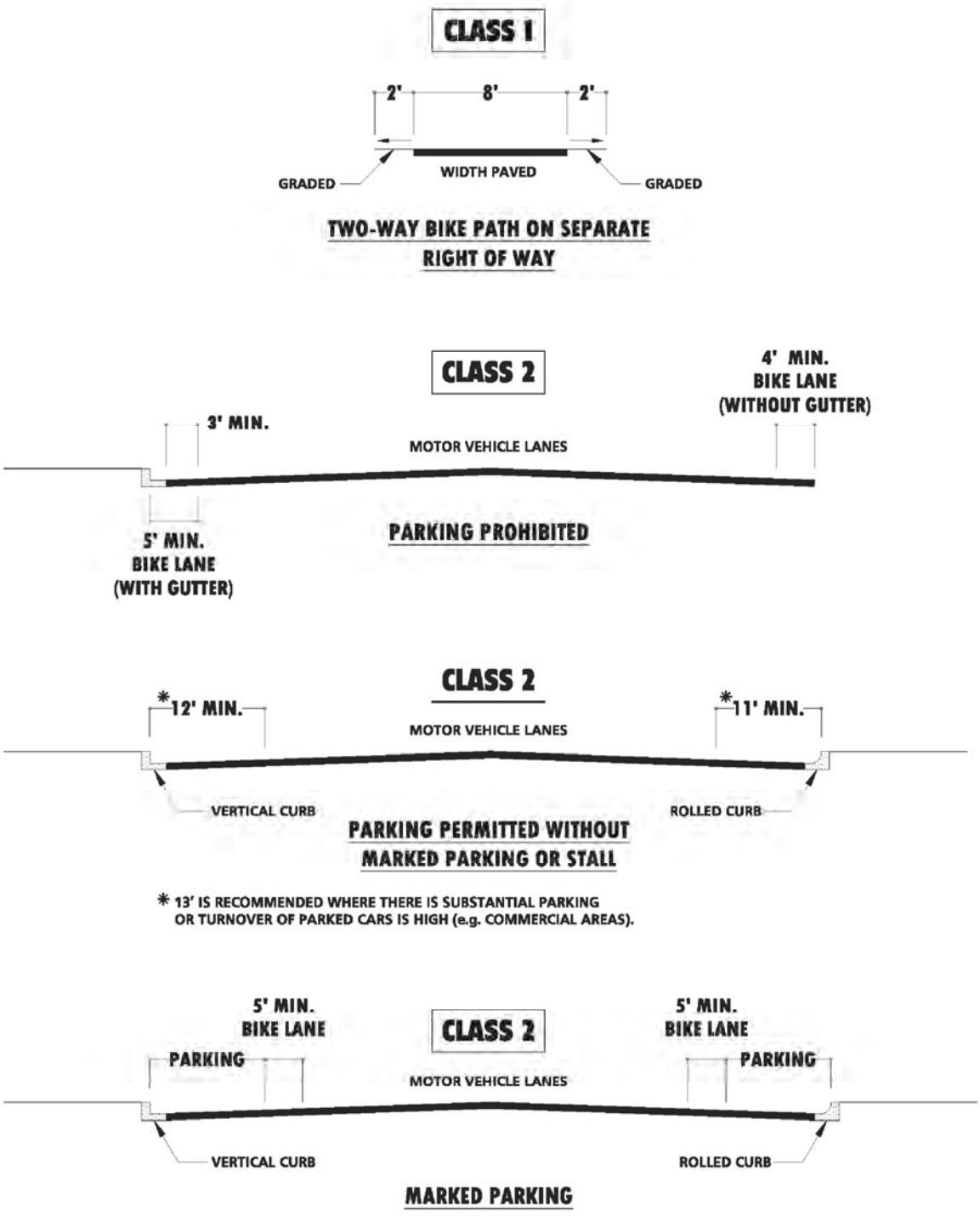


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EXHIBIT 3-10: COUNTY OF RIVERSIDE TRAILS AND BIKEWAY SYSTEM

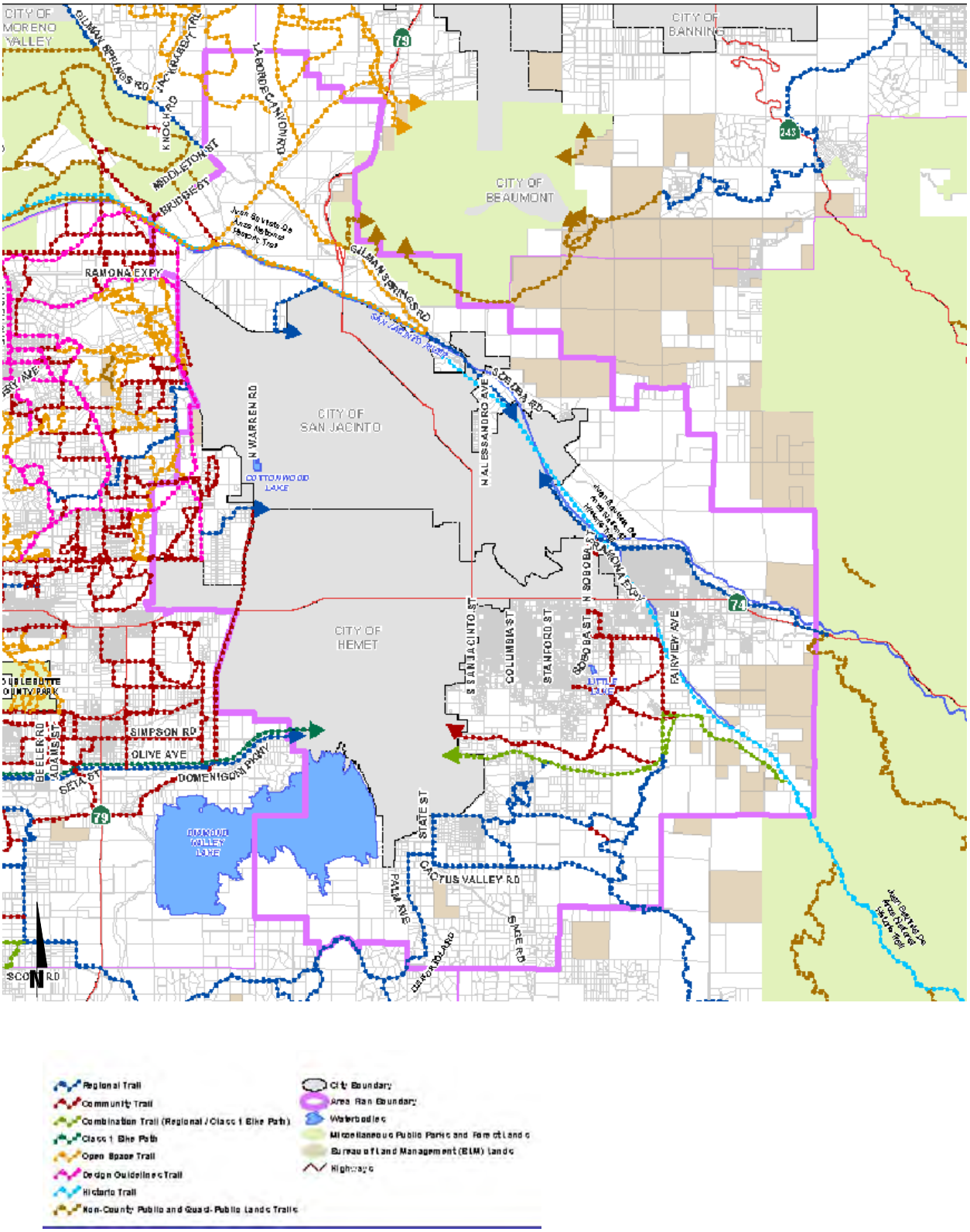


EXHIBIT 3-11: CITY OF SAN JACINTO GENERAL PLAN BIKEWAYS

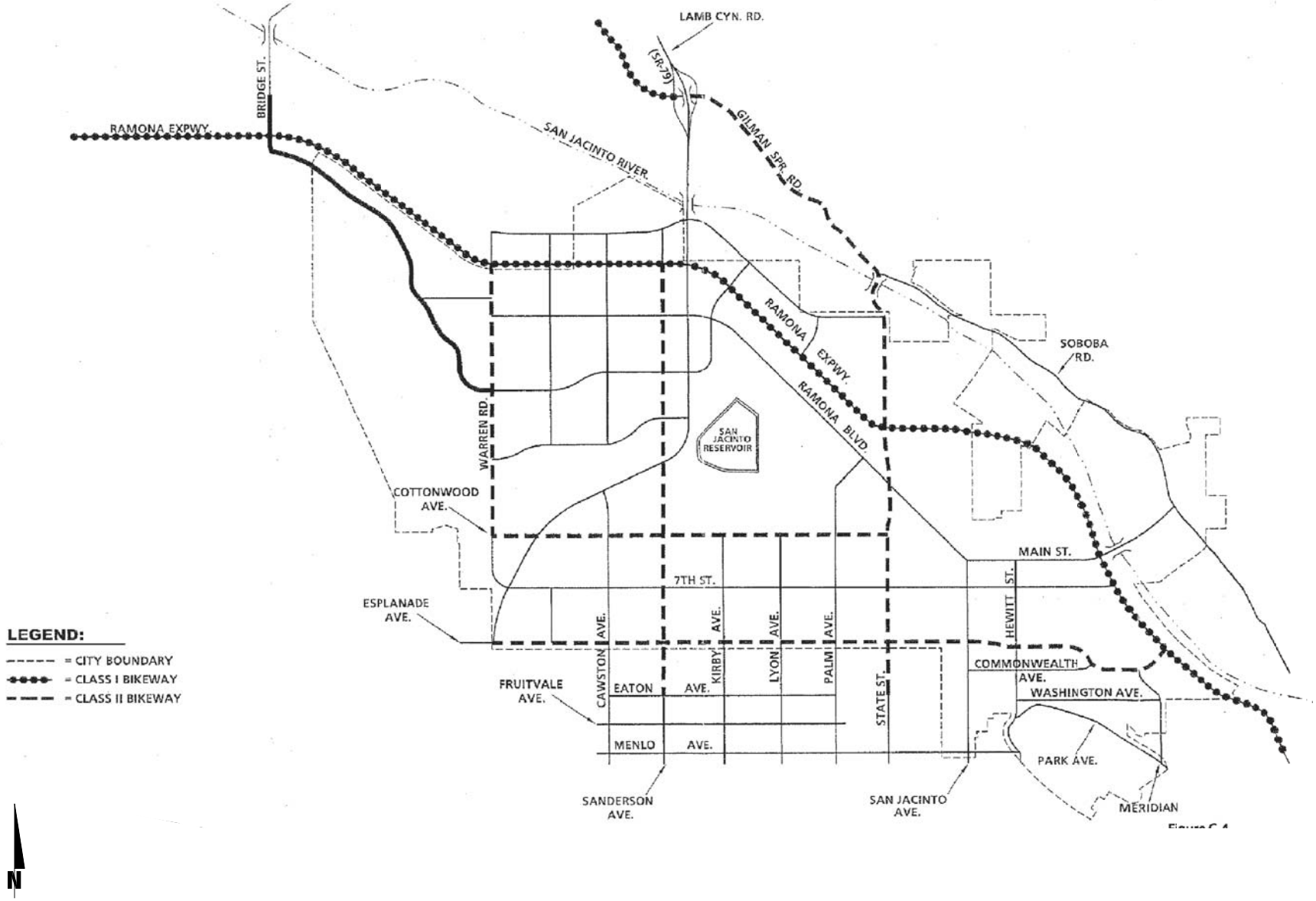
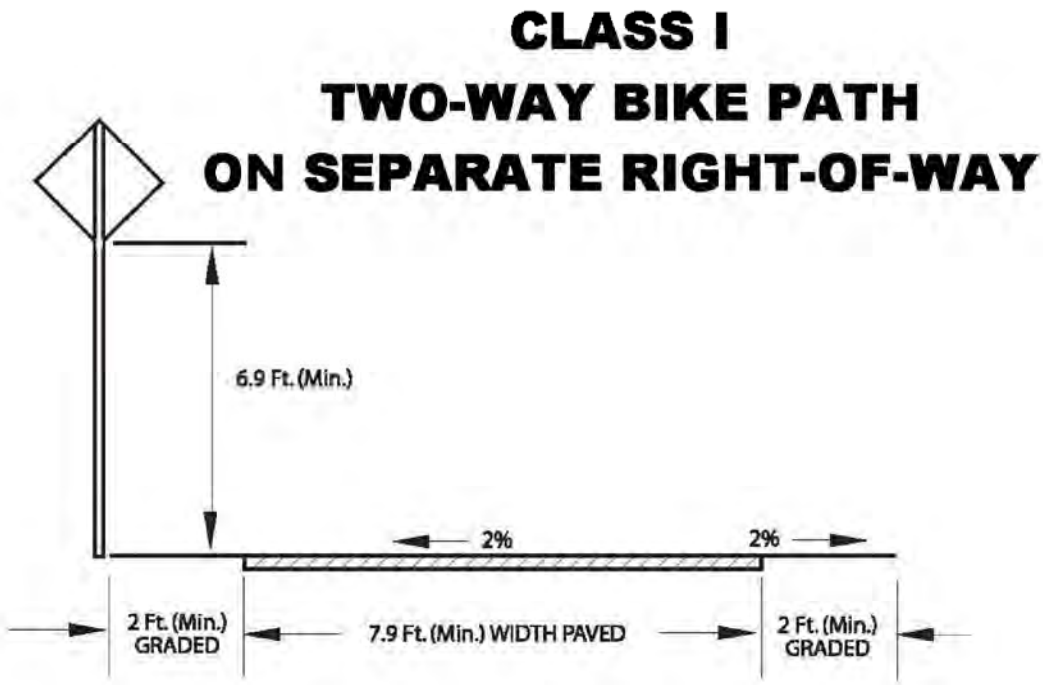


EXHIBIT 3-12: CITY OF SAN JACINTO BIKEWAYS CROSS-SECTIONS



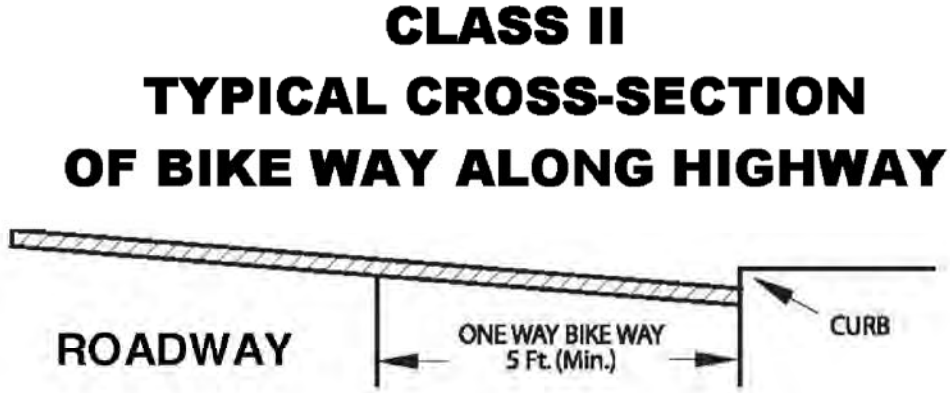
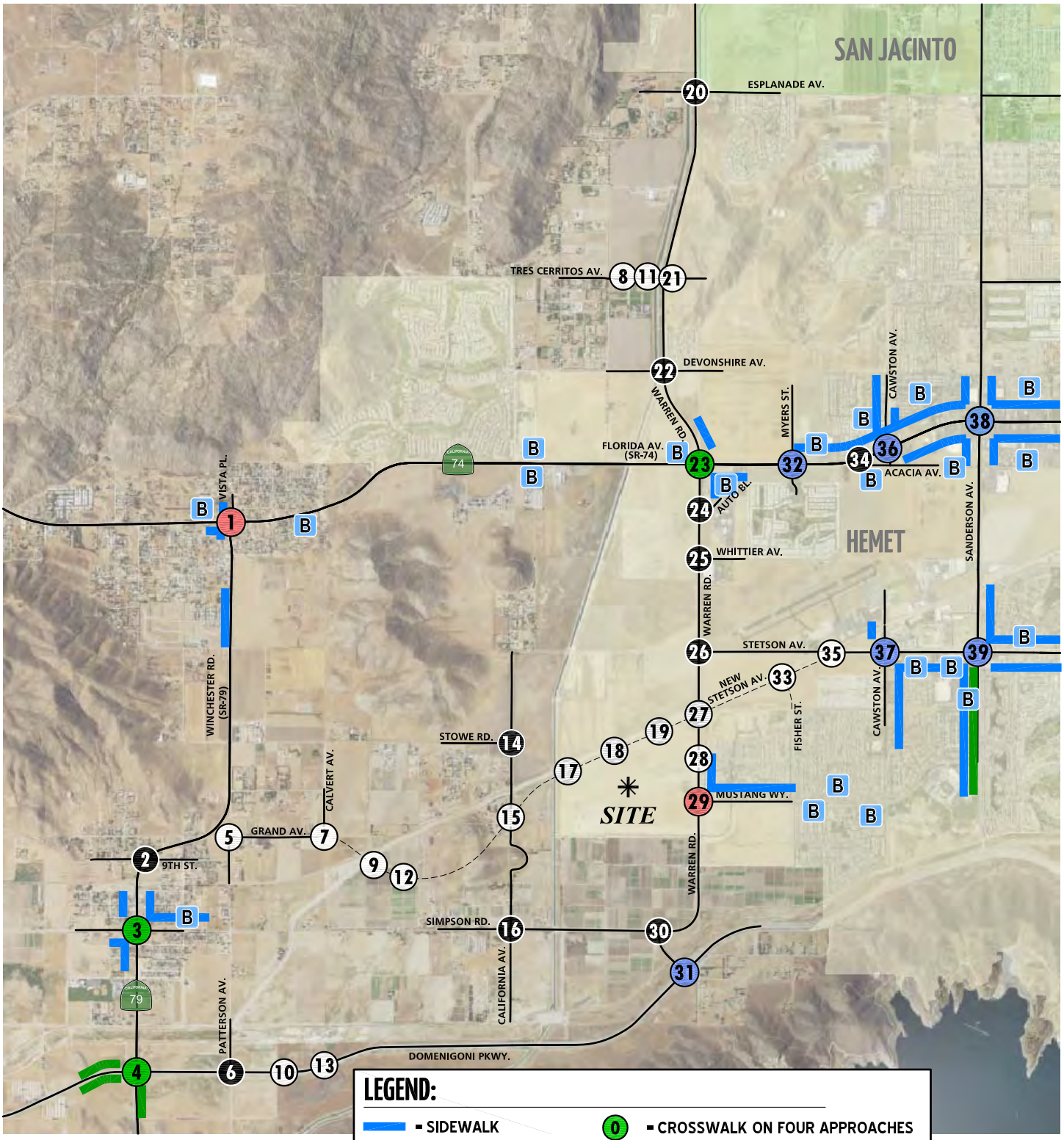


EXHIBIT 3-13: EXISTING PEDESTRIAN FACILITIES



3.6 TRANSIT SERVICE

The study area is currently served by the Riverside Transit Agency (RTA) with bus services along Florida Avenue (SR-74), Winchester Road (SR-79), Simpson Road, Domenigoni Parkway, Warren Road, Mustang Way, Sanderson Avenue, and Cawtson Avenue. RTA Routes 74 and 79 appear to be an existing transit routes that could potentially serve the Project. However, transit service is reviewed and updated by RTA periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate.

3.7 EXISTING TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in August 2017. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

The raw manual peak hour turning movement traffic and roadway segment ADT count data sheets are included in Appendix 3.1. The raw turning volumes have been flow conserved between intersections with limited access, no access and where there are currently no uses generating traffic.

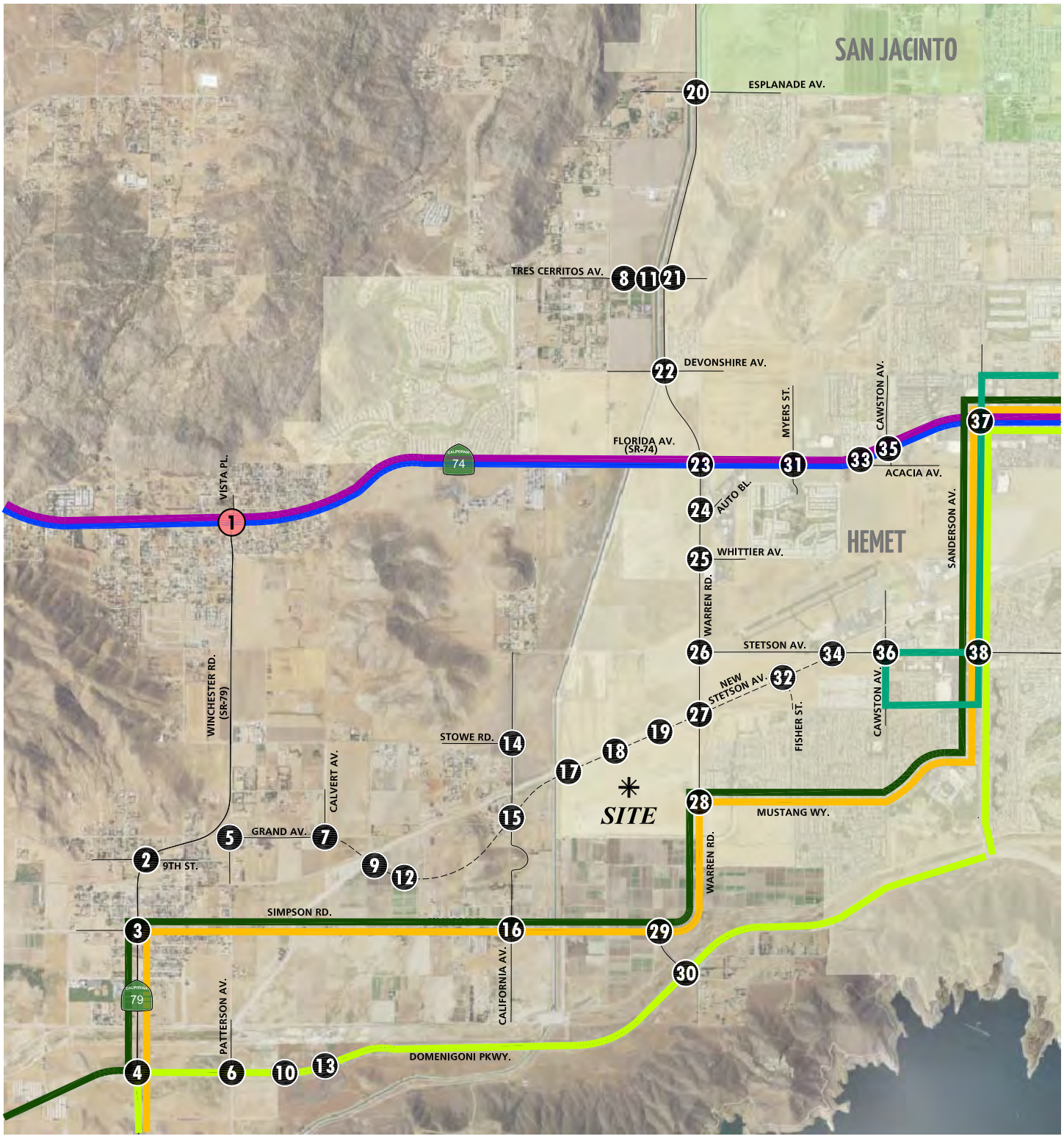
Manual weekday AM and PM peak hour turning movement counts and roadway segment ADT counts were conducted in October 2017. The weekday AM and PM peak hour count data is representative of typical peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity that would prevent or limit roadway access and detour routes. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. These raw turning volumes have been flow conserved between intersections with limited access, no access and where there are currently no uses generating traffic.

Existing weekday ADT volumes on arterial highways throughout the study area are shown on Exhibit 3-15. Existing ADT volumes are based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 12.8139= Leg Volume

For those roadway segments which have 24-hour tube count data available in close proximity to the study area, a comparison between the PM peak hour and daily traffic volumes indicated that the peak-to-daily relationship of approximately 7.804 percent would sufficiently estimate ADT volumes for planning-level analyses. As such, the above equation utilizing a factor of 12.8139 estimates the ADT volumes on the study area roadway segments where existing counts were not available, assuming a peak-to-daily relationship of approximately 8.079 percent (i.e., 1/0.07804 = 12.8139). Existing weekday AM and PM peak hour intersection volumes are shown on Exhibit 3-16.

EXHIBIT 3-14: EXISTING TRANSIT ROUTES

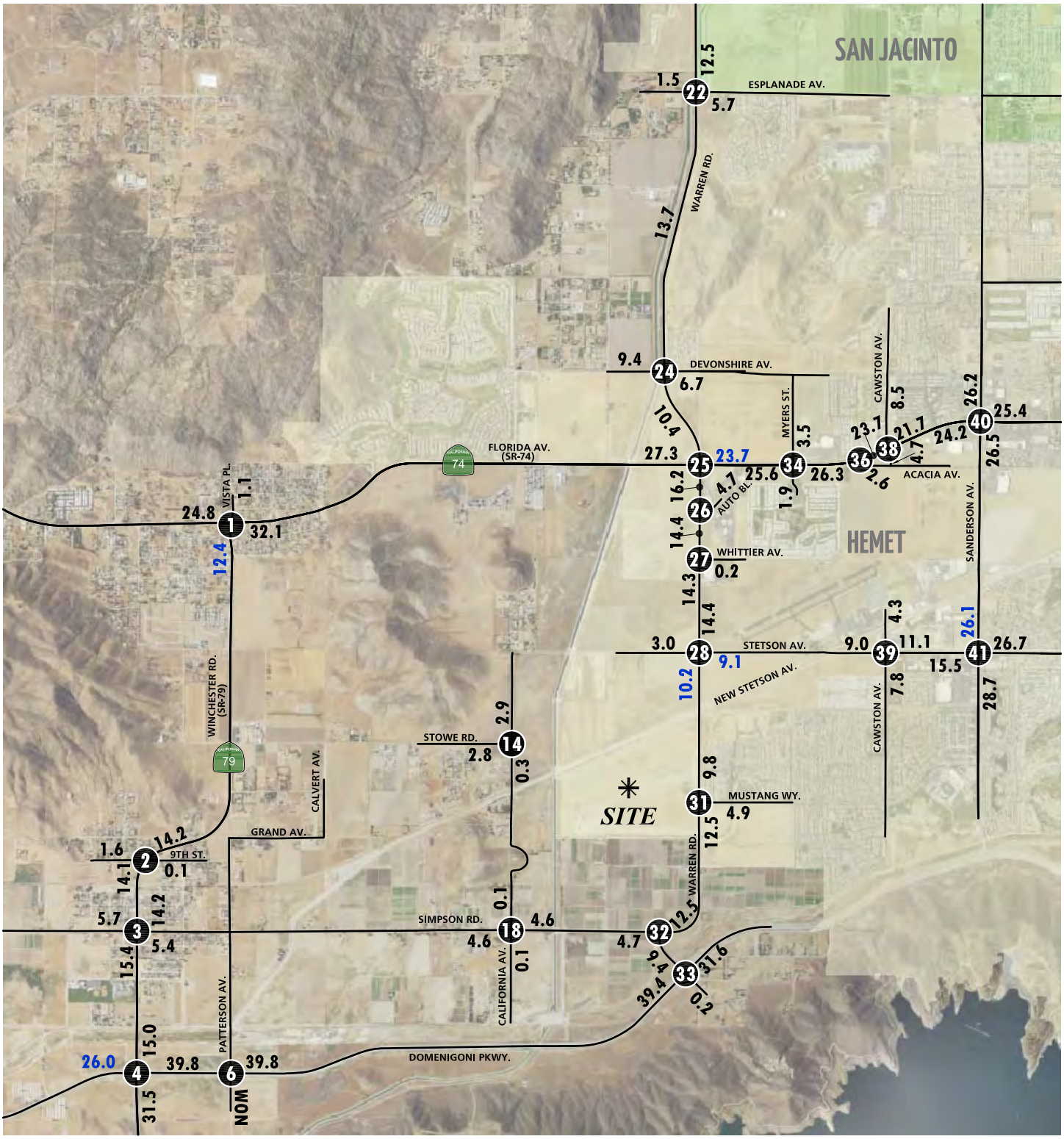


LEGEND:

- = RTA ROUTE 212
- = RTA ROUTE 27
- = RTA ROUTE 33
- = RTA ROUTE 217
- = RTA ROUTE 74
- = RTA ROUTE 79

N

EXHIBIT 3-15: EXISTING (2017) AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = ACTUAL (COUNT-BASED) VEHICLES PER DAY (1000'S)
10.0 = ESTIMATED VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

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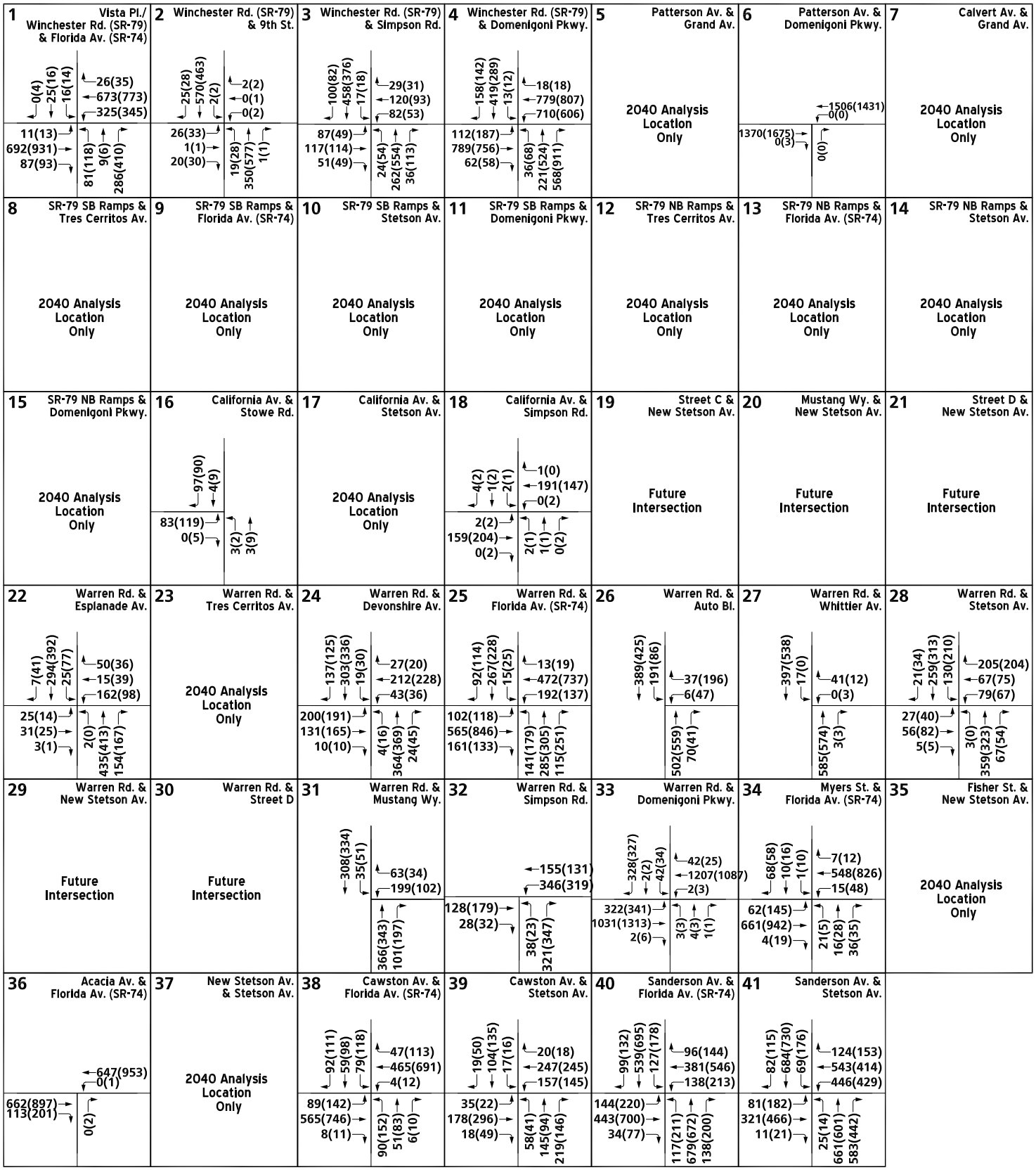
EXHIBIT 3-16: EXISTING (2017) TRAFFIC VOLUMES



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

3.8 EXISTING CONDITIONS INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized in Table 3-1 which indicates that the following existing study area intersections are currently operating at an acceptable LOS during the peak hours, with the exception of the following intersections:

- Winchester Rd. (SR-79) / 9th St. (#2) – LOS E PM peak hour only
- Winchester Rd. (SR-79) / Domenigoni Pkwy. (#4) – LOS F AM and PM peak hours
- Warren Rd. / Devonshire Av. (#24) – LOS F AM and PM peak hours
- Warren Rd. / Stetson Av. (#28) – LOS F PM peak hour only

*A traffic signal is to be constructed by Tract 31807/31808 as a required by their mitigation measure.

Consistent with Table 3-1, a summary of the peak hour intersection LOS for Existing conditions are shown on Exhibit 3-17. The intersection operations analysis worksheets are included in Appendix 3.2 of this TIA.

3.9 EXISTING (2017) CONDITIONS ROADWAY SEGMENT ANALYSIS

The roadway segment capacities utilized for the purposes of this analysis are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 3-2 provides a summary of the Existing (2017) conditions roadway segment capacity analysis based on the applicable roadway segment capacities. As shown on Table 3-2, the following study area roadway segments currently operate at an unacceptable LOS based on the applicable planning level daily roadway capacity thresholds:

- Simpson Rd., East of Warren Rd. (#45) – LOS E
- Domenigoni Pkwy., Winchester Rd. (SR-79) to Patterson Av. (#46) – LOS F
- Domenigoni Pkwy., Patterson Av. to SR-79 (#47) – LOS F
- Domenigoni Pkwy., West of Warren Rd. (#49) – LOS F

As noted in Section 2.3 *Roadway Segment Capacity Analysis Methodology*, daily roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. Where the ADT-based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis has been undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Therefore, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes.

Table 3-1

Intersection Analysis for Existing (2017) Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Winchester Rd. (SR-79) / Florida Av. (SR-74)	TS	1	1	0	1	1	0	1	2	1	1	2	0	17.9	25.2	B	C
2	Winchester Rd. (SR-79) / 9th St.	CSS	1	1	0	1	1	0	0	1	0	0	1	0	27.2	**42.6**	D	**E**
3	Winchester Rd. (SR-79) / Simpson Rd.	TS	1	2	d	1	2	d	1	1	1	1	1	1	22.7	17.7	C	B
4	Winchester Rd. (SR-79) / Domenigoni Pkwy.	TS	1	2	1	1	2	1	2	2	1	2	3	1	**>200.0**	**176.0**	**F**	**F**
5	Patterson Av. / Grand Av.		2040 Analysis Location															
6	Patterson Av. / Domenigoni Pkwy.	CSS	0	0	1	0	0	1	0	2	0	0	2	0	16.7	0.0	C	A
7	El Callado Rd./Remington Wy. / Grand Av.		2040 Analysis Location															
8	SR-79 SB Ramps / Tres Cerritos Av.		2040 Analysis Location															
9	SR-79 SB Ramps / Florida Av. (SR-74)		2040 Analysis Location															
10	SR-79 SB Ramps / Stetson Av.		2040 Analysis Location															
11	SR-79 SB Ramps / Domenigoni Pkwy.		2040 Analysis Location															
12	SR-79 NB Ramps / Tres Cerritos Av.		2040 Analysis Location															
13	SR-79 NB Ramps / Florida Av. (SR-74)		2040 Analysis Location															
14	SR-79 NB Ramps / Stetson Av.		2040 Analysis Location															
15	SR-79 NB Ramps / Domenigoni Pkwy.		2040 Analysis Location															
16	California Av. / Stowe Rd.	CSS	0	1	0	0	1	d	0	1	0	0	0	0	9.0	9.3	A	A
17	California Av. / Stetson Av.		2040 Analysis Location															
18	California Av. / Simpson Rd.	CSS	0	1	0	0	1	0	0	1	0	0	1	0	11.5	10.7	B	B
19	St. C / New Stetson Av.		Future Analysis Location															
20	Mustang Wy. / New Stetson Av.		Future Analysis Location															
21	St. D / New Stetson Av.		Future Analysis Location															
22	Warren Rd. / Esplanade Av.	AWS	0	1	0	0	1	0	0	1	0	0	1	0	33.8	27.0	D	D
23	Warren Rd. / Tres Cerritos Av.		2040 Analysis Location															
24	Warren Rd. / Devonshire Av.	AWS	0	1	d	0	1	0	0	1	0	0	1	0	**83.0**	**98.2**	**F**	**F**
25	Warren Rd. / Florida Av. (SR-74)	TS	1	2	1	1	2	1	1	2	0	1	2	0	30.6	27.5	C	C
26	Warren Rd. / Auto Bl.	CSS	0	1	d	1	1	0	0	0	0	0	1	0	13.1	29.0	B	D
27	Warren Rd. / Whittier Av.	CSS	0	1	0	1	1	0	0	0	0	0	1	0	12.9	13.0	B	B
28	Warren Rd. / Stetson Av.	AWS	0	1	d	0	1	0	0	1	0	1	1	0	26.5	**58.7**	D	**F**
29	Warren Rd. / New Stetson Av.		Future Analysis Location															
30	Warren Rd. / St. D		Future Analysis Location															
31	Warren Rd. / Mustang Wy.	TS	0	1	0	1	1	0	0	0	0	1	0	1	12.4	10.1	B	B
32	Warren Rd. / Simpson Rd.	AWS	1	0	1	0	0	0	0	1	0	1	1	0	18.2	15.7	C	C
33	Warren Rd. / Domenigoni Pkwy.	TS	0	1	d	0	1	0	1	2	1	1	2	1	31.1	25.7	C	C
34	Myers St. / Florida Av. (SR-74)	TS	1	1	0	1	1	1	1	2	d	1	2	1	17.4	33.1	B	C
35	Fisher St. / New Stetson Av.		2040 Analysis Location															
36	Acacia Av. / Florida Av. (SR-74)	CSS	0	0	1	0	0	0	0	2	1	1	2	0	0.0	10.1	A	B
37	New Stetson Av. / Stetson Av.		2040 Analysis Location															
38	Cawston Av. / Florida Av. (SR-74)	TS	1	2	0	1	1	1	1	2	1	1	2	d	22.3	23.9	C	C
39	Cawston Av. / Stetson Av.	TS	1	1	1	1	1	1	1	2	0	1	1	1	11.1	11.3	B	B
40	Sanderson Av. / Florida Av. (SR-74)	TS	1	2	1	1	2	d	1	2	1	1	2	d	33.8	46.9	C	D
41	Sanderson Av. / Stetson Av.	TS	1	2	1>	1	2	0	1	2	0	1	2	0	52.8	43.9	D	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d= Defacto Right Turn Lane; > = Right Turn Overlap Phasing

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] AWS = All Way Stop; CSS = Cross-street Stop; TS = Traffic Signal

Table 3-2

Roadway Segment Capacity Analysis for Existing (2017) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS[3] Capacity[1]	Existing (2017)	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Winchester Rd. (SR-79)	South of Florida Av. (SR-74)	2U	17,050	12,346	0.72	C	D
2		North of 9th St.	2U	17,050	14,159	0.83	D	D
3	Patterson Av.	South of Grand Av.	2U	12,950	448	0.03	A	D
4	California Av.	Stowe Rd. to New Stetson Av.	2U	12,950	320	0.02	A	D
5		New Stetson Av. to Simpson Rd.	2U	12,950	103	0.01	A	D
6	Mustang Wy.	South of New Stetson Av.		13,000	Future Segment			C
7		West of Warren Rd.		13,000	Future Segment			C
8	Warren Rd.	South of Esplanade Av.	2U	18,000	13,724	0.76	C	C
9		North of Tres Cerritos Av.	2U	18,000	13,724	0.76	C	C
10		Tres Cerritos Av. to Devonshire Av.	2U	18,000	13,724	0.76	C	C
11		Devonshire Av. to Florida Av. (SR-74)	2U	18,000	10,405	0.58	A	C
12		Florida Av. (SR-74) to Auto Bl.	3U	27,000	16,222	0.60	A	C
13		Auto Bl. to Whittier Av.	2U	18,000	14,403	0.80	C	C
14		Whitter Av. to Stetson Av.	2U	18,000	14,403	0.80	C	C
15		Stetson Av. to New Stetson Av.	2U	18,000	10,211	0.57	A	C
16		New Stetson Av. to Street D	2U	18,000	10,046	0.56	A	C
17		Street D to Mustang Wy.	2U	18,000	10,046	0.56	A	C
18		South of Mustang Wy.	2U	18,000	12,506	0.69	B	C
19		Simpson Rd. to Domenigoni Pkwy.	2U	18,000	9,380	0.52	A	C
20	Florida Av. (SR-74)	Warren Rd. to Myers St.	4D	35,900	23,687	0.66	B	C
21		Myers St. to Acacia Av.	5D	44,875	26,281	0.59	A	C
22		Acacia Av. to Cawston Av.	4D	35,900	23,744	0.66	B	C
23		East of Cawston Av.	4D	34,100	21,655	0.64	B	C
24		West of Sanderson Av.	4D	34,100	24,167	0.71	C	C
25	Stetson Av.	East of Warren Rd.	2U	13,000	9,087	0.70	B	C
26		West of New Stetson Av.	2U	13,000	9,087	0.70	B	C
27		New Stetson Av. to Cawston Av.	2U	18,000	9,008	0.50	A	C
28		East of Cawston Av.	4D	35,900	11,097	0.31	A	C
29		West of Sanderson Av.	4D	35,900	15,530	0.43	A	C
30	9th St.	East of Winchester Rd. (SR-79)	2U	17,950	115	0.01	A	D
31	Grand Av.	Patterson Av. to Calvert Av.	2U	18,000	64	0.00	A	D
32		Calvert Av. to SR-79		18,000	2040 Segment			D
33	New Stetson Av.	East of SR-79		35,900	2040 Segment			D
34		West of California Av.		35,900	2040 Segment			D
35		California Av. to Street C		35,900	2040 Segment			C
36		Street C to Mustang Wy.		35,900	2040 Segment			C
37		Mustang Wy. to Street D		35,900	2040 Segment			C
38		Street D to Warren Rd.		35,900	2040 Segment			C
39		Warren Rd. to Fisher St.		35,900	2040 Segment			C
40		Fisher St. to Stetson Av.		35,900	2040 Segment			C
41	Simpson Rd.	East of Winchester Rd. (SR-79)	2U	12,950	5,407	0.42	A	D
42		West of California Av.	2U	12,950	4,587	0.35	A	D
43		East of California Av.	2U	12,950	4,562	0.35	A	D
44		West of Warren Rd.	2U	12,950	4,677	0.36	A	D
45		East of Warren Rd.	2U	12,950	12,506	**0.97**	**E**	D
46	Domenigoni Pkwy.	Winchester Rd. (SR-79) to Patterson Av.	4D	35,900	39,851	**1.11**	**F**	C
47		Patterson Av. to SR-79	4D	35,900	39,800	**1.11**	**F**	C
48		East of SR-79		35,900	2040 Segment			C
49		West of Warren Rd.	4D	35,900	39,428	**1.10**	**F**	C

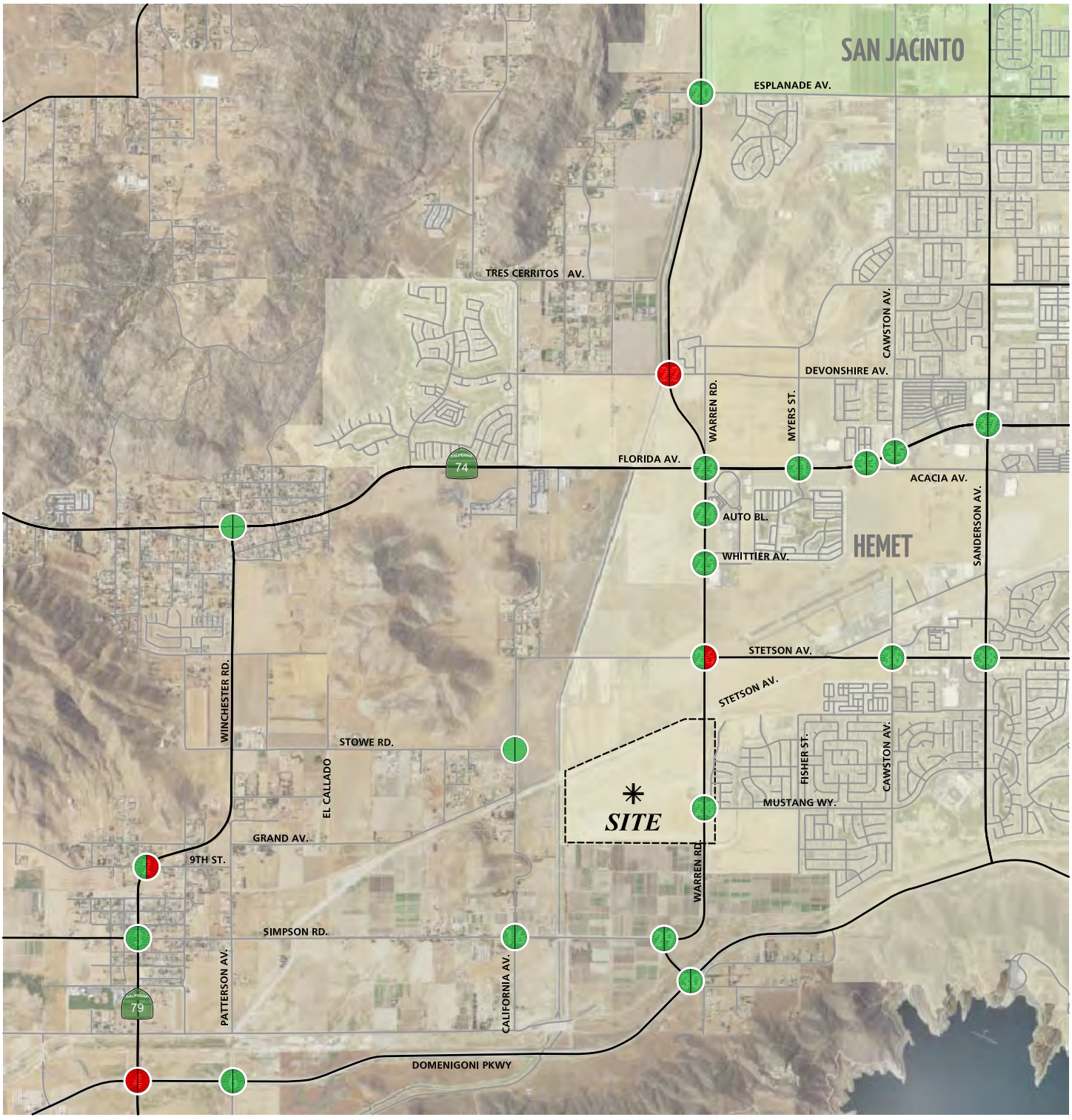
BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been extracted from the County of Riverside's General Plan.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

EXHIBIT 3-17: EXISTING (2017) SUMMARY OF LOS



LEGEND:

- = AM PEAK HOUR ACCEPTABLE LOS
- = AM PEAK HOUR DEFICIENT LOS
- = PM PEAK HOUR ACCEPTABLE LOS
- = PM PEAK HOUR DEFICIENT LOS

N

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URBAN CROSSROADS

3.10 EXISTING CONDITIONS TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. For Existing traffic conditions, a traffic signal appears to currently be warranted at the following unsignalized study area intersections (see Appendix 3.3):

- Warren Rd. / Esplanade Av. (#22)
- Warren Rd. / Devonshire Av. (#24)
- Warren Rd. / Auto Bl. (#26)
- Warren Rd. / Stetson Av. (#28)
- Warren Rd. / Simpson Rd. (#32)

As noted previously, a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS.

3.11 RECOMMENDED IMPROVEMENTS

3.11.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Improvement strategies have been recommended at intersections that have been identified as deficient to reduce each location's peak hour delay and improve the associated LOS grade to an acceptable LOS (LOS D or better). The effectiveness of the proposed recommended improvements is presented in Table 3-3 for Existing traffic conditions. Recommended improvements to address deficiencies for Existing traffic conditions are described below.

Recommended Improvement – Winchester Rd. (SR-79) / 9th Street (#2)

- Add a traffic signal

Recommended Improvement – Winchester Rd. (SR-79) / Domenigoni Pkwy. (#4)

- Modify the traffic signal and implement overlap phasing on the northbound right turn lane
- Implement 2-stage crosswalks on all approaches in order to provide additional green time to through movements along Winchester Road (SR-79) and Domenigoni Parkway

Recommended Improvement – Warren Rd. / Devonshire Av. (#24)

- Add a traffic signal
- Add a northbound left turn lane
- Add a southbound left turn lane

Table 3-3

Intersection Analysis for Existing (2017) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
2	Winchester Rd. (SR-79) / 9th St.																	
	- Existing (2017)	CSS	1	1	0	1	1	0	0	1	0	0	1	0	27.2	**42.6**	D	**E**
	- With Improvements	**TS**	1	1	0	1	1	0	0	1	0	0	1	0	9.1	10.2	A	B
4	Winchester Rd. (SR-79) / Domenigoni Pkwy.																	
	- Existing (2017)	TS	1	2	1	1	2	1	2	2	1	2	3	1	**>200.0**	**176.0**	**F**	**F**
	- With Improvements[4]	TS	1	2	**1>**	1	2	1	2	2	1	2	3	1	40.3	44.4	D	D
24	Warren Rd. / Devonshire Av.																	
	- Existing (2017)	AWS	0	1	d	0	1	0	0	1	0	0	1	0	**83.0**	**98.2**	**F**	**F**
	- With Improvements	**TS**	**1**	1	**0**	**1**	1	0	0	1	0	0	1	0	16.9	18.3	B	B
28	Warren Rd. / Stetson Av.																	
	- Existing (2017)	AWS	0	1	d	0	1	0	0	1	0	1	1	0	26.5	**58.7**	D	**F**
	- With Improvements	**TS**	**1**	1	**0**	**1**	1	0	**1**	1	0	1	1	0	17.7	18.9	B	B

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free Right Turn Lane; d= Defacto Right Turn Lane; **1** = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

[4] Recommended improvement also consists of implementing 2-stage pedestrian crossing for all approaches.

Recommended Improvement – Warren Rd. / Stetson Av. (#28)

- Add a traffic signal
- Add a northbound left turn lane
- Add a southbound left turn lane
- Add an eastbound left turn lane

The intersection operations analysis worksheets, with improvements, are included in Appendix 3.4 of this TIA.

3.11.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON ROADWAY SEGMENTS

Roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. As such, a review of the more detailed peak hour intersection analysis has been taken at the adjacent intersections in order to further evaluate the anticipated roadway segment deficiencies anticipated along Simpson Road and Domenigoni Parkway. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. The adjacent intersections are currently operating or anticipated to operate at acceptable LOS with the recommended intersection improvements shown on Table 3-3, but without additional through lanes. Therefore, roadway segment widening has not been recommended for the deficient roadway segments along Simpson Road and Domenigoni Parkway.

4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network.

The Project is proposed to include the development of 588 single family detached residential dwelling units and approximately 100,000 square feet (sf) of neighborhood commercial retail. For the purposes of this analysis, potential impacts have been assessed for two development phases. The two phases and their anticipated opening years are as follows:

- Phase 1 (2024) – 588 single family residential dwelling units
- Phase 2 (2026) – 100,000 sf neighborhood retail

The Project is proposed to have access on the future western extension of Mustang Way between the new Stetson Avenue and Warren Road. Access will also be provided to the new extension of Stetson Avenue via Street C, Mustang Way, and Street D. All driveways are proposed to allow for full access.

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development.

Trip generation rates used to estimate Project traffic are shown in Table 4-1, and a summary of the Project's trip generation is also shown in Table 4-1. The trip generation rates are based upon data collected by the Institute of Transportation Engineers (ITE) for Single Family Residential (ITE Land Use Code 210) in their published Trip Generation Manual, 9th Edition, 2012. (1)

Phase 1 (2024) of the Project is estimated to generate a net total of 5,598 trip-ends per day on a typical weekday with approximately 441 AM peak hour trips and 588 PM peak hour trips. Project (Buildout) is estimated to generate a net total of 8,211 trip-ends per day with 587 AM peak hour trips and 810 PM peak hour trips.

Table 4-2 shows the Project trip generation using the latest edition of the ITE Trip Generation Manual, released in 2017. As shown in Table 4-2, the ITE 10th Edition trip generation for the Project is lower than the 9th Edition trip generation. For the purposes of this traffic study, the 9th Edition trip generation is used to conduct a conservative analysis.

Table 4-1

Project Trip Generation Rates & Trip Generation Summary

Land Use	ITE LU Code	Units[2]	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily
			In	Out	Total	In	Out	Total	
Project Trip Generation Rates[1]									
Single Family Detached Residential	210	DU	0.19	0.56	0.75	0.63	0.37	1.00	9.52
Shopping Center	820	TSF	0.97	0.59	1.56	2.88	3.12	6.00	67.91

Project	Quantity	Units[2]	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily
			In	Out	Total	In	Out	Total	
Project Trip Generation Summary									
Phase 1:									
Single Family Detached Residential	588	DU	112	329	441	370	218	588	5,598
Phase 2:									
Single Family Detached Residential	588	DU	112	329	441	370	218	588	5,598
Internal Capture:			-2	-3	-5	-81	-29	-110	-1,047
Shopping Center	100	TSF	97	59	156	288	312	600	6,791
Internal Capture:[3]			-3	-2	-5	-29	-81	-110	-1,245
Pass-by Reduction (PM/Daily - 34%):[4]			0	0	0	-79	-79	-158	-1,886
Total			**204**	**383**	**587**	**469**	**341**	**810**	**8,211**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation, Ninth Edition (2012).

[2] DU = Dwelling Units; TSF = Thousand Square Feet

[3] Per the ITE Trip Generation Handbook methodology.

[4] Per the ITE Trip Generation Handbook: Table F.9.

Table 4-2

Project Trip Generation Rates & Trip Generation Comparison

Land Use	ITE LU Code	Units[2]	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily
			In	Out	Total	In	Out	Total	
Project Trip Generation Rates[1]									
Single Family Detached Residential	210	DU	0.19	0.56	0.74	0.62	0.37	0.99	9.44
Shopping Center	820	TSF	0.58	0.36	0.94	1.83	1.98	3.81	37.75

Project	Quantity	Units[2]	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily
			In	Out	Total	In	Out	Total	
Project Trip Generation Summary									
Phase 1:									
Single Family Detached Residential	588	DU	109	326	435	367	215	582	5,551
Phase 2:									
Single Family Detached Residential	588	DU	109	326	435	367	215	582	5,551
Internal Capture:			-2	-3	-5	-51	-18	-69	-658
Shopping Center	100	TSF	58	36	94	183	198	381	3,775
Internal Capture:[3]			-3	-2	-5	-18	-51	-69	-684
Pass-by Reduction (PM/Daily - 34%):[4]			0	0	0	-50	-50	-100	-1,051
ITE 10th Edition Total			**162**	**357**	**519**	**431**	**294**	**725**	**6,933**
ITE 9th Edition Total			**204**	**383**	**587**	**469**	**341**	**810**	**8,211**
Variance			**-42**	**-26**	**-68**	**-38**	**-47**	**-85**	**-1,278**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation, 10th Edition (2017).

[2] DU = Dwelling Units; TSF = Thousand Square Feet

[3] Per the ITE Trip Generation Handbook methodology.

[4] Per the ITE Trip Generation Handbook: Table F.9.

4.2 PROJECT TRIP DISTRIBUTION

Trip distribution patterns for the proposed Project are illustrated on Exhibits 4-1 and 4-2. These trip distribution patterns have been utilized for E+P, Opening Year Cumulative (2024) and Opening Year Cumulative (2026) traffic conditions as it assumes the existing roadway network only (i.e., no realignment of the SR-79). Exhibits 4-3 and 4-4 illustrate the proposed Project trip distribution patterns that has been utilized for General Plan Buildout traffic conditions. The General Plan Buildout trip distribution assumes the future realigned and grade-separated SR-79 and the extension of the new Stetson Avenue west and east of the proposed Project.

4.3 MODAL SPLIT

Although the use of public transit, walking, and/or bicycling have the potential to reduce Project-related traffic, such reductions have not been taken into consideration in this traffic study in order to provide a conservative analysis of the Project's potential to contribute to circulation system deficiencies.

4.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project ADT volumes for Phase 1 are shown on Exhibit 4-5, and Exhibit 4-6 shows peak hour intersection turning movement volumes for Project (Phase 1). Project ADT volumes for Project (Project Buildout) are shown on Exhibit 4-7, and Exhibit 4-8 shows peak hour intersection turning movement volumes for Project (Project Buildout). Project ADT volumes for Project (2040) are shown on Exhibit 4-9, and Exhibit 4-10 shows peak hour intersection turning movement volumes for Project (2040).

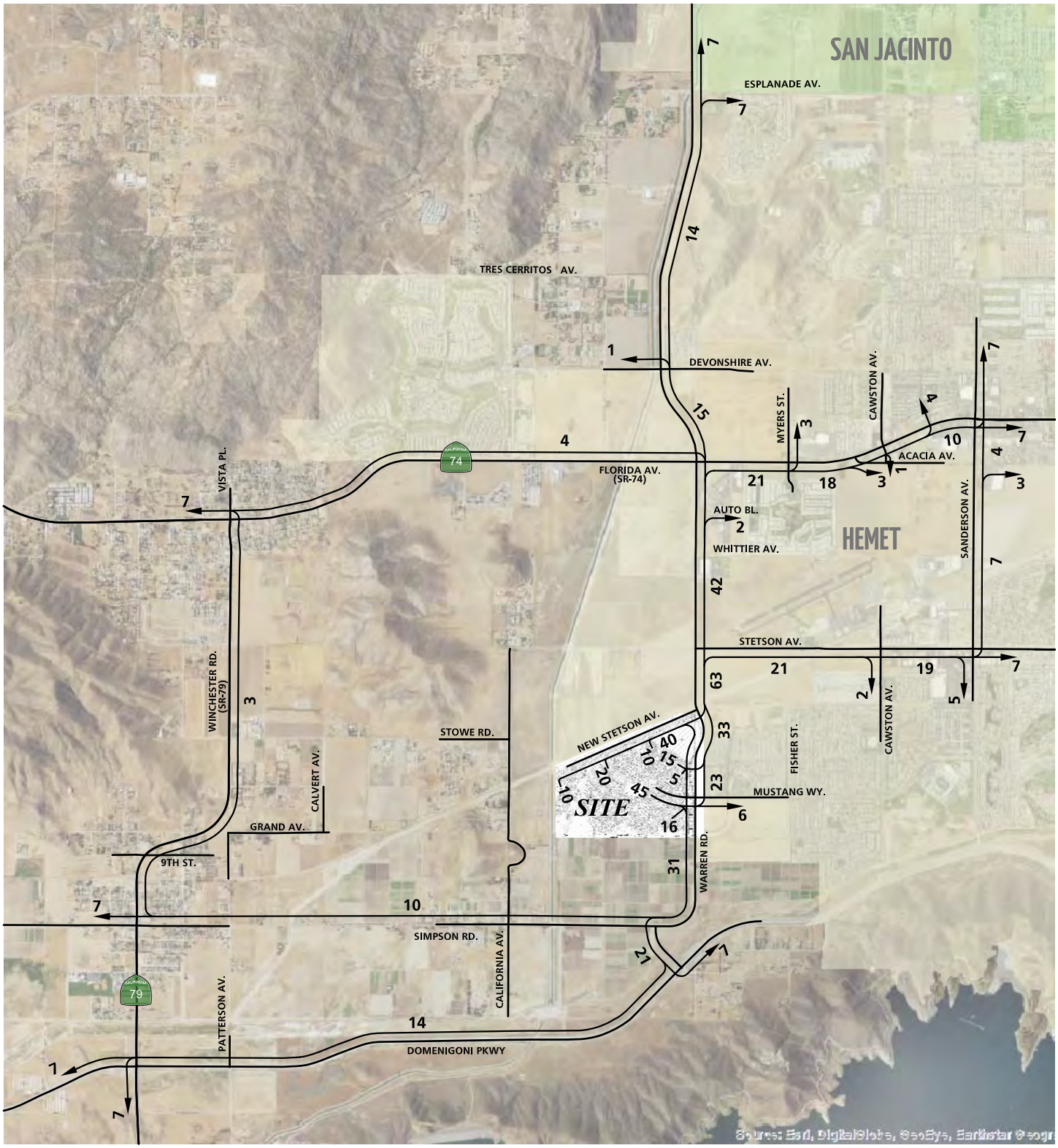
4.5 CONSTRUCTION TRAFFIC

Project construction activities may potentially result in temporary and transient traffic deficiencies related to:

- Construction employee commutes;
- Import of construction materials and soils; and
- Transport and use of heavy construction equipment.

The Applicant would be required to develop and implement a City-approved Construction Traffic Management Plan addressing potential construction-related traffic detours and disruptions. In general, the Construction Traffic Management Plan would ensure that to the extent practical, construction traffic would access the Project site during off-peak hours; and that construction traffic would be routed to avoid travel through, or proximate to, sensitive land uses.

EXHIBIT 4-1: PROJECT (PHASE 1: RESIDENTIAL) TRIP DISTRIBUTION



LEGEND:

10 = PERCENT TO/FROM PROJECT

N

09702 - trips-oy.dwg

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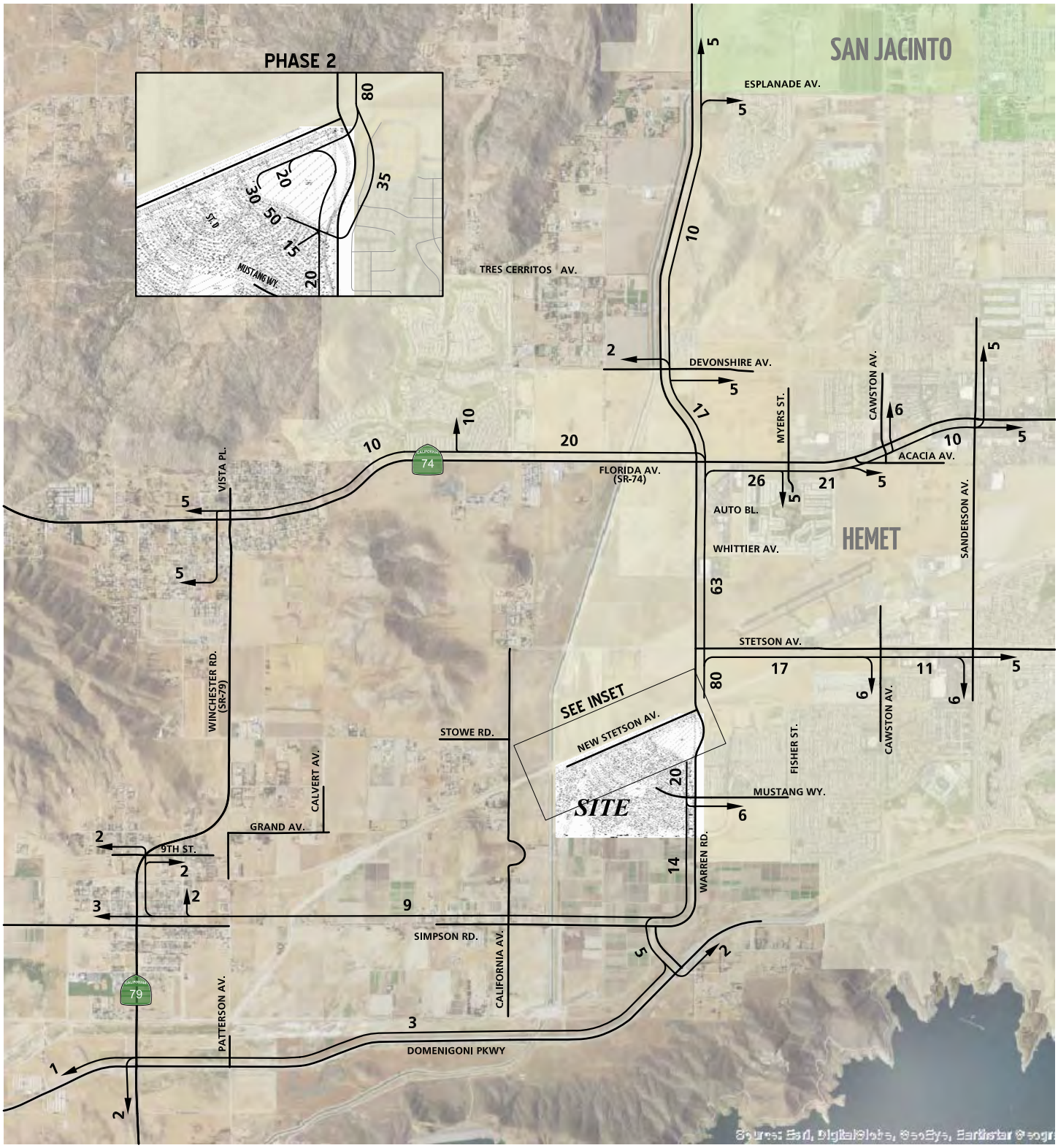
EXHIBIT 4-2: PROJECT (PHASE 2: SHOPPING CENTER) TRIP DISTRIBUTION



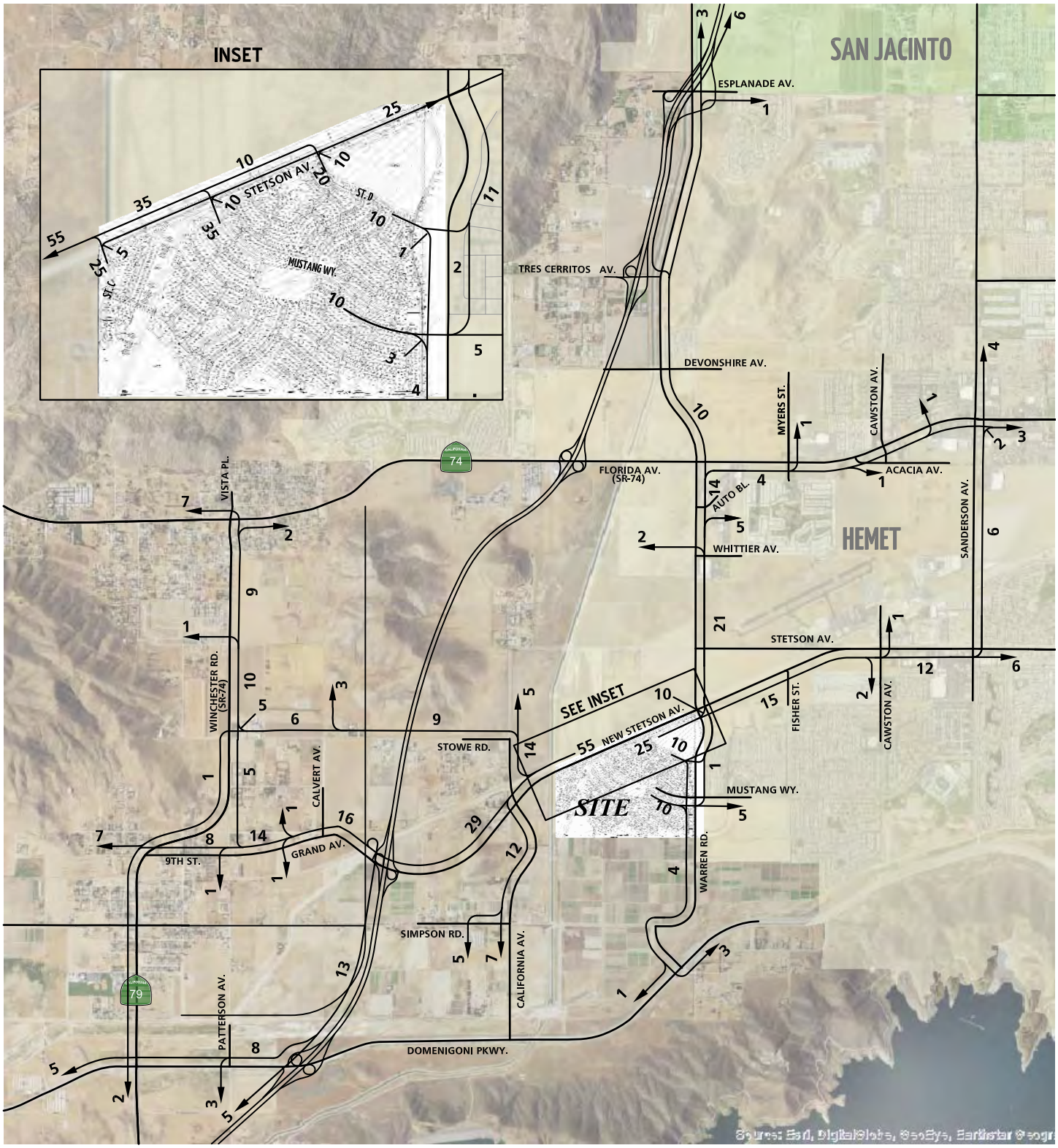
LEGEND:

10 = PERCENT TO/FROM PROJECT

N

09702 - trips-p2.dwg

EXHIBIT 4-3: PROJECT (GENERAL PLAN BUILDOUT: RESIDENTIAL) TRIP DISTRIBUTION

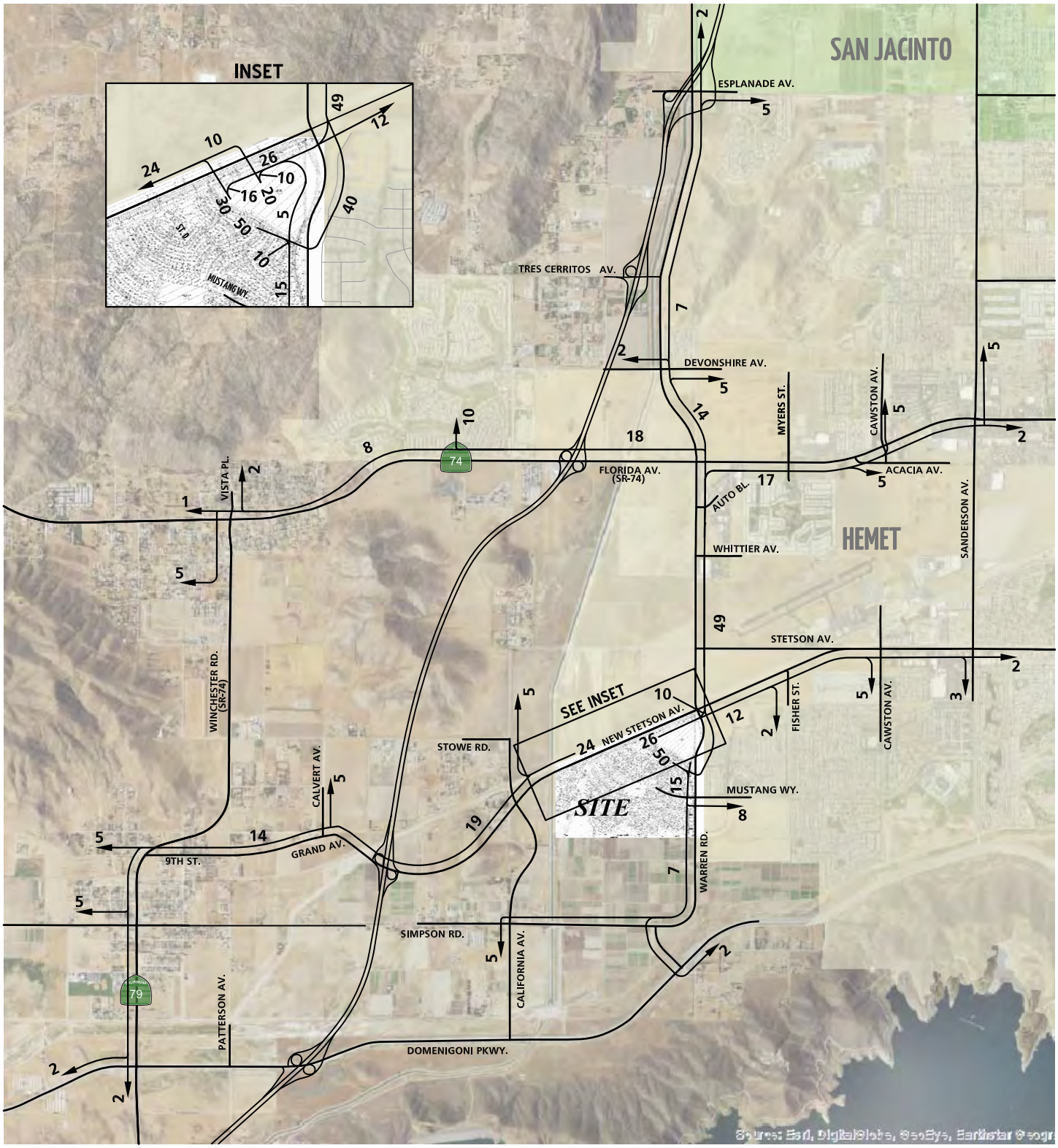


LEGEND:

10 = PERCENT TO/FROM PROJECT

N

EXHIBIT 4-4: PROJECT (GENERAL PLAN BUILDOUT: SHOPPING CENTER) TRIP DISTRIBUTION

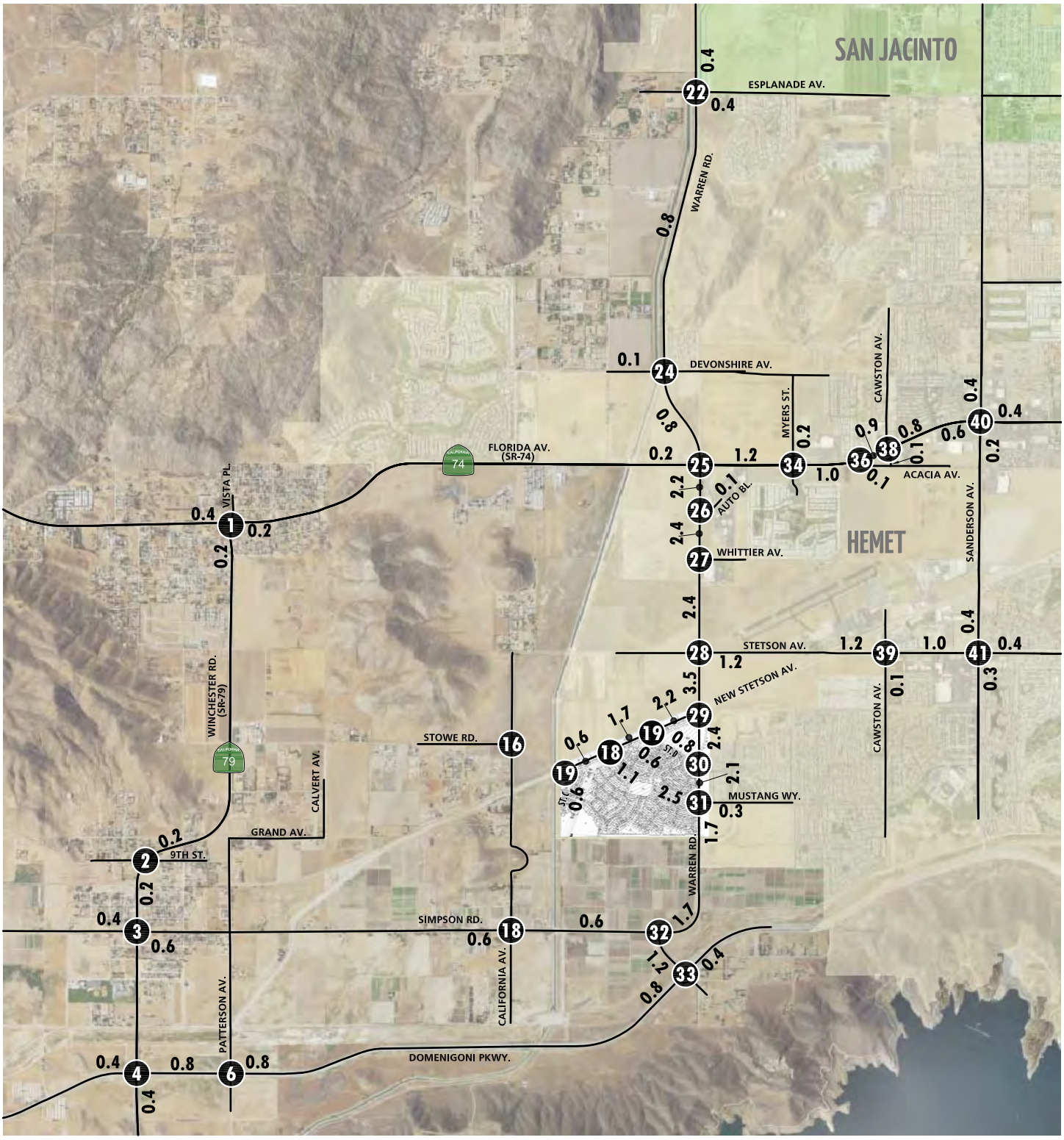


LEGEND:

10 = PERCENT TO/FROM PROJECT

N

EXHIBIT 4-5: PROJECT (PHASE 1) AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

N

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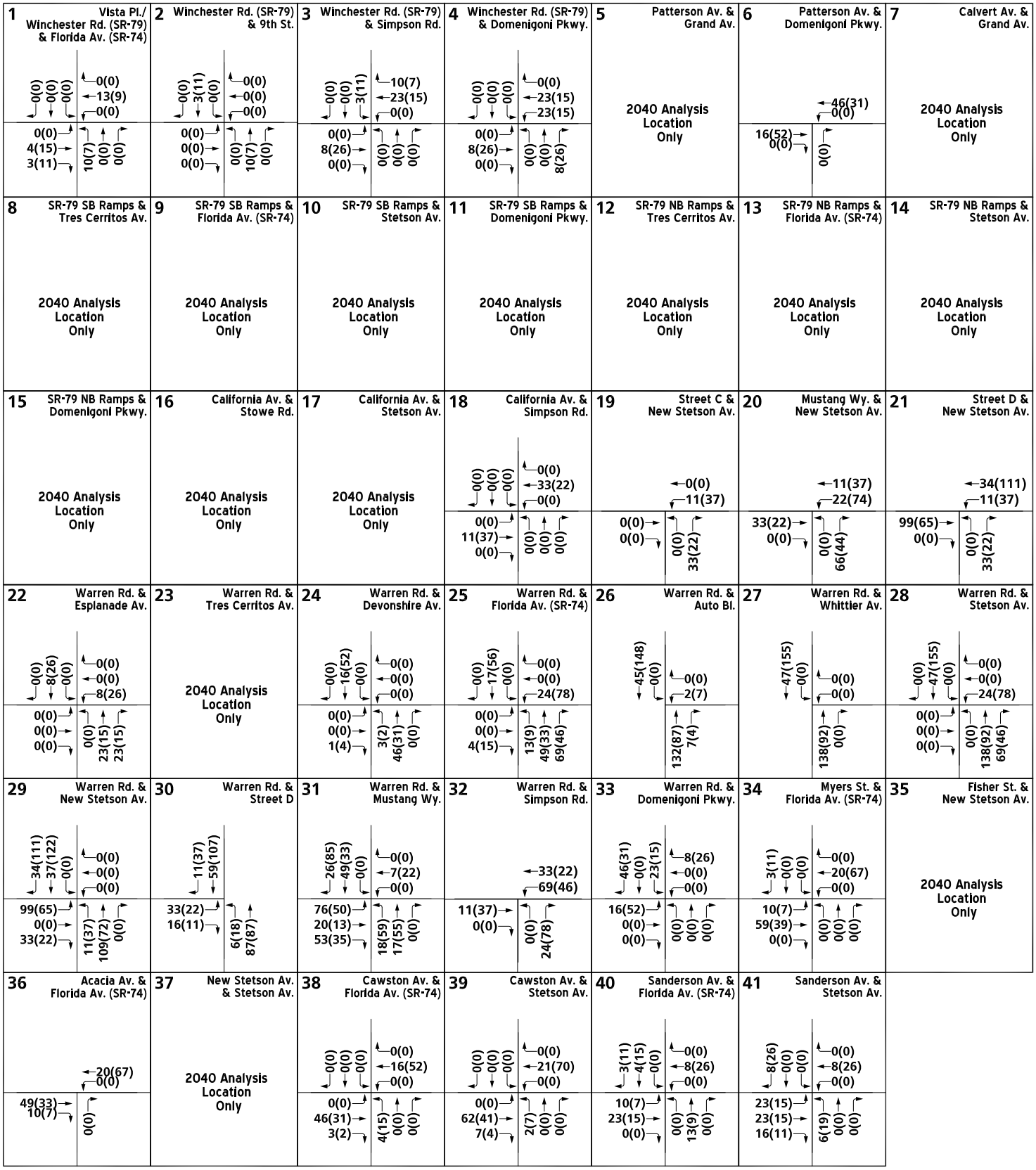
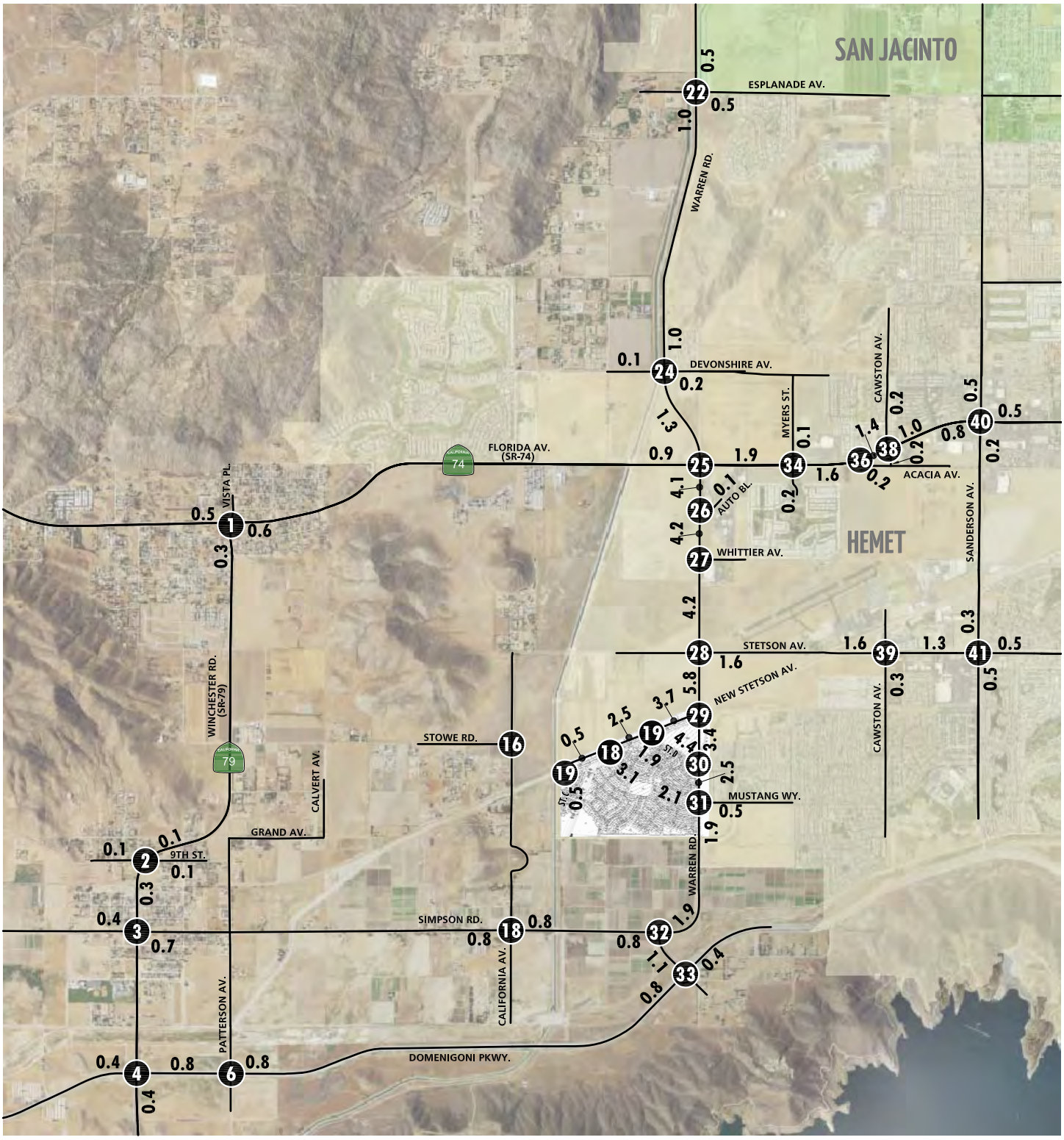
EXHIBIT 4-6: PROJECT (PHASE 1) TRAFFIC VOLUMES



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

EXHIBIT 4-7: PROJECT (PROJECT BUILDOUT) AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

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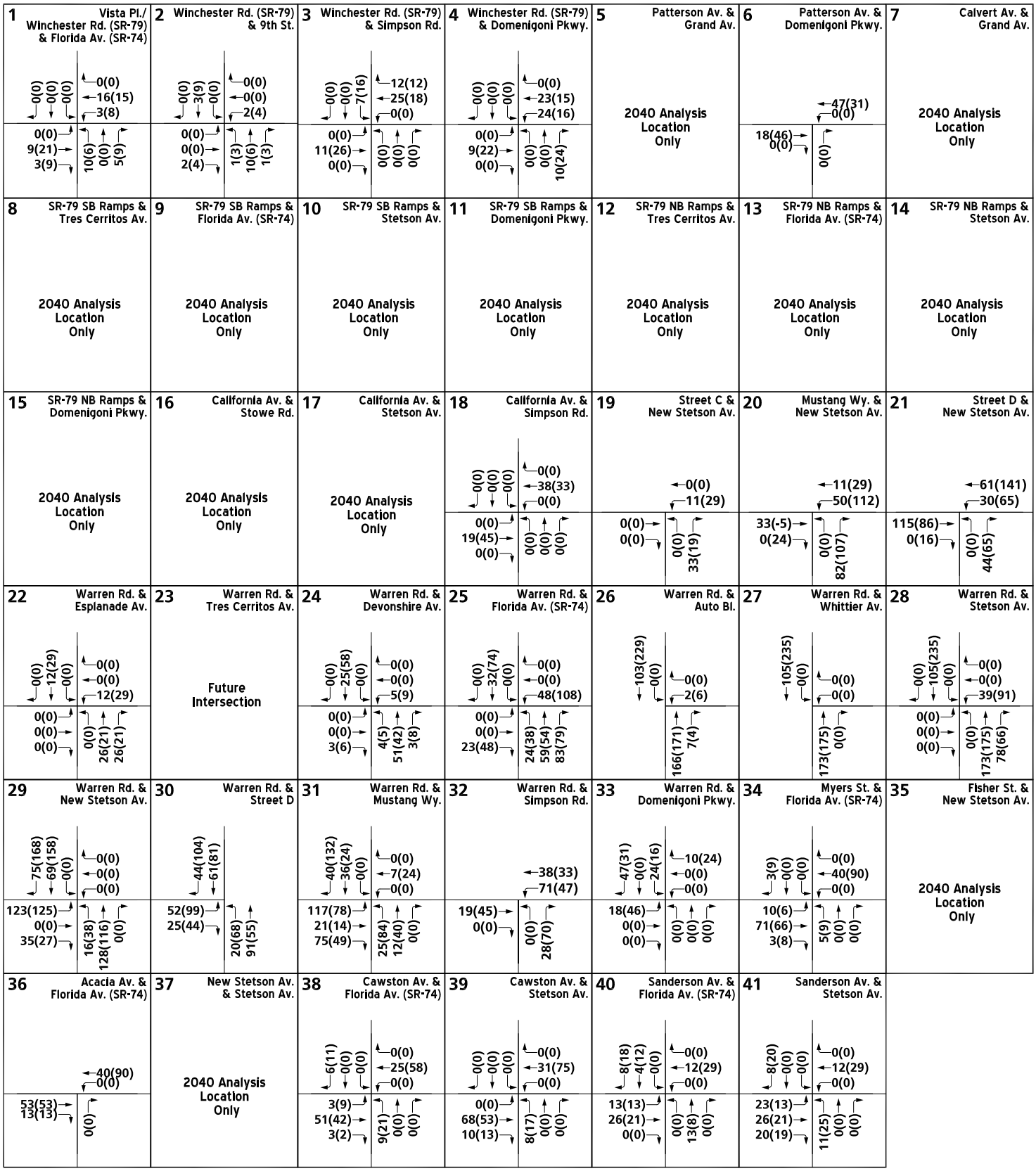
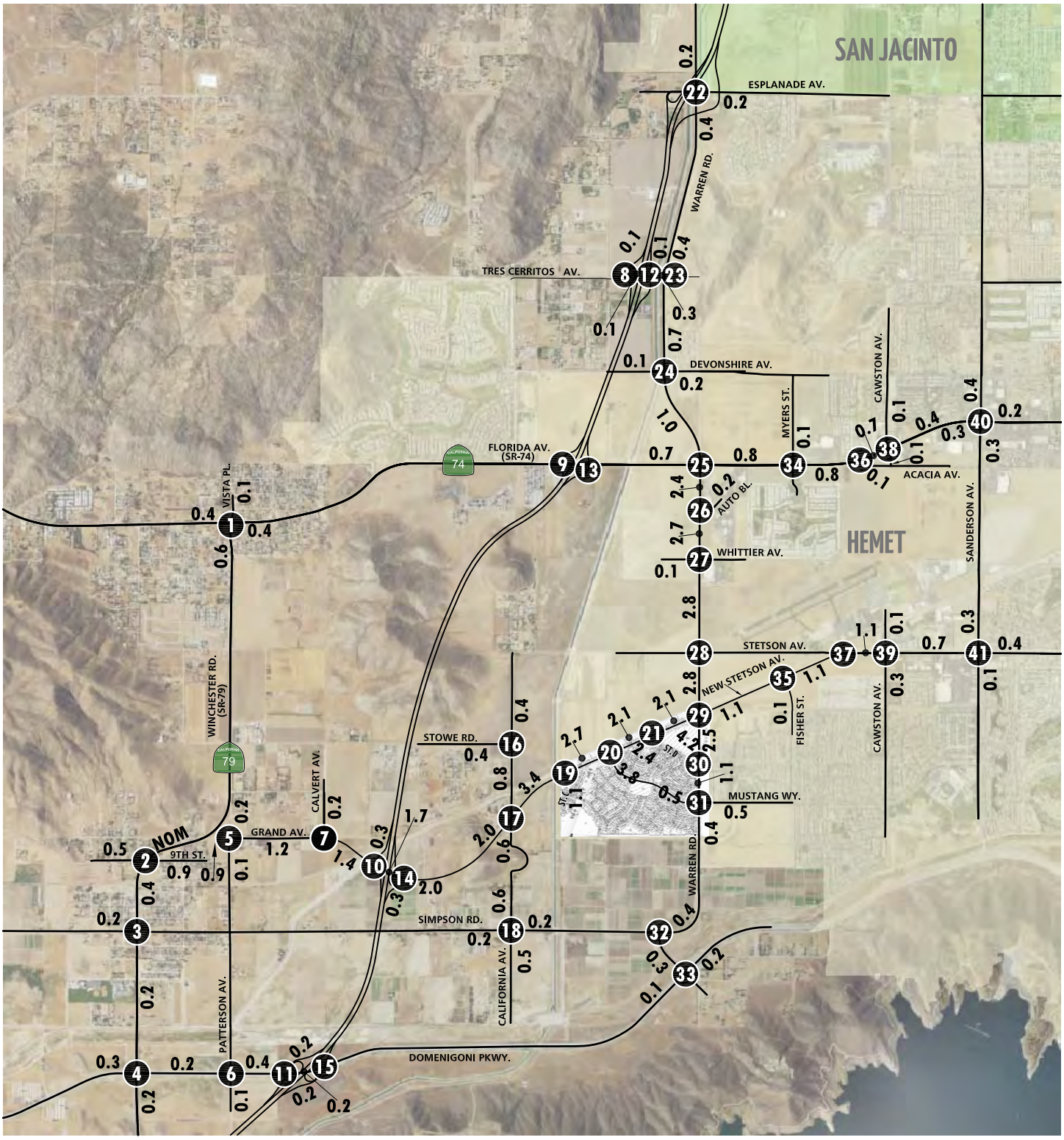
EXHIBIT 4-8: PROJECT (PROJECT BUILDOUT) TRAFFIC VOLUMES



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

EXHIBIT 4-9: PROJECT (2040) AVERAGE DAILY TRAFFIC (ADT)

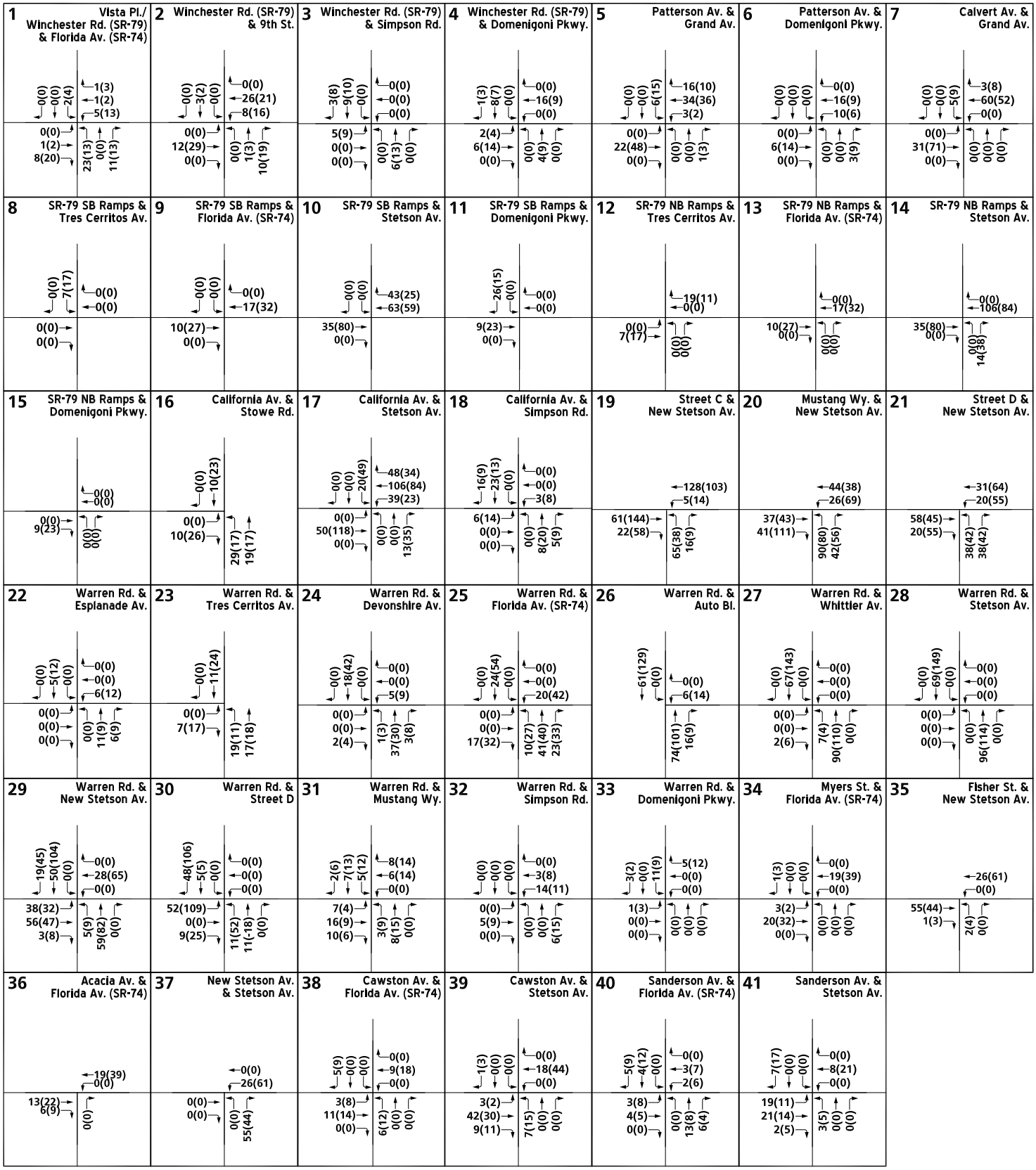


LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

N

EXHIBIT 4-10: PROJECT (2040) TRAFFIC VOLUMES



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

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4.6 BACKGROUND TRAFFIC

Future year traffic forecasts have been based upon a background (ambient) growth factor of 2% per year. The ambient growth factor is intended to approximate traffic growth. The total ambient growth is 14.87% for 2024 traffic conditions (compounded growth of two percent per year over 7 years) and 19.51% for 2026 traffic conditions (compounded growth of two percent per year over 9 years). This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies.

The adopted Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (April 2016) growth forecasts for the City of Hemet identifies projected growth in population of 80,800 in 2012 to 126,500 in 2040, or a 56.56 percent increase over the 23-year period. The change in population equates to roughly a growth of 1.61 percent, compounded annually. Similarly, growth over the same 23-year period in households is projected to increase by 72.28 percent, or a growth of 1.96 percent, compounded annually. Finally, growth in employment over the same 23-year period is projected to increase by 116.67 percent, or a growth of 2.80 percent, compounded annually. (7) Therefore, the annual growth rate of 2% in conjunction with cumulative project traffic would appear to be conservative and tend to overstate as opposed to understate future traffic growth.

4.7 CUMULATIVE DEVELOPMENT TRAFFIC

California Environmental Quality Act (CEQA) guidelines require that other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area also be included as part of a cumulative analysis scenario. A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Hemet. The neighboring jurisdictions of San Jacinto, Menifee, and the County of Riverside have also been contacted to include key projects in their respective cities (see Appendix 4.1).

Exhibit 4-11 illustrates the cumulative development location map. A summary of cumulative development projects and their proposed land uses are shown on Table 4-3. Where applicable, the traffic generated by individual cumulative projects has been manually added to the Opening Year Cumulative (2024) and Opening Year Cumulative (2026) forecasts to ensure that traffic generated by the listed cumulative development projects in Table 4-2 are reflected as part of the background traffic.

EXHIBIT 4-11: CUMULATIVE DEVELOPMENT LOCATION MAP

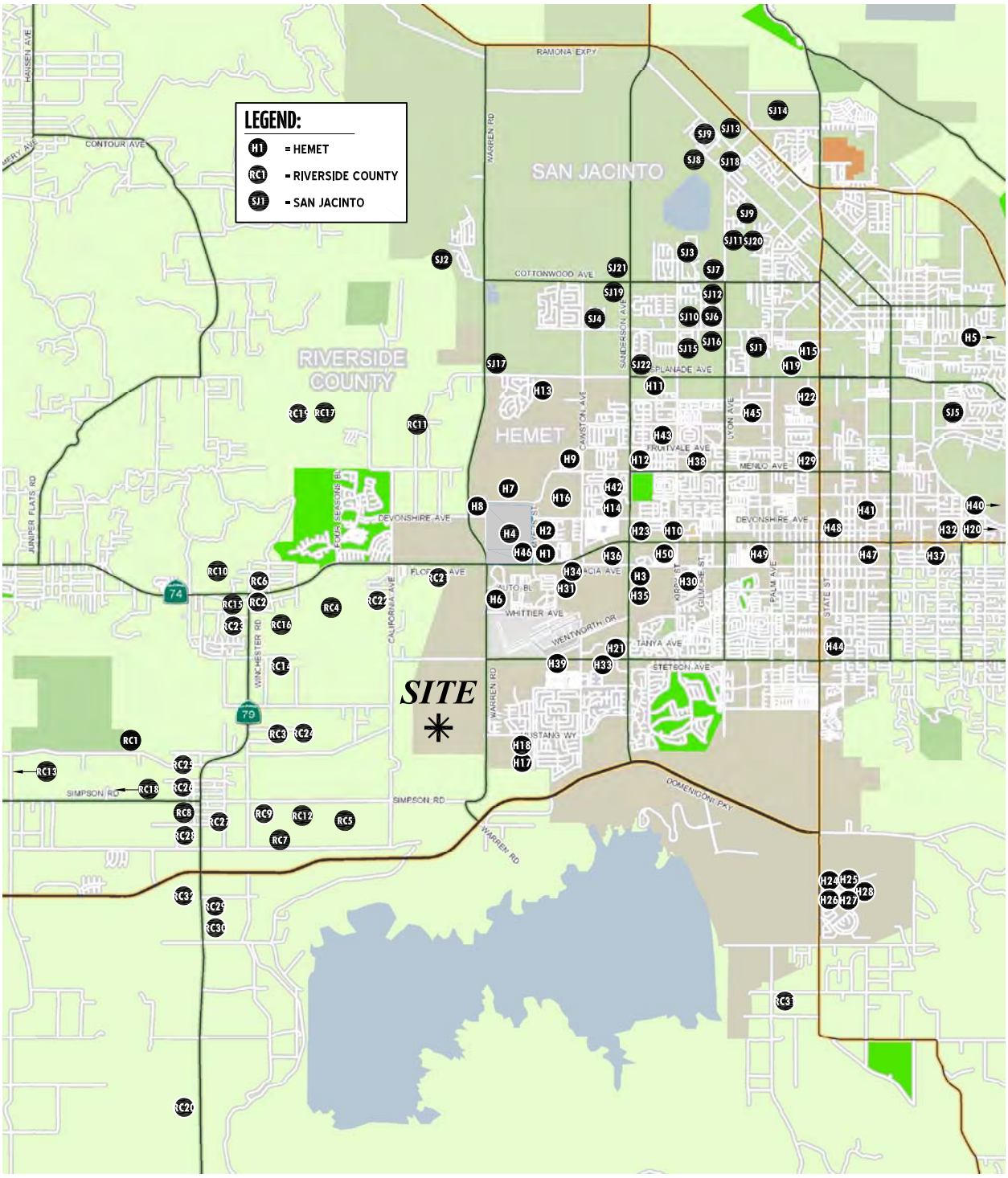


Table 4-3

Cumulative Development Project List

#	Name	Land Use	Quantity	Units[1]
City of Hemet				
H1	Florida Promenade (SP 06-04)	Commercial	200.00 (100.00 Built)	TSF
H2	Florida Promenade Residential	Senior Residential (attached)	440	DU
		Single Family Residential	145	DU
H3	Sanderson Square (SP 05-03)	Commercial	243.000	TSF
		Office/Industrial	186.700	TSF
H4	Ramona Creek Specific Plan	Single Family Residential	1077	DU
		Mixed-Use	145.645	TSF
		Shopping Center	535.788	TSF
		Open Space Corridor	23.8	AC
		Recreation Spine	12.2	AC
H5	TTM 35990 Corwin Ranch	Single Family Residential	12	DU
H6	Hemet Auto Mall Retail Expansion (CUP 07-21)	Commercial	108.000	TSF
H7	Tres Cerritos West (VTTM 31513)	Single Family Residential	178	DU
H8	Montero (VTTM 31146)	Single Family Residential	86 (70 Built)	DU
		Neighborhood Park	0.76	AC
H9	Peppertree Ranch (SP 01-3 and VTTM 29843)	Senior Residential (detached)	465 (16 Built)	DU
		Parks/Open Space	40.20	AC
H10	The Boardwalk (CUP 06-4)	Commercial	94.00 (20.00 Built)	TSF
H11	TTM 29581 (Covenant)	Single Family Residential	71	DU
H12	Zanderson Plaza (CUP 16-006 + TPM 37196)	Commercial	68.000	TSF
H13	Stoney Mountain Ranch (TTM 29129)	Single Family Residential	395 (303 Built)	DU
H14	TTM 33707 (Devonshire Partners) CUP 03-16A	Single Family Residential	98 (25 Built)	DU
H15	TTM 24147-1 Hideaway	Single Family Residential	71	DU
H16	Tres Cerritos East (SPA 06-1)	Single Family Residential	775	DU
H17	Page Ranch Elementary School	Elementary School	750	STU
H18	Freedom Middle School	Middle School	1500	STU
H19	TM 31976 Hideaway	Single Family Residential	121	DU
H20	St. Deminia Center (CUP 07-16)	Commercial	33.480	TSF
H21	Stetson Crossing (SP 07-4)	Commercial	189.000	TSF
H22	Nelson (SDR 06-28)	Industrial	16.200	TSF
H23	CUP 17-002 Crossroads	Commercial	1.000	TSF
H24	McSweeny TTM 33824 (Map 05-10)	Single Family Residential	238	DU
H25	McSweeny TTM 33825 (Map 05-11)	Single Family Residential	259	DU
H26	McSweeny TTM 34660	Single Family Residential	396	DU
H27	McSweeny TTM 34661	Single Family Residential	427	DU
H28	McSweeny TTM 34662	Single Family Residential	11	DU
H29	Santa Fe Pointe SDR 15-001	Multi-Family Residential	241	DU
H30	Acacia Gardens Expansion (CUP 06-5)	Multi-Family Residential	50	DU
H31	Cawston Plaza (CUP 07-26)	Commercial	21.000	TSF
H32	Scripps West (CUP 08-14)	Commercial	5.300	TSF
H33	Hemet Medical (CUP 07-24)(TPM 35701)	Medical Office	126.00 (50.00 Built)	TSF
H34	Hemet 63 (ZC 05-04)	Commercial	260.000	TSF
H35	JAKS LLC (ZC 04-13)	Commercial	170.000	TSF
H36	Les Schwab Tire Store	Automotive Retail	11.970	TSF
H37	Taco Bell (CUP 16-004)	Fast-Food Restaurant	2.090	TSF
H38	TTM 33858	Single Family Residential	37	DU

Cumulative Development Project List

#	Name	Land Use	Quantity	Units[1]
H39	TTM 34712	Multi-Family Residential	40	DU
H40	7 Days Market (CUP 13-005)	Service Station	6	Pumps
H41	Downtown Hemet Specific Plan	Various	Various	
H42	TM 25225 (Copenhagen)	Multi-Family Residential	40	DU
H43	TTM 36929	Single Family Residential	21	DU
H44	TTM 36924	Single Family Residential	58	DU
H45	TTM 37087	Single Family Residential	20	DU
H46	Circle K (CUP 16-005)	Gas Station w/ Convenience Store & Car Wash	20	Pumps
H47	Clinca de Salud (SDR 16-003)	Medical Office	13.000	TSF
H48	Al For Show (CUP 16-002)	Retail	3.020	TSF
H49	Gas Mart Remodel	Gas Station w/ Convenience Store	6	Pumps
H50	KPC Towne Center (SDR 15-004)	Shopping Center	124.880	TSF
City of San Jacinto				
SJ1	TR22665 (50% Occupied)	Single Family Residential	75	DU
SJ2	TR30034 (SP 1-01)	Single Family Residential	50	DU
	TR30035 (SP 1-01)	Single Family Residential	74	DU
	TR30036 (SP 1-01)	Single Family Residential	104	DU
	TR30084 (SP 1-01)- Under Construction	Single Family Residential	111	DU
	TR30090 (SP 1-01)	Single Family Residential	5	DU
SJ3	TR30481	Single Family Residential	30	DU
SJ4	TR30597	Single Family Residential	116	DU
SJ5	TR30659	Single Family Residential	64	DU
SJ6	TR30878	Single Family Residential	18	DU
SJ7	TR30944	Single Family Residential	14	DU
SJ8	TR31037	Single Family Residential	263	DU
SJ9	TR31154	Single Family Residential	88	DU
SJ10	TR31294	Single Family Residential	37	DU
SJ11	VTR31384	Single Family Residential	91	DU
SJ12	TR33546	Single Family Residential	5	DU
SJ13	TR31886 - Under Construction	Single Family Residential	321	DU
SJ14	TR30598 (SP 1-03)	Single Family Residential	580	DU
SJ15	TR31929	Single Family Residential	78	DU
SJ16	TR32247	Single Family Residential	150	DU
SJ17	TR32955 (SP1-02)	Single Family Residential	613	DU
SJ18	TR32555	Single Family Residential	12	DU
SJ19	TR33420A1	Single Family Residential	108	DU
SJ20	Future Schools (Middle / Elementary)	School	1200	STU
SJ21	PM35626	Shopping Center	195.740	TSF
		Apartments	150	DU
SJ22	PM33196 San Jacinto Retail Center	Drive-In Bank	4.700	TSF
		Fast-Food w/ Drive Thru	3.450	TSF
SJ23	TR32352	Single Family Residential	153	DU

Cumulative Development Project List

#	Name	Land Use	Quantity	Units[1]
County of Riverside				
RC1	K-1 Speed Outdoor Kart Track	Outdoor Kart Track	86.882	TSF
RC2	CUP03479	Gas Station	8	VFP
		Fast-Food w/ Drive Thru	1.500	TSF
RC3	PM33564	SFDR	4	DU
RC4	Emerald Acres Specific Plan SP00381	Single Family Residential	432	DU
RC5	TR35017	SFDR	44	DU
RC6	PP22849 (Jack-In-The-Box)	Fast-Food w/ Drive Thru	2.783	TSF
RC7	TR34129	SFDR	197	DU
RC8	TR31537	SFDR	726	DU
RC9	TR32237	SFDR	98	DU
RC10	TR32248	SFDR	86	DU
RC11	TR31076	SFDR	16	DU
RC12	TR34130	SFDR	384	DU
RC13	TR34677	SFDR	422	DU
	TR31100	SFDR	243	DU
	TR32391	SFDR	127	DU
	TR33448	SFDR	31	DU
	TR31101	SFDR	160	DU
	TR31099	SFDR	207	DU
	TR32282	SFDR	625	DU
RC14	TR36478	Condos	150	DU
	TR36480	Condos	138	DU
	PP25219	Apartments	180	DU
RC15	CUP03579	Restaurant	5.606	TSF
		Retail	8.764	TSF
		Gas Station w/ Convenience Store	3.031	TSF
RC16	TR36504	SFDR	562	DU
RC17	CUP01190	Mobile Home Park	60	SPACES
RC18	TR36711	Condos	102	DU
	TR36365	SFDR	224	DU
	TR33450	SFDR	57	DU
	TR33225	SFDR	14	DU
	TR31857	SFDR	140	DU
	TR31858	SFDR	185	DU
	TR36430	SFDR	340	DU
		Elementary School	600	STU
RC19	TR26973	Single Family Residential	43	DU
RC20	Domenigoni - Barton Properties (SP 310)	SFDR	4186	DU
		Golf Course	18	HOLES
		School	12.00	AC
RC21	PP14248	Automotive Retail	8.200	TSF
RC22	TR23551	Single Family Residential	38	DU
RC23	TR30351	Single Family Residential	273	DU
RC24	PP25623	Animal Hospital	--	
RC25	RVP00110 (Revision to PP11686)	Fast-Food w/o Drive Thru	2.475	TSF
RC26	PP15735	Fast-Food w/o Drive Thru	1.200	TSF
RC27	TR31538	Single Family Residential	257	DU
RC28	TR37079	Single Family Residential	53.46	AC
		Commercial		
RC29	BSA Properties (SP 322)	Commercial	202	AC
		Single Family Residential	421	DU
RC30	PP13023	Commercial	7.360	TSF
RC31	PM29141	Single Family Residential	--	
RC32	The Crossroads in Winchester (SP 288 Amendment 2)	Single Family Residential	771	DU
		Condos/Townhomes	154	DU
		Commercial	32.50	AC

[1] DU = Dwelling Units; STU = Students; TSF = Thousand Square Feet; BEDS = Occupied Beds

An absorption percentage of 15% of total cumulative development project traffic has been utilized for Opening Year Cumulative (2024) traffic conditions and 30% for Opening Year Cumulative (2026) traffic conditions. The following cumulative projects were assumed at 100% for both Opening Year Cumulative (2024) and (2026) traffic conditions:

- Florida Promenade (SP 06-04)
- Florida Promenade Residential
- Montero (VTTM 31146)
- Peppertree Ranch (SP 01-3 and VTTM 29843)
- Tres Cerritos East (SPA 06-1)
- Hemet 63 (ZC 05-04)

These absorption percentages have been assumed based on the size of the cumulative project list and the total trip generation for the projects that have been included. The cumulative projects assumed for the purposes of this traffic study total approximately 259,202 trip-ends per day with 18,034 AM peak hour trips and 25,466 PM peak hour trips. The purpose of applying an absorption percentage is to estimate reasonable opening year forecast, recognizing that not all the projects will be developed within the 7 to 9 years. The forecasts were verified against Opening Year Cumulative forecasts developed for other traffic studies to ensure reasonableness and to ensure that the Opening Year Cumulative forecasts are grossly overstated in comparison to the General Plan Buildout forecasts.

4.8 TRAFFIC FORECASTS

To provide a comprehensive assessment of the deficiencies, two types of analyses, "buildup" and "buildout", were performed in support of this work effort. The "buildup" method was used to approximate E+P, Opening Year Cumulative (2024) and Opening Year Cumulative (2026) traffic conditions, and is intended to identify the near-term deficiencies on both the existing and planned near-term circulation system. The Opening Year Cumulative traffic condition includes background traffic, traffic generated by other cumulative development projects within the study area, and traffic generated by the proposed Project. The "buildout" approach is used to forecast the General Plan Buildout (2040) Without and With Project conditions of the study area.

4.9 NEAR-TERM CONDITIONS

The "buildup" approach combines existing traffic counts with a background ambient growth factor to forecast the Opening Year Cumulative (2024) and Opening Year Cumulative (2026) traffic conditions. An ambient growth factor of 14.87% accounts for background (area-wide) traffic increases that occur over time up to the year 2024 from the year 2017 (compounded two percent per year growth over a 7-year period) and 19.51% for year 2026 from the year 2017 (compounded two percent per year over an 9-year period). Phase 1 and Phase 2 Project traffic is added to assess Opening Year Cumulative (2024) With Project and Opening Year Cumulative (2026) With Project traffic conditions, respectively. The 2024 and 2026 roadway networks are similar to the existing conditions roadway network with the exception of future roadways and intersections proposed to be developed by the Project.

The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

- Opening Year Cumulative (2024) Without Project
    - Existing 2017 counts
    - Ambient growth traffic (14.87%)
    - Cumulative development project traffic (15% absorption)
- Opening Year Cumulative (2024) With Project
    - Existing 2017 counts
    - Ambient growth traffic (14.87%)
    - Cumulative development project traffic (15% absorption)
    - Project (Phase 1) traffic
- Opening Year Cumulative (2026) Without Project
    - Existing 2017 counts
    - Ambient growth traffic (19.51%)
    - Cumulative development project traffic (30% absorption)
- Opening Year Cumulative (2026) With Project
    - Existing 2017 counts
    - Ambient growth traffic (19.51%)
    - Cumulative development project traffic (30% absorption)
    - Project (Buildout) traffic

4.10 GENERAL PLAN BUILDOUT (2040) CONDITIONS

Traffic projections for General Plan Buildout (2040) with Project conditions were derived from the RivTAM modified to represent buildout of the City of Hemet using accepted procedures for model forecast refinement and smoothing.

The General Plan Buildout (2040) traffic conditions analyses will be utilized to determine if improvements funded through regional transportation mitigation fee programs, such as the TUMF, City of Hemet DIF programs, or other approved funding mechanism can accommodate the long-range cumulative traffic at the target LOS identified in the City of Hemet General Plan. Other improvements needed beyond the "funded" improvements (such as localized improvements to non-TUMF or non-DIF facilities) are identified as such.

In some instances, the traffic model zone structure is not designed to provide accurate turning movements along arterial roadways unless refinement and reasonableness checking is performed. The initial estimate of the future General Plan Buildout (2040) with Project peak hour turning movements was then reviewed by Urban Crossroads for reasonableness at intersections where model results showed unreasonable turning movements. General Plan Buildout (2040) turning volumes were compared to Opening Year Cumulative volumes in order to ensure adequate growth as a part of the refinement process, where applicable. The minimum growth

includes any additional growth between Opening Year Cumulative and General Plan Buildout (2040) With Project traffic conditions that is not accounted for by the traffic generated by cumulative development projects and the ambient growth between Existing and Opening Year Cumulative traffic conditions. The initial raw model estimates were adjusted to achieve flow conservation (where applicable), reasonable growth, and reasonable diversion between parallel routes.

Post-processing worksheets for General Plan Buildout (2040) with Project traffic conditions are provided in Appendix 4.2.

5 EXISTING PLUS PROJECT TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Existing plus Project (E+P) conditions and the resulting intersection operations, roadway segment capacity, and traffic signal warrant analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for E+P conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways). These include the Project site adjacent roadways Mustang Way, Warren Road, and the new Stetson Avenue.

5.2 EXISTING PLUS PROJECT TRAFFIC VOLUME FORECASTS

5.2.1 E+P (PHASE 1)

This scenario includes Existing traffic volumes plus Project (Phase 1) traffic. Exhibit 5-1 shows the ADT volumes which can be expected for E+P (Phase 1) traffic conditions. E+P (Phase 1) weekday AM and weekday PM peak hour intersection turning movement volumes are shown on Exhibit 5-2.

5.2.2 E+P (PROJECT BUILDOUT)

This scenario includes Existing traffic volumes plus Project (Project Buildout) traffic. Exhibit 5-3 shows the ADT volumes which can be expected for E+P (Project Buildout) traffic conditions. E+P (Project Buildout) weekday AM and weekday PM peak hour intersection turning movement volumes are shown on Exhibit 5-4.

5.3 INTERSECTION OPERATIONS ANALYSIS

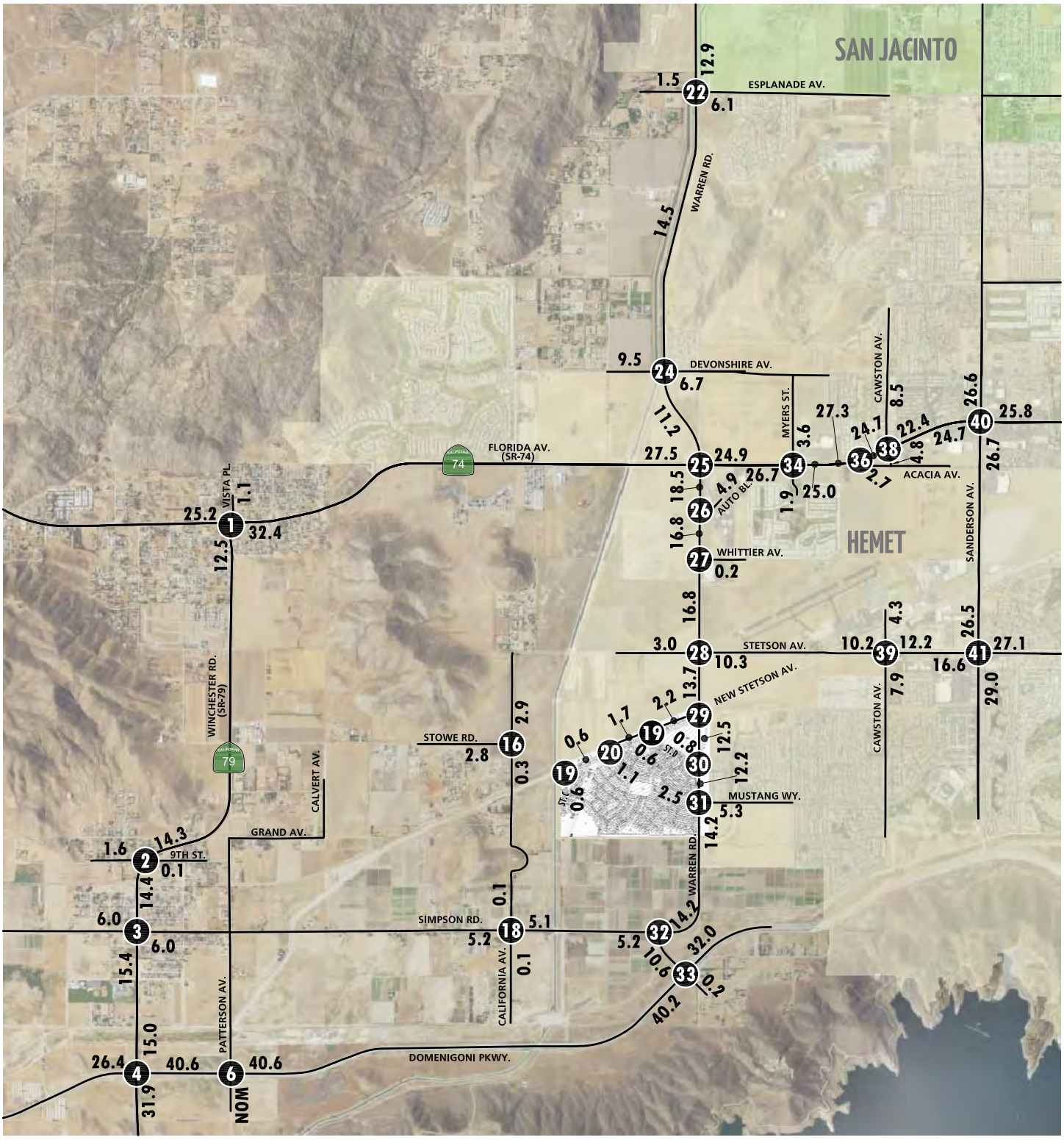
5.3.1 E+P (PHASE 1)

E+P (Phase 1) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TIA. The intersection analysis results are summarized in Table 5-1, which indicates that the following study area intersections are anticipated to experience unacceptable levels of service during one or more peak hours with the addition of Project (Phase 1) traffic, in addition to those previously identified as already operating at deficient LOS under Existing (2017) traffic conditions:

- Warren Rd. / Esplanade Av. (#22) – LOS E AM and PM peak hours
- Warren Rd. / Auto Bl. (#26)* – LOS E PM peak hour only

*This intersection is a City CIP-sponsored project (Project 5613-TS16), however, the Project will contribute its fair share.

EXHIBIT 5-1: E+P (PHASE 1) AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

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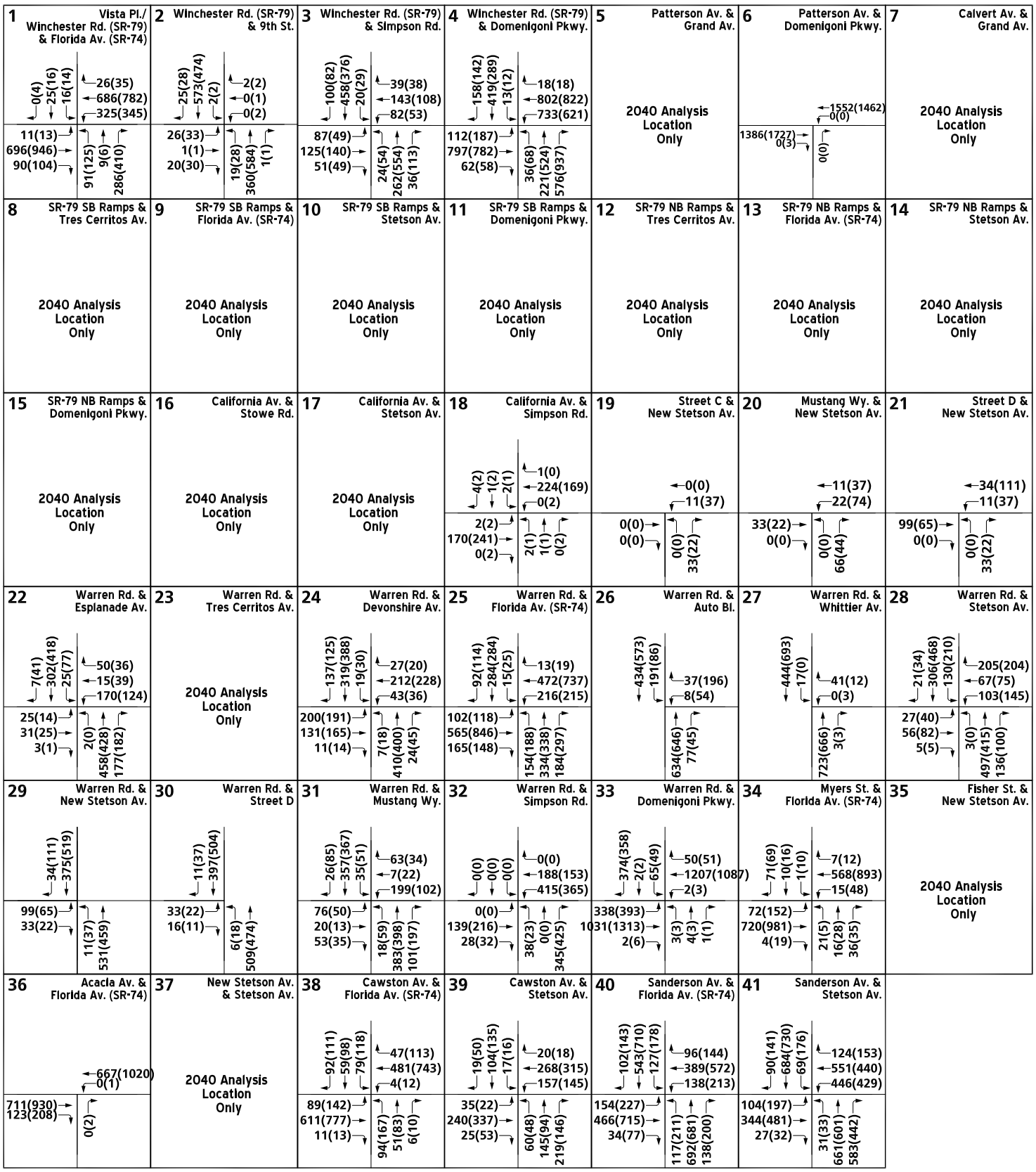
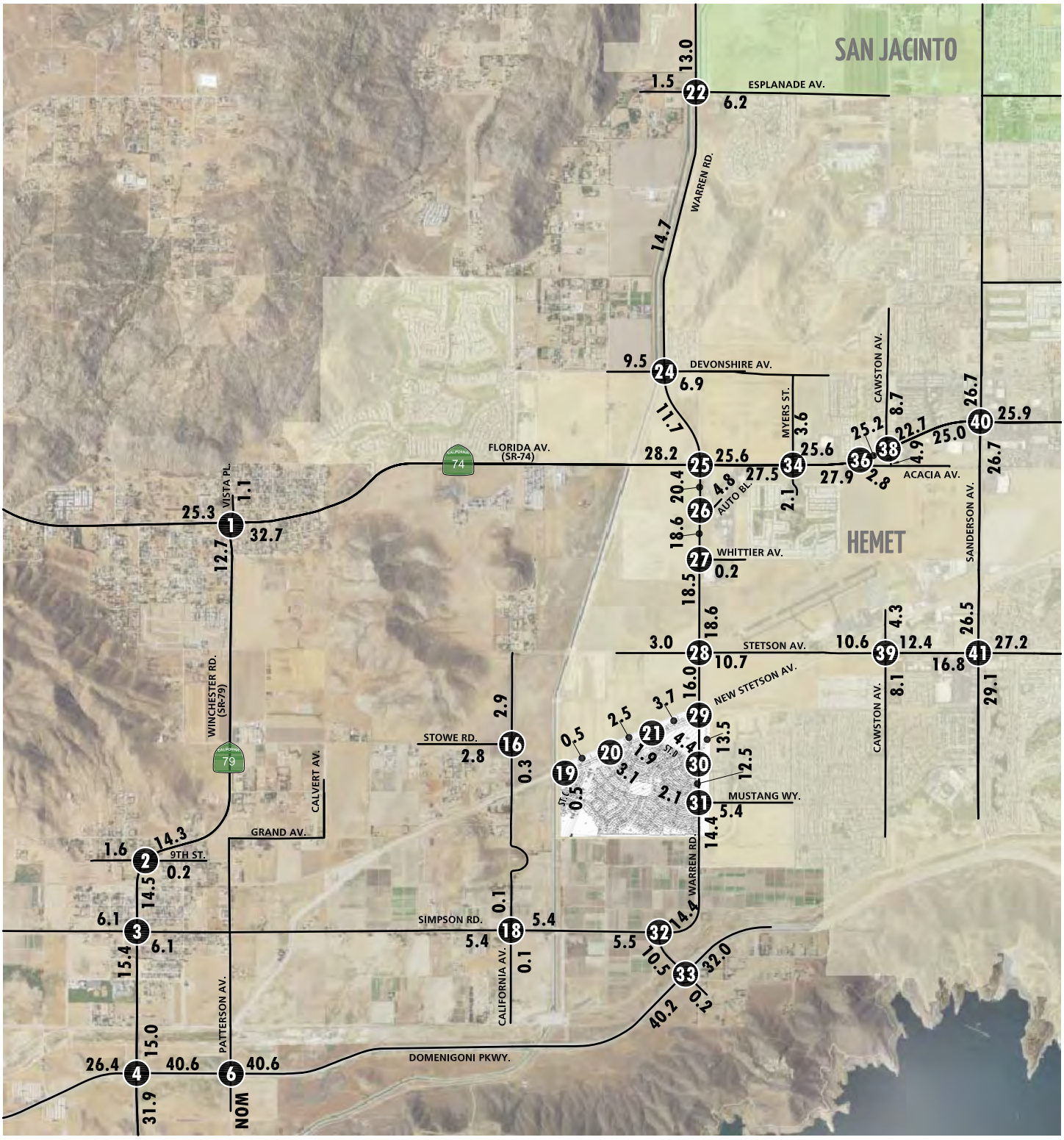
EXHIBIT 5-2: E+P (PHASE 1) TRAFFIC VOLUMES



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

EXHIBIT 5-3: E+P (PROJECT BUILDOUT) AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

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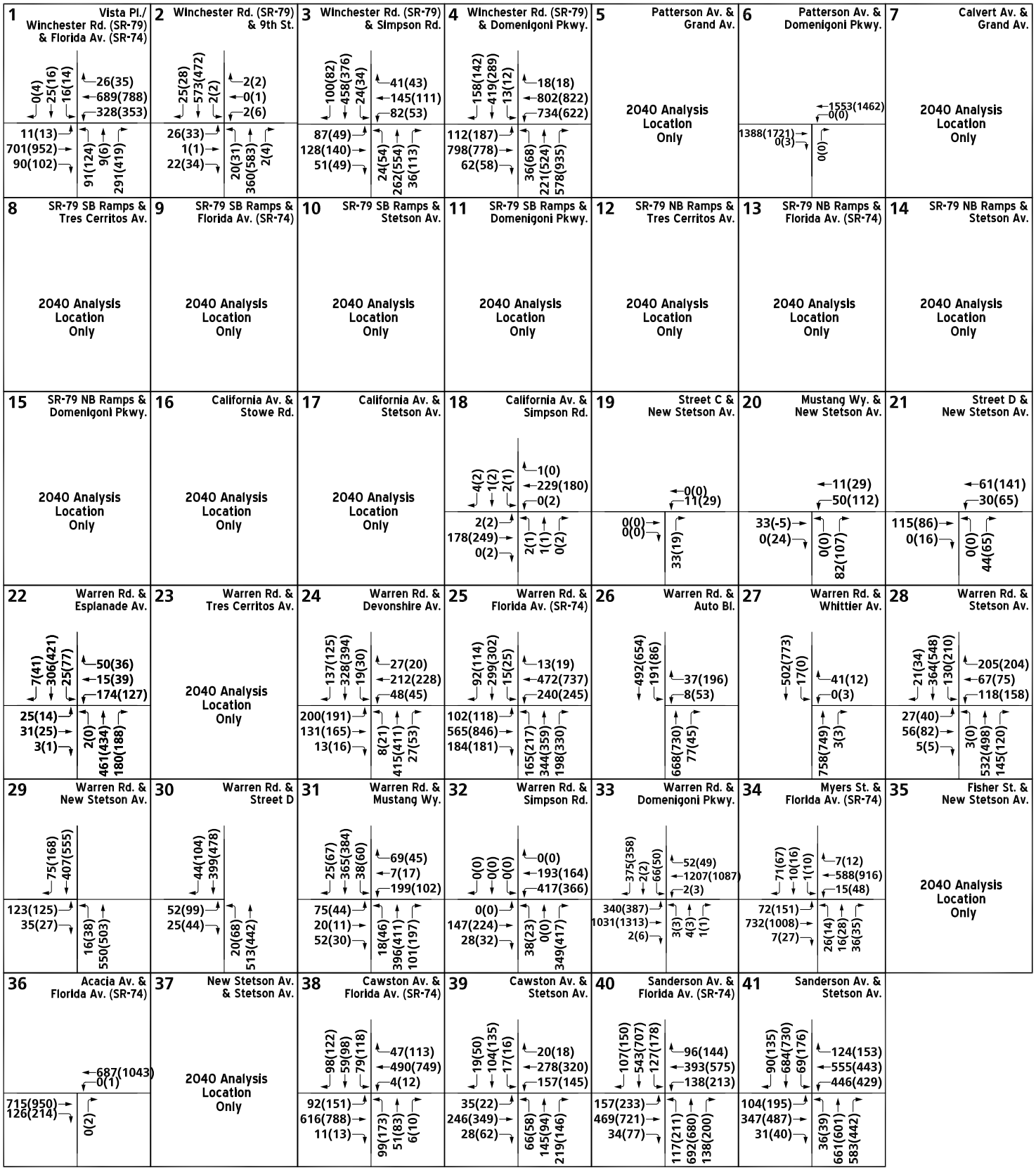
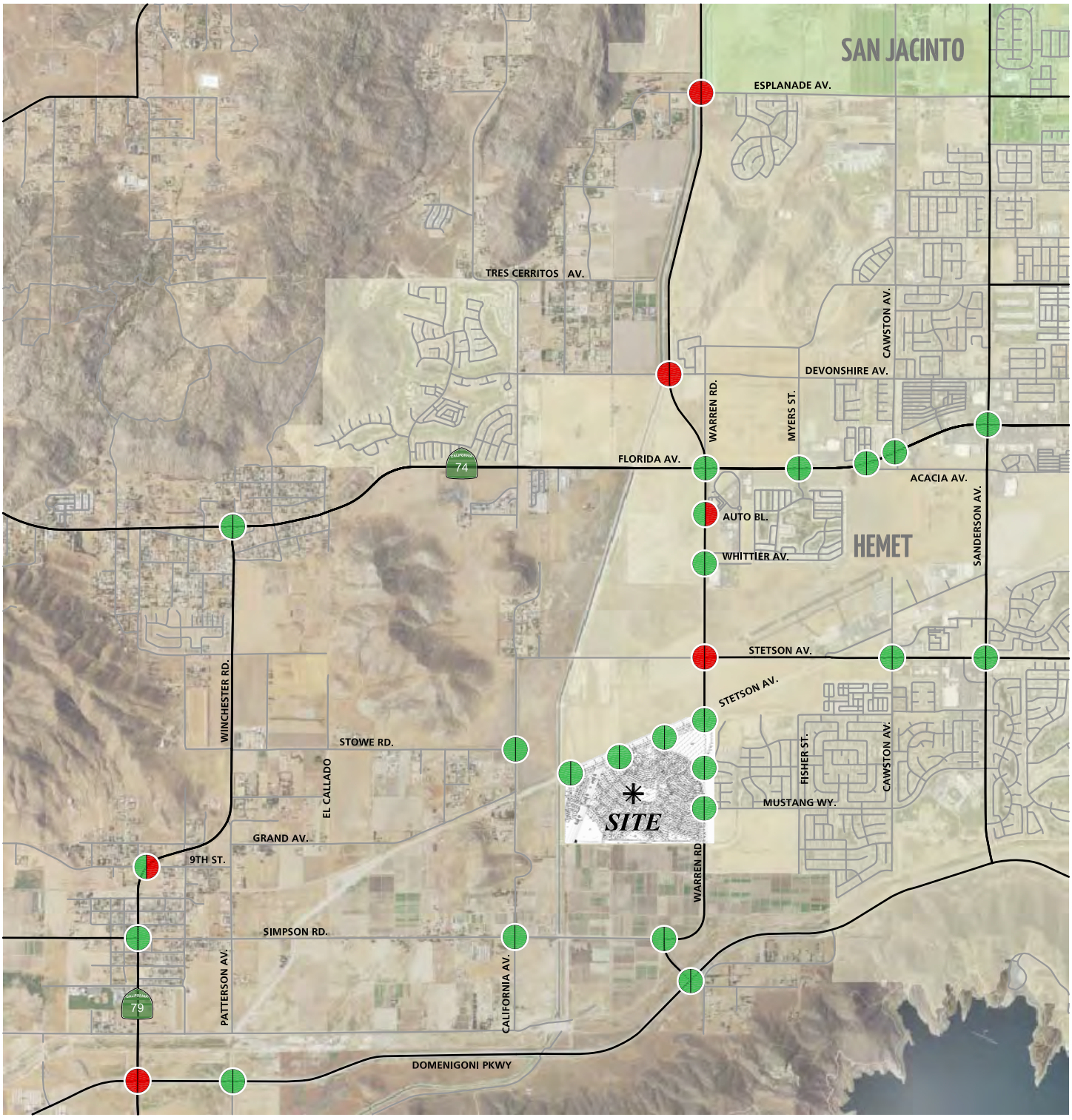
EXHIBIT 5-4: E+P (PROJECT BUILDOUT) TRAFFIC VOLUMES



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

EXHIBIT 5-5: E+P (PHASE 1) SUMMARY OF LOS



LEGEND:

- = AM PEAK HOUR ACCEPTABLE LOS
- = AM PEAK HOUR DEFICIENT LOS
- = PM PEAK HOUR ACCEPTABLE LOS
- = PM PEAK HOUR DEFICIENT LOS

N

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Table 5-1

Intersection Analysis for E+P Conditions

#	Intersection	Traffic Control[2]	Existing (2017)				E+P (Phase 1)				E+P (Project Buildout)			
			Delay[1] (secs.)		LOS		Delay[1] (secs.)		LOS		Delay[1] (secs.)		LOS	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	Winchester Rd. (SR-79) / Florida Av. (SR-74)	TS	17.9	25.2	B	C	18.0	26.4	B	C	18.0	26.8	B	C
2	Winchester Rd. (SR-79) / 9th St.	CSS	27.2	**42.6**	D	**E**	28.0	**45.1**	D	**E**	28.2	**46.0**	D	**E**
3	Winchester Rd. (SR-79) / Simpson Rd.	TS	22.7	17.7	C	B	23.3	18.8	C	B	23.4	19.0	C	B
4	Winchester Rd. (SR-79) / Domenigoni Pkwy.	TS	**>200.0**	**176.0**	**F**	**F**	**>200.0**	**182.0**	**F**	**F**	**>200.0**	**182.6**	**F**	**F**
5	Patterson Av. / Grand Av.		2040 Analysis Location				2040 Analysis Location				2040 Analysis Location			
6	Patterson Av. / Domenigoni Pkwy.	CSS	16.7	0.0	C	A	17.1	0.0	C	A	17.1	0.0	C	A
7	El Callado Rd./Remington Wy. / Grand Av.		2040 Analysis Location				2040 Analysis Location				2040 Analysis Location			
8	SR-79 SB Ramps / Tres Cerritos Av.		2040 Analysis Location				2040 Analysis Location				2040 Analysis Location			
9	SR-79 SB Ramps / Florida Av. (SR-74)		2040 Analysis Location				2040 Analysis Location				2040 Analysis Location			
10	SR-79 SB Ramps / Stetson Av.		2040 Analysis Location				2040 Analysis Location				2040 Analysis Location			
11	SR-79 SB Ramps / Domenigoni Pkwy.		2040 Analysis Location				2040 Analysis Location				2040 Analysis Location			
12	SR-79 NB Ramps / Tres Cerritos Av.		2040 Analysis Location				2040 Analysis Location				2040 Analysis Location			
13	SR-79 NB Ramps / Florida Av. (SR-74)		2040 Analysis Location				2040 Analysis Location				2040 Analysis Location			
14	SR-79 NB Ramps / Stetson Av.		2040 Analysis Location				2040 Analysis Location				2040 Analysis Location			
15	SR-79 NB Ramps / Domenigoni Pkwy.		2040 Analysis Location				2040 Analysis Location				2040 Analysis Location			
16	California Av. / Stowe Rd.	CSS	9.0	9.3	A	A	9.0	9.3	A	A	9.0	9.3	A	A
17	California Av. / Stetson Av.		2040 Analysis Location				2040 Analysis Location				2040 Analysis Location			
18	California Av. / Simpson Rd.	CSS	11.5	10.7	B	B	12.0	11.2	B	B	12.1	11.3	B	B
19	St. C / New Stetson Av.	**CSS**	Future Analysis Location				8.4	8.4	A	A	8.4	8.4	A	A
20	Mustang Wy. / New Stetson Av.	**CSS**	Future Analysis Location				8.7	8.6	A	A	8.8	8.7	A	A
21	St. D / New Stetson Av.	**CSS**	Future Analysis Location				9.0	8.7	A	A	9.1	9.1	A	A
22	Warren Rd. / Esplanade Av.	AWS	33.8	27.0	D	D	**46.4**	**39.0**	**E**	**E**	**45.7**	**41.6**	**E**	**E**
23	Warren Rd. / Tres Cerritos Av.		2040 Analysis Location				2040 Analysis Location				2040 Analysis Location			
24	Warren Rd. / Devonshire Av.	AWS	**83.0**	**98.2**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
25	Warren Rd. / Florida Av. (SR-74)	TS	30.6	27.5	C	C	36.3	41.3	D	D	42.9	53.3	D	D
26	Warren Rd. / Auto Bl.	CSS	13.1	29.0	B	D	15.6	**47.1**	C	**E**	15.8	**70.9**	C	**F**
27	Warren Rd. / Whittier Av.	CSS	12.9	13.0	B	B	14.7	14.3	B	B	15.2	15.5	C	C
28	Warren Rd. / Stetson Av.	AWS	26.5	**58.7**	D	**F**	**54.6**	**>100.0**	**F**	**F**	**76.7**	**>100.0**	**F**	**F**
29	Warren Rd. / New Stetson Av.	**TS**	Future Analysis Location				9.6	9.9	A	A	10.5	12.2	B	B
30	Warren Rd. / St. D	**TS**	Future Analysis Location				4.0	4.6	B	B	5.7	10.9	B	B
31	Warren Rd. / Mustang Wy.	TS	12.4	10.1	B	B	14.5	11.6	B	B	14.7	11.9	B	B
32	Warren Rd. / Simpson Rd.	AWS	18.2	15.7	C	C	27.0	22.6	D	C	27.8	22.3	D	C
33	Warren Rd. / Domenigoni Pkwy.	TS	31.1	25.7	C	C	38.4	35.7	D	D	39.1	37.6	D	D
34	Myers St. / Florida Av. (SR-74)	TS	17.4	33.1	B	C	18.2	35.4	B	D	18.6	36.7	B	D
35	Fisher St. / New Stetson Av.		2040 Analysis Location				2040 Analysis Location				2040 Analysis Location			
36	Acacia Av. / Florida Av. (SR-74)	CSS	0.0	10.1	A	B	0.0	10.1	A	B	0.0	10.1	A	B
37	New Stetson Av. / Stetson Av.		2040 Analysis Location				2040 Analysis Location				2040 Analysis Location			
38	Cawston Av. / Florida Av. (SR-74)	TS	22.3	23.9	C	C	22.3	25.0	C	C	22.5	24.9	C	C
39	Cawston Av. / Stetson Av.	TS	11.1	11.3	B	B	11.3	11.3	B	B	11.3	11.4	B	B
40	Sanderson Av. / Florida Av. (SR-74)	TS	33.8	46.9	C	D	33.8	47.4	C	D	33.9	47.4	C	D
41	Sanderson Av. / Stetson Av.	TS	52.8	43.9	D	D	53.8	44.9	D	D	53.9	44.9	D	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] AWS = All Way Stop; CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

Exhibit 5-5 summarizes the weekday AM and PM peak hour study area intersection LOS under E+P (Phase 1) traffic conditions, consistent with the summary provided in Table 5-1. The intersection operations analysis worksheets are included in Appendix 5.1 of this TIA for E+P (Phase 1). Measures to address deficiencies for E+P traffic conditions are discussed in Section 5.6 *Deficiencies and Recommended Improvements*.

5.3.2 E+P (PROJECT BUILDOUT)

E+P (Project Buildout) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TIA. The intersection analysis results are summarized in Table 5-1, which indicates that there are no additional study area intersections anticipated to experience unacceptable LOS during one or more peak hours with the addition of Project (Buildout) traffic, in addition to those previously identified as already operating at deficient LOS under Existing (2017) and E+P (Phase 1) traffic conditions.

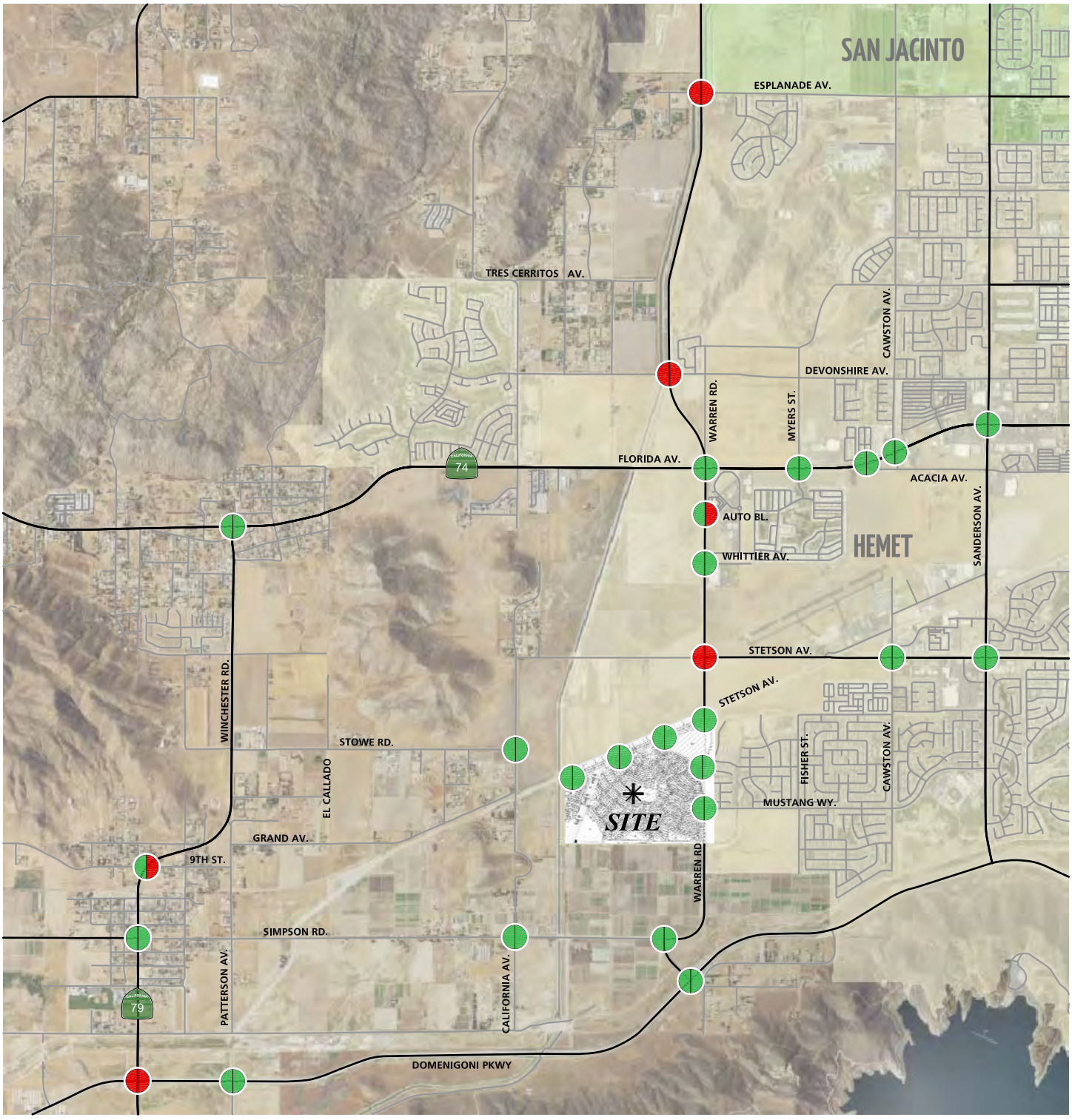
Exhibit 5-6 summarizes the weekday AM and PM peak hour study area intersection LOS under E+P (Project Buildout) traffic conditions, consistent with the summary provided in Table 5-1. The intersection operations analysis worksheets are included in Appendix 5.2 of this TIA. Measures to address deficiencies for E+P traffic conditions are discussed in Section 5.6 *Deficiencies and Recommended Improvements*.

5.4 ROADWAY SEGMENT ANALYSIS

The roadway segment capacities utilized for the purposes of this analysis are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 5-2 provides a summary of the E+P conditions roadway segment capacity analysis based on the applicable roadway segment capacities.

As noted in Section 2.3 *Roadway Segment Capacity Analysis Methodology*, daily roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. Where the ADT-based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis has been undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Therefore, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes.

EXHIBIT 5-6: E+P (PROJECT BUILDOUT) SUMMARY OF LOS



LEGEND:

- = AM PEAK HOUR ACCEPTABLE LOS
- = AM PEAK HOUR DEFICIENT LOS
- = PM PEAK HOUR ACCEPTABLE LOS
- = PM PEAK HOUR DEFICIENT LOS

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5.4.1 E+P (PHASE 1)

As shown on Table 5-2, the addition of Project (Phase 1) traffic is anticipated to result in the following study area roadway segment capacity deficiencies, in addition to those previously identified under Existing (2017) conditions:

- Warren Rd., South of Esplanade Av. (#8) – LOS D
- Warren Rd., North of Tres Cerritos Av. (#9) – LOS D
- Warren Rd., Tres Cerritos Av. to Devonshire Av. (#10) – LOS D
- Warren Rd., Auto Bl. to Whittier Av. (#13) – LOS E
- Warren Rd., Whitter Av. to Stetson Av. (#14) – LOS E

5.4.2 E+P (PROJECT BUILDOUT)

Also shown on Table 5-2, the addition of Project (Project Buildout) traffic is anticipated to result in the following study area roadway segment capacity deficiencies, in addition to those previously identified under Existing (2017) and E+P (Phase 1) conditions:

- Warren Rd., Stetson Av. to New Stetson Av. (#15) – LOS D
- Stetson Av., East of Warren Rd. (#25) – LOS D
- Stetson Av., West of New Stetson Av. (#26) – LOS D

5.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

5.5.1 E+P (PHASE 1)

For E+P (Phase 1) conditions, the following study area intersection are anticipated to warrant a traffic signal, in addition to those previously warrant under Existing (2017) conditions (see Appendix 5.3):

- Warren Rd. / New Stetson Av. (#29)

5.5.2 E+P (PROJECT BUILDOUT)

For E+P (Project Buildout) conditions, the following study area intersection are anticipated to warrant a traffic signal, in addition to those previously warrant under Existing conditions (see Appendix 5.4):

- Warren Rd. / St. D (#30)

Table 5-2

Roadway Segment Capacity Analysis for E+P Conditions

#	Roadway	Segment Limits	Roadway Section	LOS[3] Capacity[1]	Existing (2017)	V/C[2]	LOS[3]	E+P Phase 1	V/C[2]	LOS[3]	E+P Buildout	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Winchester Rd. (SR-79)	South of Florida Av. (SR-74)	2U	17,050	12,346	0.72	C	12,514	0.73	C	12,667	0.74	C	D
2		North of 9th St.	2U	17,050	14,159	0.83	D	14,327	0.84	D	14,296	0.84	D	D
3	Patterson Av.	South of Grand Av.	2U	12,950	448	0.03	A	448	0.03	A	448	0.03	A	D
4	California Av.	Stowe Rd. to New Stetson Av.	2U	12,950	320	0.02	A	320	0.02	A	320	0.02	A	D
5		New Stetson Av. to Simpson Rd.	2U	12,950	103	0.01	A	103	0.01	A	103	0.01	A	D
6	Mustang Wy.	South of New Stetson Av.		13,000	Future Segment			1,120	0.09	A	3,140	0.24	A	C
7		West of Warren Rd.		13,000	Future Segment			2,524	0.19	A	2,054	0.16	A	C
8	Warren Rd.	South of Esplanade Av.	2U	18,000	13,724	0.76	C	14,508	**0.81**	**D**	14,728	**0.82**	**D**	C
9		North of Tres Cerritos Av.	2U	18,000	13,724	0.76	C	14,508	**0.81**	**D**	14,728	**0.82**	**D**	C
10		Tres Cerritos Av. to Devonshire Av.	2U	18,000	13,724	0.76	C	14,508	**0.81**	**D**	14,728	**0.82**	**D**	C
11		Devonshire Av. to Florida Av. (SR-74)	2U	18,000	10,405	0.58	A	11,245	0.62	B	11,711	0.65	B	C
12		Florida Av. (SR-74) to Auto Bl.	3U	27,000	16,222	0.60	A	18,462	0.68	B	20,348	0.75	C	C
13		Auto Bl. to Whittier Av.	2U	18,000	14,403	0.80	C	16,755	**0.93**	**E**	18,620	**1.03**	**F**	C
14		Whitter Av. to Stetson Av.	2U	18,000	14,403	0.80	C	16,755	**0.93**	**E**	18,620	**1.03**	**F**	C
15		Stetson Av. to New Stetson Av.	2U	18,000	10,211	0.57	A	13,739	0.76	C	16,006	**0.89**	**D**	C
16		New Stetson Av. to Street D	2U	18,000	10,046	0.56	A	12,454	0.69	B	13,467	0.75	C	C
17		Street D to Mustang Wy.	2U	18,000	10,046	0.56	A	12,176	0.68	B	12,510	0.70	B	C
18		South of Mustang Wy.	2U	18,000	12,506	0.69	B	14,242	0.79	C	14,430	0.80	C	C
19		Simpson Rd. to Domenigoni Pkwy.	2U	18,000	9,380	0.52	A	10,556	0.59	A	10,519	0.58	A	C
20	Florida Av. (SR-74)	Warren Rd. to Myers St.	4D	35,900	23,687	0.66	B	24,863	0.69	B	25,595	0.71	C	C
21		Myers St. to Acacia Av.	5D	44,875	26,281	0.59	A	27,289	0.61	B	27,869	0.62	B	C
22		Acacia Av. to Cawston Av.	4D	35,900	23,744	0.66	B	24,668	0.69	B	25,172	0.70	B	C
23		East of Cawston Av.	4D	34,100	21,655	0.64	B	22,439	0.66	B	22,659	0.66	B	C
24		West of Sanderson Av.	4D	34,100	24,167	0.71	C	24,727	0.73	C	24,989	0.73	C	C
25	Stetson Av.	East of Warren Rd.	2U	13,000	9,087	0.70	B	10,263	0.79	C	10,665	**0.82**	**D**	C
26		West of New Stetson Av.	2U	13,000	9,087	0.70	B	10,263	0.79	C	10,665	**0.82**	**D**	C
27		New Stetson Av. to Cawston Av.	2U	18,000	9,008	0.50	A	10,184	0.57	A	10,585	0.59	A	C
28		East of Cawston Av.	4D	35,900	11,097	0.31	A	12,161	0.34	A	12,364	0.34	A	C
29		West of Sanderson Av.	4D	35,900	15,530	0.43	A	16,594	0.46	A	16,798	0.47	A	C
30	9th St.	East of Winchester Rd. (SR-79)	2U	17,950	115	0.01	A	115	0.01	A	189	0.01	A	D
31	Grand Av.	Patterson Av. to Calvert Av.	2U	18,000	64	0.00	A	64	0.00	A	64	0.00	A	D
32		Calvert Av. to SR-79		18,000	2040 Segment			2040 Segment			2040 Segment			D
33	New Stetson Av.	East of SR-79		35,900	2040 Segment			2040 Segment			2040 Segment			D
34		West of California Av.		35,900	2040 Segment			2040 Segment			2040 Segment			D
35		California Av. to Street C		35,900	2040 Segment			2040 Segment			2040 Segment			C
36		Street C to Mustang Wy.		35,900	2040 Segment			2040 Segment			2040 Segment			C
37		Mustang Wy. to Street D		35,900	2040 Segment			2040 Segment			2040 Segment			C
38		Street D to Warren Rd.		35,900	2040 Segment			2040 Segment			2040 Segment			C
39		Warren Rd. to Fisher St.		35,900	2040 Segment			2040 Segment			2040 Segment			C
40		Fisher St. to Stetson Av.		35,900	2040 Segment			2040 Segment			2040 Segment			C
41	Simpson Rd.	East of Winchester Rd. (SR-79)	2U	12,950	5,407	0.42	A	5,967	0.46	A	6,119	0.47	A	D
42		West of California Av.	2U	12,950	4,587	0.35	A	5,147	0.40	A	5,372	0.41	A	D
43		East of California Av.	2U	12,950	4,562	0.35	A	5,122	0.40	A	5,347	0.41	A	D
44		West of Warren Rd.	2U	12,950	4,677	0.36	A	5,237	0.40	A	5,462	0.42	A	D
45		East of Warren Rd.	2U	12,950	12,506	**0.97**	**E**	14,242	**1.10**	**F**	14,429	1.11	**F**	D
46	Domenigoni Pkwy.	Winchester Rd. (SR-79) to Patterson Av.	4D	35,900	39,851	**1.11**	**F**	40,635	**1.13**	**F**	40,599	1.13	**F**	C
47		Patterson Av. to SR-79	4D	35,900	39,800	**1.11**	**F**	40,584	**1.13**	**F**	40,547	1.13	**F**	C
48		East of SR-79		35,900	2040 Segment			2040 Segment			2040 Segment			C
49		West of Warren Rd.	4D	35,900	39,428	**1.10**	**F**	40,212	**1.12**	**F**	40,175	1.12	**F**	C

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been extracted from the County of Riverside's General Plan.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

5.6 DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

5.6.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Improvement strategies have been recommended at intersections that have been identified as deficient to reduce each location's peak hour delay and improve the associated LOS grade to an acceptable LOS (LOS D or better). The effectiveness of the proposed recommended improvements is presented in Table 5-3 for E+P traffic conditions. Recommended improvements to address deficiencies for E+P traffic conditions are described below. All recommended improvements are consistent with those identified for Existing (2017) traffic conditions (see Table 3-3).

Recommended Improvement – Winchester Rd. (SR-79) / 9th Street (#2)

- Add a traffic signal

Recommended Improvement – Winchester Rd. (SR-79) / Domenigoni Pkwy. (#4)

- Modify the traffic signal and implement overlap phasing on the northbound right turn lane
- Implement 2-stage crosswalks on all approaches in order to provide additional green time to through movements along Winchester Road (SR-79) and Domenigoni Parkway

Recommended Improvement – Warren Rd. / Esplanade Av. (#22)

- Add traffic signal
- Add a northbound left turn lane
- Add a southbound left turn lane
- Add an eastbound left turn lane
- Add a westbound left turn lane

Recommended Improvement – Warren Rd. / Devonshire Av. (#24)

- Add a traffic signal
- Add a northbound left turn lane
- Add a southbound left turn lane

Recommended Improvement – Warren Rd. / Auto Bl. (#26)

- Add a traffic signal. The addition of a traffic signal at the intersection of Warren Road and Auto Boulevard is a CIP-sponsored project (5613-TS16), however, the Project will contribute its fair share towards this improvement.

Recommended Improvement – Warren Rd. / Stetson Av. (#28)

- Add a traffic signal
- Add a northbound left turn lane
- Add a southbound left turn lane
- Add an eastbound left turn lane

Table 5-3

Intersection Analysis for E+P Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
2	Winchester Rd. (SR-79) / 9th St.																	
	- E+P (Phase 1)	CSS	1	1	0	1	1	0	0	1	0	0	1	0	28.0	**45.1**	D	**E**
	- With Improvements	**TS**	1	1	0	1	1	0	0	1	0	0	1	0	9.1	10.2	A	B
	- E+P (Phase 2)	CSS	1	1	0	1	1	0	0	1	0	0	1	0	28.2	**46.0**	D	**E**
	- With Improvements	**TS**	1	1	0	1	1	0	0	1	0	0	1	0	9.3	10.5	A	B
4	Winchester Rd. (SR-79) / Domenigoni Pkwy.																	
	- E+P (Phase 1)	TS	1	2	1	1	2	1	2	2	1	2	3	1	**>200.0**	**182.0**	**F**	**F**
	- With Improvements[4]	TS	1	2	**1>**	1	2	1	2	2	1	2	3	1	40.7	46.6	D	D
	- E+P (Phase 2)	TS	1	2	1	1	2	1	2	2	1	2	3	1	**>200.0**	**182.6**	**F**	**F**
	- With Improvements[4]	TS	1	2	**1>**	1	2	1	2	2	1	2	3	1	41.3	48.8	D	D
22	Warren Rd. / Esplanade Av.																	
	- E+P (Phase 1)	AWS	0	1	0	0	1	0	0	1	0	0	1	0	**46.4**	**39.0**	**E**	**E**
	- With Improvements	**TS**	**1**	1	0	**1**	1	0	**1**	1	0	**1**	1	0	14.9	13.4	B	B
	- E+P (Phase 2)	AWS	0	1	0	0	1	0	0	1	0	0	1	0	**45.7**	**41.6**	**E**	**E**
	- With Improvements	**TS**	**1**	1	0	**1**	1	0	**1**	1	0	**1**	1	0	15.2	13.7	B	B
24	Warren Rd. / Devonshire Av.																	
	- E+P (Phase 1)	AWS	0	1	d	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	1	**0**	**1**	1	0	0	1	0	0	1	0	18.0	20.5	B	C
	- E+P (Phase 2)	AWS	0	1	d	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	1	**0**	**1**	1	0	0	1	0	0	1	0	18.6	21.4	B	C
26	Warren Rd. / Auto Bl.																	
	- E+P (Phase 1)	CSS	0	1	d	1	1	0	0	0	0	0	1	0	15.6	**47.1**	C	**E**
	- With Improvements	**TS**	0	1	d	1	1	0	0	0	0	0	1	0	12.9	18.9	B	B
	- E+P (Phase 2)	CSS	0	1	d	1	1	0	0	0	0	0	1	0	15.8	**70.9**	C	**F**
	- With Improvements	**TS**	0	1	d	1	1	0	0	0	0	0	1	0	13.7	24.8	B	C
28	Warren Rd. / Stetson Av.																	
	- E+P (Phase 1)	AWS	0	1	d	0	1	0	0	1	0	1	1	0	**54.6**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	1	**0**	**1**	1	0	**1**	1	0	1	1	0	23.9	23.2	C	C
	- E+P (Phase 2)	AWS	0	1	d	0	1	0	0	1	0	1	1	0	**76.7**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	1	**0**	**1**	1	0	**1**	1	0	1	1	0	25.9	30.6	C	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free Right Turn Lane; d= Defacto Right Turn Lane; **1** = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

[4] Recommended improvement also consists of implementing 2-stage pedestrian crossing for all approaches.

The intersection operations analysis worksheets for E+P (Phase 1) and E+P (Project Buildout), with improvements, are included in Appendix 5.5 and 5.6, respectively.

5.6.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON ROADWAY SEGMENTS

Roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. As such, a review of the more detailed peak hour intersection analysis has been taken at the adjacent intersections in order to further evaluate the anticipated roadway segment deficiencies anticipated along Warren Road, Stetson Avenue, Simpson Road, and Domenigoni Parkway. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. The adjacent intersections are currently operating or anticipated to operate at acceptable LOS with the recommended intersection improvements shown on Table 5-3, but without additional through lanes. Therefore, roadway segment widening has not been recommended for the deficient roadway segments along Warren Road, Stetson Avenue, Simpson Road, and Domenigoni Parkway.

6 OPENING YEAR CUMULATIVE (2024) TRAFFIC CONDITIONS

This section discusses the methods used to develop Opening Year Cumulative (2024) traffic forecasts, and the resulting intersection operations, roadway segment capacity, and traffic signal warrant analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative (2024) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Opening Year Cumulative (2024) conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways). These include the Project site adjacent roadways Mustang Way, Warren Road, and the new Stetson Avenue.
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).

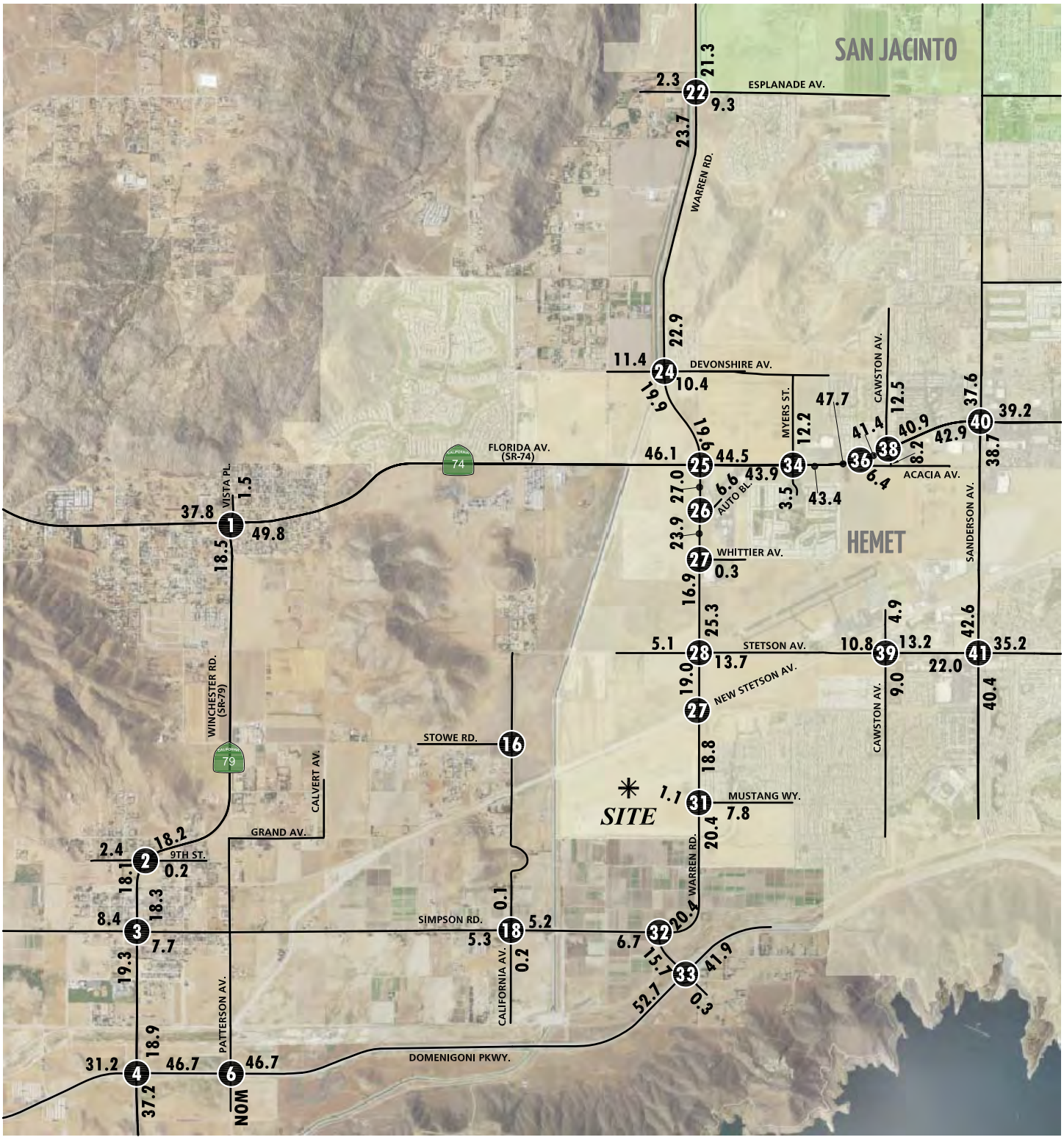
6.2 OPENING YEAR CUMULATIVE (2024) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 14.87% and traffic from pending and approved, but not yet constructed, known development projects in the area (at a 15% absorption rate of the cumulative development project traffic). . Exhibit 6-1 shows the ADT volumes which can be expected for Opening Year Cumulative (2024) Without Project traffic conditions. Opening Year Cumulative (2024) Without Project weekday AM and PM peak hour intersection turning movement volumes are shown on Exhibit 6-2.

6.3 OPENING YEAR CUMULATIVE (2024) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 14.87%, traffic from pending and approved, but not yet constructed, known development projects in the area, and the addition of Project (Phase 1) traffic. Exhibit 6-3 shows the ADT volumes which can be expected for Opening Year Cumulative (2024) With Project traffic conditions. Opening Year Cumulative (2024) With Project weekday AM and weekday PM peak hour intersection turning movement volumes are shown on Exhibit 6-4.

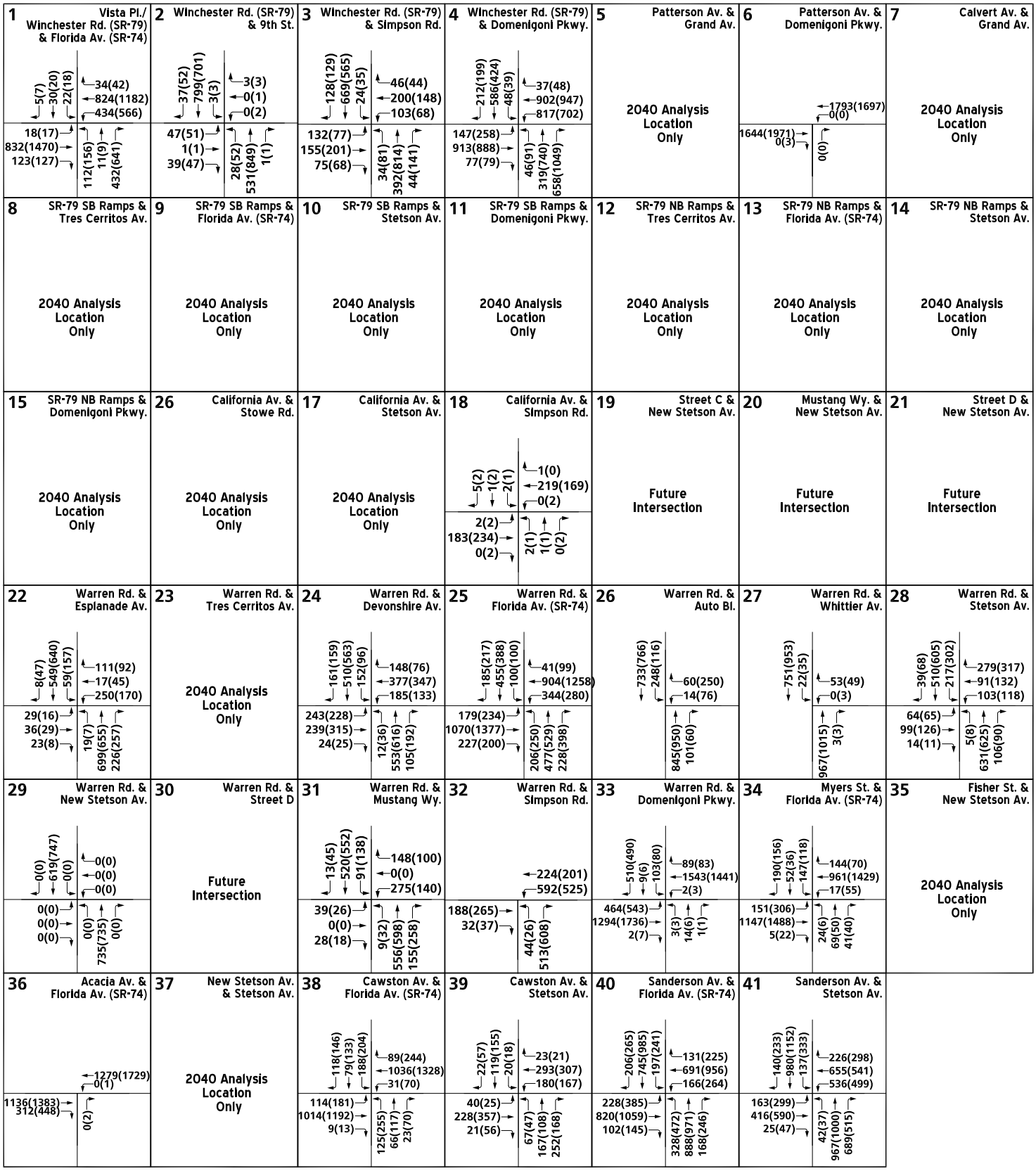
EXHIBIT 6-1: OPENING YEAR CUMULATIVE (2024) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = ESTIMATED VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

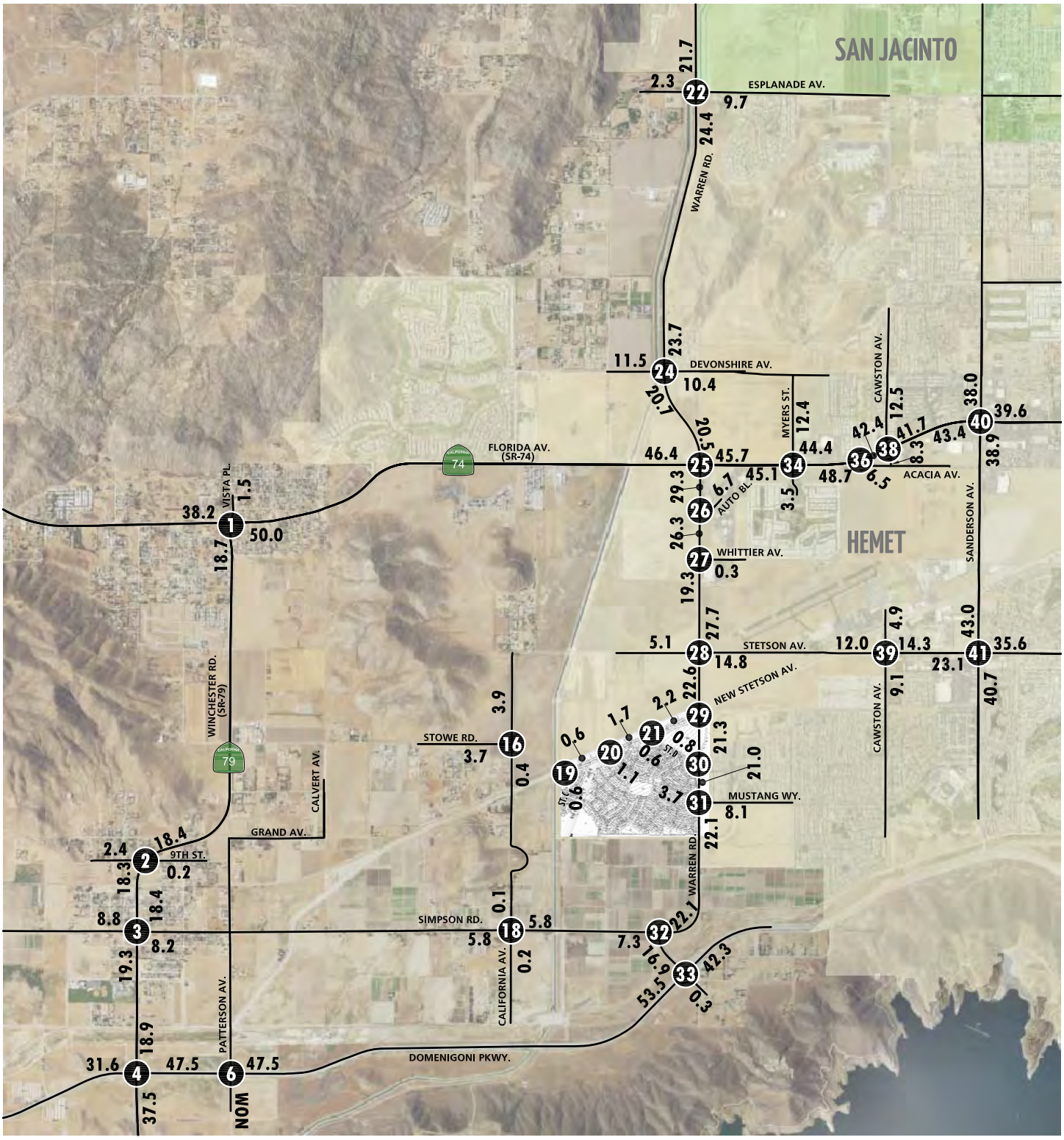
EXHIBIT 6-2: OPENING YEAR CUMULATIVE (2024) WITHOUT PROJECT TRAFFIC VOLUMES



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

EXHIBIT 6-3: OPENING YEAR CUMULATIVE (2024) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT)

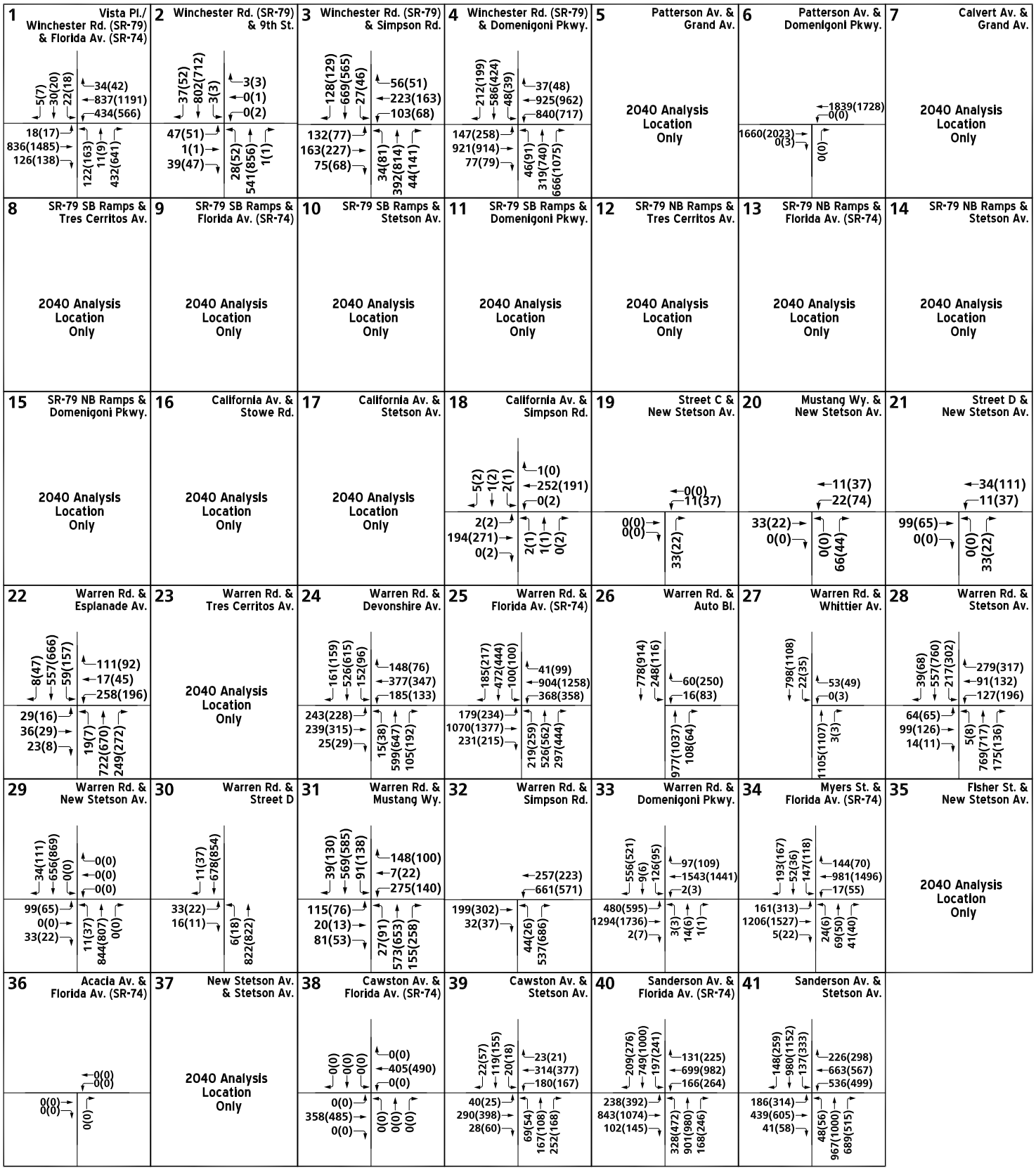


LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

EXHIBIT 6-4: OPENING YEAR CUMULATIVE (2024) WITH PROJECT TRAFFIC VOLUMES



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

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6.4 INTERSECTION OPERATIONS ANALYSIS

6.4.1 OPENING YEAR CUMULATIVE (2024) WITHOUT PROJECT TRAFFIC CONDITIONS

Level of service calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative (2024) conditions with existing roadway and intersection geometrics consistent with those described under Section 6.1 *Roadway Improvements*. The intersection analysis results are summarized in Table 6-1, which indicates that the following additional intersections are anticipated to operate at unacceptable LOS, in addition to those previously identified for Existing (2017) and E+P traffic conditions:

- Winchester Rd. (SR-79) / Florida Av. (SR-74) (#1) – LOS F PM peak hour only
- Warren Rd. / Florida Av. (SR-74) (#25) – LOS E AM and PM peak hours
- Warren Rd. / Simpson Rd. (#32) – LOS F AM and PM peak hours*
- Warren Rd. / Domenigoni Pkwy. (#33) – LOS F AM and PM peak hours
- Myers St. / Florida Av. (SR-74) (#34) – LOS F PM peak hour only
- Cawston Av. / Florida Av. (SR-74) (#38) – LOS E AM peak hour; LOS F PM peak hour
- Sanderson Av. / Florida Av. (SR-74) (#40) – LOS F AM and PM peak hours
- Sanderson Av. / Stetson Av. (#41) – LOS F AM and PM peak hours

*A traffic signal is to be constructed by Tract 31807/31808 as a required by their mitigation measure.

Consistent with Table 6-1, a summary of the peak hour intersection LOS for Opening Year Cumulative (2024) Without Project conditions are shown on Exhibit 6-5. The intersection operations analysis worksheets for Opening Year Cumulative (2024) Without Project traffic conditions are included in Appendix 6.1 of this TIA.

6.4.2 OPENING YEAR CUMULATIVE (2024) WITH PROJECT TRAFFIC CONDITIONS

As shown on Table 6-1 and illustrated on Exhibit 6-6, there are no additional study area intersection anticipated to experience unacceptable LOS (i.e., LOS E or worse) with the addition of Project (Phase 1) traffic during one or more peak hours, in addition to those previously identified under Existing (2017), E+P, and Opening Year Cumulative (2024) Without Project conditions.

The intersection operations analysis worksheets for Opening Year Cumulative (2024) With Project traffic conditions are included in Appendix 6.2 of this TIA. Measures to address near-term deficiencies for Opening Year Cumulative traffic conditions are discussed in Section 6.7 *Opening Year Cumulative (2024) Deficiencies and Recommended Improvements.*

Table 6-1

Intersection Analysis for Opening Year Cumulative (2024) Conditions

#	Intersection	Traffic Control[2]	2024 Without Project				2024 With Project			
			Delay[1] (secs.)		LOS		Delay[1] (secs.)		LOS	
			AM	PM	AM	PM	AM	PM	AM	PM
1	Winchester Rd. (SR-79) / Florida Av. (SR-74)	TS	18.1	**109.1**	B	**F**	18.1	**111.8**	B	**F**
2	Winchester Rd. (SR-79) / 9th St.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
3	Winchester Rd. (SR-79) / Simpson Rd.	TS	27.7	21.2	C	C	28.0	22.2	C	C
4	Winchester Rd. (SR-79) / Domenigoni Pkwy.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
5	Patterson Av. / Grand Av.		2040 Analysis Location				2040 Analysis Location			
6	Patterson Av. / Domenigoni Pkwy.	CSS	19.9	0.0	C	A	20.5	0.0	C	A
7	El Callado Rd./Remington Wy. / Grand Av.		2040 Analysis Location				2040 Analysis Location			
8	SR-79 SB Ramps / Tres Cerritos Av.		2040 Analysis Location				2040 Analysis Location			
9	SR-79 SB Ramps / Florida Av. (SR-74)		2040 Analysis Location				2040 Analysis Location			
10	SR-79 SB Ramps / Stetson Av.		2040 Analysis Location				2040 Analysis Location			
11	SR-79 SB Ramps / Domenigoni Pkwy.		2040 Analysis Location				2040 Analysis Location			
12	SR-79 NB Ramps / Tres Cerritos Av.		2040 Analysis Location				2040 Analysis Location			
13	SR-79 NB Ramps / Florida Av. (SR-74)		2040 Analysis Location				2040 Analysis Location			
14	SR-79 NB Ramps / Stetson Av.		2040 Analysis Location				2040 Analysis Location			
15	SR-79 NB Ramps / Domenigoni Pkwy.		2040 Analysis Location				2040 Analysis Location			
16	California Av. / Stowe Rd.	CSS	9.1	9.4	A	A	9.1	9.4	A	A
17	California Av. / Stetson Av.		2040 Analysis Location				2040 Analysis Location			
18	California Av. / Simpson Rd.	CSS	12.1	11.1	B	B	12.6	11.6	B	B
19	St. C / New Stetson Av.	**CSS**	Future Analysis Location				8.4	8.4	A	A
20	Mustang Wy. / New Stetson Av.	**CSS**	Future Analysis Location				8.7	8.6	A	A
21	St. D / New Stetson Av.	**CSS**	Future Analysis Location				9.0	8.7	A	A
22	Warren Rd. / Esplanade Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
23	Warren Rd. / Tres Cerritos Av.		2040 Analysis Location				2040 Analysis Location			
24	Warren Rd. / Devonshire Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
25	Warren Rd. / Florida Av. (SR-74)	TS	**71.9**	**73.3**	**E**	**E**	**79.4**	**93.3**	**E**	**F**
26	Warren Rd. / Auto Bl.	CSS	26.5	**>100.0**	D	**F**	30.0	**>100.0**	D	**F**
27	Warren Rd. / Whittier Av.	CSS	19.9	23.3	C	C	24.0	26.9	C	D
28	Warren Rd. / Stetson Av.	**TS**[3]	39.7	48.2	D	D	44.4	49.0	D	D
29	Warren Rd. / New Stetson Av.	**TS**	Future Analysis Location				10.7	12.9	B	B
30	Warren Rd. / St. D	**TS**	Future Analysis Location				4.4	6.3	A	A
31	Warren Rd. / Mustang Wy.	TS	19.8	22.9	B	C	44.1	34.7	D	C
32	Warren Rd. / Simpson Rd.	AWS	**>100.0**	**91.4**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
33	Warren Rd. / Domenigoni Pkwy.	TS	**181.3**	**101.0**	**F**	**F**	**197.5**	**132.2**	**F**	**F**
34	Myers St. / Florida Av. (SR-74)	TS	51.6	**>200.0**	D	**F**	**57.2**	**>200.0**	**E**	**F**
35	Fisher St. / New Stetson Av.		2040 Analysis Location				2040 Analysis Location			
36	Acacia Av. / Florida Av. (SR-74)	CSS	0.0	11.8	A	B	0.0	12.3	A	B
37	New Stetson Av. / Stetson Av.		2040 Analysis Location				2040 Analysis Location			
38	Cawston Av. / Florida Av. (SR-74)	TS	**78.3**	**112.9**	**E**	**F**	**82.3**	**123.5**	**F**	**F**
39	Cawston Av. / Stetson Av.	TS	11.5	11.4	B	B	11.7	11.8	B	B
40	Sanderson Av. / Florida Av. (SR-74)	TS	**82.2**	**130.0**	**F**	**F**	**83.7**	**135.1**	**F**	**F**
41	Sanderson Av. / Stetson Av.	TS	**128.2**	**146.7**	**F**	**F**	**135.7**	**155.5**	**F**	**F**

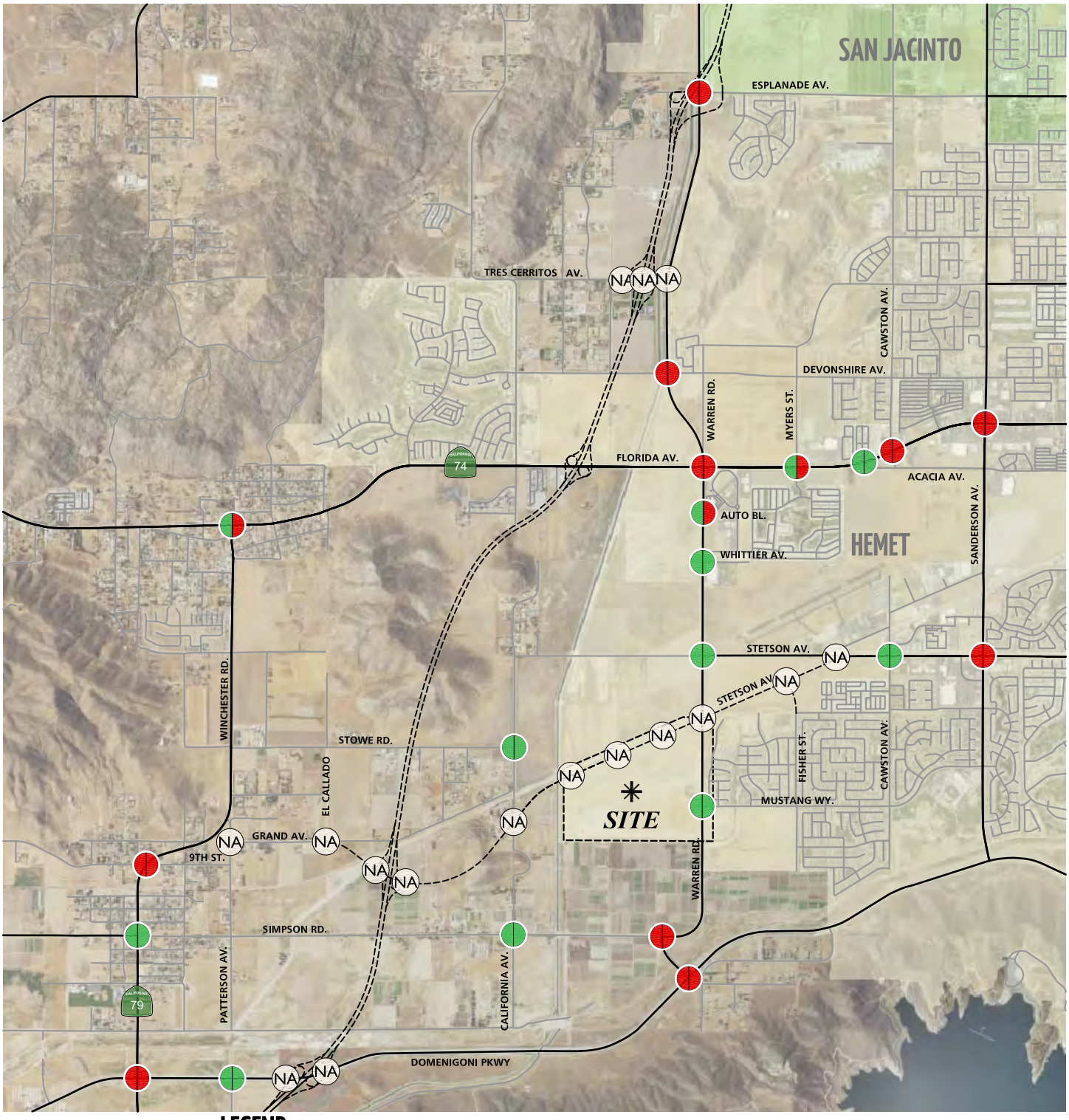
BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] AWS = All Way Stop; CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

[3] As a Condition of Approval and Mitigation Measure for Tract 31807/31808, Warren Road and Stetson Avenue will be analyzed as a signalized intersection for future conditions.

EXHIBIT 6-5: OPENING YEAR CUMULATIVE (2024) WITHOUT PROJECT SUMMARY OF LOS

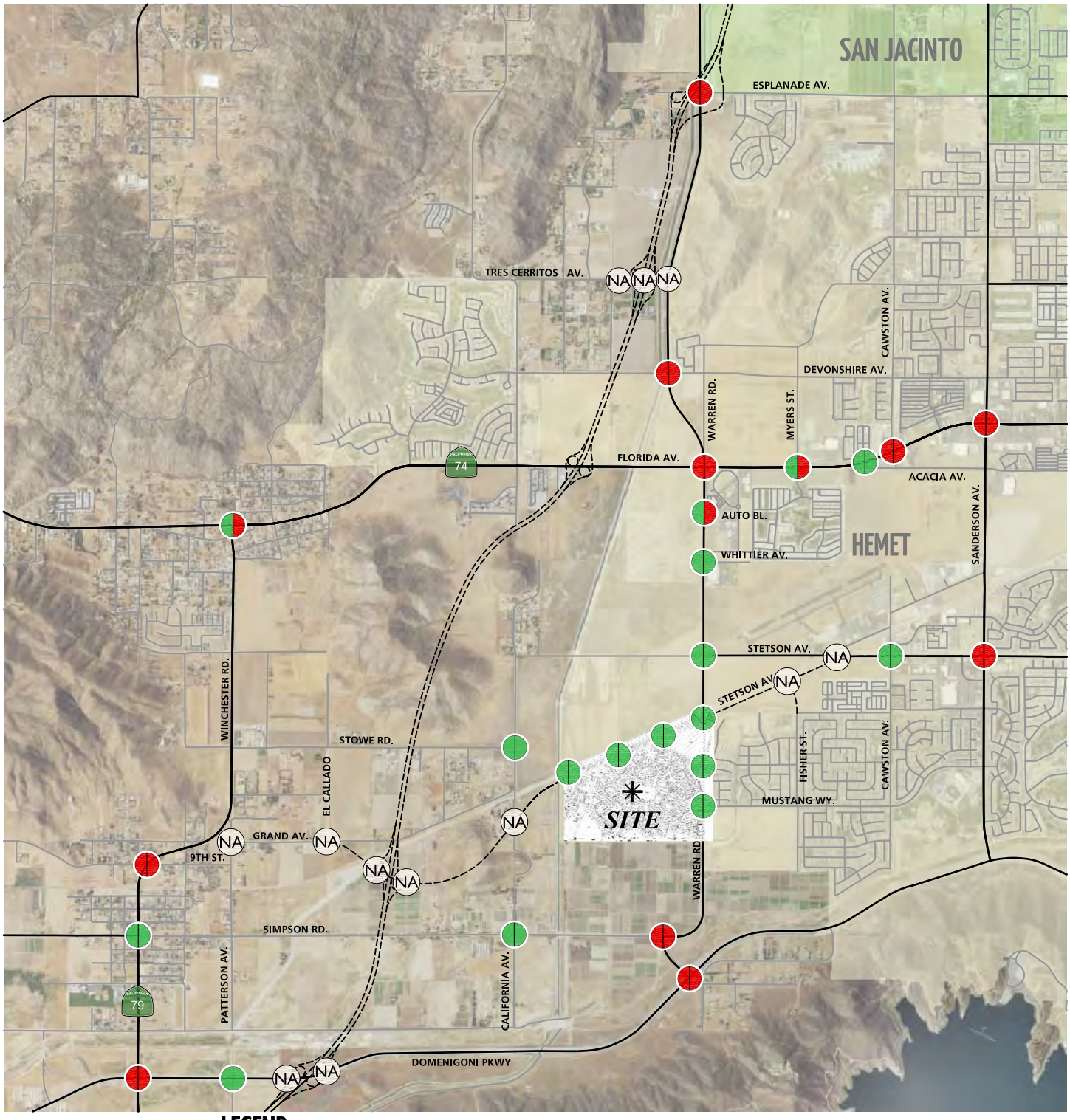


LEGEND:

- = AM PEAK HOUR ACCEPTABLE LOS
- = AM PEAK HOUR DEFICIENT LOS
- = PM PEAK HOUR ACCEPTABLE LOS
- = PM PEAK HOUR DEFICIENT LOS
- NA = NOT AN ANALYSIS LOCATION FOR THIS SCENARIO

N

EXHIBIT 6-6: OPENING YEAR CUMULATIVE (2024) WITH PROJECT SUMMARY OF LOS



LEGEND:

- = AM PEAK HOUR ACCEPTABLE LOS
- = AM PEAK HOUR DEFICIENT LOS
- = PM PEAK HOUR ACCEPTABLE LOS
- = PM PEAK HOUR DEFICIENT LOS
- NA = NOT AN ANALYSIS LOCATION FOR THIS SCENARIO

N

6.5 ROADWAY SEGMENT ANALYSIS

The roadway segment capacities utilized for the purposes of this analysis are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 6-2 provides a summary of the Opening Year Cumulative (2024) traffic conditions roadway segment capacity analysis based on the applicable roadway segment capacities.

6.5.1 OPENING YEAR CUMULATIVE (2024) WITHOUT PROJECT TRAFFIC CONDITIONS

As shown on Table 6-2, the addition of 8.24% ambient growth along with cumulative project traffic (15% absorption rate) is anticipated to result in the additional roadway segment capacity deficiencies in addition to those previously identified for Existing (2017) traffic conditions:

- Winchester Rd. (SR-79), South of Florida Av. (SR-74) (#1) – LOS F
- Winchester Rd. (SR-79), North of 9th St. (#2) – LOS F
- Warren Rd., Devonshire Av. to Florida Av. (SR-74) (#11) – LOS F
- Warren Rd., Florida Av. (SR-74) to Auto Bl. (#12) – LOS E
- Warren Rd., New Stetson Av. to Street D (#16) – LOS F
- Warren Rd., Street D to Mustang Wy. (#17) – LOS F
- Warren Rd., South of Mustang Wy. (#18) – LOS F
- Warren Rd., Simpson Rd. to Domenigoni Pkwy. (#19) – LOS D
- Florida Av. (SR-74), Warren Rd. to Myers St. (#20) – LOS F
- Florida Av. (SR-74), Myers St. to Acacia Av. (#21) – LOS F
- Florida Av. (SR-74), Acacia Av. to Cawston Av. (#22) – LOS F
- Florida Av. (SR-74), East of Cawston Av. (#23) – LOS F
- Florida Av. (SR-74), West of Sanderson Av. (#24) – LOS F

6.5.2 OPENING YEAR CUMULATIVE (2024) WITH PROJECT TRAFFIC CONDITIONS

As shown on Table 6-2, the addition of Project (Phase 1) traffic is not anticipated to result in any additional roadway segment deficiencies in addition to those previously identified for Existing (2017) and Opening Year Cumulative (2024) Without Project traffic conditions, with the exception of the following:

- Simpson Rd., East of Winchester Rd. (SR-79) (#41) – LOS D

Table 6-2

Roadway Segment Capacity Analysis for Opening Year Cumulative (2024) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS[3] Capacity[1]	2024 Without Project	V/C[2]	LOS[3]	2024 With Project	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Winchester Rd. (SR-79)	South of Florida Av. (SR-74)	2U	17,050	18,530	**1.09**	**F**	18,698	1.10	**F**	D
2		North of 9th St.	2U	17,050	18,198	**1.07**	**F**	18,366	1.08	**F**	D
3	Patterson Av.	South of Grand Av.	2U	12,950	515	0.04	A	515	0.04	A	D
4	California Av.	Stowe Rd. to New Stetson Av.	2U	12,950	374	0.03	A	374	0.03	A	D
5		New Stetson Av. to Simpson Rd.	2U	12,950	118	0.01	A	118	0.01	A	D
6	Mustang Wy.	South of New Stetson Av.		13,000	0	0.00	A	1,120	0.09	A	C
7		West of Warren Rd.		13,000	1,142	0.09	A	3,666	0.28	A	C
8	Warren Rd.	South of Esplanade Av.	2U	18,000	23,652	**1.31**	**F**	24,436	**1.36**	**F**	C
9		North of Tres Cerritos Av.	2U	18,000	16,497	**0.92**	**E**	17,281	**0.96**	**E**	C
10		Tres Cerritos Av. to Devonshire Av.	2U	18,000	16,497	**0.92**	**E**	17,281	**0.96**	**E**	C
11		Devonshire Av. to Florida Av. (SR-74)	2U	18,000	19,898	**1.11**	**F**	20,738	**1.15**	**F**	C
12		Florida Av. (SR-74) to Auto Bl.	3U	27,000	27,021	**1.00**	**E**	29,261	**1.08**	**F**	C
13		Auto Bl. to Whittier Av.	2U	18,000	17,025	**0.95**	**E**	19,377	**1.08**	**F**	C
14		Whitter Av. to Stetson Av.	2U	18,000	25,326	**1.41**	**F**	27,678	**1.54**	**F**	C
15		Stetson Av. to New Stetson Av.	2U	18,000	19,031	**1.06**	**F**	22,559	**1.25**	**F**	C
16		New Stetson Av. to Street D	2U	18,000	18,842	**1.05**	**F**	21,250	**1.18**	**F**	C
17		Street D to Mustang Wy.	2U	18,000	18,842	**1.05**	**F**	20,972	**1.17**	**F**	C
18		South of Mustang Wy.	2U	18,000	20,385	**1.13**	**F**	22,121	**1.23**	**F**	C
19		Simpson Rd. to Domenigoni Pkwy.	2U	18,000	15,728	**0.87**	**D**	16,904	**0.94**	**E**	C
20	Florida Av. (SR-74)	Warren Rd. to Myers St.	4D	35,900	44,522	**1.24**	**F**	45,698	**1.27**	**F**	C
21		Myers St. to Acacia Av.	5D	44,875	47,724	**1.06**	**F**	48,732	**1.09**	**F**	C
22		Acacia Av. to Cawston Av.	4D	35,900	41,424	**1.15**	**F**	42,348	**1.18**	**F**	C
23		East of Cawston Av.	4D	34,100	40,872	**1.20**	**F**	41,656	**1.22**	**F**	C
24		West of Sanderson Av.	4D	34,100	42,847	**1.26**	**F**	43,407	**1.27**	**F**	C
25	Stetson Av.	East of Warren Rd.	2U	13,000	13,651	**1.05**	**F**	14,827	**1.14**	**F**	C
26		West of New Stetson Av.	2U	13,000	13,651	**1.05**	**F**	14,827	**1.14**	**F**	C
27		New Stetson Av. to Cawston Av.	2U	18,000	10,781	0.60	A	11,957	0.66	B	C
28		East of Cawston Av.	4D	35,900	13,181	0.37	A	14,245	0.40	A	C
29		West of Sanderson Av.	4D	35,900	22,025	0.61	B	23,089	0.64	B	C
30	9th St.	East of Winchester Rd. (SR-79)	2U	17,950	150	0.01	A	150	0.01	A	D
31	Grand Av.	Patterson Av. to Calvert Av.	2U	18,000	74	0.00	A	74	0.00	A	D
32		Calvert Av. to SR-79		18,000	2040 Segment			2040 Segment			D
33	New Stetson Av.	East of SR-79		35,900	2040 Segment			2040 Segment			D
34		West of California Av.		35,900	2040 Segment			2040 Segment			D
35		California Av. to Street C		35,900	2040 Segment			2040 Segment			C
36		Street C to Mustang Wy.		35,900	2040 Segment			2040 Segment			C
37		Mustang Wy. to Street D		35,900	2040 Segment			2040 Segment			C
38		Street D to Warren Rd.		35,900	2040 Segment			2040 Segment			C
39		Warren Rd. to Fisher St.		35,900	2040 Segment			2040 Segment			C
40		Fisher St. to Stetson Av.		35,900	2040 Segment			2040 Segment			C
41	Simpson Rd.	East of Winchester Rd. (SR-79)	2U	12,950	7,663	0.59	A	8,223	0.63	B	D
42		West of California Av.	2U	12,950	5,269	0.41	A	5,829	0.45	A	D
43		East of California Av.	2U	12,950	5,240	0.40	A	5,800	0.45	A	D
44		West of Warren Rd.	2U	12,950	6,723	0.52	A	7,283	0.56	A	D
45		East of Warren Rd.	2U	12,950	20,386	**1.57**	**F**	22,122	**1.71**	**F**	D
46	Domenigoni Pkwy.	Winchester Rd. (SR-79) to Patterson Av.	4D	35,900	46,738	**1.30**	**F**	47,522	**1.32**	**F**	C
47		Patterson Av. to SR-79	4D	35,900	46,681	**1.30**	**F**	47,465	**1.32**	**F**	C
48		East of SR-79		35,900	2040 Segment			2040 Segment			C
49		West of Warren Rd.	4D	35,900	52,716	**1.47**	**F**	53,500	**1.49**	**F**	C

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been extracted from the County of Riverside's General Plan.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

As noted in Section 2.3 *Roadway Segment Capacity Analysis Methodology*, daily roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. Where the ADT-based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis has been undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Therefore, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes.

6.6 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants have been performed on unsignalized intersections that have not warranted a traffic signal under Existing (2017) or E+P traffic conditions.

6.6.1 OPENING YEAR CUMULATIVE (2024) WITHOUT PROJECT TRAFFIC CONDITIONS

For Opening Year Cumulative (2024) Without Project conditions, the following intersection appears to warrant a traffic signal in addition to those currently warranted under Existing (2017) and E+P conditions (see Appendix 6.3):

- Winchester Rd. (SR-79) / 9th St. (#2)

As noted previously, a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS.

6.6.2 OPENING YEAR CUMULATIVE (2024) WITH PROJECT TRAFFIC CONDITIONS

There are no additional study area intersections anticipated to warrant a traffic signal for Opening Year Cumulative (2024) With Project traffic conditions in addition to those previously warranted under Existing (2017), E+P, and Opening Year Cumulative (2024) Without Project traffic conditions (see Appendix 6.4).

6.7 OPENING YEAR CUMULATIVE (2024) DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

6.7.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Improvement strategies have been recommended at intersections that have been identified as deficient in an effort to reduce each location's peak hour delay and improve the associated LOS grade to an acceptable LOS (LOS D or better). The effectiveness of the recommended improvement strategies discussed below to address Opening Year Cumulative (2024) traffic deficiencies is presented in Table 6-3.

The intersection operations analysis worksheets for Opening Year Cumulative (2024) Without and With Project, with improvements, are included in Appendix 6.5 and 6.6, respectively.

6.7.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON ROADWAY SEGMENTS

Roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. As such, a review of the more detailed peak hour intersection analysis has been taken at the adjacent intersections in order to further evaluate the anticipated roadway segment deficiencies anticipated for Opening Year Cumulative (2024) traffic conditions.

The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Roadway widening have been recommended for the segments shown on Table 6-4 consistent with the intersection improvements recommended on Table 6-3. Additional widening has not been recommended for other segments, as the intersections adjacent to these deficient roadway segments are anticipated to operate at acceptable LOS during the peak hours.

Table 6-3

Intersection Analysis for Opening Year Cumulative (2024) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Winchester Rd. (SR-79) / Florida Av. (SR-74)																	
	- 2024 Without Project	TS	1	1	0	1	1	0	1	2	1	1	2	0	18.1	**109.1**	B	**F**
	- With Improvements[4]	TS	1	1	**1>**	1	1	0	1	**3**	1	1	**3**	0	32.6	28.4	C	C
	- 2024 With Project	TS	1	1	0	1	1	0	1	2	1	1	2	0	18.1	**111.8**	B	**F**
	- With Improvements[4]	TS	1	1	**1>**	1	1	0	1	**3**	1	1	**3**	0	33.1	29.6	C	C
2	Winchester Rd. (SR-79) / 9th St.																	
	- 2024 Without Project	CSS	1	1	0	1	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	1	1	0	1	1	0	0	1	0	0	1	0	15.7	20.6	B	C
	- 2024 With Project	CSS	1	1	0	1	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	1	1	0	1	1	0	0	1	0	0	1	0	15.8	21.4	B	C
4	Winchester Rd. (SR-79) / Domenigoni Pkwy.																	
	- 2024 Without Project	TS	1	2	1	1	2	1	2	2	1	2	3	1	**>200.0**	**>200.0**	**F**	**F**
	- With Improvements[5]	TS	1	2	**1>**	1	2	1	2	2	1	2	3	1	37.8	38.3	D	D
	- 2024 With Project	TS	1	2	1	1	2	1	2	2	1	2	3	1	**>200.0**	**>200.0**	**F**	**F**
	- With Improvements[5]	TS	1	2	**1>**	1	2	1	2	2	1	2	3	1	39.7	43.0	D	D
22	Warren Rd. / Esplanade Av.																	
	- 2024 Without Project	AWS	0	1	0	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	1	0	**1**	1	0	**1**	1	0	**1**	1	0	34.2	27.4	C	C
	- 2024 With Project	AWS	0	1	0	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	1	0	**1**	1	0	**1**	1	0	**1**	1	0	39.0	32.2	D	C
24	Warren Rd. / Devonshire Av.																	
	- 2024 Without Project	AWS	0	1	d	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	**2**	**0**	**1**	**2**	0	**1**	1	0	**1**	1	0	40.1	32.3	D	C
	- 2024 With Project	AWS	0	1	d	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	**2**	**0**	**1**	**2**	0	**1**	1	0	**1**	1	0	42.5	33.6	D	C
25	Warren Rd. / Florida Av. (SR-74)																	
	- 2024 Without Project	TS	1	2	1	1	2	1	1	2	0	1	2	0	**71.9**	**73.3**	**E**	**E**
	- With Improvements	TS	1	2	**1>**	1	2	1	1	**3**	0	**2**	**3**	0	46.7	45.8	D	D
	- 2024 With Project	TS	1	2	1	1	2	1	1	2	0	1	2	0	**79.4**	**93.3**	**E**	**F**
	- With Improvements	TS	1	2	**1>**	1	2	1	1	**3**	0	**2**	**3**	0	48.8	49.1	D	D
26	Warren Rd. / Auto Bl.																	
	- 2024 Without Project	CSS	0	1	d	1	1	0	0	0	0	0	1	0	26.5	**>100.0**	D	**F**
	- With Improvements	**TS**	0	**2**	**0**	1	**2**	0	0	0	0	0	1	0	12.1	20.1	B	C
	- 2024 With Project	CSS	0	1	d	1	1	0	0	0	0	0	1	0	30.0	**>100.0**	D	**F**
	- With Improvements	**TS**	0	**2**	**0**	1	**2**	0	0	0	0	0	1	0	12.8	22.2	B	C
32	Warren Rd. / Simpson Rd.																	
	- 2024 Without Project	AWS	1	0	1	0	0	0	0	1	0	1	1	0	**>100.0**	**91.4**	**F**	**F**
	- With Improvements[6]	**TS**	1	0	**1>**	0	0	0	0	1	0	1	1	0	23.4	25.5	C	C
	- 2024 With Project	AWS	1	0	1	0	0	0	0	1	0	1	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements[6]	**TS**	1	0	**1>**	0	0	0	0	1	0	1	1	0	30.0	32.0	C	C
33	Warren Rd. / Domenigoni Pkwy.																	
	- 2024 Without Project	TS	0	1	d	0	1	0	1	2	1	1	2	1	**181.3**	**101.0**	**F**	**F**
	- With Improvements	TS	**1**	1	**0**	**1**	1	**1>**	**2**	2	1	1	2	1	28.3	28.9	C	C
	- 2024 With Project	TS	0	1	d	0	1	0	1	2	1	1	2	1	**197.5**	**132.2**	**F**	**F**
	- With Improvements	TS	**1**	1	**0**	**1**	1	**1>**	**2**	2	1	1	2	1	35.9	34.7	D	C

Table 6-3

Intersection Analysis for Opening Year Cumulative (2024) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
34	Myers St. / Florida Av. (SR-74)																	
	- 2024 Without Project	TS	1	1	0	1	1	1	1	2	d	1	2	1	51.6	**>200.0**	D	**F**
	- With Improvements	TS	1	1	0	1	1	1	1	**3**	**0**	1	**3**	1	25.8	32.7	C	C
	- 2024 With Project	TS	1	1	0	1	1	1	1	2	d	1	2	1	**57.2**	**>200.0**	**E**	**F**
	- With Improvements	TS	1	1	0	1	1	1	1	**3**	**0**	1	**3**	1	26.0	34.1	C	C
38	Cawston Av. / Florida Av. (SR-74)																	
	- 2024 Without Project	TS	1	2	0	1	1	1	1	2	1	1	2	d	**78.3**	**112.9**	**E**	**F**
	- With Improvements	TS	1	2	0	1	1	1	1	**3**	1	1	**3**	**1**	33.0	41.3	C	D
	- 2024 With Project	TS	1	2	0	1	1	1	1	2	1	1	2	d	**82.3**	**123.5**	**F**	**F**
	- With Improvements	TS	1	2	0	1	1	1	1	**3**	1	1	**3**	**1**	33.3	42.3	C	D
40	Sanderson Av. / Florida Av. (SR-74)																	
	- 2024 Without Project	TS	1	2	1	1	2	d	1	2	1	1	2	d	**82.2**	**130.0**	**F**	**F**
	- With Improvements	TS	**2**	**3**	1	**2**	**3**	**1**	**2**	2	1	**2**	2	**1**	35.9	45.9	D	D
	- 2024 With Project	TS	1	2	1	1	2	d	1	2	1	1	2	d	**83.7**	**135.1**	**F**	**F**
	- With Improvements	TS	**2**	**3**	1	**2**	**3**	**1**	**2**	2	1	**2**	2	**1**	36.3	46.6	D	D
41	Sanderson Av. / Stetson Av.																	
	- 2024 Without Project	TS	1	2	1>	1	2	0	1	2	0	1	2	0	**128.2**	**146.7**	**F**	**F**
	- With Improvements	TS	**2**	2	1>	**2**	2	**1>**	**2**	2	0	**2**	2	0	44.1	49.3	D	D
	- 2024 With Project	TS	1	2	1>	1	2	0	1	2	0	1	2	0	**135.7**	**155.5**	**F**	**F**
	- With Improvements	TS	**2**	2	1>	**2**	2	**1>**	**2**	2	0	**2**	2	0	46.0	51.3	D	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free Right Turn Lane; d= Defacto Right Turn Lane; **1** = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

[4] Recommended Iimprovement also consists of protecting the northbound and southbound left turn movements.

[5] Recommended improvement also consists of implementing 2-stage pedestrian crossing for all approaches.

[6] The northbound right turn overlap phasing is not needed in the future (long-range traffic conditions) with the realignment of the intersection.

Table 6-4

Roadway Segment Capacity Analysis for Opening Year Cumulative (2024) Conditions With Improvements

#	Roadway	Segment Limits	Roadway Section	LOS[3] Capacity[1]	2024 Without Project	V/C[2]	LOS[3]	2024 With Project	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Winchester Rd. (SR-79)	South of Florida Av. (SR-74)	4D	34,100	18,530	0.54	A	18,698	0.55	A	D
2		North of 9th St.	4D	34,100	18,198	0.53	A	18,366	0.54	A	D
8	Warren Rd.	South of Esplanade Av.	4D	35,900	23,652	0.66	B	24,436	0.68	B	C
9		North of Tres Cerritos Av.	4D	35,900	16,497	0.46	A	17,281	0.48	A	C
10		Tres Cerritos Av. to Devonshire Av.	4D	35,900	16,497	0.46	A	17,281	0.48	A	C
11		Devonshire Av. to Florida Av. (SR-74)	4D	35,900	19,898	0.55	A	20,738	0.58	A	C
12		Florida Av. (SR-74) to Auto Bl.	4D	35,900	27,021	0.75	C	29,261	**0.82**	**D**	C
13		Auto Bl. to Whittier Av.	4D	35,900	17,025	0.47	A	19,377	0.54	A	C
14		Whitter Av. to Stetson Av.	4D	35,900	25,326	0.71	C	27,678	0.77	C	C
15		Stetson Av. to New Stetson Av.	4D	35,900	19,031	0.53	A	22,559	0.63	B	C
16		New Stetson Av. to Street D	4D	35,900	18,842	0.52	A	21,250	0.59	A	C
17		Street D to Mustang Wy.	4D	35,900	18,842	0.52	A	20,972	0.58	A	C
18		South of Mustang Wy.	4D	35,900	20,385	0.57	A	22,121	0.62	B	C
19		Simpson Rd. to Domenigoni Pkwy.	4D	35,900	15,728	0.44	A	16,904	0.47	A	C
20	Florida Av. (SR-74)	Warren Rd. to Myers St.	6D	53,900	44,522	**0.83**	**D**	45,698	**0.85**	**D**	C
21		Myers St. to Acacia Av.	6D	53,900	47,724	**0.89**	**D**	48,732	**0.90**	**D**	C
22		Acacia Av. to Cawston Av.	6D	53,900	41,424	0.77	C	42,348	0.79	C	C
23		East of Cawston Av.	6D	53,900	40,872	0.76	C	41,656	0.77	C	C
24		West of Sanderson Av.	6D	53,900	42,847	0.79	C	43,407	**0.81**	**D**	C
25	Stetson Av.	East of Warren Rd.	4D	35,900	13,651	0.38	A	14,827	0.41	A	C
26		West of New Stetson Av.	4D	35,900	13,651	0.38	A	14,827	0.41	A	C
45	Simpson Rd.	East of Warren Rd.	4D	25,900	20,386	0.79	C	22,122	**0.85**	**D**	C
46	Domenigoni Pkwy.	Winchester Rd. (SR-79) to Patterson Av.	6D	53,900	46,738	**0.87**	**D**	47,522	**0.88**	**D**	C
47		Patterson Av. to SR-79	6D	53,900	46,681	**0.87**	**D**	47,465	**0.88**	**D**	C
49		West of Warren Rd.	6D	53,900	52,716	**0.98**	**E**	53,500	**0.99**	**E**	C

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been extracted from the County of Riverside's General Plan.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

7 OPENING YEAR CUMULATIVE (2026) TRAFFIC CONDITIONS

This section discusses the methods used to develop Opening Year Cumulative (2026) traffic forecasts, and the resulting intersection operations, roadway segment capacity, and traffic signal warrant analyses.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative (2026) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for E+P conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways). These include the Project site adjacent roadways Mustang Way, Warren Road, and the new Stetson Avenue.
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).

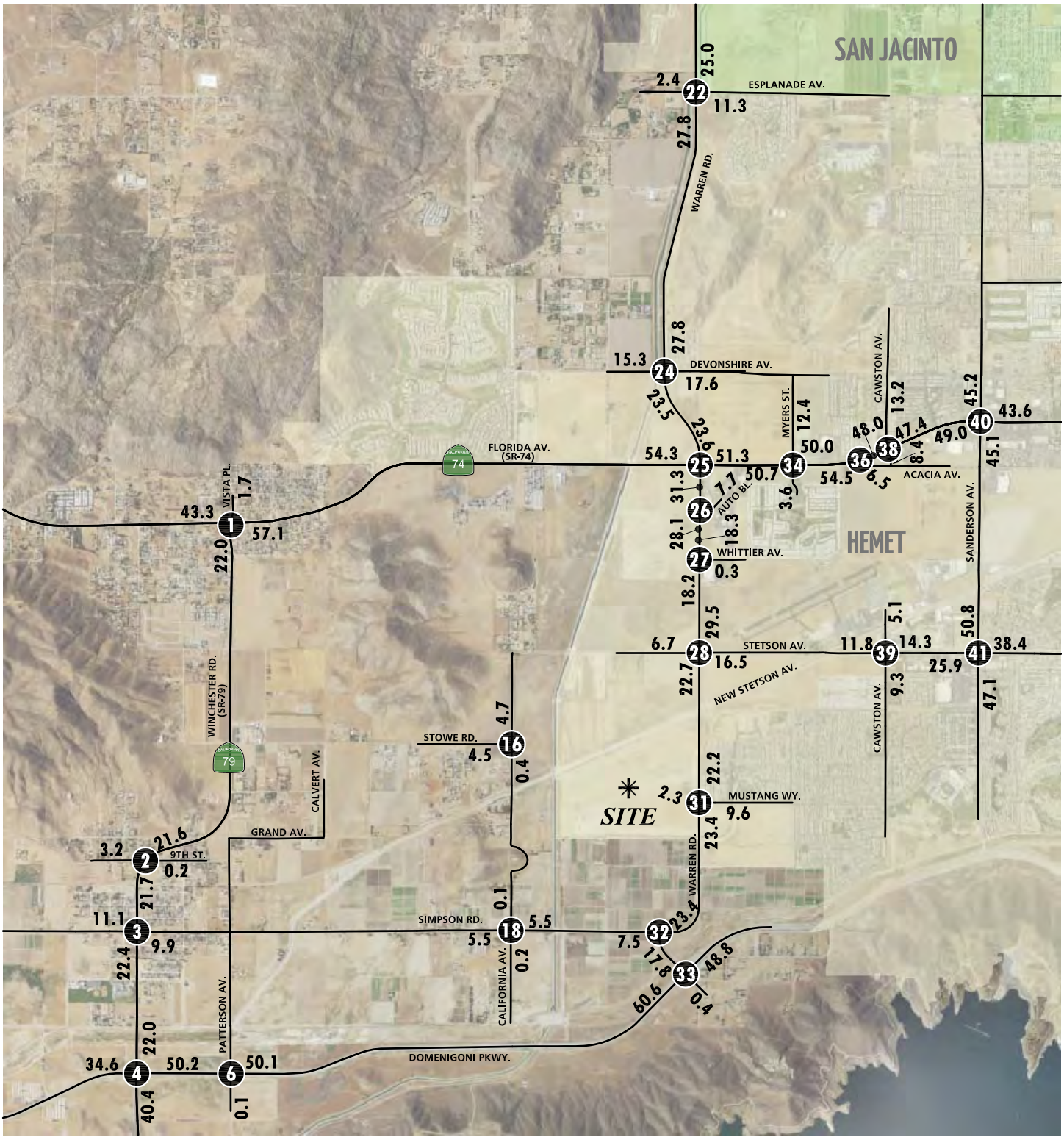
7.2 OPENING YEAR CUMULATIVE (2026) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 19.51% and traffic from pending and approved, but not yet constructed, known development projects in the area (at a 30% absorption rate of the cumulative development project traffic).. Exhibit 7-1 shows the ADT volumes which can be expected for Opening Year Cumulative (2026) Without Project traffic conditions. Opening Year Cumulative (2026) Without Project weekday AM and weekday PM peak hour intersection turning movement volumes are shown on Exhibit 7-2.

7.3 OPENING YEAR CUMULATIVE (2026) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 19.51%, traffic from pending and approved, but not yet constructed, known development projects in the area, and the addition of Project (Project Buildout) traffic. Exhibit 7-3 shows the ADT volumes which can be expected for Opening Year Cumulative (2026) With Project traffic conditions. Opening Year Cumulative (2026) With Project weekday AM and weekday PM peak hour intersection turning movement volumes are shown on Exhibit 7-4.

EXHIBIT 7-1: OPENING YEAR CUMULATIVE (2026) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT)

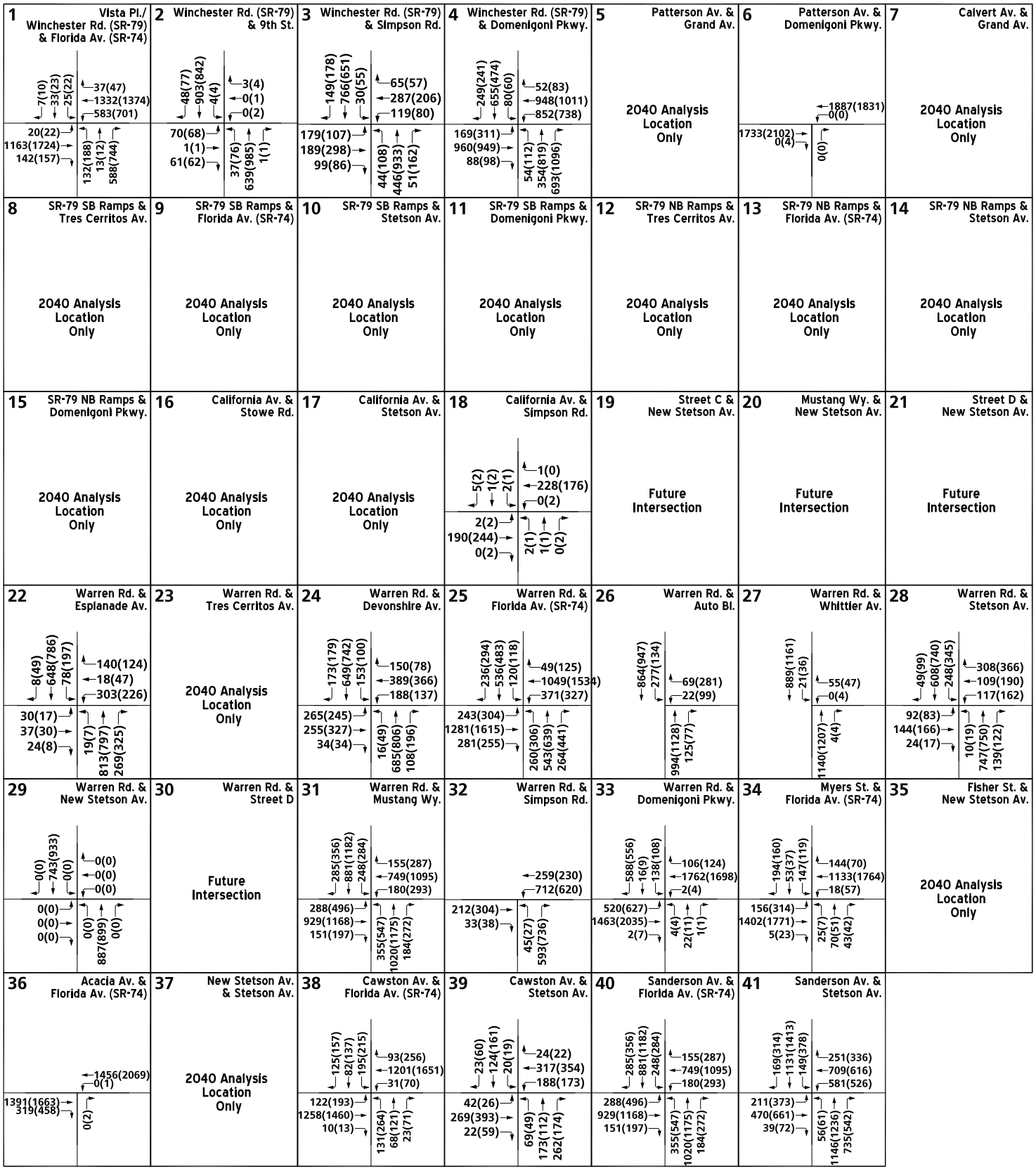


LEGEND:

10.0 = ESTIMATED VEHICLES PER DAY (1000'S)

NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

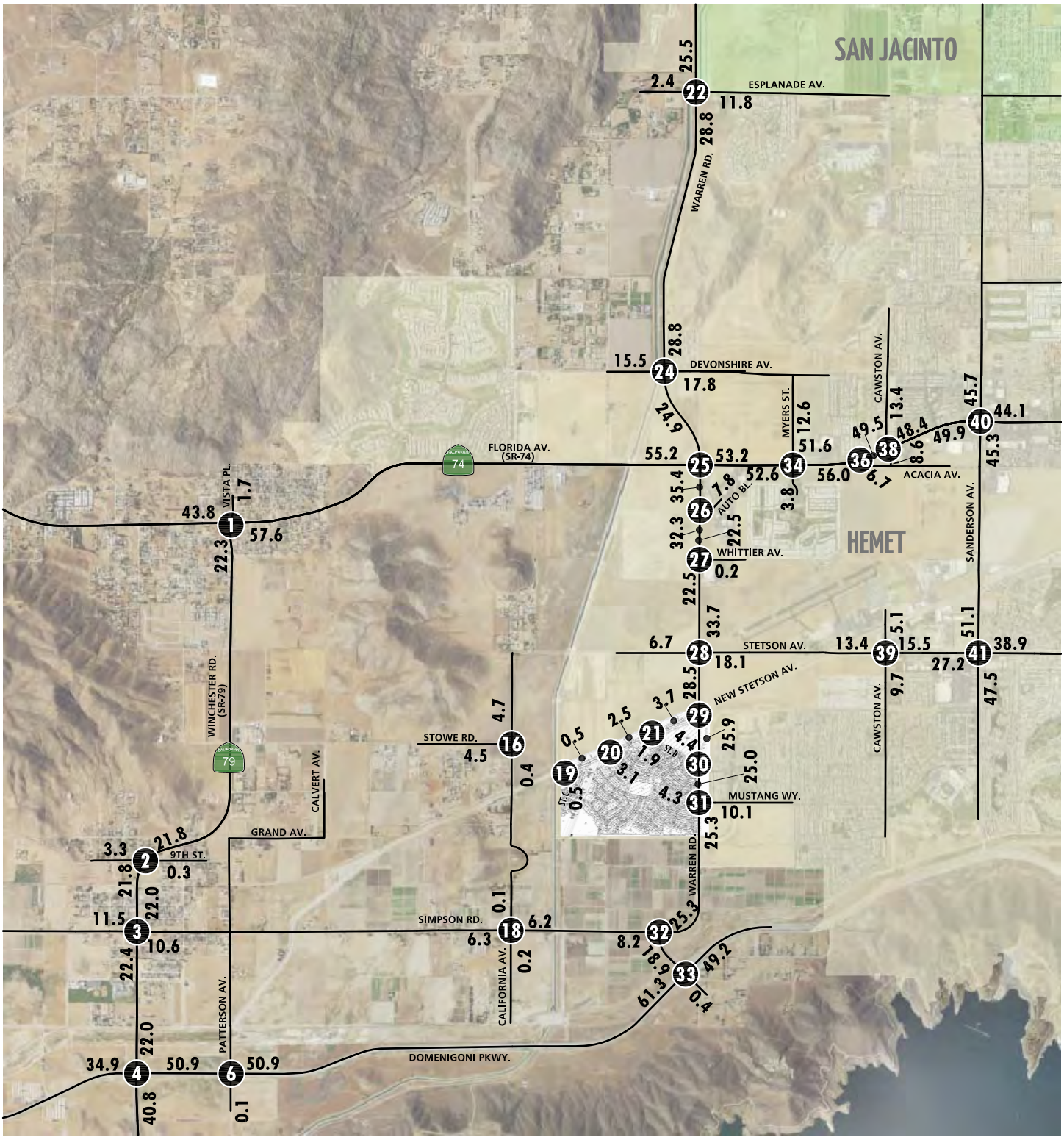
EXHIBIT 7-2: OPENING YEAR CUMULATIVE (2026) WITHOUT PROJECT TRAFFIC VOLUMES



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

EXHIBIT 7-3: OPENING YEAR CUMULATIVE (2026) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

N

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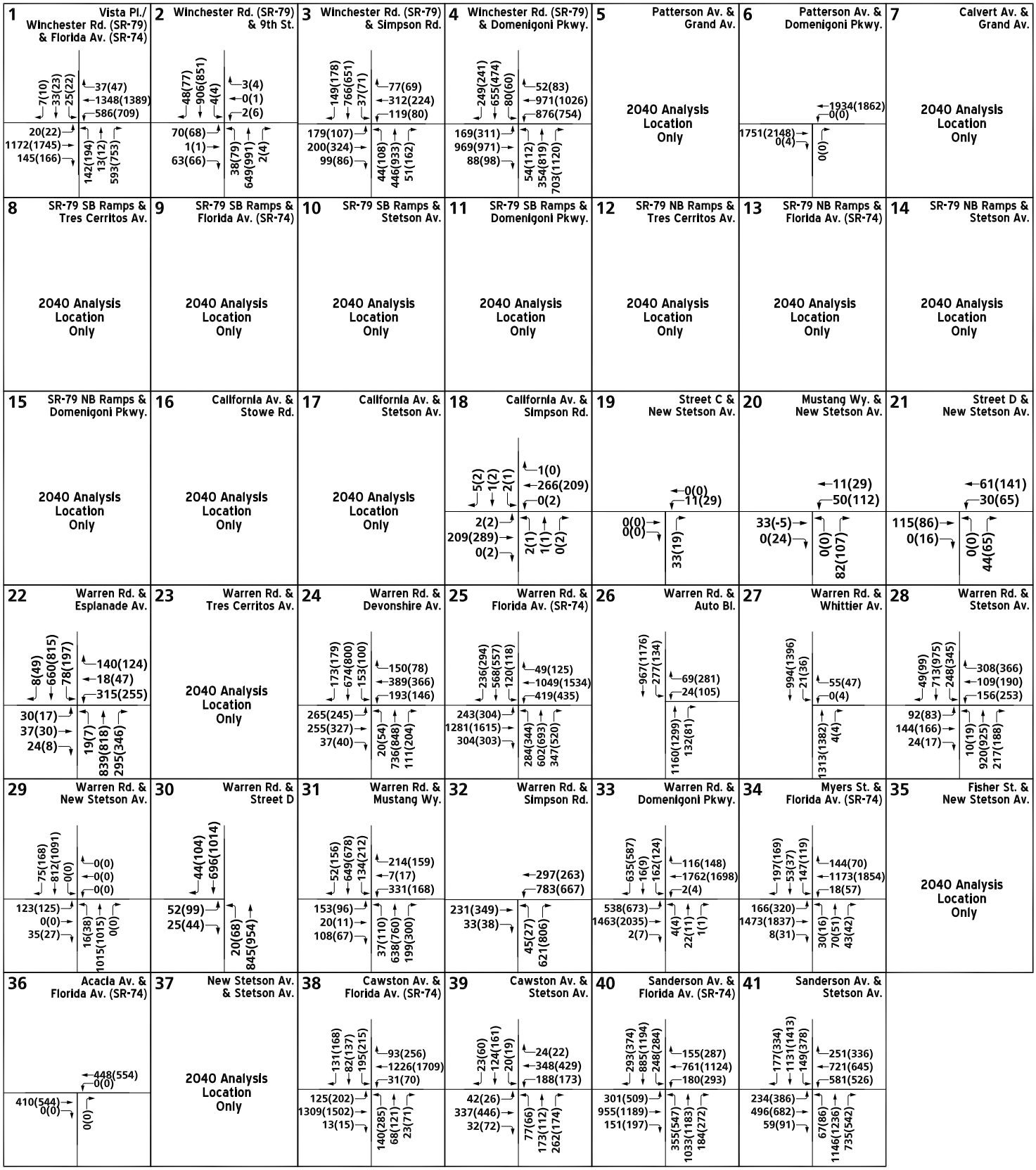
EXHIBIT 7-4: OPENING YEAR CUMULATIVE (2026) WITH PROJECT TRAFFIC VOLUMES



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

7.4 INTERSECTION OPERATIONS ANALYSIS

Level of service calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative (2026) conditions with existing roadway and intersection geometrics consistent with those described under Section 7.1 *Roadway Improvements*.

7.4.1 OPENING YEAR CUMULATIVE (2026) WITHOUT PROJECT TRAFFIC CONDITIONS

The intersection analysis results are summarized in Table 7-1, which indicates that the following additional intersections are anticipated to operate at unacceptable LOS, in addition to those previously identified for Existing (2017), E+P, and Opening Year Cumulative (2024) traffic conditions:

- Warren Rd. / Mustang Wy. (#31) – LOS E PM peak hour only

Consistent with Table 7-1, a summary of the peak hour intersection LOS for Opening Year Cumulative (2026) Without Project conditions are shown on Exhibit 7-5. The intersection operations analysis worksheets for Opening Year Cumulative (2026) Without Project traffic conditions are included in Appendix 7.1 of this TIA.

7.4.2 OPENING YEAR CUMULATIVE (2026) WITH PROJECT TRAFFIC CONDITIONS

As shown on Table 7-1 and illustrated on Exhibit 7-6, the following additional study area intersection is anticipated to experience unacceptable LOS (i.e., LOS E or worse) with the addition of Project (Project Buildout) traffic, in addition to those previously identified under Existing (2017), E+P, Opening Year Cumulative (2024), and Opening Year Cumulative (2026) Without Project conditions:

- Warren Rd. / Whittier Av. (#27) – LOS E PM peak hour only

The intersection operations analysis worksheets for Opening Year Cumulative (2026) With Project traffic conditions are included in Appendix 7.2 of this TIA. Measures to address near-term deficiencies for Opening Year Cumulative traffic conditions are discussed in Section 7.7 *Opening Year Cumulative (2026) Deficiencies and Recommended Improvements.*

7.5 ROADWAY SEGMENT ANALYSIS

The roadway segment capacities utilized for the purposes of this analysis are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 7-2 provides a summary of the Opening Year Cumulative (2026) traffic conditions roadway segment capacity analysis based on the applicable roadway segment capacities.

Table 7-1

Intersection Analysis for Opening Year Cumulative (2026) Conditions

#	Intersection	Traffic Control[2]	2026 Without Project				2026 With Project			
			Delay[1] (secs.)		LOS		Delay[1] (secs.)		LOS	
			AM	PM	AM	PM	AM	PM	AM	PM
1	Winchester Rd. (SR-79) / Florida Av. (SR-74)	TS	33.6	**160.0**	C	**F**	34.6	**164.4**	C	**F**
2	Winchester Rd. (SR-79) / 9th St.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
3	Winchester Rd. (SR-79) / Simpson Rd.	TS	40.6	25.8	D	C	41.0	27.3	D	C
4	Winchester Rd. (SR-79) / Domenigoni Pkwy.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
5	Patterson Av. / Grand Av.		2040 Analysis Location				2040 Analysis Location			
6	Patterson Av. / Domenigoni Pkwy.	CSS	21.2	0.0	C	A	21.8	0.0	C	A
7	El Callado Rd./Remington Wy. / Grand Av.		2040 Analysis Location				2040 Analysis Location			
8	SR-79 SB Ramps / Tres Cerritos Av.		2040 Analysis Location				2040 Analysis Location			
9	SR-79 SB Ramps / Florida Av. (SR-74)		2040 Analysis Location				2040 Analysis Location			
10	SR-79 SB Ramps / Stetson Av.		2040 Analysis Location				2040 Analysis Location			
11	SR-79 SB Ramps / Domenigoni Pkwy.		2040 Analysis Location				2040 Analysis Location			
12	SR-79 NB Ramps / Tres Cerritos Av.		2040 Analysis Location				2040 Analysis Location			
13	SR-79 NB Ramps / Florida Av. (SR-74)		2040 Analysis Location				2040 Analysis Location			
14	SR-79 NB Ramps / Stetson Av.		2040 Analysis Location				2040 Analysis Location			
15	SR-79 NB Ramps / Domenigoni Pkwy.		2040 Analysis Location				2040 Analysis Location			
16	California Av. / Stowe Rd.	CSS	9.1	9.4	A	A	9.1	9.4	A	A
17	California Av. / Stetson Av.		2040 Analysis Location				2040 Analysis Location			
18	California Av. / Simpson Rd.	CSS	12.3	11.3	B	B	13.0	12.0	B	B
19	St. C / New Stetson Av.	**CSS**	Future Analysis Location				8.4	8.4	A	A
20	Mustang Wy. / New Stetson Av.	**CSS**	Future Analysis Location				8.8	8.8	A	A
21	St. D / New Stetson Av.	**CSS**	Future Analysis Location				9.1	9.1	A	A
22	Warren Rd. / Esplanade Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
23	Warren Rd. / Tres Cerritos Av.		2040 Analysis Location				2040 Analysis Location			
24	Warren Rd. / Devonshire Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
25	Warren Rd. / Florida Av. (SR-74)	TS	**93.1**	**101.6**	**F**	**F**	**108.0**	**133.6**	**F**	**F**
26	Warren Rd. / Auto Bl.	CSS	**41.4**	**>100.0**	**E**	**F**	**70.2**	**>100.0**	**F**	**F**
27	Warren Rd. / Whittier Av.	CSS	25.3	31.6	D	D	33.3	**44.0**	D	**E**
28	Warren Rd. / Stetson Av.	**TS**[3]	47.4	51.3	D	D	51.7	53.6	D	D
29	Warren Rd. / New Stetson Av.	**TS**	Future Analysis Location				14.4	37.1	B	D
30	Warren Rd. / St. D	**TS**	Future Analysis Location				5.9	47.9	A	D
31	Warren Rd. / Mustang Wy.	TS	42.9	**62.9**	D	**E**	**78.1**	**84.5**	**E**	**F**
32	Warren Rd. / Simpson Rd.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
33	Warren Rd. / Domenigoni Pkwy.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
34	Myers St. / Florida Av. (SR-74)	TS	**98.6**	**>200.0**	**F**	**F**	**115.2**	**>200.0**	**F**	**F**
35	Fisher St. / New Stetson Av.		2040 Analysis Location				2040 Analysis Location			
36	Acacia Av. / Florida Av. (SR-74)	CSS	0.0	14.4	A	B	0.0	14.4	A	B
37	New Stetson Av. / Stetson Av.		2040 Analysis Location				2040 Analysis Location			
38	Cawston Av. / Florida Av. (SR-74)	TS	**134.2**	**174.7**	**F**	**F**	**147.0**	**186.5**	**F**	**F**
39	Cawston Av. / Stetson Av.	TS	11.6	11.4	B	B	11.9	11.4	B	B
40	Sanderson Av. / Florida Av. (SR-74)	TS	**105.8**	**>200.0**	**F**	**F**	**106.3**	**>200.0**	**F**	**F**
41	Sanderson Av. / Stetson Av.	TS	**171.8**	**>200.0**	**F**	**F**	**185.9**	**>200.0**	**F**	**F**

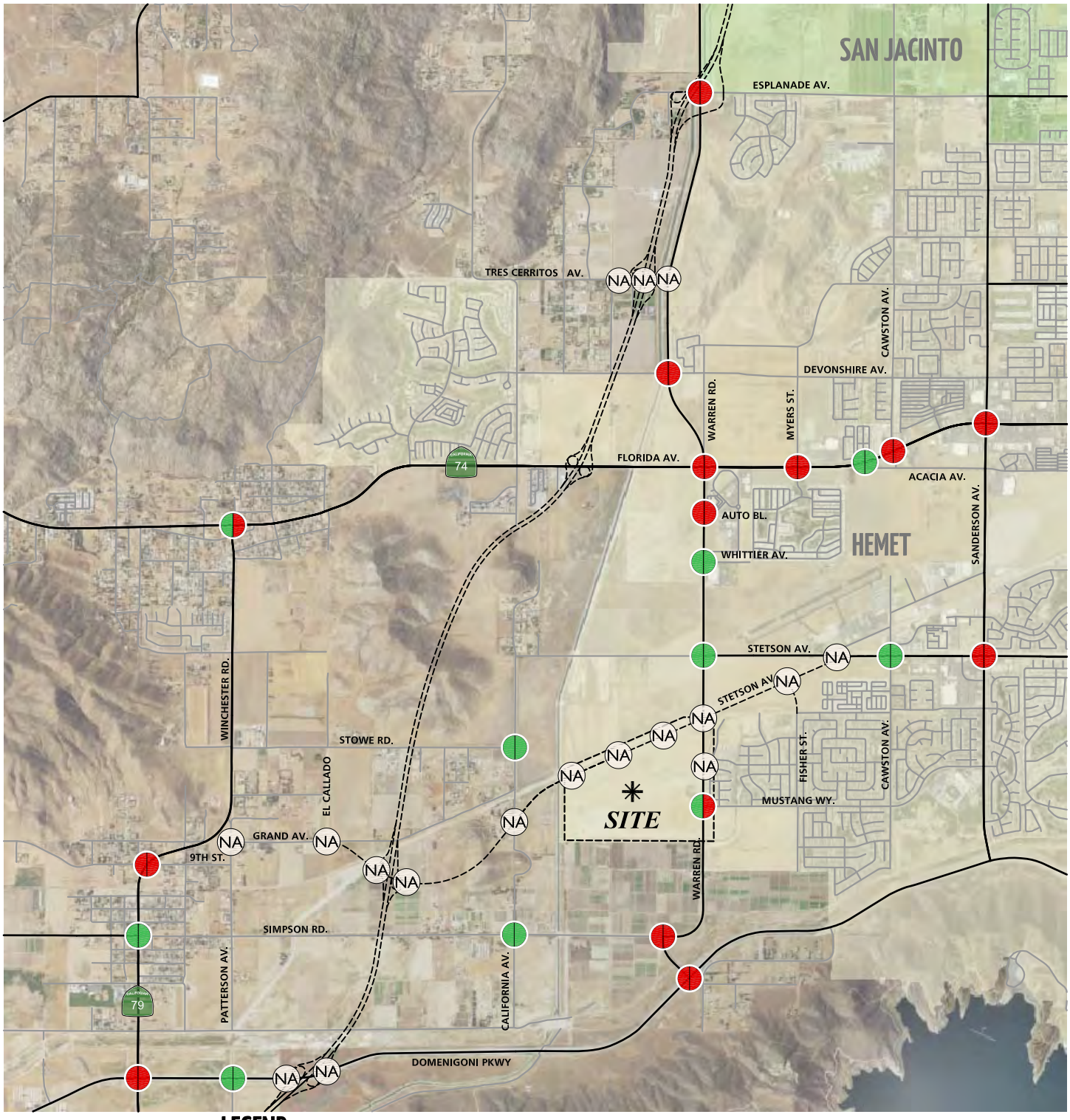
BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] AWS = All Way Stop; CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

[3] As a Condition of Approval and Mitigation Measure for Tract 31807/31808, Warren Road and Stetson Avenue will be analyzed as a signalized intersection for future conditions.

EXHIBIT 7-5: OPENING YEAR CUMULATIVE (2026) WITHOUT PROJECT SUMMARY OF LOS

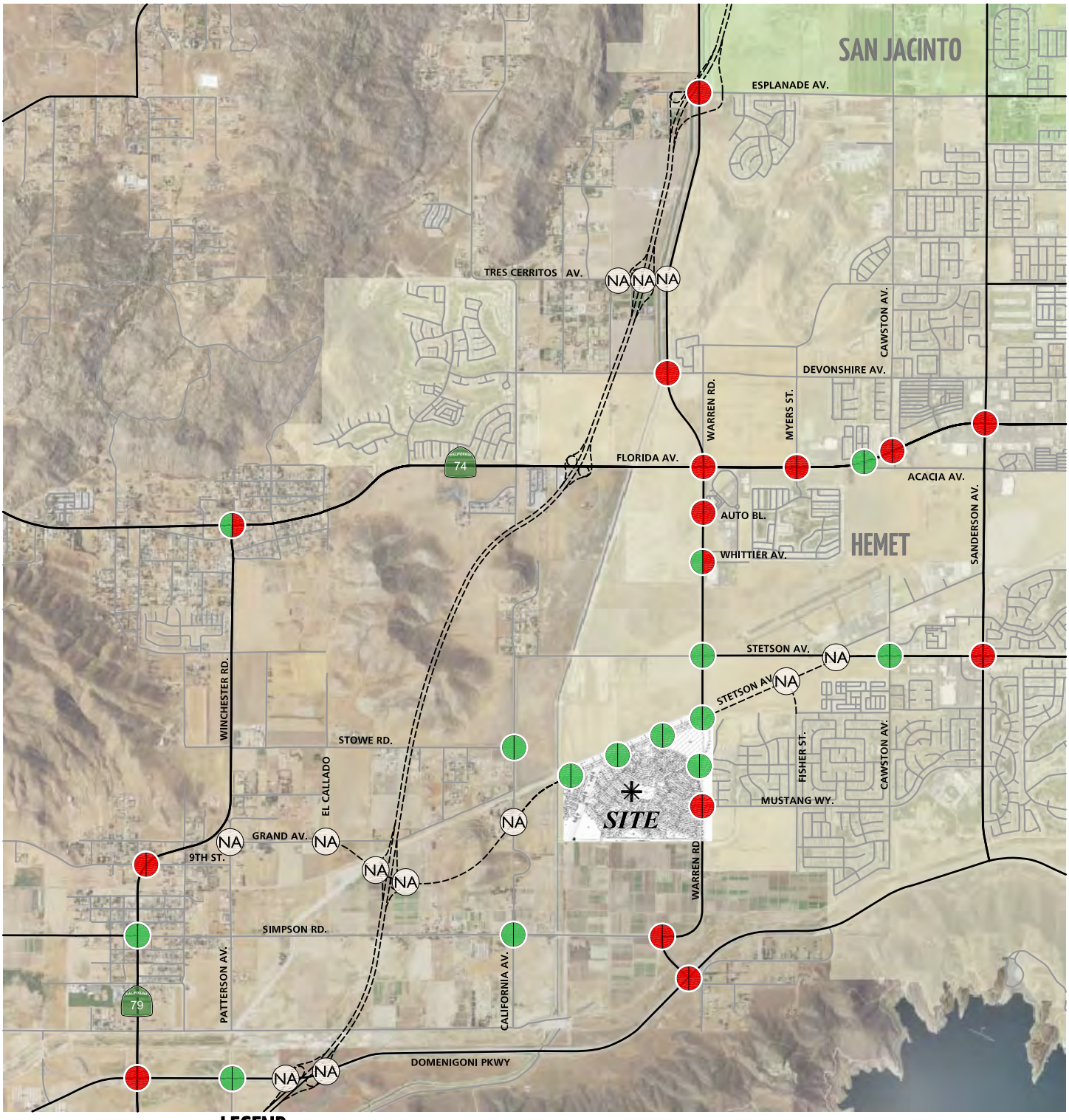


LEGEND:

- = AM PEAK HOUR ACCEPTABLE LOS
- = AM PEAK HOUR DEFICIENT LOS
- = PM PEAK HOUR ACCEPTABLE LOS
- = PM PEAK HOUR DEFICIENT LOS
- NA = NOT AN ANALYSIS LOCATION FOR THIS SCENARIO

N

EXHIBIT 7-6: OPENING YEAR CUMULATIVE (2026) WITH PROJECT SUMMARY OF LOS



LEGEND:

- = AM PEAK HOUR ACCEPTABLE LOS
- = AM PEAK HOUR DEFICIENT LOS
- = PM PEAK HOUR ACCEPTABLE LOS
- = PM PEAK HOUR DEFICIENT LOS
- NA = NOT AN ANALYSIS LOCATION FOR THIS SCENARIO

N

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7.5.1 Opening Year Cumulative (2026) Without Project Traffic Conditions

As shown on Table 7-2, the addition of 19.51% ambient growth along with cumulative project traffic (30% absorption rate) is anticipated to result in no additional roadway segment capacity deficiencies, in addition to those previously identified for Existing (2017), E+P, and Opening Year Cumulative (2024) traffic conditions.

7.5.2 Opening Year Cumulative (2026) With Project Traffic Conditions

As shown on Table 7-2, the addition of Project (Buildout) traffic is not anticipated to result in any additional roadway segment capacity deficiency, in addition to those previously identified for Existing (2017), E+P, Opening Year Cumulative (2024), and Opening Year Cumulative (2026) Without Project traffic conditions.

As noted in Section 2.3 *Roadway Segment Capacity Analysis Methodology*, daily roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. Where the ADT-based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis has been undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Therefore, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes.

7.6 Traffic Signal Warrants Analysis

Traffic signal warrants have been performed on unsignalized intersections that have not warranted a signal under Existing (2017), E+P, and Opening Year Cumulative (2024) conditions.

7.6.1 Opening Year Cumulative (2026) Without Project Traffic Conditions

For Opening Year Cumulative (2026) Without Project conditions, there are no intersections that appear to warrant a traffic signal, in addition to those currently warranted under Existing (2017), E+P, and Opening Year Cumulative (2024) conditions (see Appendix 7.3).

Table 7-2

Roadway Segment Capacity Analysis for Opening Year Cumulative (2026) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS[3] Capacity[1]	2026 Without Project	V/C[2]	LOS[3]	2026 With Project	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Winchester Rd. (SR-79)	South of Florida Av. (SR-74)	2U	17,050	21,997	**1.29**	**F**	22,318	**1.31**	**F**	D
2		North of 9th St.	2U	17,050	21,625	**1.27**	**F**	21,762	**1.28**	**F**	D
3	Patterson Av.	South of Grand Av.	2U	12,950	535	0.04	A	535	0.04	A	D
4	California Av.	Stowe Rd. to New Stetson Av.	2U	12,950	396	0.03	A	396	0.03	A	D
5		New Stetson Av. to Simpson Rd.	2U	12,950	123	0.01	A	123	0.01	A	D
6	Mustang Wy.	South of New Stetson Av.		13,000	0	0.00	A	3,140	0.24	A	C
7		West of Warren Rd.		13,000	2,284	0.18	A	4,338	0.33	A	C
8	Warren Rd.	South of Esplanade Av.	2U	18,000	27,837	**1.55**	**F**	28,841	**1.60**	**F**	C
9		North of Tres Cerritos Av.	2U	18,000	18,107	**1.01**	**F**	19,111	**1.06**	**F**	C
10		Tres Cerritos Av. to Devonshire Av.	2U	18,000	18,107	**1.01**	**F**	19,111	**1.06**	**F**	C
11		Devonshire Av. to Florida Av. (SR-74)	2U	18,000	23,527	**1.31**	**F**	24,833	**1.38**	**F**	C
12		Florida Av. (SR-74) to Auto Bl.	3U	27,000	31,298	**1.16**	**F**	35,424	**1.31**	**F**	C
13		Auto Bl. to Whittier Av.	2U	18,000	18,333	**1.02**	**F**	22,550	**1.25**	**F**	C
14		Whitter Av. to Stetson Av.	2U	18,000	29,520	**1.64**	**F**	33,737	**1.87**	**F**	C
15		Stetson Av. to New Stetson Av.	2U	18,000	22,685	**1.26**	**F**	28,480	**1.58**	**F**	C
16		New Stetson Av. to Street D	2U	18,000	22,488	**1.25**	**F**	25,909	**1.44**	**F**	C
17		Street D to Mustang Wy.	2U	18,000	22,488	**1.25**	**F**	24,952	**1.39**	**F**	C
18		South of Mustang Wy.	2U	18,000	23,397	**1.30**	**F**	25,321	**1.41**	**F**	C
19		Simpson Rd. to Domenigoni Pkwy.	2U	18,000	17,792	**0.99**	**E**	18,931	**1.05**	**F**	C
20	Florida Av. (SR-74)	Warren Rd. to Myers St.	4D	35,900	51,303	**1.43**	**F**	53,211	**1.48**	**F**	C
21		Myers St. to Acacia Av.	5D	44,875	54,455	**1.21**	**F**	56,043	**1.25**	**F**	C
22		Acacia Av. to Cawston Av.	4D	35,900	48,023	**1.34**	**F**	49,451	**1.38**	**F**	C
23		East of Cawston Av.	4D	34,100	47,395	**1.39**	**F**	48,399	**1.42**	**F**	C
24		West of Sanderson Av.	4D	34,100	49,026	**1.44**	**F**	49,848	**1.46**	**F**	C
25	Stetson Av.	East of Warren Rd.	2U	13,000	16,493	**1.27**	**F**	18,071	**1.39**	**F**	C
26		West of New Stetson Av.	2U	13,000	16,493	**1.27**	**F**	18,071	**1.39**	**F**	C
27		New Stetson Av. to Cawston Av.	2U	18,000	11,776	0.65	B	13,353	0.74	C	C
28		East of Cawston Av.	4D	35,900	14,273	0.40	A	15,540	0.43	A	C
29		West of Sanderson Av.	4D	35,900	25,893	0.72	C	27,161	0.76	C	C
30	9th St.	East of Winchester Rd. (SR-79)	2U	17,950	177	0.01	A	251	0.01	A	D
31	Grand Av.	Patterson Av. to Calvert Av.	2U	18,000	76	0.00	A	76	0.00	A	D
32		Calvert Av. to SR-79		18,000	2040 Segment			2040 Segment			D
33	New Stetson Av.	East of SR-79		35,900	2040 Segment			2040 Segment			D
34		West of California Av.		35,900	2040 Segment			2040 Segment			D
35		California Av. to Street C		35,900	2040 Segment			2040 Segment			C
36		Street C to Mustang Wy.		35,900	2040 Segment			2040 Segment			C
37		Mustang Wy. to Street D		35,900	2040 Segment			2040 Segment			C
38		Street D to Warren Rd.		35,900	2040 Segment			2040 Segment			C
39		Warren Rd. to Fisher St.		35,900	2040 Segment			2040 Segment			C
40		Fisher St. to Stetson Av.		35,900	2040 Segment			2040 Segment			C
41	Simpson Rd.	East of Winchester Rd. (SR-79)	2U	12,950	9,848	0.76	C	10,560	0.82	D	D
42		West of California Av.	2U	12,950	5,482	0.42	A	6,267	0.48	A	D
43		East of California Av.	2U	12,950	5,452	0.42	A	6,237	0.48	A	D
44		West of Warren Rd.	2U	12,950	7,457	0.58	A	8,242	0.64	B	D
45		East of Warren Rd.	2U	12,950	23,396	**1.81**	**F**	25,319	**1.96**	**F**	D
46	Domenigoni Pkwy.	Winchester Rd. (SR-79) to Patterson Av.	4D	35,900	50,180	**1.40**	**F**	50,928	**1.42**	**F**	C
47		Patterson Av. to SR-79	4D	35,900	50,118	**1.40**	**F**	50,865	**1.42**	**F**	C
48		East of SR-79		35,900	2040 Segment			2040 Segment			C
49		West of Warren Rd.	4D	35,900	60,552	**1.69**	**F**	61,299	**1.71**	**F**	C

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been extracted from the County of Riverside's General Plan.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

7.6.2 Opening Year Cumulative (2026) With Project Traffic Conditions

There are no additional study area intersections anticipated to warrant a traffic signal for Opening Year Cumulative (2026) With Project traffic conditions, in addition to those previously warranted under Existing (2017), E+P, Opening Year Cumulative (2024) and Opening Year Cumulative (2026) Without Project traffic conditions (see Appendix 7.4).

As noted previously, a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS.

7.7 Opening Year Cumulative (2026) Deficiencies and Recommended Improvements

7.7.1 Recommended Improvements to Address Deficiencies at Intersections

Improvement strategies have been recommended at intersections that have been identified as deficient in an effort to reduce each location's peak hour delay and improve the associated LOS grade to an acceptable LOS (LOS D or better). The effectiveness of the recommended improvement strategies discussed below to address Opening Year Cumulative (2026) traffic deficiencies is presented in Table 7-3.

The intersection operations analysis worksheets for Opening Year Cumulative (2026) Without and With Project, with improvements, are included in Appendix 7.5 and 7.6, respectively.

7.7.2 Recommended Improvements to Address Deficiencies on Roadway Segments

Roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. As such, a review of the more detailed peak hour intersection analysis has been taken at the adjacent intersections in order to further evaluate the anticipated roadway segment deficiencies anticipated for Opening Year Cumulative (2026) traffic conditions.

The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Roadway widening have been recommended for the segments shown on Table 7-4 consistent with the intersection improvements recommended on Table 7-3. Additional widening has not been recommended for other segments, as the intersections adjacent to these deficient roadway segments are anticipated to operate at acceptable LOS during the peak hours.

Table 7-3

Intersection Analysis for Opening Year Cumulative (2026) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Winchester Rd. (SR-79) / Florida Av. (SR-74)																	
	- 2026 Without Project	TS	1	1	0	1	1	0	1	2	1	1	2	0	33.6	**160.0**	C	**F**
	- With Improvements[4]	TS	1	1	**1>**	1	1	0	1	**3**	1	1	**3**	0	40.4	45.9	D	D
	- 2026 With Project	TS	1	1	0	1	1	0	1	2	1	1	2	0	34.6	**164.4**	C	**F**
	- With Improvements[4]	TS	1	1	**1>**	1	1	0	1	**3**	1	1	**3**	0	41.4	48.4	D	D
2	Winchester Rd. (SR-79) / 9th St.																	
	- 2026 Without Project	CSS	1	1	0	1	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	1	1	0	1	1	0	0	1	0	0	1	0	30.0	50.9	C	D
	- 2026 With Project	CSS	1	1	0	1	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	1	1	0	1	1	0	0	1	0	0	1	0	30.7	54.3	C	D
4	Winchester Rd. (SR-79) / Domenigoni Pkwy.																	
	- 2026 Without Project	TS	1	2	1	1	2	1	2	2	1	2	3	1	**>200.0**	**>200.0**	**F**	**F**
	- With Improvements[5]	TS	1	2	**1>**	1	2	1	2	2	1	2	3	1	44.1	50.9	D	D
	- 2026 With Project	TS	1	2	1	1	2	1	2	2	1	2	3	1	**>200.0**	**>200.0**	**F**	**F**
	- With Improvements[5]	TS	1	2	**1>**	1	2	1	2	2	1	2	3	1	46.4	51.1	D	D
22	Warren Rd. / Esplanade Av.																	
	- 2026 Without Project	AWS	0	1	0	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	**2**	0	**1**	**2**	0	**1**	1	0	**1**	1	0	21.9	21.2	C	C
	- 2026 With Project	AWS	0	1	0	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	**2**	0	**1**	**2**	0	**1**	1	0	**1**	1	0	23.6	23.5	C	C
24	Warren Rd. / Devonshire Av.																	
	- 2026 Without Project	AWS	0	1	d	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	**2**	**0**	**1**	**2**	0	**1**	1	0	**1**	1	0	49.2	44.3	D	D
	- 2026 With Project	AWS	0	1	d	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	**2**	**0**	**1**	**2**	0	**1**	1	0	**1**	1	0	52.8	48.7	D	D
25	Warren Rd. / Florida Av. (SR-74)																	
	- 2026 Without Project	TS	1	2	1	1	2	1	1	2	0	1	2	0	**93.1**	**101.6**	**F**	**F**
	- With Improvements	TS	1	2	**1>**	1	2	1	**2**	**3**	**1**	**2**	**3**	0	41.3	51.4	D	D
	- 2026 With Project	TS	1	2	1	1	2	1	1	2	0	1	2	0	**108.0**	**133.6**	**F**	**F**
	- With Improvements	TS	1	2	**1>**	1	2	1	**2**	**3**	**1**	**2**	**3**	0	44.5	52.3	D	D
26	Warren Rd. / Auto Bl.																	
	- 2026 Without Project	CSS	0	1	d	1	1	0	0	0	0	0	1	0	**41.4**	**>100.0**	**E**	**F**
	- With Improvements	**TS**	0	**2**	**0**	1	**2**	0	0	0	0	0	1	0	13.9	30.9	B	C
	- 2026 With Project	CSS	0	1	d	1	1	0	0	0	0	0	1	0	**70.2**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	0	**2**	**0**	1	**2**	0	0	0	0	0	1	0	15.4	38.3	B	D
27	Warren Rd. / Whittier Av.																	
	- 2026 Without Project	CSS	0	1	0	1	1	0	0	0	0	0	1	0	25.3	31.6	D	D
	- 2026 With Project	CSS	0	1	0	1	1	0	0	0	0	0	1	0	33.3	**44.0**	D	**E**
	- With Improvements	CSS	0	**2**	0	1	**2**	0	0	0	0	0	1	0	15.7	18.7	C	C
31	Warren Rd. / Mustang Wy.																	
	- 2026 Without Project	TS	0	1	0	1	1	0	0	0	0	1	0	1	42.9	**62.9**	D	**E**
	- With Improvements	TS	**1**	**2**	0	1	**2**	0	**1**	**1**	0	1	**1**	**0**	21.8	18.8	C	C
	- 2026 With Project	TS	0	1	0	1	1	0	0	0	0	1	0	1	**78.1**	**84.5**	**E**	**F**
	- With Improvements	TS	**1**	**2**	0	1	**2**	0	**1**	**1**	0	1	**1**	**0**	24.2	21.8	C	C
32	Warren Rd. / Simpson Rd.																	
	- 2026 Without Project	AWS	1	0	1	0	0	0	0	1	0	1	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements[6]	**TS**	1	0	**1>**	0	0	0	0	1	0	1	1	0	37.5	35.4	D	B
	- 2026 With Project	AWS	1	0	1	0	0	0	0	1	0	1	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements[6]	**TS**	1	0	**1>**	0	0	0	0	1	0	1	1	0	52.2	43.8	D	D

Table 7-3

Intersection Analysis for Opening Year Cumulative (2026) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
33	Warren Rd. / Domenigoni Pkwy.																	
	- 2026 Without Project	TS	0	1	d	0	1	0	1	2	1	1	2	1	**>200.0**	**>200.0**	**F**	**F**
	- With Improvements	TS	**1**	1	**0**	**1**	1	**1>**	**2**	**3**	1	1	**3**	1	34.0	32.1	C	C
	- 2026 With Project	TS	0	1	d	0	1	0	1	2	1	1	2	1	**>200.0**	**>200.0**	**F**	**F**
	- With Improvements	TS	**1**	1	**0**	**1**	1	**1>**	**2**	**3**	1	1	**3**	1	42.2	39.6	D	D
34	Myers St. / Florida Av. (SR-74)																	
	- 2026 Without Project	TS	1	1	0	1	1	1	1	2	d	1	2	1	**98.6**	**>200.0**	**F**	**F**
	- With Improvements	TS	1	1	0	1	1	1	1	**3**	**0**	1	**3**	1	26.4	40.6	C	D
	- 2026 With Project	TS	1	1	0	1	1	1	1	2	d	1	2	1	**115.2**	**>200.0**	**F**	**F**
	- With Improvements	TS	1	1	0	1	1	1	1	**3**	**0**	1	**3**	1	27.1	47.6	C	D
38	Cawston Av. / Florida Av. (SR-74)																	
	- 2026 Without Project	TS	1	2	0	1	1	1	1	2	1	1	2	d	**134.2**	**174.7**	**F**	**F**
	- With Improvements	TS	1	2	0	1	1	1	1	**3**	1	1	**3**	**1**	35.0	50.1	D	D
	- 2026 With Project	TS	1	2	0	1	1	1	1	2	1	1	2	d	**147.0**	**186.5**	**F**	**F**
	- With Improvements	TS	1	2	0	1	1	1	1	**3**	1	1	**3**	**1**	36.1	53.9	D	D
40	Sanderson Av. / Florida Av. (SR-74)																	
	- 2026 Without Project	TS	1	2	1	1	2	d	1	2	1	1	2	d	**105.8**	**>200.0**	**F**	**F**
	- With Improvements	TS	**2**	**3**	**1>**	**2**	**3**	**1>**	**2**	2	1	**2**	2	**1>**	40.3	53.1	D	D
	- 2026 With Project	TS	1	2	1	1	2	d	1	2	1	1	2	d	**106.3**	**>200.0**	**F**	**F**
	- With Improvements	TS	**2**	**3**	**1>**	**2**	**3**	**1>**	**2**	2	1	**2**	2	**1>**	41.0	54.9	D	D
41	Sanderson Av. / Stetson Av.																	
	- 2026 Without Project	TS	1	2	1>	1	2	0	1	2	0	1	2	0	**171.8**	**>200.0**	**F**	**F**
	- With Improvements	TS	**2**	2	1>	**2**	2	**1>**	**2**	**3**	0	**2**	**3**	0	53.4	51.1	D	D
	- 2026 With Project	TS	1	2	1>	1	2	0	1	2	0	1	2	0	**185.9**	**>200.0**	**F**	**F**
	- With Improvements	TS	**2**	2	1>	**2**	2	**1>**	**2**	**3**	0	**2**	**3**	0	54.9	52.7	D	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free Right Turn Lane; d= Defacto Right Turn Lane; **1** = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

[4] Recommended Iimprovement also consists of protecting the northbound and southbound left turn movements.

[5] Recommended improvement also consists of implementing 2-stage pedestrian crossing for all approaches.

[6] The northbound right turn overlap phasing is not needed in the future (long-range traffic conditions) with the realignment of the intersection.

Table 7-4

Roadway Segment Capacity Analysis for Opening Year Cumulative (2026) Conditions With Improvements

#	Roadway	Segment Limits	Roadway Section	LOS[3] Capacity[1]	2026 Without Project	V/C[2]	LOS[3]	2026 With Project	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Winchester Rd. (SR-79)	South of Florida Av. (SR-74)	**4D**	34,100	21,997	0.65	B	22,318	0.65	B	D
2		North of 9th St.	**4D**	34,100	21,625	0.63	B	21,762	0.64	B	D
8	Warren Rd.	South of Esplanade Av.	**6D**	53,900	27,837	0.52	A	28,841	0.54	A	C
9		North of Tres Cerritos Av.	**6D**	53,900	18,107	0.34	A	19,111	0.35	A	C
10		Tres Cerritos Av. to Devonshire Av.	**6D**	53,900	18,107	0.34	A	19,111	0.35	A	C
11		Devonshire Av. to Florida Av. (SR-74)	**6D**	53,900	23,527	0.44	A	24,833	0.46	A	C
12		Florida Av. (SR-74) to Auto Bl.	**4D**	35,900	31,298	**0.87**	**D**	35,424	**0.99**	**D**	C
13		Auto Bl. to Whittier Av.	**4D**	35,900	18,333	0.51	A	22,550	0.63	A	C
14		Whitter Av. to Stetson Av.	**4D**	35,900	29,520	**0.82**	**D**	33,737	**0.94**	**D**	C
15		Stetson Av. to New Stetson Av.	**4D**	35,900	22,685	0.63	B	28,480	0.79	B	C
16		New Stetson Av. to Street D	**4D**	35,900	22,488	0.63	B	25,909	0.72	B	C
17		Street D to Mustang Wy.	**4D**	35,900	22,488	0.63	B	24,952	0.70	B	C
18		South of Mustang Wy.	**4D**	35,900	23,397	0.65	B	25,321	0.71	B	C
19		Simpson Rd. to Domenigoni Pkwy.	**4D**	35,900	17,792	0.50	A	18,931	0.53	A	C
20	Florida Av. (SR-74)	Warren Rd. to Myers St.	**6D**	53,900	51,303	**0.95**	**E**	53,211	**0.99**	**E**	C
21		Myers St. to Acacia Av.	**6D**	53,900	54,455	**1.01**	**F**	56,043	**1.04**	**F**	C
22		Acacia Av. to Cawston Av.	**6D**	53,900	48,023	**0.89**	**D**	49,451	**0.92**	**D**	C
23		East of Cawston Av.	**6D**	53,900	47,395	**0.88**	**D**	48,399	**0.90**	**D**	C
24		West of Sanderson Av.	**6D**	53,900	49,026	**0.91**	**E**	49,848	**0.92**	**E**	C
25	Stetson Av.	East of Warren Rd.	**4D**	35,900	16,493	0.46	A	18,071	0.50	A	D
26		West of New Stetson Av.	**4D**	35,900	16,493	0.46	A	18,071	0.50	A	D
45	Simpson Rd.	East of Warren Rd.	**4D**	25,900	23,396	**0.90**	**D**	25,319	**0.98**	**D**	C
46	Domenigoni Pkwy.	Winchester Rd. (SR-79) to Patterson Av.	**6D**	53,900	50,180	**0.93**	**E**	50,928	**0.94**	**E**	C
47		Patterson Av. to SR-79	**6D**	53,900	50,118	**0.93**	**E**	50,865	**0.94**	**E**	C
49		West of Warren Rd.	**6D**	53,900	60,552	**1.12**	**F**	61,299	**1.14**	**F**	C

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been extracted from the County of Riverside's General Plan.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

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8 GENERAL PLAN BUILDOUT (2040) TRAFFIC CONDITIONS

This section discusses the methods used to develop General Plan Buildout (2040) Without and With Project traffic forecasts, and the resulting intersection operations, roadway segment capacity, and traffic signal warrant analyses.

8.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for General Plan Buildout (2040) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for E+P conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways). These include the Project site adjacent roadways Mustang Way, Warren Road, and the new Stetson Avenue.
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).
- The realignment and grade separation of the SR-79. There are also several interchanges proposed along the realigned SR-79, including Tres Cerritos Avenue, Stetson Avenue, and Domenigoni Parkway.
- The extension of Tres Cerritos Avenue to Warren Road.
- The extension of Stetson Avenue along its proposed future alignment between Calvert Av. and the old Stetson Avenue.
- The future extension of Fisher Street to the north, intersecting with the new Stetson Avenue.

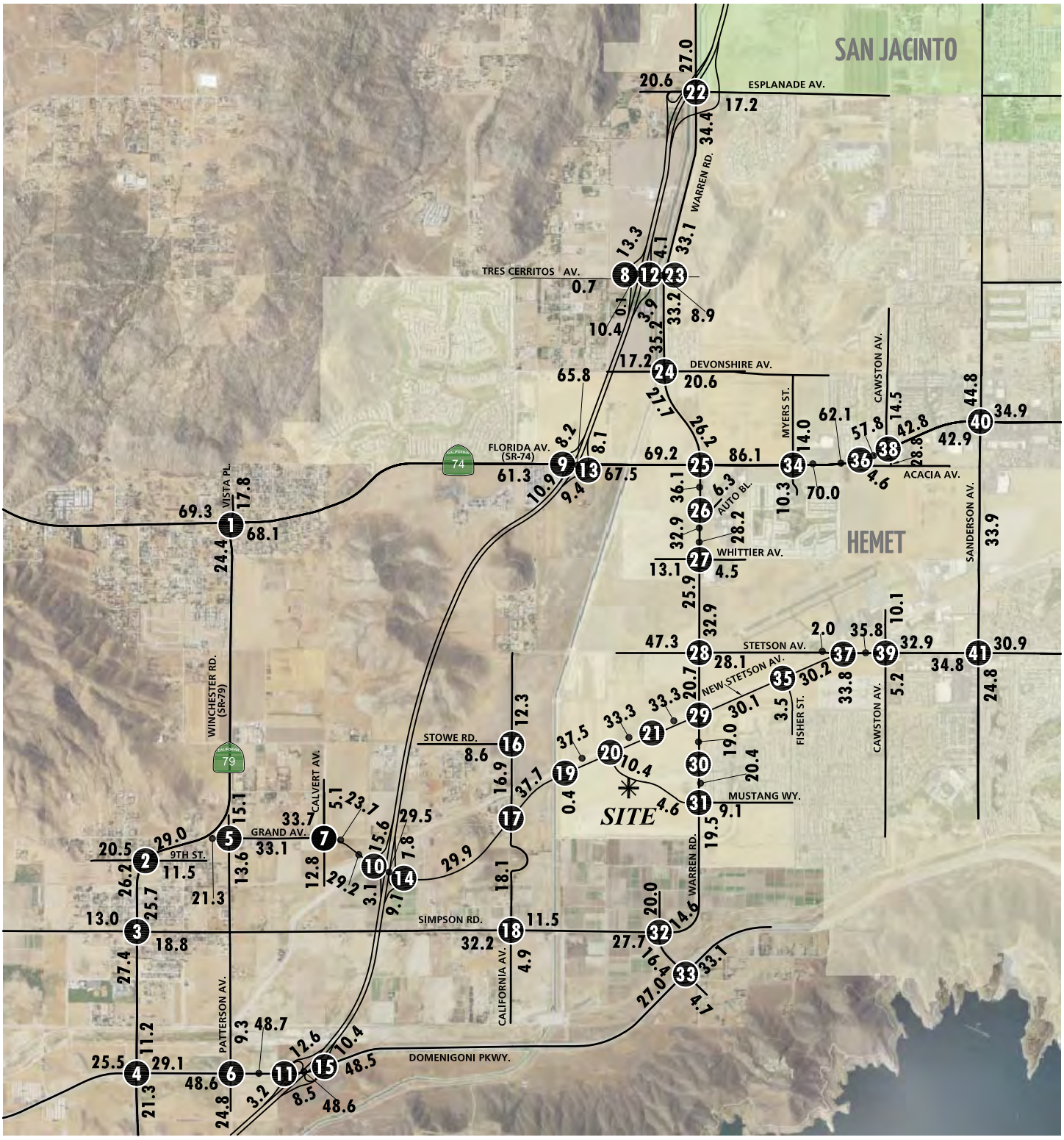
8.2 GENERAL PLAN BUILDOUT (2040) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-processed volumes obtained from the RivTAM (buildout of the City of Hemet's General Plan), less proposed Project volumes. Exhibit 8-1 shows the weekday ADT volumes which can be expected for General Plan Buildout (2040) Without Project traffic conditions. General Plan Buildout (2040) Without Project weekday AM and PM peak hour intersection turning movement volumes are shown on Exhibit 8-2.

8.3 GENERAL PLAN BUILDOUT (2040) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-processed volumes obtained from the RivTAM (buildout of the City of Hemet's General Plan). Exhibit 8-3 shows the weekday ADT volumes which can be expected for General Plan Buildout (2040) With Project traffic conditions. General Plan Buildout (2040) With Project weekday AM and PM peak hour intersection turning movement volumes are shown on Exhibit 8-4.

EXHIBIT 8-1: GENERAL PLAN BUILDOUT (2040) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

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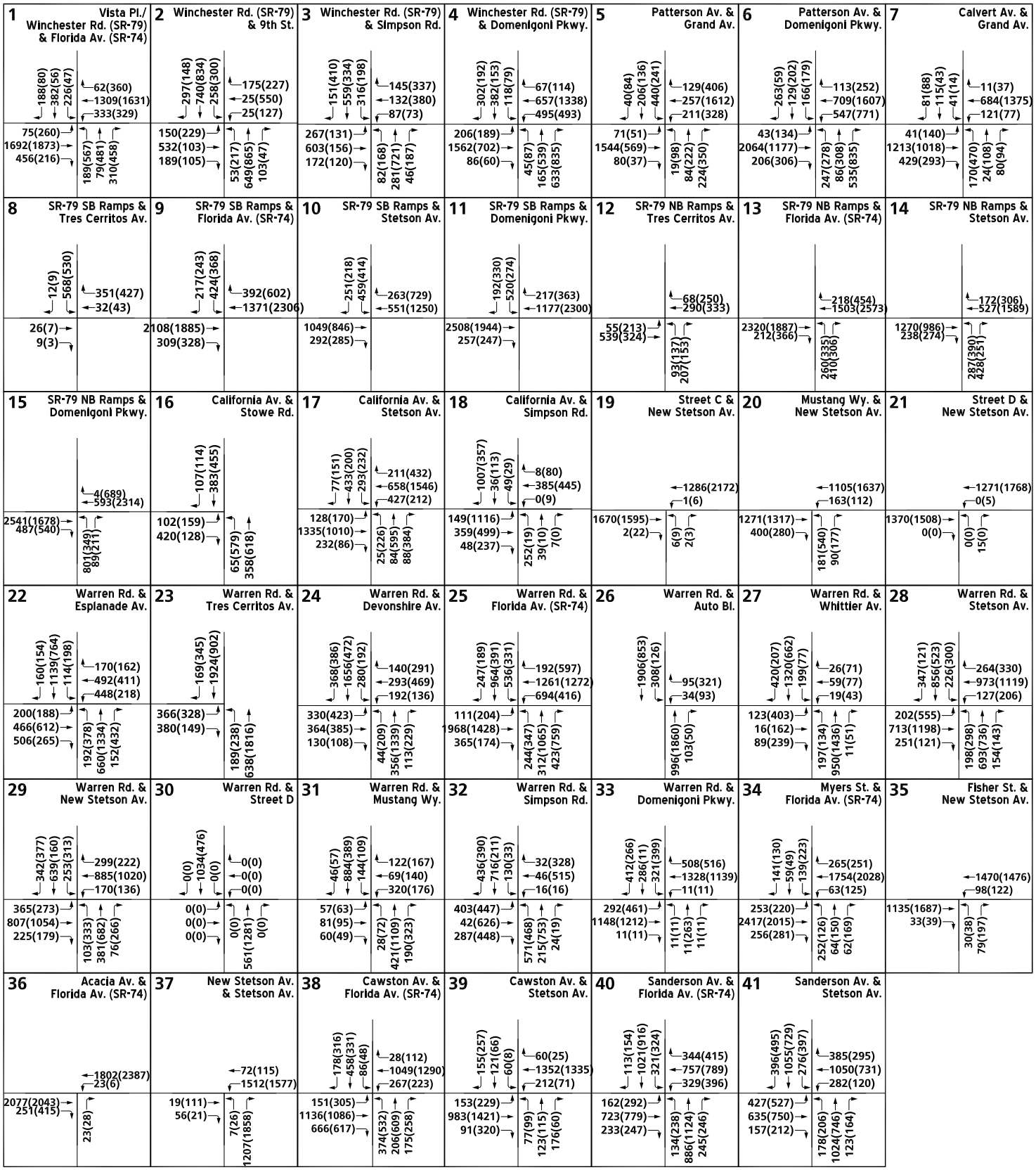
EXHIBIT 8-2: GENERAL PLAN BUILDOUT (2040) WITHOUT PROJECT TRAFFIC VOLUMES



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

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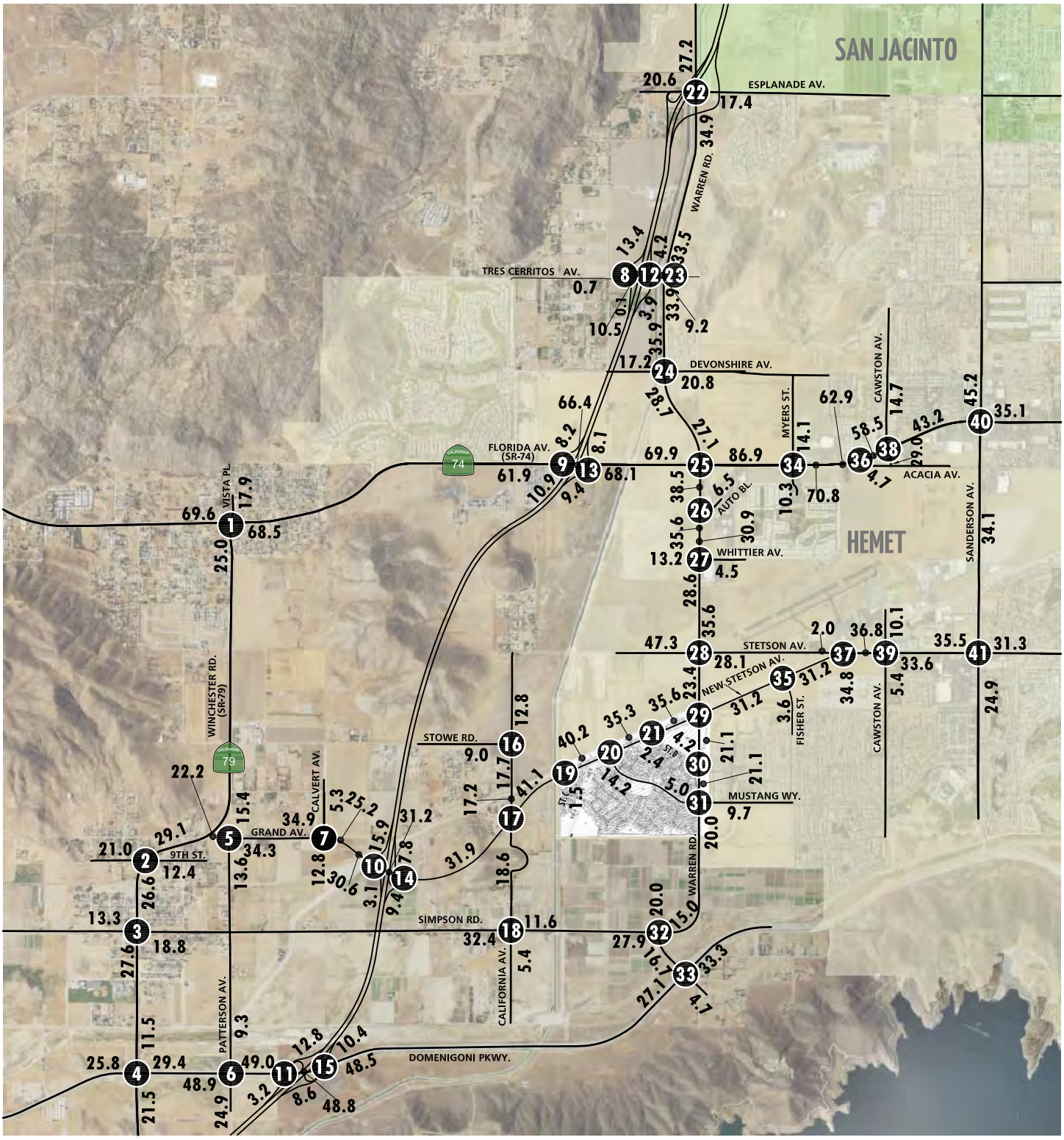
URBAN CROSSROADS

EXHIBIT 8-3: GENERAL PLAN BUILDOUT (2040) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

N

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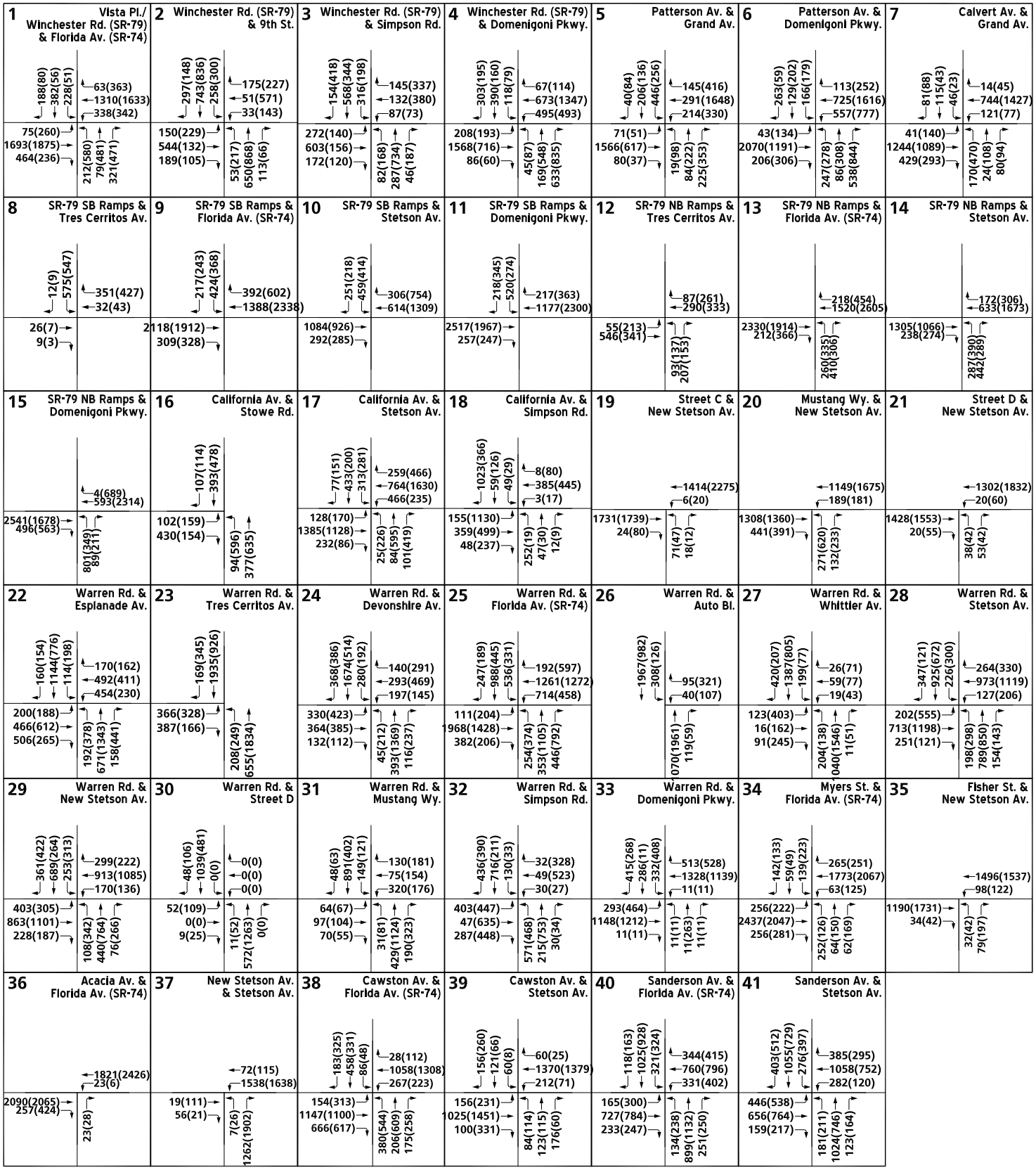
EXHIBIT 8-4: GENERAL PLAN BUILDOUT (2040) WITH PROJECT TRAFFIC VOLUMES



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

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URBAN CROSSROADS

8.4 INTERSECTION OPERATIONS ANALYSIS

LOS calculations were conducted for the study intersections to evaluate their operations under General Plan Buildout (2040) without and with Project conditions with roadway and intersection geometrics consistent with Section 8.1 *Roadway Improvements*.

8.4.1 GENERAL PLAN BUILDOUT (2040) WITHOUT PROJECT TRAFFIC CONDITIONS

The intersection analysis results are summarized in Table 8-1 and illustrated on Exhibit 8-5 which indicates that the following study area intersections are anticipated to experience unacceptable LOS during one or more peak hours under General Plan Buildout Without Project traffic conditions, in addition to those previously identified under Existing (2017), Opening Year Cumulative (2024), and Opening Year Cumulative (2026) traffic conditions:

- Patterson Av. / Domenigoni Pkwy. (#6) – LOS F AM and PM peak hours
- California Av. / Stowe Rd. (#16) – LOS F AM peak hour only
- California Av. / Simpson Rd. (#18) – LOS F AM and PM peak hours
- Warren Rd. / Whittier Av. (#27) – LOS E AM peak hour; LOS F PM peak hour
- Warren Rd. / New Stetson Av. (#29) – LOS F AM peak hour; LOS E PM peak hour
- Cawston Av. / Stetson Av. (#39) – LOS F PM peak hour only

8.4.2 GENERAL PLAN BUILDOUT (2040) WITH PROJECT TRAFFIC CONDITIONS

As shown on Table 8-1 and illustrated on Exhibit 8-6, the addition of Project (Buildout) traffic is not anticipated to cause any additional study area intersection to operate at unacceptable LOS (i.e., LOS E or worse), in addition to those previously identified under Existing (2017), Opening Year Cumulative, and General Plan Buildout (2040) Without Project conditions.

The intersection operations analysis worksheets for General Plan Buildout (2040) Without Project conditions are included in Appendix 8.1 of this TIA. The intersection operations analysis worksheets for General Plan Buildout (2040) With Project conditions are included in Appendix 8.2 of this TIA. Measures to address deficiencies for General Plan Buildout (2040) traffic conditions are discussed in Section 8.7 *General Plan Buildout (2040) Deficiencies and Recommended Improvements*.

8.5 ROADWAY SEGMENT ANALYSIS

The roadway segment capacities utilized for the purposes of this analysis are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 8-2 provides a summary of the General Plan Buildout (2040) traffic conditions roadway segment capacity analysis based on the applicable roadway segment capacities.

Table 8-1

Intersection Analysis for General Plan Buildout (2040) Conditions

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project			
			Delay[1] (secs.)		LOS		Delay[1] (secs.)		LOS	
			AM	PM	AM	PM	AM	PM	AM	PM
1	Winchester Rd. (SR-79) / Florida Av. (SR-74)	TS	**144.7**	**>200.0**	**F**	**F**	**152.5**	**>200.0**	**F**	**F**
2	Winchester Rd. (SR-79) / 9th St.	CSS	**35.5**	**>100.0**	**E**	**F**	**35.7**	**>100.0**	**E**	**F**
3	Winchester Rd. (SR-79) / Simpson Rd.	TS	52.4	45.4	D	D	53.4	46.0	D	D
4	Winchester Rd. (SR-79) / Domenigoni Pkwy.	TS	**>200.0**	**66.9**	**F**	**E**	**>200.0**	**68.8**	**F**	**E**
5	Patterson Av. / Grand Av.		See Improvements[3]				See Improvements[3]			
6	Patterson Av. / Domenigoni Pkwy.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
7	El Callado Rd./Remington Wy. / Grand Av.		See Improvements[3]				See Improvements[3]			
8	SR-79 SB Ramps / Tres Cerritos Av.		See Improvements[3]				See Improvements[3]			
9	SR-79 SB Ramps / Florida Av. (SR-74)		See Improvements[3]				See Improvements[3]			
10	SR-79 SB Ramps / Stetson Av.		See Improvements[3]				See Improvements[3]			
11	SR-79 SB Ramps / Domenigoni Pkwy.		See Improvements[3]				See Improvements[3]			
12	SR-79 NB Ramps / Tres Cerritos Av.		See Improvements[3]				See Improvements[3]			
13	SR-79 NB Ramps / Florida Av. (SR-74)		See Improvements[3]				See Improvements[3]			
14	SR-79 NB Ramps / Stetson Av.		See Improvements[3]				See Improvements[3]			
15	SR-79 NB Ramps / Domenigoni Pkwy.		See Improvements[3]				See Improvements[3]			
16	California Av. / Stowe Rd.	CSS	**>100.0**	22.4	**F**	C	**>100.0**	27.3	**F**	D
17	California Av. / Stetson Av.		See Improvements[3]				See Improvements[3]			
18	California Av. / Simpson Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
19	St. C / New Stetson Av.	**TS**	Future Analysis Location				26.0	35.2	C	D
20	Mustang Wy. / New Stetson Av.	**TS**	Future Analysis Location				28.4	47.5	C	D
21	St. D / New Stetson Av.	**TS**	Future Analysis Location				26.0	10.7	C	B
22	Warren Rd. / Esplanade Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
23	Warren Rd. / Tres Cerritos Av.		See Improvements[3]				See Improvements[3]			
24	Warren Rd. / Devonshire Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
25	Warren Rd. / Florida Av. (SR-74)	TS	**>200.0**	**182.8**	**F**	**F**	**>200.0**	**198.9**	**F**	**F**
26	Warren Rd. / Auto Bl.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
27	Warren Rd. / Whittier Av.	CSS	**37.0**	**>100.0**	**E**	**F**	**43.0**	**>100.0**	**F**	**F**
28	Warren Rd. / Stetson Av.	AWS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
29	Warren Rd. / New Stetson Av.	**TS**	**81.7**	**68.4**	**F**	**E**	**104.7**	**179.5**	**F**	**F**
30	Warren Rd. / St. D	**TS**	Future Analysis Location				13.7	4.6	B	A
31	Warren Rd. / Mustang Wy.	TS	**71.9**	**149.1**	**F**	**F**	**82.1**	**149.4**	**F**	**F**
32	Warren Rd. / Simpson Rd.	AWS	**75.8**	**151.7**	**F**	**F**	**78.0**	**155.7**	**F**	**F**
33	Warren Rd. / Domenigoni Pkwy.	TS	**177.6**	**128.6**	**F**	**F**	**181.7**	**132.9**	**F**	**F**
34	Myers St. / Florida Av. (SR-74)	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
35	Fisher St. / New Stetson Av.		See Improvements[3]				See Improvements[3]			
36	Acacia Av. / Florida Av. (SR-74)	CSS	24.9	22.0	C	C	24.9	25.5	C	D
37	New Stetson Av. / Stetson Av.		See Improvements[3]				See Improvements[3]			
38	Cawston Av. / Florida Av. (SR-74)	TS	**183.8**	**135.6**	**F**	**F**	**185.7**	**137.8**	**F**	**F**
39	Cawston Av. / Stetson Av.	TS	33.7	**>200.0**	C	**F**	39.8	**>200.0**	D	**F**
40	Sanderson Av. / Florida Av. (SR-74)	TS	**103.6**	**96.7**	**F**	**F**	**103.7**	**98.7**	**F**	**F**
41	Sanderson Av. / Stetson Av.	TS	**>200.0**	**156.6**	**F**	**F**	**>200.0**	**159.8**	**F**	**F**

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] AWS = All Way Stop; CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

[3] Grade separated SR-79 ramps are evaluated as "with improvements" only (see Table 8-3)

Table 8-2

Roadway Segment Capacity Analysis for Horizon Year (2040) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS[3] Capacity[1]	2040 Without Project	V/C[2]	LOS[3]	2040 With Project	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Winchester Rd.	South of Florida Av. (SR-74)	2U	17,050	24,990	**1.47**	**F**	25,582	**1.50**	**F**	D
2	(SR-79)	North of 9th St.	2U	17,050	29,073	**1.71**	**F**	29,117	**1.71**	**F**	D
3	Patterson Av.	South of Grand Av.	2U	12,950	13,621	**1.05**	**F**	13,667	**1.06**	**F**	D
4	California Av.	Stowe Rd. to New Stetson Av.	2U	12,950	17,744	**1.37**	**F**	18,562	**1.43**	**F**	D
5		New Stetson Av. to Simpson Rd.	2U	12,950	18,616	**1.44**	**F**	19,162	**1.48**	**F**	D
6	Mustang Wy.	South of New Stetson Av.	**4D**	34,100	14,207	0.42	A	18,028	0.53	A	C
7		West of Warren Rd.	**4D**	34,100	5,011	0.15	A	5,467	0.16	A	C
8	Warren Rd.	South of Esplanade Av.	2U	18,000	34,860	**1.94**	**F**	35,300	**1.96**	**F**	C
9		North of Tres Cerritos Av.	2U	18,000	33,885	**1.88**	**F**	34,326	**1.91**	**F**	C
10		Tres Cerritos Av. to Devonshire Av.	2U	18,000	35,910	**2.00**	**F**	36,621	**2.03**	**F**	C
11		Devonshire Av. to Florida Av. (SR-74)	2U	18,000	28,665	**1.59**	**F**	29,635	**1.65**	**F**	C
12		Florida Av. (SR-74) to Auto Bl.	3U	27,000	38,535	**1.43**	**F**	40,967	**1.52**	**F**	C
13		Auto Bl. to Whittier Av.	2U	18,000	30,901	**1.72**	**F**	33,560	**1.86**	**F**	C
14		Whitter Av. to Stetson Av.	2U	18,000	35,595	**1.98**	**F**	38,345	**2.13**	**F**	C
15		Stetson Av. to New Stetson Av.	2U	18,000	23,432	**1.30**	**F**	26,182	**1.45**	**F**	C
16		New Stetson Av. to Street D	2U	18,000	21,125	**1.17**	**F**	23,277	**1.29**	**F**	C
17		Street D to Mustang Wy.	2U	18,000	21,125	**1.17**	**F**	22,189	**1.23**	**F**	C
18		South of Mustang Wy.	2U	18,000	19,950	**1.11**	**F**	20,388	**1.13**	**F**	C
19		Simpson Rd. to Domenigoni Pkwy.	2U	18,000	16,698	**0.93**	**E**	16,954	**0.94**	**E**	C
20	Florida Av. (SR-74)	Warren Rd. to Myers St.	4D	35,900	86,860	**2.42**	**F**	87,666	**2.44**	**F**	C
21		Myers St. to Acacia Av.	5D	44,875	62,895	**1.40**	**F**	63,655	**1.42**	**F**	C
22		Acacia Av. to Cawston Av.	4D	35,900	58,485	**1.63**	**F**	59,131	**1.65**	**F**	C
23		East of Cawston Av.	4D	34,100	43,155	**1.27**	**F**	43,503	**1.28**	**F**	C
24		West of Sanderson Av.	4D	34,100	43,155	**1.27**	**F**	43,459	**1.27**	**F**	C
25	Stetson Av.	East of Warren Rd.	2U	13,000	28,140	**2.16**	**F**	28,140	**2.16**	**F**	C
26		West of New Stetson Av.	2U	13,000	28,140	**2.16**	**F**	28,140	**2.16**	**F**	C
27		New Stetson Av. to Cawston Av.	2U	18,000	36,803	**2.04**	**F**	37,851	**2.10**	**F**	C
28		East of Cawston Av.	4D	35,900	33,589	**0.94**	**E**	34,317	**0.96**	**E**	C
29		West of Sanderson Av.	4D	35,900	35,490	**0.99**	**E**	36,218	**1.01**	**F**	C
30	9th St.	East of Winchester Rd. (SR-79)	2U	17,950	12,352	0.69	B	13,228	0.74	C	D
31	Grand Av.	Patterson Av. to Calvert Av.	2U	18,000	34,278	**1.90**	**F**	35,428	**1.97**	**F**	D
32		Calvert Av. to SR-79	**4D**	35,900	25,158	0.70	B	26,399	0.74	C	D
33	New Stetson Av.	East of SR-79	**4D**	35,900	31,895	0.89	D	33,913	**0.94**	**E**	D
34		West of California Av.	**4D**	35,900	21,577	0.60	A	23,595	0.66	B	D
35		California Av. to Street C	**4D**	35,900	41,087	**1.14**	**F**	44,469	**1.24**	**F**	C
36		Street C to Mustang Wy.	**4D**	35,900	40,182	**1.12**	**F**	42,882	**1.19**	**F**	C
37		Mustang Wy. to Street D	**4D**	35,900	35,337	**0.98**	**E**	37,425	**1.04**	**F**	C
38		Street D to Warren Rd.	**4D**	35,900	35,637	**0.99**	**E**	37,723	**1.05**	**F**	C
39		Warren Rd. to Fisher St.	**4D**	35,900	31,240	**0.87**	**D**	32,361	**0.90**	**D**	C
40		Fisher St. to Stetson Av.	**4D**	35,900	31,240	**0.87**	**D**	32,362	**0.90**	**D**	C
41	Simpson Rd.	East of Winchester Rd. (SR-79)	2U	12,950	18,832	**1.45**	**F**	18,832	**1.45**	**F**	D
42		West of California Av.	2U	12,950	32,386	**2.50**	**F**	32,614	**2.52**	**F**	D
43		East of California Av.	2U	12,950	11,643	0.90	D	11,827	**0.91**	**E**	D
44		West of Warren Rd.	2U	12,950	27,899	**2.15**	**F**	28,083	**2.17**	**F**	D
45		East of Warren Rd.	2U	12,950	15,000	**1.16**	**F**	15,440	**1.19**	**F**	D
46	Domenigoni Pkwy.	Winchester Rd. (SR-79) to Patterson Av.	4D	35,900	29,348	**0.82**	**D**	29,576	**0.82**	**D**	C
47		Patterson Av. to SR-79	4D	35,900	49,033	**1.37**	**F**	49,397	**1.38**	**F**	C
48		East of SR-79	**4D**	35,900	48,523	**1.35**	**F**	48,705	**1.36**	**F**	C
49		West of Warren Rd.	4D	35,900	27,090	0.75	C	27,136	0.76	C	C

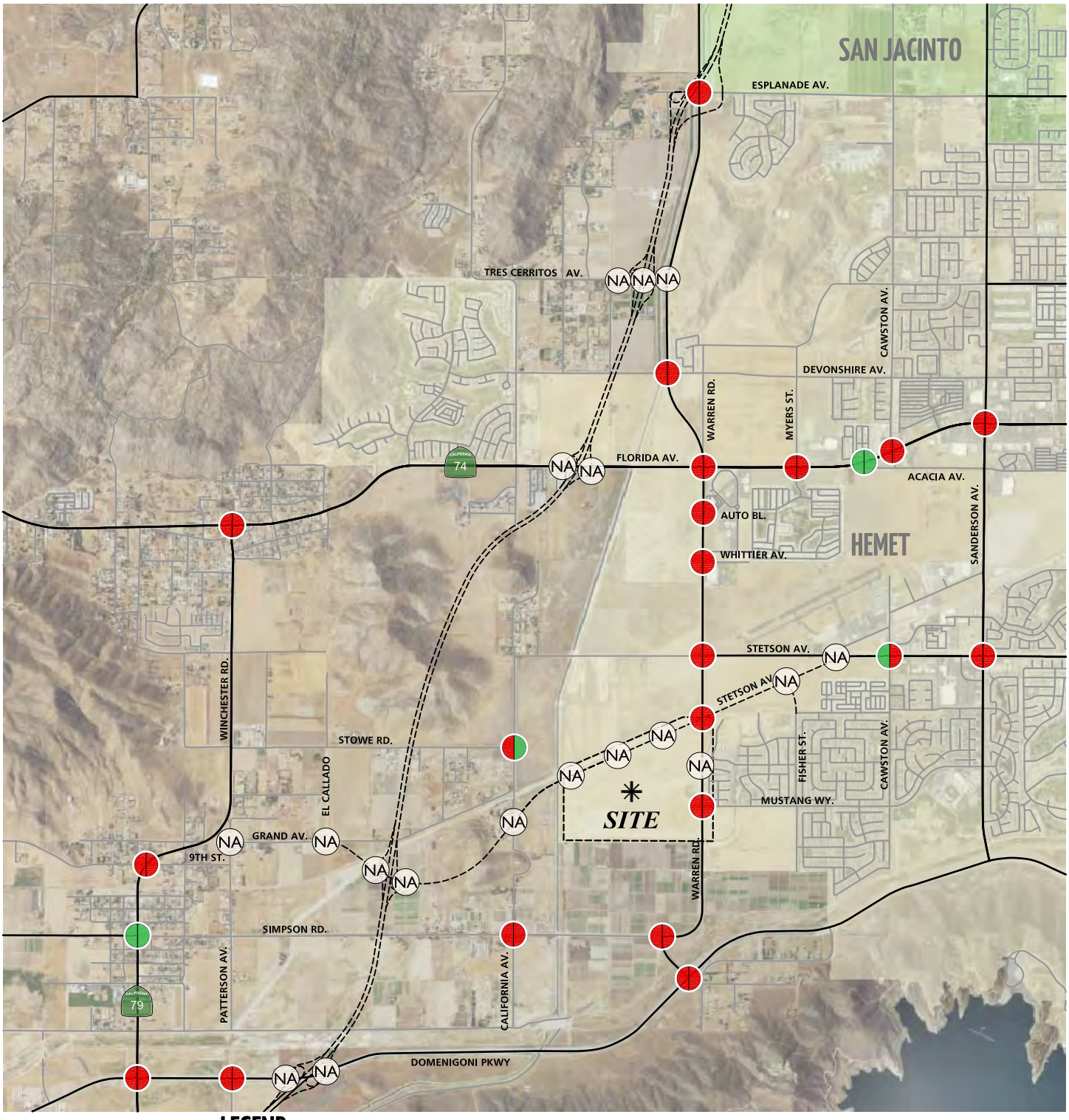
BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been extracted from the County of Riverside's General Plan.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

EXHIBIT 8-5: GENERAL PLAN BUILDOUT (2040) WITHOUT PROJECT SUMMARY OF LOS

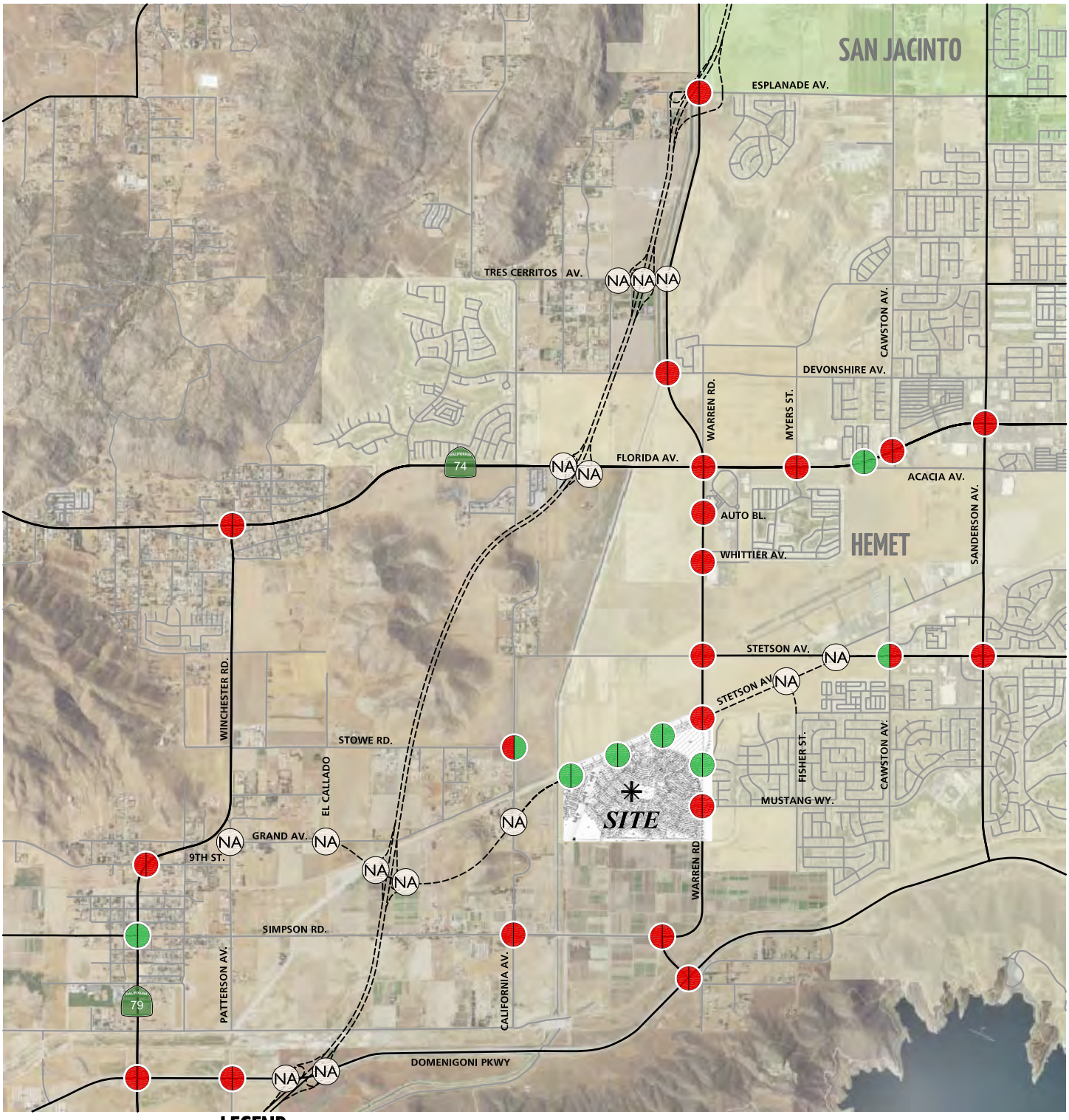


LEGEND:

- = AM PEAK HOUR ACCEPTABLE LOS
- = AM PEAK HOUR DEFICIENT LOS
- = PM PEAK HOUR ACCEPTABLE LOS
- = PM PEAK HOUR DEFICIENT LOS
- NA = NOT AN ANALYSIS LOCATION FOR THIS SCENARIO

N

EXHIBIT 8-6: GENERAL PLAN BUILDOUT (2040) WITH PROJECT SUMMARY OF LOS



LEGEND:

- = AM PEAK HOUR ACCEPTABLE LOS
- = AM PEAK HOUR DEFICIENT LOS
- = PM PEAK HOUR ACCEPTABLE LOS
- = PM PEAK HOUR DEFICIENT LOS
- NA = NOT AN ANALYSIS LOCATION FOR THIS SCENARIO

N

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URBAN CROSSROADS

8.5.1 General Plan Buildout (2040) Without Project Traffic Conditions

As shown on Table 8-2, the following roadway segments are anticipated to operate at an unacceptable LOS under General Plan Buildout (2040) Without Project conditions, in addition to those previously identified for Existing (2017), Opening Year Cumulative (2024), Opening Year Cumulative (2026) traffic conditions:

- Patterson Av., South of Grand Av. (#3) – LOS F
- California Av., Stowe Rd. to New Stetson Av. (#4) – LOS F
- California Av., New Stetson Av. to Simpson Rd. (#5) – LOS F
- Stetson Av., New Stetson Av. to Cawston Av. (#27) – LOS F
- Stetson Av., East of Cawston Av. (#28) – LOS E
- Stetson Av., West of Sanderson Av. (#29) – LOS E
- Grand Av., Patterson Av. to Calvert Av. (#31) – LOS F
- New Stetson Av., California Av. to Street C (#35) – LOS F
- New Stetson Av., Street C to Mustang Wy. (#36) – LOS F
- New Stetson Av., Mustang Wy. to Street D (#37) – LOS E
- New Stetson Av., Street D to Warren Rd. (#38) – LOS E
- New Stetson Av., Warren Rd. to Fisher St. (#39) – LOS D
- New Stetson Av., Fisher St. to Stetson Av. (#40) – LOS D
- Simpson Rd., East of Winchester Rd. (SR-79) (#41) – LOS F
- Simpson Rd., West of California Av. (#42) – LOS F
  Simpson Rd., East of California Av. (#43) – LOS D
- Simpson Rd., West of Warren Rd. (#44) – LOS F
- Domenigoni Pkwy., East of SR-79 (#48) – LOS F

8.5.2 General Plan Buildout (2040) With Project Traffic Conditions

As shown on Table 8-2, the addition of Project (Buildout) traffic is anticipated to result in the following additional roadway segment capacity deficiency, in addition to those previously identified for Existing (2017), Opening Year Cumulative (2024), Opening Year Cumulative (2026), and General Plan Buildout (2040) Without Project traffic conditions:

- New Stetson Av., East of SR-79 (#33) – LOS E

As noted in Section 2.3 *Roadway Segment Capacity Analysis Methodology*, daily roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. Where the ADT-based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis has been undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Therefore, roadway segment

widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes.

8.6 TRAFFIC SIGNAL WARRANTS ANALYSIS

8.6.1 GENERAL PLAN BUILDOUT (2040) WITHOUT PROJECT TRAFFIC CONDITIONS

Traffic signal warrant analysis has been performed for General Plan Buildout (2040) Without Project conditions and the following intersections were found to warrant traffic signals:

- Patterson Av. / Grand Av. (#5)
- El Callado Rd./Remington Wy. / Grand Av. (#7)
- SR-79 SB Ramps / Tres Cerritos Av. (#8)
- SR-79 SB Ramps / Florida Av. (SR-74) (#9)
- SR-79 SB Ramps / Stetson Av. (#10)
- SR-79 SB Ramps / Domenigoni Pkwy. (#11)
- SR-79 NB Ramps / Tres Cerritos Av. (#12)
- SR-79 NB Ramps / Florida Av. (SR-74) (#13)
- SR-79 NB Ramps / Stetson Av. (#14)
- SR-79 NB Ramps / Domenigoni Pkwy. (#15)
- California Av. / Stowe Rd. (#16)
- California Av. / Stetson Av. (#17)
- California Av. / Simpson Rd. (#18)
- Warren Rd. / Tres Cerritos Av. (#23)
- Warren Rd. / Whittier Av. (#27)
- Fisher St. / New Stetson Av. (#35)
- New Stetson Av. / Stetson Av. (#37)

8.6.2 GENERAL PLAN BUILDOUT (2040) WITH PROJECT TRAFFIC CONDITIONS

For General Plan Buildout (2040) With Project conditions, the following study area intersections appear to warrant a traffic signal in addition to those previously warranted under Existing, Opening Year Cumulative (2024), Opening Year Cumulative (2026), and General Plan Buildout (2040) Without Project traffic conditions:

- Mustang Wy. / New Stetson Av. (#20)
- St. D / New Stetson Av. (#21)

Traffic signal warrant worksheets for General Plan Buildout (2040) Without and With Project conditions are included in Appendix 8.3 and 8.4 of this TIA, respectively.

As noted previously, a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and

conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS.

8.7 General Plan Buildout (2040) Deficiencies and Recommended Improvements

8.7.1 Recommended Improvements to Address Deficiencies at Intersections

Improvement strategies have been recommended at intersections that have been identified as deficient in an effort to reduce each location's peak hour delay and improve the associated LOS grade to an acceptable LOS (LOS D or better). The effectiveness of the recommended improvement strategies necessary to address General Plan Buildout (2040) traffic deficiencies are presented in Table 8-3.

The applicant shall participate in the funding of off-site improvements, including traffic signals that are needed to serve cumulative traffic conditions through the payment of Western Riverside County TUMF, DIF, or a fair share contribution as directed by the County. These fees are collected as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected population increases. Each of the improvements discussed above have been identified as being included as part of TUMF fee program, DIF fee program, or fair share contribution in Section 1.6 *Local and Regional Funding Mechanisms* of this TIA.

Worksheets for General Plan Buildout (2040) Without and With Project conditions, with improvements, HCM calculations are provided in Appendix 8.5 and Appendix 8.6, respectively.

8.7.2 Recommended Improvements to Address Deficiencies on Roadway Segments

Roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. As such, a review of the more detailed peak hour intersection analysis has been taken at the adjacent intersections in order to further evaluate the anticipated roadway segment deficiencies anticipated for General Plan Buildout (2040) traffic conditions.

The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Roadway widening have been recommended for the segments shown on Table 8-4 consistent with the intersection improvements recommended on Table 8-3. Additional widening has not been recommended for other segments, as the intersections adjacent to these deficient roadway segments are anticipated to operate at acceptable LOS during the peak hours.

Table 8-3

Intersection Analysis for General Plan Buildout (2040) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
1	Winchester Rd. (SR-79) / Florida Av. (SR-74)																	
	- 2040 Without Project	TS	0	1	1	1	1	0	1	2	0	1	2	0	**144.7**	**>200.0**	**F**	**F**
	- With Improvements[4]	TS	**2**	1	**1>**	1	1	0	1	**3**	**1**	**2**	**3**	0	48.0	47.2	D	D
	- 2040 With Project	TS	0	1	1	1	1	0	1	2	0	1	2	0	**152.5**	**>200.0**	**F**	**F**
	- With Improvements[4]	TS	**2**	1	**1>**	1	1	0	1	**3**	**1**	**2**	**3**	0	49.7	47.9	D	D
2	Winchester Rd. (SR-79) / 9th St.																	
	- 2040 Without Project	CSS	1	1	0	1	1	0	0	1	0	0	1	0	**35.5**	**>100.0**	**E**	**F**
	- With Improvements	**TS**	1	**2**	0	1	**2**	0	**1**	**2**	**1**	**1**	**2**	0	37.3	50.1	D	D
	- 2040 With Project	CSS	1	1	0	1	1	0	0	1	0	0	1	0	**35.7**	**>100.0**	**E**	**F**
	- With Improvements	**TS**	1	**2**	0	1	**2**	0	**1**	**2**	**1**	**1**	**2**	0	39.3	50.6	D	D
4	Winchester Rd. (SR-79) / Domenigoni Pkwy.																	
	- 2040 Without Project	TS	1	2	1	1	2	1	2	2	1	2	3	1	**>200.0**	**66.9**	**F**	**E**
	- With Improvements[5]	TS	1	2	**1>**	1	2	1	2	**3**	1	2	3	1	52.0	43.4	D	D
	- 2040 With Project	TS	1	2	1	1	2	1	2	2	1	2	3	1	**>200.0**	**68.8**	**F**	**E**
	- With Improvements[5]	TS	1	2	**1>**	1	2	1	2	**3**	1	2	3	1	52.3	43.5	D	D
5	Patterson Av. / Grand Av.																	
	- 2040 Without Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	0	1	**1>**	**1**	1	0	0	0	0	**1**	0	**1>**	26.8	36.7	C	D
	- 2040 With Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	0	1	**1>**	**1**	1	0	0	0	0	**1**	0	**1>**	26.8	37.6	C	D
6	Patterson Av. / Domenigoni Pkwy.																	
	- 2040 Without Project	CSS	0	0	1	0	0	1	0	2	0	0	2	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	**1**	**1>**	**1**	**1**	1	**1**	**3**	0	**2**	**3**	0	52.2	40.6	D	D
	- 2040 With Project	CSS	0	0	1	0	0	1	0	2	0	0	2	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	**1**	**1>**	**1**	**1**	1	**1**	**3**	0	**2**	**3**	0	53.1	41.2	D	D
7	El Callado Rd./Remington Wy. / Grand Av.																	
	- 2040 Without Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	**1**	0	**1**	**1**	0	**1**	**2**	**1**	**1**	**2**	0	39.7	53.2	D	D
	- 2040 With Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	**1**	0	**1**	**1**	0	**1**	**2**	**1**	**1**	**2**	0	40.4	53.5	D	D
8	SR-79 SB Ramps / Tres Cerritos Av.																	
	- 2040 Without Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	0	0	0	**1**	0	**1**	0	**2**	**1**	0	**2**	**1**	28.1	26.9	C	C
	- 2040 With Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	0	0	0	**1**	0	**1**	0	**2**	**1**	0	**2**	**1**	28.4	27.7	C	C
9	SR-79 SB Ramps / Florida Av. (SR-74)																	
	- 2040 Without Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	0	0	0	**1**	0	**1**	0	**3**	**1**	0	**3**	**1**	18.1	15.4	B	B
	- 2040 With Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	0	0	0	**1**	0	**1**	0	**3**	**1**	0	**3**	**1**	18.2	15.7	B	B
10	SR-79 SB Ramps / Stetson Av.																	
	- 2040 Without Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	0	0	0	**1**	0	**1**	0	**2**	**1**	0	**2**	**1**	13.9	10.9	B	B
	- 2040 With Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	0	0	0	**1**	0	**1**	0	**2**	**1**	0	**2**	**1**	14.0	11.8	B	B
11	SR-79 SB Ramps / Domenigoni Pkwy.																	
	- 2040 Without Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	0	0	0	**1**	0	**1**	0	**3**	**1**	0	**3**	**1**	27.4	11.5	C	B
	- 2040 With Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	0	0	0	**1**	0	**1**	0	**3**	**1**	0	**3**	**1**	27.8	12.0	C	B

Table 8-3

Intersection Analysis for General Plan Buildout (2040) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
12	SR-79 NB Ramps / Tres Cerritos Av.																	
	- 2040 Without Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	0	**1**	0	0	0	**1**	**2**	0	0	**2**	**1**	23.6	23.6	C	C
	- 2040 With Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	0	**1**	0	0	0	**1**	**2**	0	0	**2**	**1**	23.7	23.6	C	C
13	SR-79 NB Ramps / Florida Av. (SR-74)																	
	- 2040 Without Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	0	**1**	0	0	0	0	**3**	**1**	0	**3**	**1**	24.8	44.2	C	D
	- 2040 With Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	0	**1**	0	0	0	0	**3**	**1**	0	**3**	**1**	24.8	47.0	C	D
14	SR-79 NB Ramps / Stetson Av.																	
	- 2040 Without Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	0	**1**	0	0	0	0	**2**	**1**	0	**2**	**1**	12.7	16.2	B	B
	- 2040 With Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	0	**1**	0	0	0	0	**2**	**1**	0	**2**	**1**	13.8	19.5	B	B
15	SR-79 NB Ramps / Domenigoni Pkwy.																	
	- 2040 Without Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	0	**1**	0	0	0	0	**3**	**1**	0	**3**	**1**	51.0	13.4	D	B
	- 2040 With Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	0	**1**	0	0	0	0	**3**	**1**	0	**3**	**1**	52.9	13.4	D	B
16	California Av. / Stowe Rd.																	
	- 2040 Without Project	CSS	0	1	0	0	1	d	0	1	0	0	0	0	**>100.0**	**22.4**	**F**	**C**
	- With Improvements	**TS**	**1**	1	0	0	1	d	0	1	0	0	0	0	41.3	43.3	D	D
	- 2040 With Project	CSS	0	1	0	0	1	d	0	1	0	0	0	0	**>100.0**	**27.3**	**F**	**D**
	- With Improvements	**TS**	**1**	1	0	0	1	d	0	1	0	0	0	0	44.1	50.8	D	D
17	California Av. / Stetson Av.																	
	- 2040 Without Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	**2**	0	**2**	**2**	0	**1**	**2**	**1**	**2**	**2**	0	43.4	34.8	D	C
	- 2040 With Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	**2**	0	**2**	**2**	0	**1**	**2**	**1**	**2**	**2**	0	48.7	42.5	D	D
18	California Av. / Simpson Rd.																	
	- 2040 Without Project	CSS	0	1	0	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	1	0	**1**	1	**2>**	**2**	**2**	0	**1**	**2**	0	32.3	36.6	C	D
	- 2040 With Project	CSS	0	1	0	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	1	0	**1**	1	**2>**	**2**	**2**	0	**1**	**2**	0	33.2	37.1	C	D
22	Warren Rd. / Esplanade Av.																	
	- 2040 Without Project	AWS	0	1	0	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	**3**	0	**1**	**3**	0	**1**	**2**	**1>**	**1**	**2**	0	54.0	51.6	D	D
	- 2040 With Project	AWS	0	1	0	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	**3**	0	**1**	**3**	0	**1**	**2**	**1>**	**1**	**2**	0	54.6	53.1	D	D
23	Warren Rd. / Tres Cerritos Av.																	
	- 2040 Without Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	**3**	0	0	**3**	0	**1**	0	**1**	0	0	0	45.4	24.1	D	C
	- 2040 With Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	**3**	0	0	**3**	0	**1**	0	**1**	0	0	0	48.6	24.7	D	C
24	Warren Rd. / Devonshire Av.																	
	- 2040 Without Project	AWS	0	1	d	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	**3**	**0**	**1**	**3**	0	**1**	**2**	0	**1**	**2**	0	53.3	52.3	D	D
	- 2040 With Project	AWS	0	1	d	0	1	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	**3**	**0**	**1**	**3**	0	**1**	**2**	0	**1**	**2**	0	53.8	52.8	D	D

Table 8-3

Intersection Analysis for General Plan Buildout (2040) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Delay[2] (secs.) AM	Delay[2] (secs.) PM	Level of Service AM	Level of Service PM
25	Warren Rd. / Florida Av. (SR-74)																	
	- 2040 Without Project	TS	1	2	1	1	2	1	1	2	0	1	2	0	**>200.0**	**182.8**	**F**	**F**
	- With Improvements	TS	**2**	2	**1>**	**2**	2	1	**2**	**3**	**1**	**2**	**3**	**1>**	50.9	47.8	D	D
	- 2040 With Project	TS	1	2	1	1	2	1	1	2	0	1	2	0	**>200.0**	**198.9**	**F**	**F**
	- With Improvements	TS	**2**	2	**1>**	**2**	2	1	**2**	**3**	**1**	**2**	**3**	**1>**	53.4	54.3	D	D
26	Warren Rd. / Auto Bl.																	
	- 2040 Without Project	CSS	0	1	d	1	1	0	0	0	0	1	0	d	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	0	**2**	**0**	1	**2**	0	0	0	0	1	0	d	17.0	38.6	B	D
	- 2040 With Project	CSS	0	1	d	1	1	0	0	0	0	1	0	d	**>100.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	0	**2**	**0**	1	**2**	0	0	0	0	1	0	d	17.4	54.6	B	D
27	Warren Rd. / Whittier Av.																	
	- 2040 Without Project	CSS	0	1	d	1	1	0	0	0	0	0	1	0	**37.0**	**>100.0**	**E**	**F**
	- With Improvements	**TS**	**1**	**2**	**0**	1	**2**	0	0	**1**	0	0	1	0	36.0	48.4	D	D
	- 2040 With Project	CSS	0	1	d	1	1	0	0	0	0	0	1	0	**43.0**	**>100.0**	**F**	**F**
	- With Improvements	**TS**	**1**	**2**	**0**	1	**2**	0	0	**1**	0	0	1	0	38.8	54.0	D	D
28	Warren Rd. / Stetson Av.																	
	- 2040 Without Project	**TS**	**1**	**2**	**0**	**1**	**2**	**0**	**1**	1	0	1	1	0	**>200.0**	**>200.0**	**F**	**F**
	- With Improvements	**TS**	**2**	**2**	**0**	**2**	**2**	**1>**	**2**	**2**	0	**2**	**2**	**1>**	46.6	52.5	D	D
	- 2040 With Project	**TS**	**1**	**2**	**0**	**1**	**2**	**0**	**1**	1	0	1	1	0	**>200.0**	**>200.0**	**F**	**F**
	- With Improvements	**TS**	**2**	**2**	**0**	**2**	**2**	**1>**	**2**	**2**	0	**2**	**2**	**1>**	47.4	52.6	D	D
29	Warren Rd. / New Stetson Av.																	
	- 2040 Without Project	**TS**	**1**	1	0	**1**	1	0	**1**	**1**	0	**1**	**1**	0	**81.7**	**68.4**	**F**	**E**
	- With Improvements	**TS**	**2**	**2**	0	**2**	**2**	**1>**	**2**	**2**	0	**2**	**2**	**1>**	43.8	45.3	D	D
	- 2040 With Project	**TS**	**1**	1	0	**1**	1	0	**1**	**1**	0	**1**	**1**	0	**104.7**	**179.5**	**F**	**F**
	- With Improvements	**TS**	**2**	**2**	0	**2**	**2**	**1>**	**2**	**2**	0	**2**	**2**	**1>**	44.0	48.0	D	D
31	Warren Rd. / Mustang Wy.																	
	- 2040 Without Project	TS	0	1	0	1	1	0	0	0	0	1	0	1	**71.9**	**149.1**	**F**	**F**
	- With Improvements	TS	**1**	**2**	0	1	**2**	0	**1**	**1**	0	1	**1**	**0**	34.8	40.7	C	D
	- 2040 With Project	TS	0	1	0	1	1	0	0	0	0	1	0	1	**82.1**	**149.4**	**F**	**F**
	- With Improvements	TS	**1**	**2**	0	1	**2**	0	**1**	**1**	0	1	**1**	**0**	36.1	41.8	D	D
32	Warren Rd. / Simpson Rd.																	
	- 2040 Without Project	AWS	1	0	1	0	0	0	0	1	0	1	1	0	**75.8**	**151.7**	**F**	**F**
	- With Improvements	**TS**	**2**	**2**	**0**	**1**	**2**	**1>**	**2**	1	**1>**	1	1	**1**	45.8	48.1	D	D
	- 2040 With Project	AWS	1	0	1	0	0	0	0	1	0	1	1	0	**78.0**	**155.7**	**F**	**F**
	- With Improvements	**TS**	**2**	**2**	**0**	**1**	**2**	**1>**	**2**	1	**1>**	1	1	**1**	46.0	49.2	D	D
33	Warren Rd. / Domenigoni Pkwy.																	
	- 2040 Without Project	TS	0	1	d	0	1	0	1	2	1	1	2	1	**177.6**	**128.6**	**F**	**F**
	- With Improvements	TS	**1**	**1**	**0**	**1**	1	**1**	**2**	**3**	1	1	**3**	**1>**	34.7	48.7	C	D
	- 2040 With Project	TS	0	1	d	0	1	0	1	2	1	1	2	1	**181.7**	**132.9**	**F**	**F**
	- With Improvements	TS	**1**	**1**	**0**	**1**	1	**1**	**2**	**3**	1	1	**3**	**1>**	34.9	49.5	C	D
34	Myers St. / Florida Av. (SR-74)																	
	- 2040 Without Project	TS	1	1	0	1	1	1	1	2	d	1	2	1	**>200.0**	**>200.0**	**F**	**F**
	- With Improvements	TS	1	1	0	1	1	1	1	**3**	**1**	1	**3**	1	33.1	36.0	C	D
	- 2040 With Project	TS	1	1	0	1	1	1	1	2	d	1	2	1	**>200.0**	**>200.0**	**F**	**F**
	- With Improvements	TS	1	1	0	1	1	1	1	**3**	**1**	1	**3**	1	33.6	36.9	C	D
35	Fisher St. / New Stetson Av.																	
	- 2040 Without Project	Not Evaluated Without Improvements																
	- With Improvements	**TS**	0	**1**	0	0	0	0	0	**2**	0	**1**	**2**	0	21.6	23.8	C	C
	- 2040 With Project	Not Evaluated Without Improvements																
	- With Improvements	**TS**	0	**1**	0	0	0	0	0	**2**	0	**1**	**2**	0	21.8	24.9	C	C

Table 8-3

Intersection Analysis for General Plan Buildout (2040) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
37	New Stetson Av. / Stetson Av.																	
	- 2040 Without Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	0	**1>**	0	0	0	0	1	0	**2**	1	0	36.3	34.8	D	C
	- 2040 With Project		Not Evaluated Without Improvements															
	- With Improvements	**TS**	**1**	0	**1>**	0	0	0	0	1	0	**2**	1	0	39.7	37.8	D	D
38	Cawston Av. / Florida Av. (SR-74)																	
	- 2040 Without Project	TS	1	2	0	1	1	1	1	2	1	1	2	d	**183.8**	**135.6**	**F**	**F**
	- With Improvements	TS	**2**	2	0	1	1	1	1	**3**	**1>**	1	**3**	**0**	54.3	50.5	D	D
	- 2040 With Project	TS	1	2	0	1	1	1	1	2	1	1	2	d	**185.7**	**137.8**	**F**	**F**
	- With Improvements	TS	**2**	2	0	1	1	1	1	**3**	**1>**	1	**3**	**0**	54.4	51.9	D	D
39	Cawston Av. / Stetson Av.																	
	- 2040 Without Project	TS	1	1	1	1	1	1	1	2	0	1	1	1	33.7	**>200.0**	C	**F**
	- With Improvements	TS	1	1	1	1	1	1	1	2	0	1	**2**	1	14.5	12.8	B	B
	- 2040 With Project	TS	1	1	1	1	1	1	1	2	0	1	1	1	39.8	**>200.0**	D	**F**
	- With Improvements	TS	1	1	1	1	1	1	1	2	0	1	**2**	1	14.6	13.1	B	B
40	Sanderson Av. / Florida Av. (SR-74)																	
	- 2040 Without Project	TS	1	2	1	1	2	d	1	2	1	1	2	d	**103.6**	**96.7**	**F**	**F**
	- With Improvements	TS	**2**	**3**	1	**2**	**3**	**0**	**2**	2	1	**2**	2	**1**	47.6	44.0	D	D
	- 2040 With Project	TS	1	2	1	1	2	d	1	2	1	1	2	d	**103.7**	**98.7**	**F**	**F**
	- With Improvements	TS	**2**	**3**	1	**2**	**3**	**0**	**2**	2	1	**2**	2	**1**	47.7	44.2	D	D
41	Sanderson Av. / Stetson Av.																	
	- 2040 Without Project	TS	1	2	1>	1	2	0	1	2	0	1	2	0	**>200.0**	**156.6**	**F**	**F**
	- With Improvements	TS	**2**	2	1>	**2**	2	**1>**	**2**	**3**	0	**2**	**3**	0	53.1	49.9	D	D
	- 2040 With Project	TS	1	2	1>	1	2	0	1	2	0	1	2	0	**>200.0**	**159.8**	**F**	**F**
	- With Improvements	TS	**2**	2	1>	**2**	2	**1>**	**2**	**3**	0	**2**	**3**	0	54.6	50.2	D	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free Right Turn Lane; d= Defacto Right Turn Lane; **1** = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

[4] Recommended improvement also consists of protecting the northbound and southbound left turn movements.

[5] Recommended improvement also consists of implementing 2-stage pedestrian crossing for all approaches.

Table 8-4

Roadway Segment Capacity Analysis for Horizon Year (2040) Conditions With Improvements

#	Roadway	Segment Limits	Roadway Section	LOS[3] Capacity[1]	2040 Without Project	V/C[2]	LOS[3]	2040 With Project	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Winchester Rd.	South of Florida Av. (SR-74)	4D	34,100	24,990	0.73	C	25,582	0.75	C	D
2	(SR-79)	North of 9th St.	4D	34,100	29,073	0.85	D	29,117	0.85	D	D
3	Patterson Av.	South of Grand Av.	4D	25,900	13,621	0.53	A	13,667	0.53	A	D
4	California Av.	Stowe Rd. to New Stetson Av.	4D	25,900	17,744	0.69	B	18,562	0.72	B	D
5		New Stetson Av. to Simpson Rd.	4D	25,900	18,616	0.72	C	19,162	0.74	C	D
6	Mustang Wy.	South of New Stetson Av.	4D	34,100	14,207	0.42	A	18,028	0.53	A	C
7		West of Warren Rd.	4D	34,100	5,011	0.15	A	5,467	0.16	A	C
8	Warren Rd.	South of Esplanade Av.	6D	53,900	34,860	0.65	B	35,300	0.65	B	C
9		North of Tres Cerritos Av.	6D	53,900	33,885	0.63	B	34,326	0.64	B	C
10		Tres Cerritos Av. to Devonshire Av.	6D	53,900	35,910	0.67	B	36,621	0.68	B	C
11		Devonshire Av. to Florida Av. (SR-74)	6D	53,900	28,665	0.53	A	29,635	0.55	A	C
12		Florida Av. (SR-74) to Auto Bl.	4D	35,900	38,535	**1.07**	**F**	40,967	**1.14**	**F**	C
13		Auto Bl. to Whittier Av.	4D	35,900	30,901	**0.86**	**D**	33,560	**0.93**	**E**	C
14		Whitter Av. to Stetson Av.	4D	35,900	35,595	**0.99**	**E**	38,345	**1.07**	**F**	C
15		Stetson Av. to New Stetson Av.	4D	35,900	23,432	0.65	B	26,182	0.73	B	C
16		New Stetson Av. to Street D	4D	35,900	21,125	0.59	A	23,277	0.65	A	C
17		Street D to Mustang Wy.	4D	35,900	21,125	0.59	A	22,189	0.62	A	C
18		South of Mustang Wy.	4D	35,900	19,950	0.56	A	20,388	0.57	A	C
19		Simpson Rd. to Domenigoni Pkwy.	4D	35,900	16,698	0.47	A	16,954	0.47	A	C
20	Florida Av. (SR-74)	Warren Rd. to Myers St.	6D	53,900	86,860	**1.61**	**F**	87,666	**1.63**	**F**	C
			8D	71,900		**1.21**	**F**		**1.22**	**F**	C
21		Myers St. to Acacia Av.	6D	53,900	62,895	**1.17**	**F**	63,655	**1.18**	**F**	C
			8D	71,900		0.87	D		0.89	D	C
22		Acacia Av. to Cawston Av.	6D	53,900	58,485	**1.09**	**F**	59,131	**1.10**	**F**	C
			8D	71,900		0.81	D		0.82	D	C
23		East of Cawston Av.	6D	53,900	43,155	0.80	C	43,503	0.81	C	C
24		West of Sanderson Av.	6D	53,900	43,155	0.80	C	43,459	0.81	C	C
25	Stetson Av.	East of Warren Rd.	4D	35,900	28,140	0.78	C	28,140	0.78	C	C
26		West of New Stetson Av.	4D	35,900	28,140	0.78	C	28,140	0.78	C	C
27		New Stetson Av. to Cawston Av.	4D	35,900	36,803	**1.03**	**F**	37,851	**1.05**	**F**	C
28		East of Cawston Av.	4D	35,900	33,589	**0.94**	**F**	34,317	**0.96**	**F**	C
29		West of Sanderson Av.	4D	35,900	35,490	**0.99**	**F**	36,218	**1.01**	**F**	C
30	9th St.	East of Winchester Rd. (SR-79)	4D	34,100	12,352	0.36	A	13,228	0.39	A	D
31	Grand Av.	Patterson Av. to Calvert Av.	4D	35,900	34,278	**0.95**	**E**	35,428	**0.99**	**E**	D
32		Calvert Av. to SR-79	4D	35,900	25,158	0.70	B	26,399	0.74	B	D
33	New Stetson Av.	East of SR-79	4D	35,900	31,895	0.89	D	33,913	**0.94**	**E**	D
34		West of California Av.	4D	35,900	21,577	0.60	A	23,595	0.66	A	D
35		California Av. to Street C	4D	35,900	41,087	**1.14**	**F**	44,469	1.24	**F**	C
36		Street C to Mustang Wy.	4D	35,900	40,182	**1.12**	**F**	42,882	1.19	**F**	C
37		Mustang Wy. to Street D	4D	35,900	35,337	**0.98**	**E**	37,425	1.04	**E**	C
38		Street D to Warren Rd.	4D	35,900	35,637	**0.99**	**E**	37,723	1.05	**E**	C
39		Warren Rd. to Fisher St.	4D	35,900	31,240	0.87	D	32,361	0.90	D	C
40		Fisher St. to Stetson Av.	4D	35,900	31,240	0.87	D	32,362	0.90	D	C
41	Simpson Rd.	East of Winchester Rd. (SR-79)	4D	25,900	18,832	0.73	C	18,832	0.73	C	D
42		West of California Av.	4D	25,900	32,386	**1.25**	**F**	32,614	**1.26**	**F**	D
43		East of California Av.	4D	25,900	11,643	0.45	A	11,827	0.46	A	D
44		West of Warren Rd.	4D	25,900	27,899	**1.08**	**F**	28,083	**1.08**	**F**	D
45		East of Warren Rd.	4D	25,900	15,000	0.58	A	15,440	0.60	A	D
46	Domenigoni Pkwy.	Winchester Rd. (SR-79) to Patterson Av.	6D	53,900	29,348	0.54	A	29,576	0.55	A	C
47		Patterson Av. to SR-79	6D	53,900	49,033	**0.91**	**E**	49,397	**0.92**	**E**	C
48		East of SR-79	6D	53,900	48,523	**0.90**	**D**	48,705	**0.90**	**D**	C
49		West of Warren Rd.	6D	53,900	27,090	0.50	A	27,136	0.50	A	C

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been extracted from the County of Riverside's General Plan.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

9 REFERENCES

1. **Institute of Transportation Engineers.** *Trip Generation.* 9th Edition. 2012.

2. **Transportation Research Board.** *Highway Capacity Manual (HCM).* s.l. : National Academy of Sciences, 2000 and 2010.

3. —. *Highway Capacity Manual (HCM).* s.l. : National Academy of Sciences, 2010.

4. **Federal Highway Administration.** Manual on Uniform Traffic Control Devices (MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CAMUTCD).* 2014.

5. **Hemet, City of.** *City of Hemet 2030 General Plan.* City of Hemet : s.n., January 24, 2015.

6. **Jacinto, City of San.** *City of San Jacinto General Plan.* City of San Jacinto : s.n., Amended October 19, 2012.

7. **Southern California Association of Governments.** *2016 Regional Transportation Plan.* April 2016.

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APPENDIX 1.1:

APPROVED TRAFFIC STUDY SCOPING AGREEMENT

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Charlene Hwang So

From: Steve Latino <SLatino@cityofhemet.org>
Sent: Wednesday, October 28, 2015 4:33 PM
To: Charlene Hwang So
Cc: CMS Administrator; Aric Evatt
Subject: RE: 09702: Rancho Diamante Scoping Agreement

Charlene,

I am good with the responses, and ask that we do manually move the traffic from Esplanade to Tres Cerritos. Other than that, I think the scoping agreement is adequate to begin the work. Please let me know if you need any additional information. Thanks.

Steven Latino
Engineering Director/City Engineer
City of Hemet
slatino@cityofhemet.org
P: 951-765-2362
C: 951-634-1554
F: 951-765-3878

From: Charlene Hwang So [mailto:cso@urbanxroads.com]
Sent: Wednesday, October 28, 2015 4:30 PM
To: Steve Latino <SLatino@cityofhemet.org>
Cc: CMS Administrator <cmsadmin@urbanxroads.com>; Aric Evatt <aevatt@urbanxroads.com>
Subject: 09702: Rancho Diamante Scoping Agreement

Hi Steve,

I am following up on the status of your review of the Rancho Diamante scoping agreement. I had provided responses to some of your preliminary questions/comments on the scope, so I wanted to make sure you got that e-mail and see if you had any additional comments. Thanks!

Regards,

CHARLENE SO, P.E.
Senior Transportation Engineer

URBAN CROSSROADS

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urbanxroads.com

From: Charlene Hwang So
Sent: Tuesday, October 13, 2015 1:37 PM
To: 'Steve Latino' <SLatino@cityofhemet.org>

Cc: CMS Administrator <cmsadmin@urbanxroads.com>; Aric Evatt <aevatt@urbanxroads.com>
Subject: 09702: Rancho Diamante Scoping Agreement

Hi Steve,

Thanks for the response. I wanted to get back to you on some of your questions:

1. The traffic model that we ran our select zone run from did not include an interchange at Tres Cerritos, only ones at Esplanade and Florida. However, with the proposed interchange at Tres Cerritos, it is closer and would be a better alternative to Esplanade. That being said, we can manually move the 6% down to the Tres Cerritos interchange. 6% of the Project traffic roughly equates to 38 PM peak hour trips.

2. The select zone run showed that while most traffic heading southbound on SR-79 would go to Winchester to ultimately head south, there was a small percentage (3%) that was shown to utilize Patterson as a parallel route to Winchester Road to also ultimately head southbound. Patterson is anticipated to come into Winchester Road at the future Holland Road (south of where SR-79 comes into Winchester).

Please let me know if you have any other questions or comments, or if you want to discuss any of the responses above. Thanks!

Regards,

CHARLENE SO, P.E.
Senior Transportation Engineer

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From: Steve Latino [mailto:SLatino@cityofhemet.org]
Sent: Monday, October 12, 2015 8:30 PM
To: Charlene Hwang So <cso@urbanxroads.com>
Cc: CMS Administrator <cmsadmin@urbanxroads.com>; Aric Evatt <aevatt@urbanxroads.com>
Subject: RE: 09702: Rancho Diamante Scoping Agreement

Aric/Charlene,

Generally the scoping agreement looks good, the only thing I was wondering…we are analyzing Esplanade/SR-79 at buildout assuming traffic is going to use Warren to get there; however, the interchange at Tres Cerritos looks like it would be a viable alternative for the traffic to use heading that direction. How many trips are assigned to that location? Also, looking at the extension of Stetson Avenue in the future where it comes into Patterson, where are these trips going? I guess I am trying to figure out where the interface with Winchester occurs.

Other than that, looks good. Assumptions are consistent with the recognized guidelines (ITE) as well as generally consistent with our General Plan. I will work on getting you a current copy of our DIF study that shows what intersections are included. Thanks, and sorry it took so long to get back to you on this. Been a busy few months as the

"new guy" and one of these days I hope to have everything under control….or at least stop finding out new things every time I turn around! ☺

Steven Latino
Engineering Director/City Engineer
City of Hemet
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P: 951-765-2362
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F: 951-765-3878

From: Charlene Hwang So [mailto:cso@urbanxroads.com]
Sent: Tuesday, October 6, 2015 12:00 PM
To: Steve Latino <SLatino@cityofhemet.org>
Cc: CMS Administrator <cmsadmin@urbanxroads.com>; Aric Evatt <aevatt@urbanxroads.com>
Subject: 09702: Rancho Diamante Scoping Agreement
Importance: High

Hi Steve,

This is a follow up to the voicemail message I just left for you. Aric had also sent an e-mail a few days ago. Attached is the scoping agreement for the Rancho Diamante project we submitted to the City for review. We were hoping you could provide us initial feedback on the study area intersections so that we can get our count program initiated as soon as possible. Please feel free to call me if you would like to discuss. Thanks in advance!

Regards,

CHARLENE SO, P.E.
Senior Transportation Engineer

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September 21, 2015

Mr. Habib Motlagh
City of Hemet
445 E. Florida Avenue
Hemet, CA 92543

SUBJECT: RANCHO DIAMANTE (TENTATIVE TRACT MAP NO. 36841) TRAFFIC IMPACT ANALYSIS SCOPING AGREEMENT

Dear Mr. Habib Motlagh:

The firm of Urban Crossroads, Inc. is pleased to submit this scoping letter regarding the traffic impact analysis for the proposed Rancho Diamante (Tentative Tract Map No. 36841) ("Project"), which is generally located on the southwest corner of Warren Raod and the new Stetson Avenue extension, in the City of Hemet. It is our understanding that the Project is to consist of 635 single family detached residential dwelling units. This letter describes the draft proposed project trip generation, trip distribution, and analysis methodology, which have been used to establish the draft proposed project study area and analysis locations.

PROJECT DESCRIPTION

A preliminary land use plan for the proposed Project and proposed phasing are shown on Exhibit 1. Exhibit 2 depicts the location of the proposed Project in relation to the existing roadway network. Study area intersections were selected based on the intersections of 2 General Plan Roadways of collector or higher classification where the Project is anticipated to contribute 50 or more peak hour trips. For the purposes of this traffic study, the Project is anticipated to be developed in two phases as listed below:

- Phase 1 (2019) – 338 single family residential dwelling units
- Phase 2 (2023) – remaining 297 single family residential dwelling units (for a total of 635 dwelling units)

Main access to the Project site will be provided via the future western extension of Mustang Way between the new Stetson Avenue and Warren Road. Access will also be provided to the new extension of Stetson Avenue via Street C and Street D.

TRIP GENERATION

In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) *Trip Generation* (9th Edition, 2012) manual for the proposed land uses were used. Table 1 presents the trip generation rates for the proposed. As shown in Table 1,

Phase 1 (2019) of the Project is anticipated to generate a net total of 3,218 trip-ends per day with 253 AM peak hour trips and 338 PM peak hour trips. As shown in Table 1, Phase 2 (2023) of the Project is anticipated to generate a net total of 2,827 trip-ends per day with 222 AM peak hour trips and 297 PM peak hour trips. As such, the Project is anticipated to generate a net total of 6,045 trip-ends per day with 475 AM peak hour trips and 635 PM peak hour trips at Project buildout.

TRIP DISTRIBUTION

The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site. Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute. For the purposes of this traffic study, the Project trip distribution patterns are based on a select zone model run for the zone containing the Project from the City's traffic model. Manual modifications have been made for the Project trip distribution patterns fo Opening Year conditions as the long-range roadway network would not be in place.

The Project (Opening Year) trip distribution patterns are graphically depicted on Exhibit 3. This distribution pattern will be utilized for both Existing plus Project and Opening Year Cumulative traffic conditions. Exhibit 4 shows trip distribution for the Project under Horizon Year traffic conditions, which assumes long-range planned facilities within the study area, including, but not limited to the Realigned SR-79.

ANALYSIS SCENARIOS

Iintersection analysis will be provided for the following analysis scenarios:

- Existing (2015) Conditions
- Existing plus Project (Phase 1) Conditions
- Exitsing plus Project (Project Buildout) Conditions
- Opening Year Cumulative (2019) Without Project Conditions
- Opening Year Cumulative (2019) With Project (Phase 1) Conditions
- Opening Year Cumulative (2023) Without Project Conditions
- Opening Year Cumulative (2023) With Project (Project Buildout) Conditions
- Horizon Year (2035) Without Project Conditions
- Horizon Year (2035) With Project (Project Buildout) Conditions

All study area intersections will be evaluated using the Highway Capacity Manual (HCM) 2010 analysis

methodology.

SPECIAL ISSUES

The following special issues will be addressed in the traffic study:

- Provide a queuing analysis for the Project driveways and site adjacent signalized intersections to determine necessary storage lengths.
- Roadway segments where the Project is anticipated to contribute 50 or more peak hour trips will be evaluated based on average daily traffic and reporting volume-to-capacity.

OPEN ITEMS

CUMULATIVE DEVELOPMENT PROJECTS

We request the City staff to review the list of cumulative projects on Table 2 (also shown on Exhibit 5) and provide a list of any additional cumulative development projects for inclusion in the traffic study, and associated mitigation measures where appropriate for recently approved, but not yet constructed development.

DEVELOPMENT IMPACT FEE PROGRAM

It is also requested that City staff provide the list of facilities (e.g., traffic signal locations and roadway/intersection improvements) that are covered by the City's Development Impact Fee Program.

CONCLUSION

Urban Crossroads, Inc. is pleased to submit this letter documenting the Project trip generation, trip distribution, and the recommended intersection analysis locations for the Rancho Diamante (Tentative Tract Map No. 36841) Traffic Impact Study. We will continue to move forward towards completing the traffic study after receiving jurisdiction approval or comments finalizing the study area. If you have any questions, please contact me directly at (949) 336-5978.

Respectfully submitted,
URBAN CROSSROADS, INC.

Aric Evatt, PTP
President

Charlene So, PE
Senior Transportation Engineer

Attachments

Table 1

Project Trip Generation Rates & Trip Generation Summary

Land Use	ITE LU Code	Units[2]	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily
			In	Out	Total	In	Out	Total	
Project Trip Generation Rates[1]									
Single Family Detached Residential	210	DU	0.19	0.56	0.75	0.63	0.37	1.00	9.52

Project	Quantity	Units[2]	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily
			In	Out	Total	In	Out	Total	
Project Trip Generation Summary									
TTM No. 36841 (Phase 1)	338	DU	64	189	253	213	125	338	3,218
TTM No. 36841 (Phase 2)	297	DU	56	166	222	187	110	297	2,827
Total	**635**	**DU**	**120**	**355**	**475**	**400**	**235**	**635**	**6,045**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation, Ninth Edition (2012).

[2] DU = Dwelling Units

Table 2

Cumulative Development Project List

No.	Name	Land Use	Quantity	Units[1]
City of Hemet				
H1	Florida Promenade (SP 06-04)	Commercial	200.00 (100.00 Built)	TSF
	Marriot Towneplace Suites (SDR 09-03)	Hotel	105	Rooms
H2	Florida Promenade Residential	Senior Residential (attached)	440	DU
		Single Family Residential	145	DU
H3	Hemet Medicity Complex (CUP 09-03)	Medical Office	233.3	TSF
		Hospital	49	Beds
H4	Rancho Diamante (Remaining TTMs)	SFDR	359	DU
H5	Pulte Del Web (TTM 31807 and 31808)	Senior Residential	599 (205 Built)	DU
H6	Hemet Auto Mall Retail Expansion (CUP 07-21)	Commercial	108	TSF
H7	Tres Cerritos West (VTTM 31513)	Single Family Residential	178	DU
H8	Montero (VTTM 31146)	Single Family Residential	86 (70 Built)	DU
		Neighborhood Park	0.76	AC
H9	Peppertree Ranch (SP 01-3 and VTTM 29843)	Senior Residential (detached)	465 (7 Built)	DU
		Parks/Open Space	40.20	AC
H10	The Boardwalk (CUP 06-4)	Commercial	94.00 (20.00 Built)	TSF
H11	TTM 29581 (Covenant)	Single Family Residential	71	DU
H12	TTM 31064 (Kolby)	Single Family Residential	150	DU
H13	Stoney Mountain Ranch (TTM 29129)	Single Family Residential	405 (300 Built)	DU
H14	TTM 33707 (Devonshire Partners) CUP 03-16A	Single Family Residential	98 (25 Built)	DU
H15	CUP 05-02 (Terra West)	Senior Residential (attached)	240	DU
H16	Tres Cerritos East (SPA 06-1)	Single Family Residential	775	DU
H17	Page Ranch Elementary School	Elementary School	750	STU
H18	Freedom Middle School	Middle School	1500	STU
H19	North Hemet Revitalization Plan (SP 11-01)	Senior Housing	96	DU
		Assisted Living	137	BEDS
		Office	16.34	TSF
		Commercial	38.12	TSF
		Apartments	252	DU
		Condos/Townhomes	81	DU
		Commercial	80.8	TSF
H20	St. Deminia Center (CUP 07-16)	Commercial	33.48	TSF
H21	Stetson Crossing (SP 07-4)	Commercial	189.00	TSF
H22	Nelson (SDR 06-28)	Industrial	16.20	TSF
H23	VTTM 31165 Young Homes	Single Family Residential	213	DU
H24	McSweeny TTM 33824 (Map 05-10)	Single Family Residential	238	DU
H25	McSweeny TTM 33825 (Map 05-11)	Single Family Residential	259	DU
H26	McSweeny TTM 34660	Single Family Residential	396	DU
H27	McSweeny TTM 34661	Single Family Residential	427	DU
H28	McSweeny TTM 34662	Single Family Residential	11	DU
H29	McSweeny TTM 32717	Single Family Residential	310	DU
H30	Acacia Gardens Expansion (CUP 06-5)	Multi-Family Residential	50	DU
H31	Cawston Plaza (CUP 07-26)	Commercial	21.00	TSF
H32	Scripps West (CUP 08-14)	Commercial	5.30	TSF
H33	Hemet Medical (CUP 07-24)(TPM 35701)	Medical Office	126.00 (50.00 Built)	TSF
H34	Hemet 63 (ZC 05-04)	Commercial	260.00	TSF
H35	JAKS LLC (ZC 04-13)	Commercial	170.00	TSF

Cumulative Development Project List

No.	Name	Land Use	Quantity	Units[1]
H36	Sanderson Square (SP 05-03)	Commercial	243.00	TSF
		Office/Industrial	186.70	TSF
H37	Garrett Ranch Specific Plan	Single Family Residential	254	DU
		Apartments	176	DU
		Condos/Townhomes	524	DU
		Elementary School	750	STU
		Junior/Community College	166.000	TSF
		General Office	113.256	TSF
		Shopping Center	369.788	TSF
		Community Park	11.2	AC
		Passive Park	25.9	AC
H38	TR32352	Single Family Residential	153	DU
County of Riverside				
RC1	Emerald Acres Specific Plan SP00381	Single Family Residential	432	DU
RC2	TR36337	Single Family Residential	347	DU
City of San Jacinto				
SJ1	TR22665	Single Family Residential	147	DU
SJ2	TR30033 (SP 1-01)	Single Family Residential	138	DU
	TR30034 (SP 1-01)	Single Family Residential	50	DU
	TR30035 (SP 1-01)	Single Family Residential	74	DU
	TR30036 (SP 1-01)	Single Family Residential	104	DU
	TR30084 (SP 1-01)	Single Family Residential	111	DU
	TR30090 (SP 1-01)	Single Family Residential	5	DU
SJ3	TR30481	Single Family Residential	126	DU
SJ4	TR30597	Single Family Residential	116	DU
SJ5	TR30603	Single Family Residential	203	DU
SJ6	TR30659	Single Family Residential	64	DU
SJ7	TR30878	Single Family Residential	170	DU
SJ8	TR30944	Single Family Residential	103	DU
SJ9	TR31037	Single Family Residential	263	DU
SJ10	TR31097	Single Family Residential	214	DU
SJ11	TR31154	Single Family Residential	88	DU
SJ12	TR31294	Single Family Residential	37	DU
SJ13	VTR31384	Single Family Residential	91	DU
SJ14	TR32518	Single Family Residential	34	DU
SJ15	TR33546	Single Family Residential	5	DU
SJ16	TR31886	Single Family Residential	321	DU
SJ17	TR30814	Single Family Residential	155	DU
SJ18	TR30598 (SP 1-03)	Single Family Residential	580	DU
SJ19	TR31293	Single Family Residential	100	DU
SJ20	TR31282	Single Family Residential	274	DU
SJ21	TR31900	Single Family Residential	112	DU
SJ22	TR31929	Single Family Residential	78	DU
SJ23	TR32247	Single Family Residential	150	DU
SJ24	TR32809	Condominiums	272	DU
SJ25	TR32955 (SP1-02)	Single Family Residential	613	DU
SJ26	TR32843	Single Family Residential	143	DU
SJ27	TR32555	Single Family Residential	12	DU
SJ28	TR33420A1	Single Family Residential	161	DU

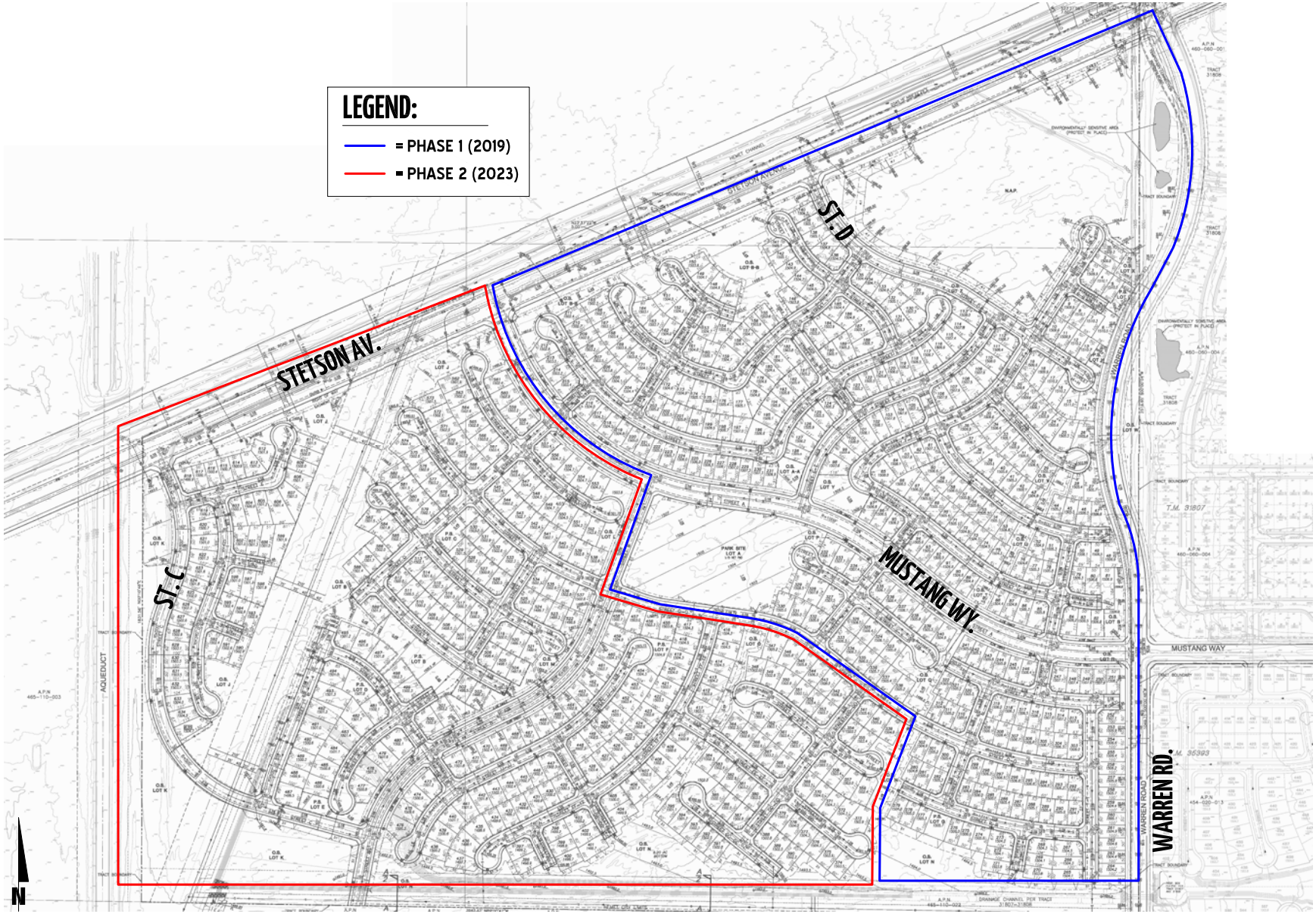
Table 2

Cumulative Development Project List

No.	Name	Land Use	Quantity	Units[1]
SJ29	TR33072	Single Family Residential	140	DU
SJ30	TR32574	Single Family Residential	131	DU
SJ31	TR33644	Condo/Townhomes	62	DU
SJ32	PM35626	Shopping Center	195.74	TSF
		Apartments	150	DU
SJ33	TR36188 (SP1-04)	Single Family Residential	1323	DU
SJ34	PM33196 San Jacinto Retail Center	General Retail	24	TSF
		Drive-In Bank	4.7	TSF
		Fast-Food w/ Drive Thru	3.45	TSF

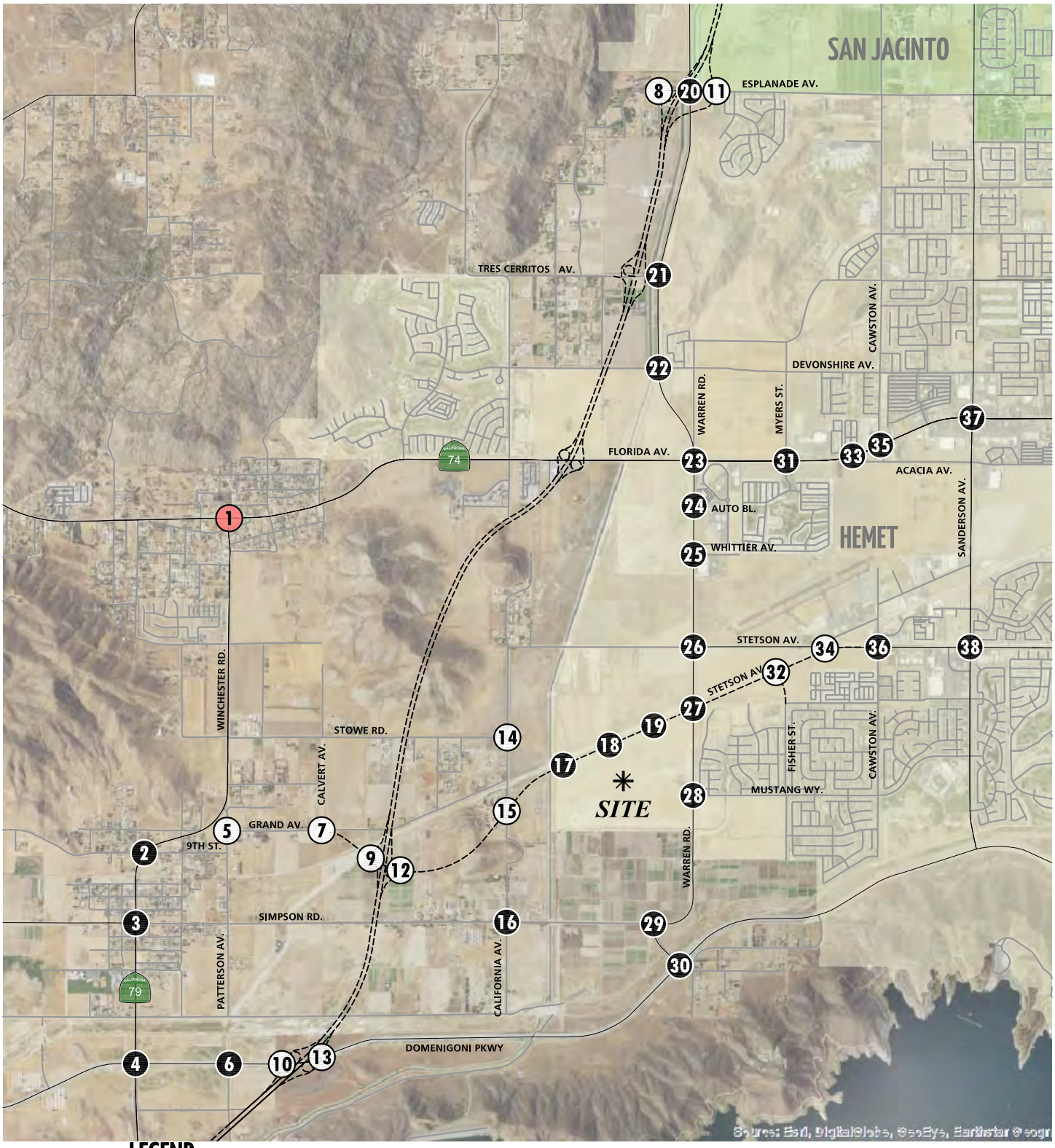
[1] DU = Dwelling Units; STU = Students; TSF = Thousand Square Feet; BEDS = Occupied Beds

EXHIBIT 1: TENTATIVE TRACT MAP NO. 36841



URBAN CROSSROADS

EXHIBIT 2: LOCATION MAP

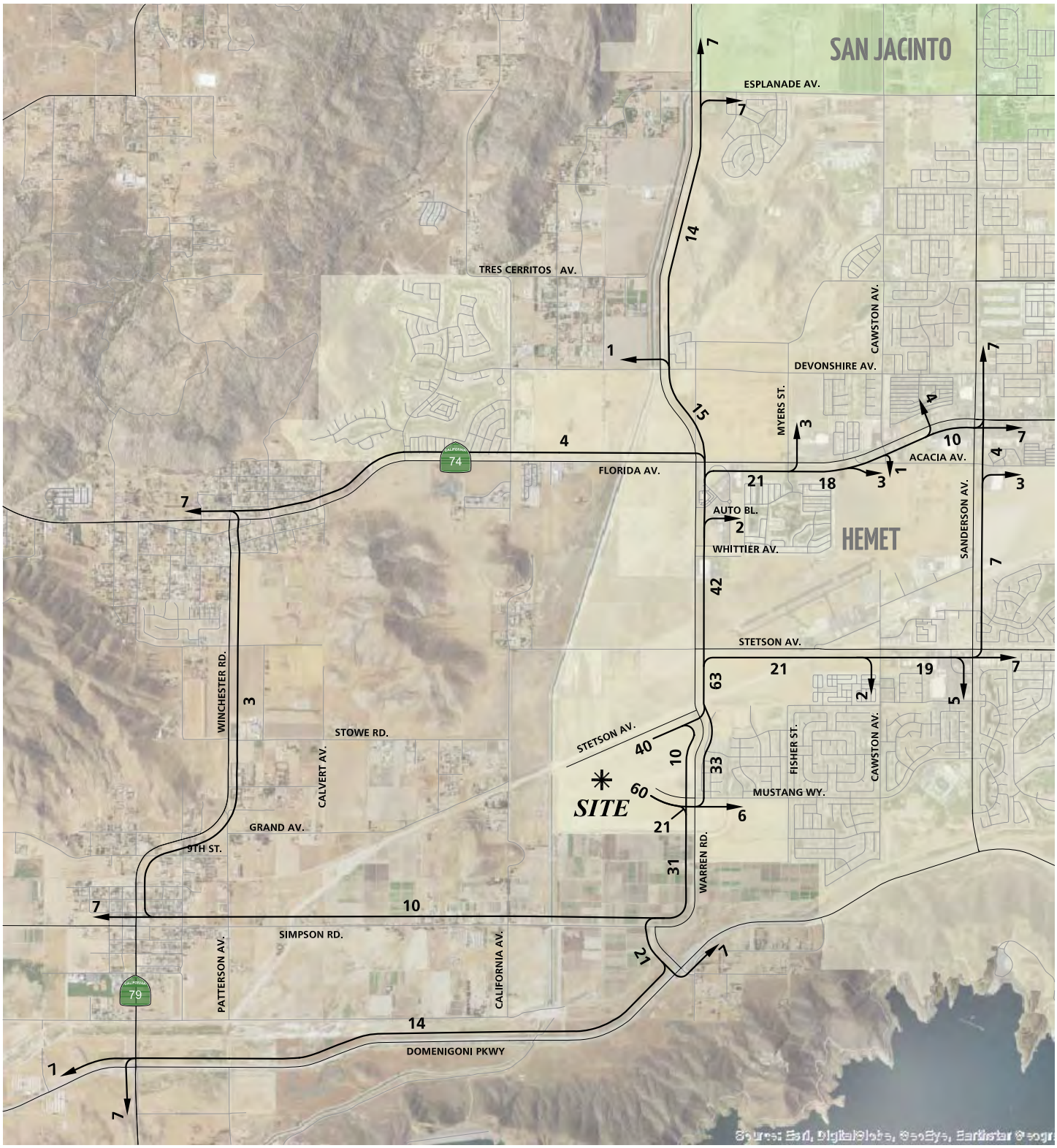


LEGEND:

- 0 = ANALYSIS LOCATION
- 0 = CMP INTERSECTION
- 0 = 2035 ANALYSIS LOCATION ONLY

09702 - locmap.dwg

EXHIBIT 3: PROJECT (OPENING YEAR) TRIP DISTRIBUTION



LEGEND:

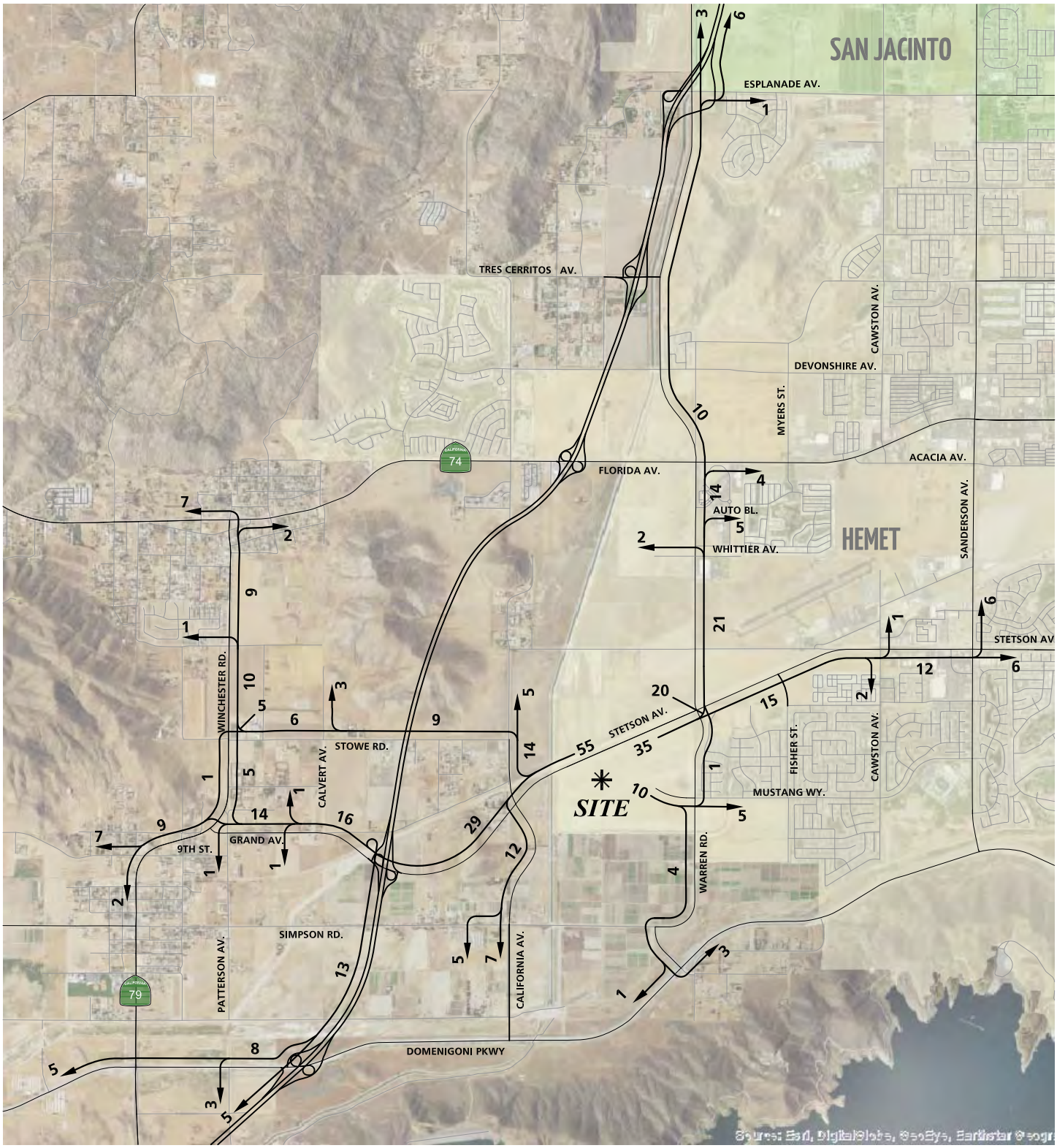
10 = PERCENT TO/FROM PROJECT

N

09702 - trips-oy.dwg

URBAN CROSSROADS

EXHIBIT 4: PROJECT (HORIZON YEAR) TRIP DISTRIBUTION



LEGEND:

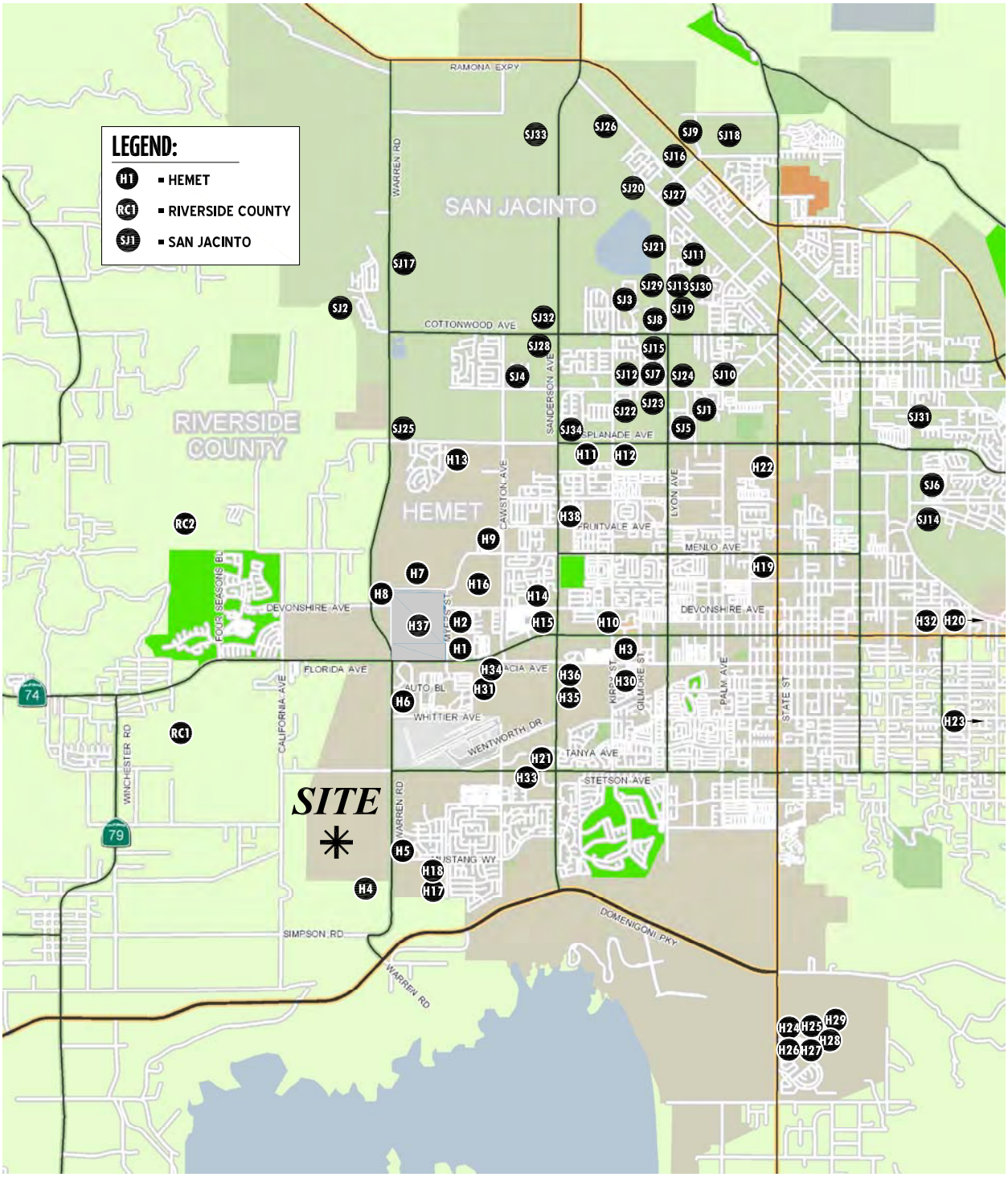
10 = PERCENT TO/FROM PROJECT

N

09702 - trips-hy.dwg

URBAN CROSSROADS

EXHIBIT 5: CUMULATIVE DEVELOPMENT LOCATION MAP



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APPENDIX 1.2:

SITE ADJACENT QUEUING ANALYSIS

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Intersection: 17: Street C & New Stetson Av.

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	TR	L	T	T	LR
Maximum Queue (ft)	597	545	149	484	494	114
Average Queue (ft)	300	302	13	182	198	47
95th Queue (ft)	502	496	62	354	388	102
Link Distance (ft)	1204	1204		1308	1308	547
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			100			
Storage Blk Time (%)				11		
Queuing Penalty (veh)				1		

Intersection: 18: Mustang Wy. & New Stetson Av.

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	631	648	328	349	439	458	327	155
Average Queue (ft)	400	405	119	158	211	228	149	54
95th Queue (ft)	617	627	224	294	397	406	257	110
Link Distance (ft)	1308	1308	1308		1125	1125	917	917
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				300				
Storage Blk Time (%)					3			
Queuing Penalty (veh)					5			

Intersection: 19: Street D & New Stetson Av.

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	TR	L	T	T	LR
Maximum Queue (ft)	764	806	52	504	551	72
Average Queue (ft)	338	340	16	306	317	39
95th Queue (ft)	644	660	45	481	490	77
Link Distance (ft)	1125	1125		1316	1316	630
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			100			
Storage Blk Time (%)				34		
Queuing Penalty (veh)				7		

Intersection: 27: Warren Rd. & New Stetson Av.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	TR	L	L	T	T	R	L	L	T
Maximum Queue (ft)	221	380	939	797	102	123	386	352	186	103	213	249
Average Queue (ft)	135	164	242	266	55	27	247	232	81	41	54	161
95th Queue (ft)	203	295	573	549	98	73	333	319	154	74	116	219
Link Distance (ft)			1316	1316	1894	1894	1894	1894	1894			928
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300	300								300	300	
Storage Blk Time (%)		0	8									
Queuing Penalty (veh)		0	34									

Intersection: 27: Warren Rd. & New Stetson Av.

Movement	NB	SB	SB	SB	SB	SB
Directions Served	TR	L	L	T	T	R
Maximum Queue (ft)	282	182	197	274	274	215
Average Queue (ft)	181	100	113	201	213	94
95th Queue (ft)	252	167	185	249	258	183
Link Distance (ft)	928	1753	1753	1753	1753	1753
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 28: Warren Rd. & Street D

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LR	L	T	T	T	TR
Maximum Queue (ft)	115	53	74	75	183	236
Average Queue (ft)	39	13	16	23	49	59
95th Queue (ft)	77	43	54	67	129	139
Link Distance (ft)	622		982	982	349	349
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		150				
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 29: Warren Rd. & Mustang Wy.

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	90	215	320	199	69	288	324	228	306	285
Average Queue (ft)	41	106	184	108	24	129	157	118	147	158
95th Queue (ft)	85	173	278	185	58	212	257	194	244	257
Link Distance (ft)		955	2553	2553	3030	3030	3030		982	982
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	300							150		
Storage Blk Time (%)								7	10	
Queuing Penalty (veh)								30	14	

Zone Summary

Zone wide Queuing Penalty: 91

Intersection: 17: Street C & New Stetson Av.

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	TR	L	T	T	LR
Maximum Queue (ft)	388	462	72	346	363	115
Average Queue (ft)	161	178	29	119	136	44
95th Queue (ft)	287	317	61	261	267	99
Link Distance (ft)	1202	1202		1311	1311	565
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			100			
Storage Blk Time (%)				4		
Queuing Penalty (veh)				1		

Intersection: 18: Mustang Wy. & New Stetson Av.

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	810	861	171	349	459	456	692	201
Average Queue (ft)	492	511	81	160	247	260	433	75
95th Queue (ft)	754	771	148	292	433	453	614	134
Link Distance (ft)	1311	1311	1311		1120	1120	917	917
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				300				
Storage Blk Time (%)				0	7			
Queuing Penalty (veh)				1	13			

Intersection: 19: Street D & New Stetson Av.

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	TR	L	T	T	LR
Maximum Queue (ft)	619	651	150	356	358	132
Average Queue (ft)	174	182	63	133	149	47
95th Queue (ft)	445	460	128	308	316	103
Link Distance (ft)	1120	1120		1335	1335	684
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			100			
Storage Blk Time (%)			2	12		
Queuing Penalty (veh)			16	7		

Intersection: 27: Warren Rd. & New Stetson Av.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	TR	L	L	T	T	R	L	L	T
Maximum Queue (ft)	218	380	918	910	125	407	968	964	139	172	379	603
Average Queue (ft)	116	275	516	529	45	46	727	712	55	110	175	359
95th Queue (ft)	184	489	845	847	87	166	974	957	101	158	364	535
Link Distance (ft)			1335	1335	1963	1963	1963	1963	1963			905
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300	300								300	300	
Storage Blk Time (%)		0	31									16
Queuing Penalty (veh)		0	94									55

Intersection: 27: Warren Rd. & New Stetson Av.

Movement	NB	SB	SB	SB	SB	SB
Directions Served	TR	L	L	T	T	R
Maximum Queue (ft)	646	238	204	117	115	231
Average Queue (ft)	386	130	105	49	38	112
95th Queue (ft)	565	190	177	101	92	197
Link Distance (ft)	905	1971	1971	1971	1971	1971
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 28: Warren Rd. & Street D

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LR	L	T	T	T	TR
Maximum Queue (ft)	195	96	190	163	119	170
Average Queue (ft)	82	48	62	80	61	66
95th Queue (ft)	155	87	143	156	120	147
Link Distance (ft)	555		1005	1005	345	345
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		150				
Storage Blk Time (%)			0			
Queuing Penalty (veh)			0			

Intersection: 29: Warren Rd. & Mustang Wy.

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	175	178	260	393	157	404	470	257	159	159
Average Queue (ft)	62	106	149	252	63	295	332	112	87	104
95th Queue (ft)	126	159	237	367	115	396	432	188	152	160
Link Distance (ft)		955	2558	2558	3030	3030	3030		1005	1005
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	300							150		
Storage Blk Time (%)								9	1	
Queuing Penalty (veh)								17	1	

Zone Summary

Zone wide Queuing Penalty: 207

APPENDIX 1.3:

TUMF IMPROVEMENTS FROM HEMET CENTER

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TUMF Improvements From Hemet Center

Value of Improvements (3 miles)	$72,139,798
Value of Improvements (3+5 miles)	$201,318,363
Value of Improvements (3+5+10 miles)	$445,530,035

TUMF Network
Ultimate number of Lanes
- 2 Lanes
- 4 Lanes
- 6 Lanes
- 8 Lanes
- RivCo_Roads
- Subject City
- Interchanges
- Completed Interchanges
- Bridges
- Completed Bridges
- RR Xing
- Completed RR Xings

RTA Transit Ctr
- Transfer
- Transit
- TUMFZones
- Mid_Co_Pkwy
- Completed or at Ultimate ROW
- Network Link - Not Funded

0 0.5 1 2 3 4 5 Miles

BEAUMONT
SAN JACINTO
HEMET
PERRIS
MURRIETA
Gilman Springs
Lamb Canyon
Ramona Expwy
Mid County Pkwy
Sanderson
Placentia
Perris
Evans
Nuevo
Menifee
4th
Ellis
Goetz
Matthews
Ethanac
McCall
Briggs
Winchester
San Jacinto Bypass
Warren
Esplande
North Ramona
Ramona
State
SR-74/79 (Florida)
SR-79 (San Jacinto)
SR-74 (Florida)
Stetson
Domenigoni
Hemet Bypass
Murrieta
Newport
Patton
Holland
Scott
Whitewood
Clinton Keith
Eastern Bypass

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APPENDIX 3.1:

EXISTING TRAFFIC COUNTS – AUGUST 2017

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Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

County of Riverside
Domenigoni Parkway
W/ Winchester Road
24 Hour Directional Volume Count

CRV006
Site Code: 051-17481

Start Time	8/10/2017 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		33	183			26	156				
12:15		50	183			12	176				
12:30		40	187			16	172				
12:45		25	161	148	714	17	163	71	667	219	1381
01:00		29	194			12	174				
01:15		24	220			15	169				
01:30		19	202			19	154				
01:45		24	188	96	804	12	178	58	675	154	1479
02:00		16	204			16	174				
02:15		10	225			9	184				
02:30		17	221			16	171				
02:45		12	208	55	858	17	168	58	697	113	1555
03:00		17	232			17	197				
03:15		12	232			37	219				
03:30		12	**255**			53	231				
03:45		20	**266**	61	985	64	200	171	847	232	1832
04:00		19	**231**			84	223				
04:15		27	**242**			115	249				
04:30		47	238			141	232				
04:45		44	208	137	919	123	**213**	463	917	600	1836
05:00		47	249			119	**206**				
05:15		46	256			138	**265**				
05:30		87	259			181	**238**				
05:45		93	223	273	987	145	206	583	915	856	1902
06:00		106	210			154	197				
06:15		146	201			189	174				
06:30		164	203			238	161				
06:45		**194**	171	610	785	184	151	765	683	1375	1468
07:00		**259**	167			233	127				
07:15		**236**	199			197	124				
07:30		**230**	169			**259**	104				
07:45		186	164	911	699	**209**	114	898	469	1809	1168
08:00		180	134			**223**	90				
08:15		163	150			**215**	94				
08:30		170	158			221	72				
08:45		135	127	648	569	199	99	858	355	1506	924
09:00		140	131			176	84				
09:15		148	137			195	95				
09:30		150	109			192	70				
09:45		131	102	569	479	193	79	756	328	1325	807
10:00		133	104			162	63				
10:15		166	105			178	58				
10:30		131	95			182	48				
10:45		157	63	587	367	169	36	691	205	1278	572
11:00		150	58			156	39				
11:15		186	69			172	36				
11:30		187	45			153	27				
11:45		134	49	657	221	163	25	644	127	1301	348
Total		4752	8387	4752	8387	6016	6885	6016	6885	10768	15272
Combined Total		13139		13139		12901		12901		26040	
AM Peak	-	06:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	919	-	-	-	906	-	-	-	-	-
P.H.F.		0.887				0.875					
PM Peak	-	-	03:30	-	-	-	04:45	-	-	-	-
Vol.	-	-	994	-	-	-	922	-	-	-	-
P.H.F.			0.934				0.870				
Percentage		36.2%	63.8%			46.6%	53.4%				
ADT/AADT		ADT 26,040		AADT 26,040							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

County of Riverside
Florida Avenue
E/ Warren Road
24 Hour Directional Volume Count

CRV002
Site Code: 051-17481

Start Time	8/10/2017 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		39	174			12	193				
12:15		36	274			16	**205**				
12:30		38	207			9	**180**				
12:45		16	184	129	839	6	**210**	43	788	172	1627
01:00		29	160			11	**205**				
01:15		22	218			6	197				
01:30		19	219			15	179				
01:45		16	219	86	816	16	199	48	780	134	1596
02:00		18	187			9	164				
02:15		13	195			10	199				
02:30		11	213			13	176				
02:45		15	241	57	836	12	182	44	721	101	1557
03:00		9	236			26	185				
03:15		16	237			22	172				
03:30		24	**303**			33	172				
03:45		12	**279**	61	1055	53	189	134	718	195	1773
04:00		19	**269**			54	194				
04:15		30	**261**			66	202				
04:30		24	280			88	180				
04:45		34	253	107	1063	65	171	273	747	380	1810
05:00		31	263			69	197				
05:15		37	268			95	249				
05:30		49	262			108	173				
05:45		67	238	184	1031	94	174	366	793	550	1824
06:00		78	241			95	138				
06:15		71	222			113	131				
06:30		89	194			139	148				
06:45		104	158	342	815	160	123	507	540	849	1355
07:00		148	138			121	113				
07:15		156	164			129	110				
07:30		179	149			146	110				
07:45		193	146	676	597	153	97	549	430	1225	1027
08:00		142	137			142	86				
08:15		198	131			128	91				
08:30		177	100			125	93				
08:45		184	93	701	461	128	91	523	361	1224	822
09:00		146	115			139	79				
09:15		191	117			126	59				
09:30		198	79			136	55				
09:45		187	100	722	411	131	64	532	257	1254	668
10:00		158	106			157	50				
10:15		178	73			134	45				
10:30		202	89			148	30				
10:45		154	63	692	331	155	38	594	163	1286	494
11:00		**187**	53			**165**	22				
11:15		**193**	59			**149**	29				
11:30		**190**	44			**183**	21				
11:45		**222**	47	792	203	**179**	21	676	93	1468	296
Total		4549	8458	4549	8458	4289	6391	4289	6391	8838	14849
Combined Total		13007		13007		10680		10680		23687	
AM Peak	-	11:00	-	-	-	11:00	-	-	-	-	-
Vol.	-	792	-	-	-	676	-	-	-	-	-
P.H.F.		0.892				0.923					
PM Peak	-	-	03:30	-	-	-	00:15	-	-	-	-
Vol.	-	-	1112	-	-	-	800	-	-	-	-
P.H.F.			0.917				0.952				
Percentage		35.0%	65.0%			40.2%	59.8%				
ADT/AADT		ADT 23,687		AADT 23,687							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

County of Riverside
Sanderson Avenue
N/ Stetson Avenue
24 Hour Directional Volume Count

CRV003
Site Code: 051-17481

Start Time	8/10/2017 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		30	213			25	208				
12:15		22	201			22	223				
12:30		26	188			28	177				
12:45		22	204	100	806	12	218	87	826	187	1632
01:00		19	196			20	180				
01:15		21	196			12	173				
01:30		15	194			19	180				
01:45		14	213	69	799	19	212	70	745	139	1544
02:00		18	175			12	236				
02:15		13	214			9	193				
02:30		20	205			11	**271**				
02:45		18	**241**	69	835	13	**289**	45	989	114	1824
03:00		16	**279**			23	**251**				
03:15		23	**234**			18	**229**				
03:30		22	**261**			34	215				
03:45		26	216	87	990	29	218	104	913	191	1903
04:00		26	218			49	249				
04:15		39	197			62	243				
04:30		46	249			71	249				
04:45		59	222	170	886	66	229	248	970	418	1856
05:00		45	226			87	233				
05:15		60	221			82	260				
05:30		82	247			67	233				
05:45		126	220	313	914	90	200	326	926	639	1840
06:00		87	192			113	201				
06:15		123	183			111	207				
06:30		137	190			119	174				
06:45		170	169	517	734	160	166	503	748	1020	1482
07:00		163	177			**143**	177				
07:15		148	169			**234**	148				
07:30		199	208			**242**	165				
07:45		267	171	777	725	**182**	179	801	669	1578	1394
08:00		196	121			137	137				
08:15		155	129			143	122				
08:30		162	156			153	110				
08:45		157	129	670	535	147	110	580	479	1250	1014
09:00		143	115			169	113				
09:15		159	107			147	88				
09:30		154	113			168	100				
09:45		168	93	624	428	173	103	657	404	1281	832
10:00		168	86			164	87				
10:15		171	77			182	73				
10:30		189	60			177	75				
10:45		**216**	49	744	272	169	55	692	290	1436	562
11:00		**197**	58			207	47				
11:15		**198**	65			186	53				
11:30		**215**	55			189	43				
11:45		202	41	812	219	192	53	774	196	1586	415
Total		4952	8143	4952	8143	4887	8155	4887	8155	9839	16298
Combined Total		13095		13095		13042		13042		26137	
AM Peak	-	10:45	-	-	-	07:00	-	-	-	-	-
Vol.	-	826	-	-	-	801	-	-	-	-	-
P.H.F.		0.773				0.827					
PM Peak	-	-	02:45	-	-	-	02:30	-	-	-	-
Vol.	-	-	1015	-	-	-	1040	-	-	-	-
P.H.F.			0.909				0.900				
Percentage		37.8%	62.2%			37.5%	62.5%				
ADT/AADT		ADT 26,137		AADT 26,137							

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County of Riverside
Stetson Avenue
E/ Warren Road
24 Hour Directional Volume Count

CRV004
Site Code: 051-17481

Start Time	8/10/2017 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		17	57			12	73				
12:15		6	72			6	81				
12:30		9	63			10	71				
12:45		5	74	37	266	6	74	34	299	71	565
01:00		7	64			7	85				
01:15		5	65			3	72				
01:30		9	79			6	65				
01:45		3	83	24	291	4	77	20	299	44	590
02:00		1	73			5	68				
02:15		4	72			4	86				
02:30		3	76			7	85				
02:45		6	80	14	301	6	83	22	322	36	623
03:00		3	61			7	98				
03:15		1	81			14	78				
03:30		3	**95**			17	71				
03:45		1	**90**	8	327	30	76	68	323	76	650
04:00		0	**93**			38	89				
04:15		6	**91**			24	**90**				
04:30		6	92			31	**86**				
04:45		13	86	25	362	38	**92**	131	357	156	719
05:00		16	71			49	**96**				
05:15		17	79			59	75				
05:30		24	70			55	76				
05:45		41	78	98	298	53	64	216	311	314	609
06:00		28	79			57	64				
06:15		44	68			43	58				
06:30		33	75			84	56				
06:45		39	63	144	285	96	46	280	224	424	509
07:00		55	49			**88**	48				
07:15		54	50			**89**	36				
07:30		86	52			**90**	42				
07:45		63	40	258	191	**98**	34	365	160	623	351
08:00		58	39			70	37				
08:15		51	38			64	37				
08:30		63	25			60	30				
08:45		62	24	234	126	68	36	262	140	496	266
09:00		38	35			67	29				
09:15		51	34			60	23				
09:30		62	32			58	22				
09:45		52	25	203	126	69	24	254	98	457	224
10:00		60	16			56	21				
10:15		60	22			61	17				
10:30		72	16			76	23				
10:45		50	17	242	71	49	17	242	78	484	149
11:00		**59**	19			79	17				
11:15		**74**	8			65	8				
11:30		**66**	20			61	9				
11:45		**64**	10	263	57	79	13	284	47	547	104
Total		1550	2701	1550	2701	2178	2658	2178	2658	3728	5359
Combined Total		4251		4251		4836		4836		9087	
AM Peak	-	11:00	-	-	-	07:00	-	-	-	-	-
Vol.	-	263	-	-	-	365	-	-	-	-	-
P.H.F.		0.765				0.931					
PM Peak	-	-	03:30	-	-	-	04:15	-	-	-	-
Vol.	-	-	369	-	-	-	364	-	-	-	-
P.H.F.			0.971				0.948				
Percentage		36.5%	63.5%			45.0%	55.0%				
ADT/AADT		ADT 9,087		AADT 9,087							

Counts Unlimited, Inc.

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County of Riverside
Warren Road
S/ Stetson Avenue
24 Hour Directional Volume Count

CRV005
Site Code: 051-17481

Start	8/10/2017	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
Time	Thu	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		7	68			8	57				
12:15		9	94			10	67				
12:30		16	63			8	62				
12:45		7	77	39	302	8	64	34	250	73	552
01:00		7	63			8	82				
01:15		3	71			5	74				
01:30		2	83			5	67				
01:45		7	64	19	281	9	62	27	285	46	566
02:00		4	84			8	71				
02:15		4	88			2	82				
02:30		2	87			5	83				
02:45		8	**97**	18	356	7	84	22	320	40	676
03:00		6	**95**			1	86				
03:15		3	**107**			9	79				
03:30		15	**110**			15	70				
03:45		11	86	35	398	21	103	46	338	81	736
04:00		13	86			31	90				
04:15		15	104			24	92				
04:30		13	101			42	78				
04:45		24	90	65	381	35	**90**	132	350	197	731
05:00		28	97			30	**117**				
05:15		27	92			44	**105**				
05:30		32	111			45	**84**				
05:45		43	92	130	392	53	89	172	395	302	787
06:00		50	92			48	84				
06:15		82	70			66	94				
06:30		65	70			72	69				
06:45		86	58	283	290	59	62	245	309	528	599
07:00		**95**	56			76	51				
07:15		**112**	53			**90**	48				
07:30		**121**	59			**99**	50				
07:45		**100**	53	428	221	**87**	43	352	192	780	413
08:00		91	52			**83**	41				
08:15		80	47			59	31				
08:30		74	35			75	31				
08:45		70	33	315	167	79	35	296	138	611	305
09:00		62	43			78	31				
09:15		64	44			69	43				
09:30		82	35			76	31				
09:45		54	36	262	158	62	34	285	139	547	297
10:00		57	16			68	21				
10:15		64	26			66	23				
10:30		81	27			66	17				
10:45		75	19	277	88	68	19	268	80	545	168
11:00		60	13			56	17				
11:15		56	18			76	13				
11:30		71	14			63	12				
11:45		72	6	259	51	71	13	266	55	525	106
Total		2130	3085	2130	3085	2145	2851	2145	2851	4275	5936
Combined Total		5215		5215		4996		4996		10211	
AM Peak	-	07:00	-	-	-	07:15	-	-	-	-	-
Vol.	-	428	-	-	-	359	-	-	-	-	-
P.H.F.		0.884				0.907					
PM Peak	-	-	02:45	-	-	-	04:45	-	-	-	-
Vol.	-	-	409	-	-	-	396	-	-	-	-
P.H.F.			0.930				0.846				
Percentage		40.8%	59.2%			42.9%	57.1%				
ADT/AADT		ADT 10,211		AADT 10,211							

Counts Unlimited, Inc.

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County of Riverside
Winchester Road
S/ Florida Avenue
24 Hour Directional Volume Count

CRV001
Site Code: 051-17481

Start	8/10/2017	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
Time	Thu	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		16	76			19	89				
12:15		16	71			7	65				
12:30		13	75			4	81				
12:45		9	88	54	310	7	72	37	307	91	617
01:00		10	73			7	97				
01:15		14	100			4	70				
01:30		7	103			5	72				
01:45		8	84	39	360	10	84	26	323	65	683
02:00		7	99			7	82				
02:15		1	91			9	88				
02:30		8	115			3	92				
02:45		5	127	21	432	11	112	30	374	51	806
03:00		6	125			8	80				
03:15		10	**166**			7	94				
03:30		7	**140**			16	121				
03:45		17	**142**	40	573	21	91	52	386	92	959
04:00		15	**131**			22	109				
04:15		15	98			40	**148**				
04:30		24	131			43	**133**				
04:45		21	140	75	500	47	**110**	152	500	227	1000
05:00		25	123			48	**121**				
05:15		32	125			62	141				
05:30		34	144			84	116				
05:45		44	115	135	507	76	106	270	484	405	991
06:00		58	112			94	110				
06:15		59	106			93	93				
06:30		77	92			118	88				
06:45		**107**	74	301	384	**118**	75	423	366	724	750
07:00		**83**	100			**136**	71				
07:15		**98**	68			**140**	63				
07:30		**93**	70			**133**	47				
07:45		72	62	346	300	111	50	520	231	866	531
08:00		68	74			111	39				
08:15		98	53			96	49				
08:30		77	61			79	40				
08:45		64	38	307	226	83	46	369	174	676	400
09:00		53	36			78	41				
09:15		84	46			85	34				
09:30		72	41			90	28				
09:45		67	46	276	169	81	23	334	126	610	295
10:00		47	34			79	33				
10:15		71	57			77	26				
10:30		63	41			79	27				
10:45		70	25	251	157	67	24	302	110	553	267
11:00		76	21			76	13				
11:15		83	8			61	15				
11:30		72	10			70	11				
11:45		81	9	312	48	65	16	272	55	584	103
Total		2157	3966	2157	3966	2787	3436	2787	3436	4944	7402
Combined Total		6123		6123		6223		6223		12346	
AM Peak	-	06:45	-	-	-	06:45	-	-	-	-	-
Vol.	-	381	-	-	-	527	-	-	-	-	-
P.H.F.		0.890				0.941					
PM Peak	-	-	03:15	-	-	-	04:15	-	-	-	-
Vol.	-	-	579	-	-	-	512	-	-	-	-
P.H.F.			0.872				0.865				
Percentage		35.2%	64.8%			44.8%	55.2%				

ADT/AADT	ADT 12,346	AADT 12,346

Counts Unlimited
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County of Riverside
N/S: Vista Place/Winchester Road (SR-79)
E/W: SR-74
Weather: Clear

File Name : 01_CRV_Vista_SR79_SR74 AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Vista Place Southbound					SR-74 Westbound					Winchester Road (SR-79) Northbound					SR-74 Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	3	12	0	0	15	74	187	7	0	268	23	4	74	52	101	3	142	27	13	172	65	556	621
07:15 AM	4	4	0	0	8	84	178	8	1	270	23	2	80	47	105	2	163	25	14	190	62	573	635
07:30 AM	4	5	0	0	9	95	163	7	1	265	18	2	74	45	94	5	166	21	5	192	51	560	611
07:45 AM	5	4	0	0	9	72	145	4	0	221	17	1	58	31	76	1	221	14	6	236	37	542	579
Total	16	25	0	0	41	325	673	26	2	1024	81	9	286	175	376	11	692	87	38	790	215	2231	2446
08:00 AM	3	4	0	0	7	74	154	10	0	238	11	4	52	24	67	4	147	22	13	173	37	485	522
08:15 AM	7	1	1	0	9	70	139	5	0	214	15	2	77	31	94	5	189	13	9	207	40	524	564
08:30 AM	5	3	0	0	8	49	149	6	0	204	13	3	56	30	72	3	178	15	8	196	38	480	518
08:45 AM	5	2	0	0	7	59	124	6	1	189	16	1	48	25	65	1	171	15	8	187	34	448	482
Total	20	10	1	0	31	252	566	27	1	845	55	10	233	110	298	13	685	65	38	763	149	1937	2086
Grand Total	36	35	1	0	72	577	1239	53	3	1869	136	19	519	285	674	24	1377	152	76	1553	364	4168	4532
Apprch %	50	48.6	1.4			30.9	66.3	2.8			20.2	2.8	77			1.5	88.7	9.8					
Total %	0.9	0.8	0		1.7	13.8	29.7	1.3		44.8	3.3	0.5	12.5		16.2	0.6	33	3.6		37.3	8	92	

	Vista Place Southbound				SR-74 Westbound				Winchester Road (SR-79) Northbound				SR-74 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	3	**12**	0	**15**	74	**187**	7	268	**23**	**4**	74	101	3	142	**27**	172	556
07:15 AM	4	4	0	8	84	178	**8**	**270**	23	2	**80**	**105**	2	163	25	190	**573**
07:30 AM	4	5	0	9	**95**	163	7	265	18	2	74	94	**5**	166	21	192	560
07:45 AM	**5**	4	0	9	72	145	4	221	17	1	58	76	1	**221**	14	**236**	542
Total Volume	16	25	0	41	325	673	26	1024	81	9	286	376	11	692	87	790	2231
% App. Total	39	61	0		31.7	65.7	2.5		21.5	2.4	76.1		1.4	87.6	11		
PHF	.800	.521	.000	.683	.855	.900	.813	.948	.880	.563	.894	.895	.550	.783	.806	.837	.973

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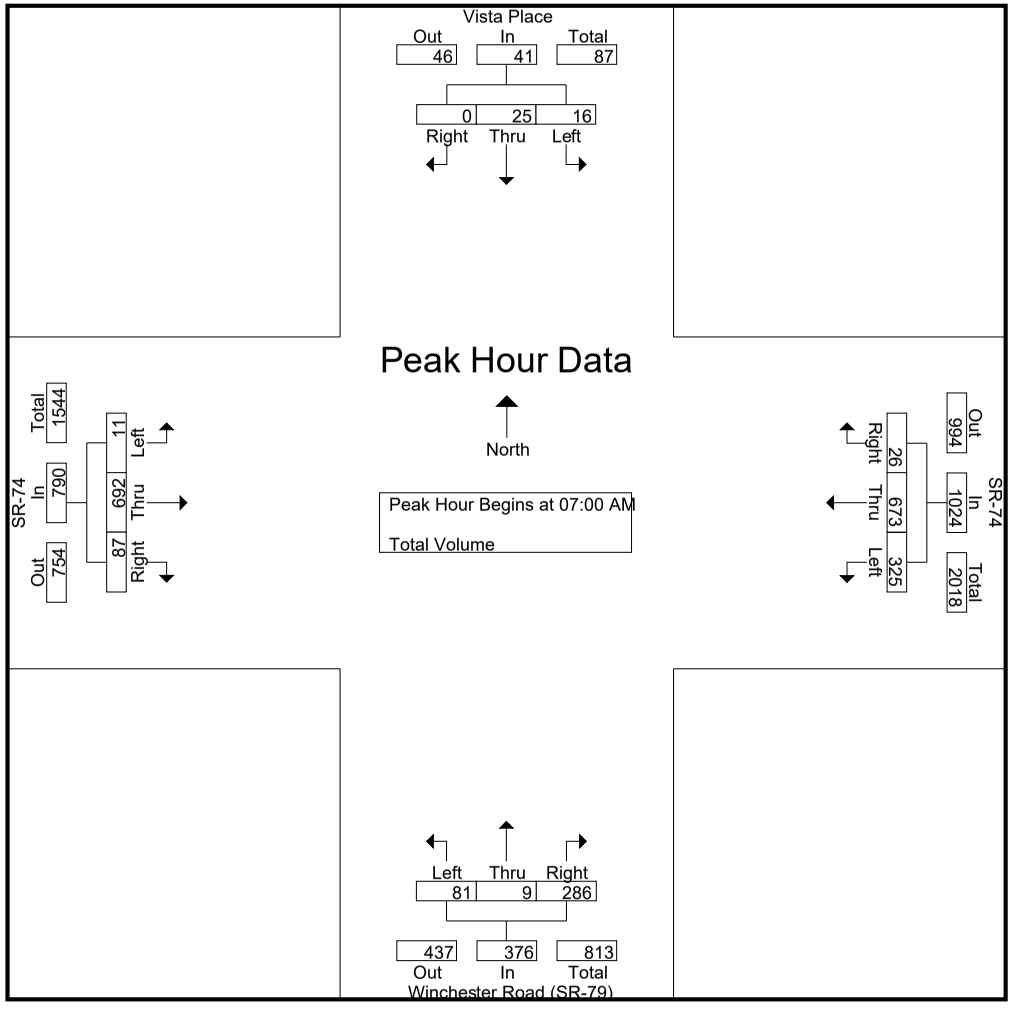
County of Riverside
N/S: Vista Place/Winchester Road (SR-79)
E/W: SR-74
Weather: Clear

File Name : 01_CRV_Vista_SR79_SR74 AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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County of Riverside
N/S: Vista Place/Winchester Road (SR-79)
E/W: SR-74
Weather: Clear

File Name : 01_CRV_Vista_SR79_SR74 AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Vista Place Southbound				SR-74 Westbound				Winchester Road (SR-79) Northbound				SR-74 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:45 AM				
+0 mins.	3	**12**	0	**15**	74	**187**	7	268	**23**	**4**	74	101	1	**221**	14	**236**	
+15 mins.	4	4	0	8	84	178	**8**	**270**	23	2	**80**	**105**	4	147	**22**	173	
+30 mins.	4	5	0	9	**95**	163	7	265	18	2	74	94	**5**	189	13	207	
+45 mins.	**5**	4	0	9	72	145	4	221	17	1	58	76	3	178	15	196	
Total Volume	16	25	0	41	325	673	26	1024	81	9	286	376	13	735	64	812	
% App. Total	39	61	0		31.7	65.7	2.5		21.5	2.4	76.1		1.6	90.5	7.9		
PHF	.800	.521	.000	.683	.855	.900	.813	.948	.880	.563	.894	.895	.650	.831	.727	.860	

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County of Riverside
N/S: Vista Place/Winchester Road (SR-79)
E/W: SR-74
Weather: Clear

File Name : 01_CRV_Vista_SR79_SR74 PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Vista Place Southbound					SR-74 Westbound					Winchester Road (SR-79) Northbound					SR-74 Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	2	2	1	0	5	80	173	10	0	263	31	5	93	29	129	4	270	24	9	298	38	695	733
04:15 PM	3	6	2	0	11	109	199	7	1	315	32	1	79	40	112	2	241	19	12	262	53	700	753
04:30 PM	8	2	1	1	11	75	177	13	0	265	37	3	98	39	138	4	233	28	13	265	53	679	732
04:45 PM	3	8	3	3	14	75	174	4	2	253	26	1	98	45	125	5	255	21	8	281	58	673	731
Total	16	18	7	4	41	339	723	34	3	1096	126	10	368	153	504	15	999	92	42	1106	202	2747	2949
05:00 PM	1	1	0	0	2	85	172	7	2	264	27	2	109	47	138	1	190	26	14	217	63	621	684
05:15 PM	2	5	0	0	7	110	250	11	1	371	28	0	105	52	133	3	253	18	6	274	59	785	844
05:30 PM	3	4	2	1	9	92	176	9	1	277	22	1	120	60	143	3	225	14	5	242	67	671	738
05:45 PM	5	5	2	2	12	68	182	4	0	254	21	2	92	35	115	5	234	13	4	252	41	633	674
Total	11	15	4	3	30	355	780	31	4	1166	98	5	426	194	529	12	902	71	29	985	230	2710	2940
Grand Total	27	33	11	7	71	694	1503	65	7	2262	224	15	794	347	1033	27	1901	163	71	2091	432	5457	5889
Apprch %	38	46.5	15.5			30.7	66.4	2.9			21.7	1.5	76.9			1.3	90.9	7.8					
Total %	0.5	0.6	0.2		1.3	12.7	27.5	1.2		41.5	4.1	0.3	14.6		18.9	0.5	34.8	3		38.3	7.3	92.7	

	Vista Place Southbound				SR-74 Westbound				Winchester Road (SR-79) Northbound				SR-74 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**8**	2	1	11	75	177	**13**	265	**37**	**3**	98	**138**	4	233	**28**	265	679
04:45 PM	3	**8**	**3**	**14**	75	174	4	253	26	1	98	125	**5**	**255**	21	**281**	673
05:00 PM	1	1	0	2	85	172	7	264	27	2	**109**	138	1	190	26	217	621
05:15 PM	2	5	0	7	**110**	**250**	11	**371**	28	0	105	133	3	253	18	274	**785**
Total Volume	14	16	4	34	345	773	35	1153	118	6	410	534	13	931	93	1037	2758
% App. Total	41.2	47.1	11.8		29.9	67	3		22.1	1.1	76.8		1.3	89.8	9		
PHF	.438	.500	.333	.607	.784	.773	.673	.777	.797	.500	.940	.967	.650	.913	.830	.923	.878

Counts Unlimited
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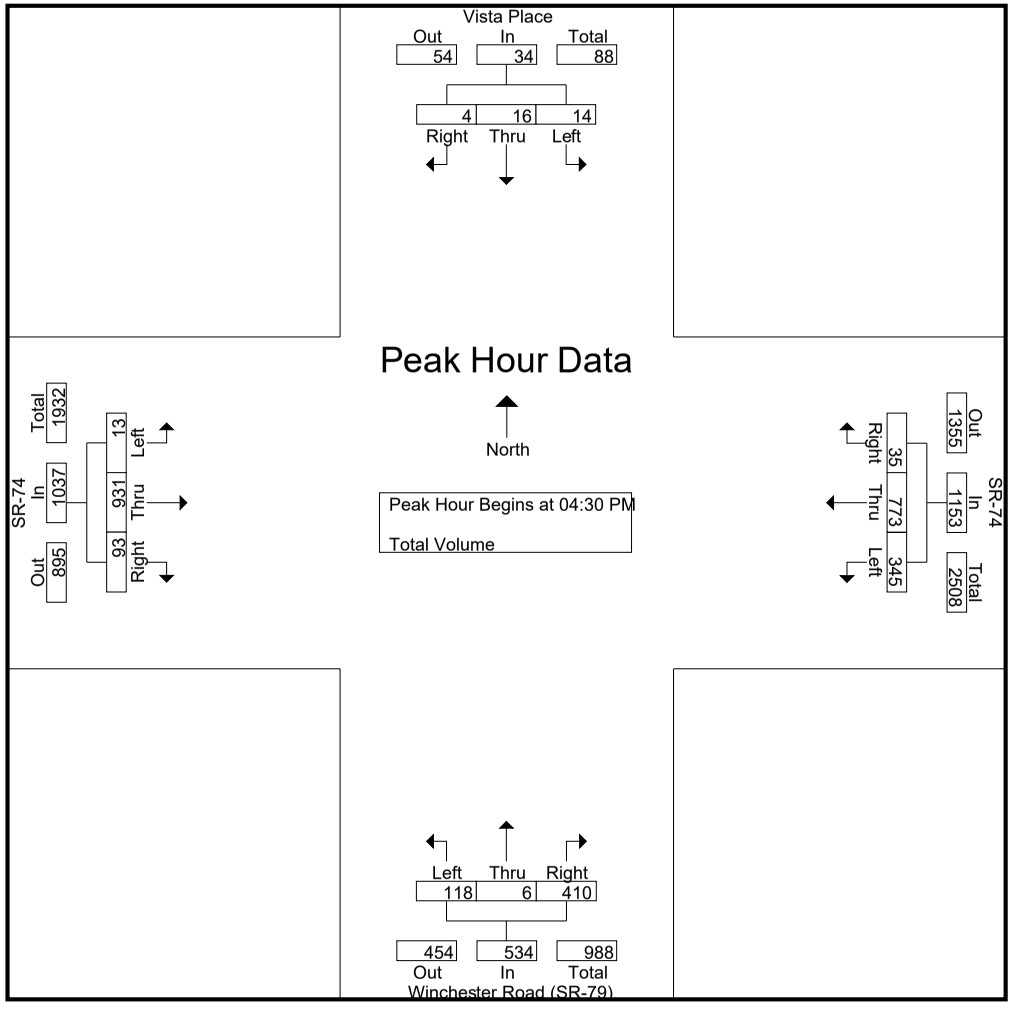
(951) 268-6268

County of Riverside
N/S: Vista Place/Winchester Road (SR-79)
E/W: SR-74
Weather: Clear

File Name : 01_CRV_Vista_SR79_SR74 PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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County of Riverside
N/S: Vista Place/Winchester Road (SR-79)
E/W: SR-74
Weather: Clear

File Name : 01_CRV_Vista_SR79_SR74 PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Vista Place Southbound				SR-74 Westbound				Winchester Road (SR-79) Northbound				SR-74 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				05:00 PM				04:45 PM				04:00 PM				
+0 mins.	2	2	1	5	85	172	7	264	26	1	98	125	4	**270**	24	**298**	
+15 mins.	3	6	2	11	**110**	**250**	**11**	**371**	27	**2**	109	138	2	241	19	262	
+30 mins.	**8**	2	1	11	92	176	9	277	**28**	0	105	133	4	233	**28**	265	
+45 mins.	3	**8**	**3**	**14**	68	182	4	254	22	1	**120**	**143**	**5**	255	21	281	
Total Volume	16	18	7	41	355	780	31	1166	103	4	432	539	15	999	92	1106	
% App. Total	39	43.9	17.1		30.4	66.9	2.7		19.1	0.7	80.1		1.4	90.3	8.3		
PHF	.500	.563	.583	.732	.807	.780	.705	.786	.920	.500	.900	.942	.750	.925	.821	.928	

Location: County of Riverside
N/S: Vista Place/Winchester Road (SR-79)
E/W: SR-74

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Vista Place	East Leg SR-74	South Leg Winchester Road (SR-79)	West Leg SR-74	TOTAL
7:00 AM	0	0	0	1	1
7:15 AM	1	1	0	0	2
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	1	0	1	3

	North Leg Vista Place	East Leg SR-74	South Leg Winchester Road (SR-79)	West Leg SR-74	TOTAL
4:00 PM	2	0	0	0	2
4:15 PM	0	0	0	4	4
4:30 PM	0	0	0	4	4
4:45 PM	0	0	0	1	1
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	1	0	1
5:45 PM	0	0	0	1	1
TOTAL VOLUMES:	2	0	1	10	13

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Location: County of Riverside
N/S: Vista Place/Winchester Road (SR-79)
E/W: SR-74

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Vista Place	East Leg SR-74	South Leg Winchester Road (SR-79)	West Leg SR-74	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Vista Place	East Leg SR-74	South Leg Winchester Road (SR-79)	West Leg SR-74	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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County of Riverside
N/S: Winchester Road (SR-79)
E/W: 9th Street
Weather: Clear

File Name : 02_CRV_SR79_9th AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Winchester Road (SR-79) Southbound					9th Street Westbound					Winchester Road (SR-79) Northbound					9th Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	145	7	0	153	0	0	0	0	0	2	88	0	0	90	5	0	5	0	10	0	253	253
07:15 AM	0	144	9	0	153	0	0	1	0	1	8	101	1	0	110	6	1	3	0	10	0	274	274
07:30 AM	0	149	4	0	153	0	0	0	0	0	5	89	0	0	94	9	0	5	0	14	0	261	261
07:45 AM	1	132	5	0	138	0	0	1	0	1	4	72	0	0	76	6	0	7	0	13	0	228	228
Total	2	570	25	0	597	0	0	2	0	2	19	350	1	0	370	26	1	20	0	47	0	1016	1016
08:00 AM	0	117	4	0	121	1	0	1	0	2	2	69	2	0	73	4	0	7	0	11	0	207	207
08:15 AM	0	114	3	0	117	0	0	1	0	1	5	109	1	0	115	4	0	6	0	10	0	243	243
08:30 AM	0	99	4	0	103	2	0	0	0	2	6	78	1	0	85	6	2	2	0	10	0	200	200
08:45 AM	0	84	3	0	87	0	0	0	0	0	3	60	1	0	64	4	0	4	0	8	0	159	159
Total	0	414	14	0	428	3	0	2	0	5	16	316	5	0	337	18	2	19	0	39	0	809	809
Grand Total	2	984	39	0	1025	3	0	4	0	7	35	666	6	0	707	44	3	39	0	86	0	1825	1825
Apprch %	0.2	96	3.8			42.9	0	57.1			5	94.2	0.8			51.2	3.5	45.3					
Total %	0.1	53.9	2.1		56.2	0.2	0	0.2		0.4	1.9	36.5	0.3		38.7	2.4	0.2	2.1		4.7	0	100	

	Winchester Road (SR-79) Southbound				9th Street Westbound				Winchester Road (SR-79) Northbound				9th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**1**	145	7	**153**	0	0	0	0	2	88	0	90	5	0	5	10	253
07:15 AM	0	144	**9**	153	0	0	**1**	**1**	**8**	**101**	**1**	**110**	6	**1**	3	10	**274**
07:30 AM	0	**149**	4	153	0	0	0	0	5	89	0	94	**9**	0	5	**14**	261
07:45 AM	1	132	5	138	0	0	1	1	4	72	0	76	6	0	**7**	13	228
Total Volume	2	570	25	597	0	0	2	2	19	350	1	370	26	1	20	47	1016
% App. Total	0.3	95.5	4.2		0	0	100		5.1	94.6	0.3		55.3	2.1	42.6		
PHF	.500	.956	.694	.975	.000	.000	.500	.500	.594	.866	.250	.841	.722	.250	.714	.839	.927

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County of Riverside
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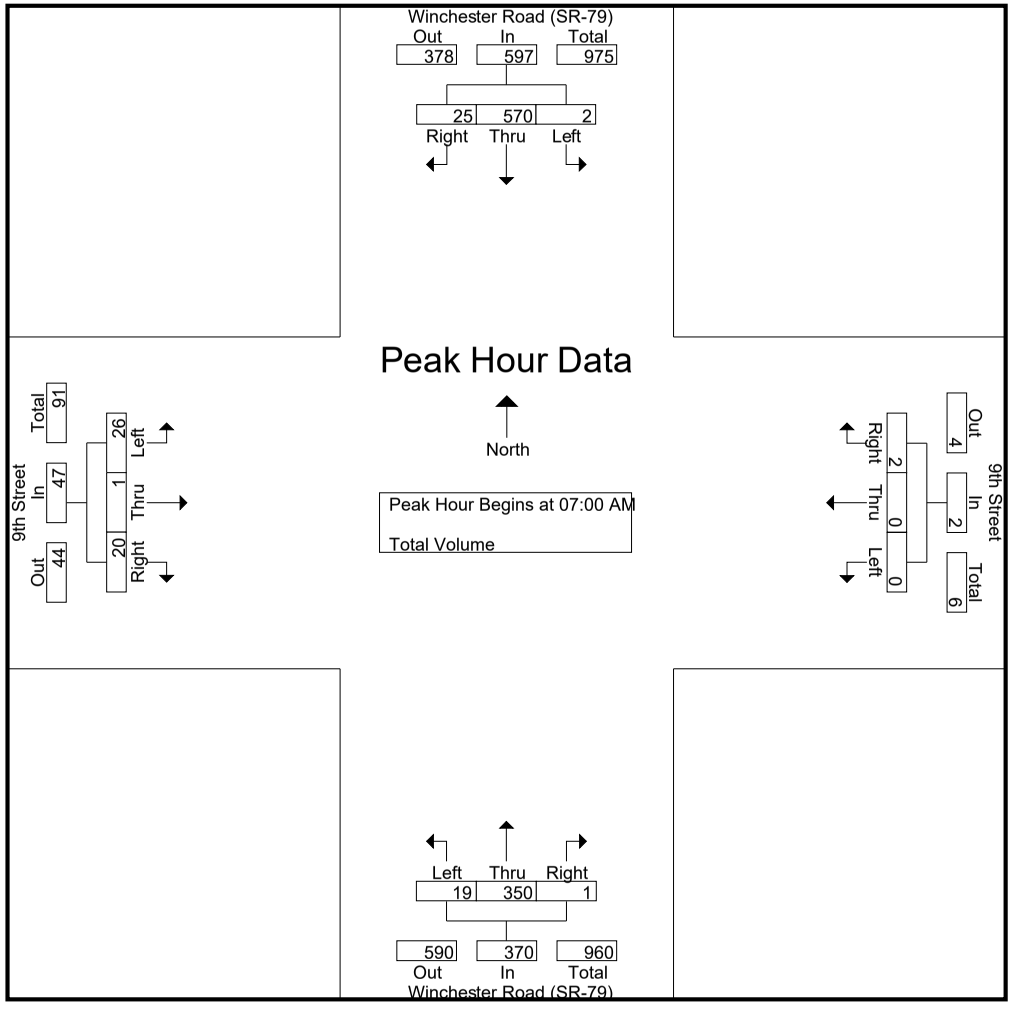
File Name : 02_CRV_SR79_9th AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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County of Riverside
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Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Winchester Road (SR-79) Southbound				9th Street Westbound				Winchester Road (SR-79) Northbound				9th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:45 AM				07:00 AM				07:15 AM				
+0 mins.	**1**	145	7	**153**	0	0	**1**	1	2	88	0	90	6	**1**	3	10	
+15 mins.	0	144	**9**	153	1	0	1	**2**	**8**	**101**	**1**	**110**	**9**	0	5	**14**	
+30 mins.	0	**149**	4	153	0	0	1	1	5	89	0	94	6	0	**7**	13	
+45 mins.	1	132	5	138	**2**	0	0	2	4	72	0	76	4	0	7	11	
Total Volume	2	570	25	597	3	0	3	6	19	350	1	370	25	1	22	48	
% App. Total	0.3	95.5	4.2		50	0	50		5.1	94.6	0.3		52.1	2.1	45.8		
PHF	.500	.956	.694	.975	.375	.000	.750	.750	.594	.866	.250	.841	.694	.250	.786	.857	

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County of Riverside
N/S: Winchester Road (SR-79)
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Weather: Clear

File Name : 02_CRV_SR79_9th PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Winchester Road (SR-79) Southbound					9th Street Westbound					Winchester Road (SR-79) Northbound					9th Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	90	6	0	97	0	1	0	0	1	8	133	1	0	142	5	1	8	0	14	0	254	254
04:15 PM	1	150	8	0	159	1	1	0	0	2	8	122	1	0	131	9	0	7	0	16	0	308	308
04:30 PM	1	114	5	0	120	0	0	1	0	1	11	135	0	0	146	8	0	3	0	11	0	278	278
04:45 PM	0	109	8	0	117	0	0	1	0	1	8	130	0	0	138	6	0	6	0	12	0	268	268
Total	3	463	27	0	493	1	2	2	0	5	35	520	2	0	557	28	1	24	0	53	0	1108	1108
05:00 PM	1	107	9	0	117	0	1	0	0	1	4	144	0	0	148	3	0	10	0	13	0	279	279
05:15 PM	0	126	4	0	130	2	0	2	0	4	4	155	0	0	159	10	0	8	0	18	0	311	311
05:30 PM	0	107	9	0	116	0	0	0	0	0	8	153	1	0	162	12	1	2	0	15	0	293	293
05:45 PM	1	123	6	0	130	0	0	0	0	0	12	125	0	0	137	8	0	10	0	18	0	285	285
Total	2	463	28	0	493	2	1	2	0	5	28	577	1	0	606	33	1	30	0	64	0	1168	1168
Grand Total	5	926	55	0	986	3	3	4	0	10	63	1097	3	0	1163	61	2	54	0	117	0	2276	2276
Apprch %	0.5	93.9	5.6			30	30	40			5.4	94.3	0.3			52.1	1.7	46.2					
Total %	0.2	40.7	2.4		43.3	0.1	0.1	0.2		0.4	2.8	48.2	0.1		51.1	2.7	0.1	2.4		5.1	0	100	

	Winchester Road (SR-79) Southbound				9th Street Westbound				Winchester Road (SR-79) Northbound				9th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**1**	107	**9**	117	0	**1**	0	1	4	144	0	148	3	0	**10**	13	279
05:15 PM	0	**126**	4	**130**	**2**	0	**2**	**4**	4	**155**	0	159	10	0	8	**18**	**311**
05:30 PM	0	107	9	116	0	0	0	0	8	153	**1**	**162**	**12**	**1**	2	15	293
05:45 PM	1	123	6	130	0	0	0	0	**12**	125	0	137	8	0	10	18	285
Total Volume	2	463	28	493	2	1	2	5	28	577	1	606	33	1	30	64	1168
% App. Total	0.4	93.9	5.7		40	20	40		4.6	95.2	0.2		51.6	1.6	46.9		
PHF	.500	.919	.778	.948	.250	.250	.250	.313	.583	.931	.250	.935	.688	.250	.750	.889	.939

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County of Riverside
N/S: Winchester Road (SR-79)
E/W: 9th Street
Weather: Clear

File Name : 02_CRV_SR79_9th PM
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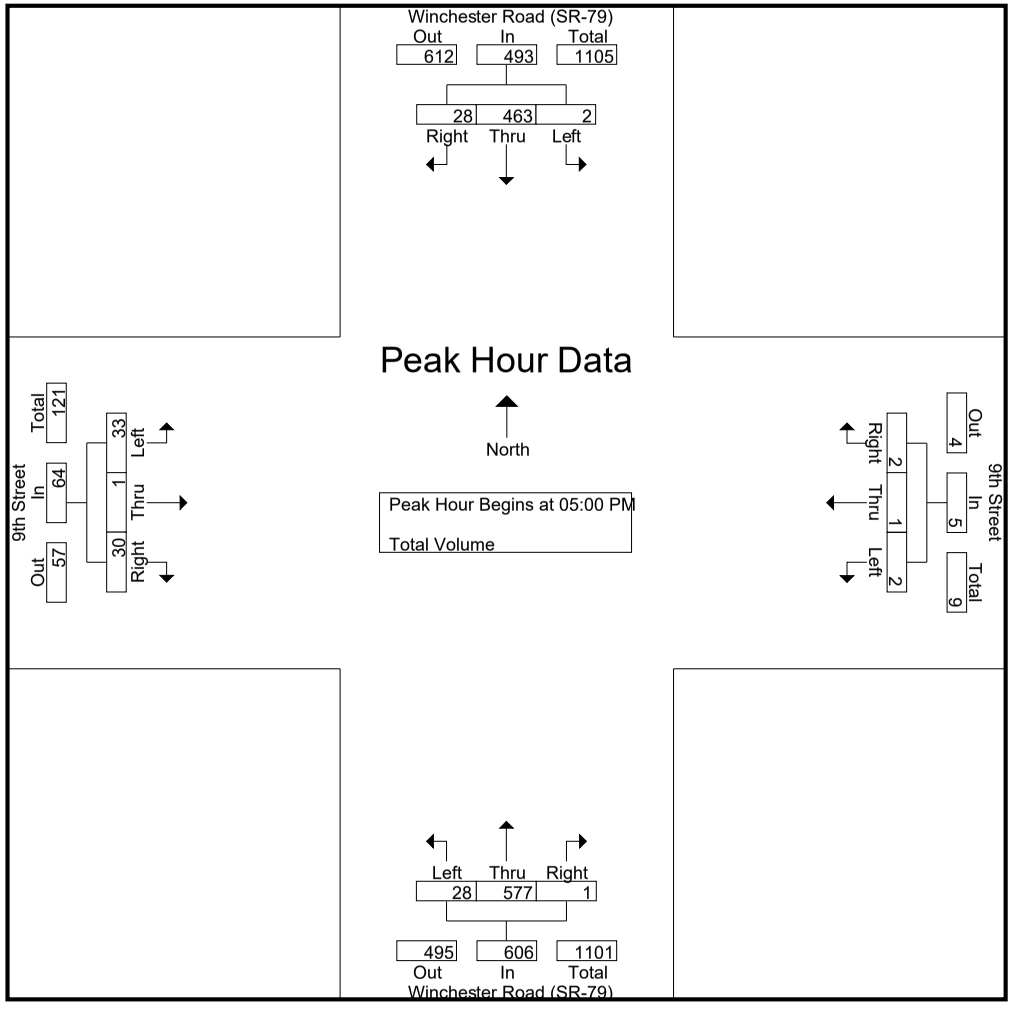
Start Date : 8/10/2017
Page No : 2



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County of Riverside
N/S: Winchester Road (SR-79)
E/W: 9th Street
Weather: Clear

File Name : 02_CRV_SR79_9th PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Winchester Road (SR-79) Southbound				9th Street Westbound				Winchester Road (SR-79) Northbound				9th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:30 PM				04:45 PM				05:00 PM				
+0 mins.	**1**	**150**	8	**159**	0	0	1	1	**8**	130	0	138	3	0	**10**	13	
+15 mins.	1	114	5	120	0	0	1	1	4	144	0	148	10	0	8	**18**	
+30 mins.	0	109	8	117	0	**1**	0	1	4	**155**	0	159	**12**	**1**	2	15	
+45 mins.	1	107	**9**	117	**2**	0	**2**	**4**	8	153	**1**	**162**	8	0	10	18	
Total Volume	3	480	30	513	2	1	4	7	24	582	1	607	33	1	30	64	
% App. Total	0.6	93.6	5.8		28.6	14.3	57.1		4	95.9	0.2		51.6	1.6	46.9		
PHF	.750	.800	.833	.807	.250	.250	.500	.438	.750	.939	.250	.937	.688	.250	.750	.889	

Location: County of Riverside
N/S: Winchester Road (SR-79)
E/W: 9th Street

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Winchester Road (SR-79)	East Leg 9th Street	South Leg Winchester Road (SR-79)	West Leg 9th Street	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Winchester Road (SR-79)	East Leg 9th Street	South Leg Winchester Road (SR-79)	West Leg 9th Street	TOTAL
4:00 PM	0	0	0	1	1
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	1	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	2	2

Location: County of Riverside
N/S: Winchester Road (SR-79)
E/W: 9th Street

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Winchester Road (SR-79)	East Leg 9th Street	South Leg Winchester Road (SR-79)	West Leg 9th Street	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Winchester Road (SR-79)	East Leg 9th Street	South Leg Winchester Road (SR-79)	West Leg 9th Street	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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County of Riverside
N/S: Winchester Road (SR-79)
E/W: Simpson Road
Weather: Clear

File Name : 03_CRV_SR79_SI AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Winchester Road (SR-79) Southbound					Simpson Road Westbound					Winchester Road (SR-79) Northbound					Simpson Road Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	7	128	23	7	158	17	13	3	2	33	11	78	8	2	97	12	17	18	15	47	26	335	361
07:15 AM	1	101	19	7	121	25	21	2	0	48	8	80	5	2	93	17	25	10	2	52	11	314	325
07:30 AM	7	143	23	11	173	30	28	6	5	64	4	73	3	1	80	17	27	13	8	57	25	374	399
07:45 AM	2	109	16	4	127	20	28	5	3	53	8	66	13	2	87	10	22	11	5	43	14	310	324
Total	17	481	81	29	579	92	90	16	10	198	31	297	29	7	357	56	91	52	30	199	76	1333	1409
08:00 AM	6	107	34	14	147	14	36	11	5	61	3	48	10	4	61	24	34	11	3	69	26	338	364
08:15 AM	2	99	27	12	128	18	28	7	3	53	9	75	10	4	94	36	34	16	7	86	26	361	387
08:30 AM	7	95	17	4	119	12	11	3	1	26	7	74	15	7	96	24	15	8	4	47	16	288	304
08:45 AM	2	76	11	3	89	12	19	4	3	35	6	56	4	3	66	12	14	13	9	39	18	229	247
Total	17	377	89	33	483	56	94	25	12	175	25	253	39	18	317	96	97	48	23	241	86	1216	1302
Grand Total	34	858	170	62	1062	148	184	41	22	373	56	550	68	25	674	152	188	100	53	440	162	2549	2711
Apprch %	3.2	80.8	16			39.7	49.3	11			8.3	81.6	10.1			34.5	42.7	22.7					
Total %	1.3	33.7	6.7		41.7	5.8	7.2	1.6		14.6	2.2	21.6	2.7		26.4	6	7.4	3.9		17.3	6	94	

	Winchester Road (SR-79) Southbound				Simpson Road Westbound				Winchester Road (SR-79) Northbound				Simpson Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**7**	**143**	23	**173**	**30**	28	6	**64**	4	73	3	80	17	27	13	57	**374**
07:45 AM	2	109	16	127	20	28	5	53	8	66	**13**	87	10	22	11	43	310
08:00 AM	6	107	**34**	147	14	**36**	**11**	61	3	48	10	61	24	**34**	11	69	338
08:15 AM	2	99	27	128	18	28	7	53	**9**	**75**	10	**94**	**36**	34	**16**	**86**	361
Total Volume	17	458	100	575	82	120	29	231	24	262	36	322	87	117	51	255	1383
% App. Total	3	79.7	17.4		35.5	51.9	12.6		7.5	81.4	11.2		34.1	45.9	20		
PHF	.607	.801	.735	.831	.683	.833	.659	.902	.667	.873	.692	.856	.604	.860	.797	.741	.924

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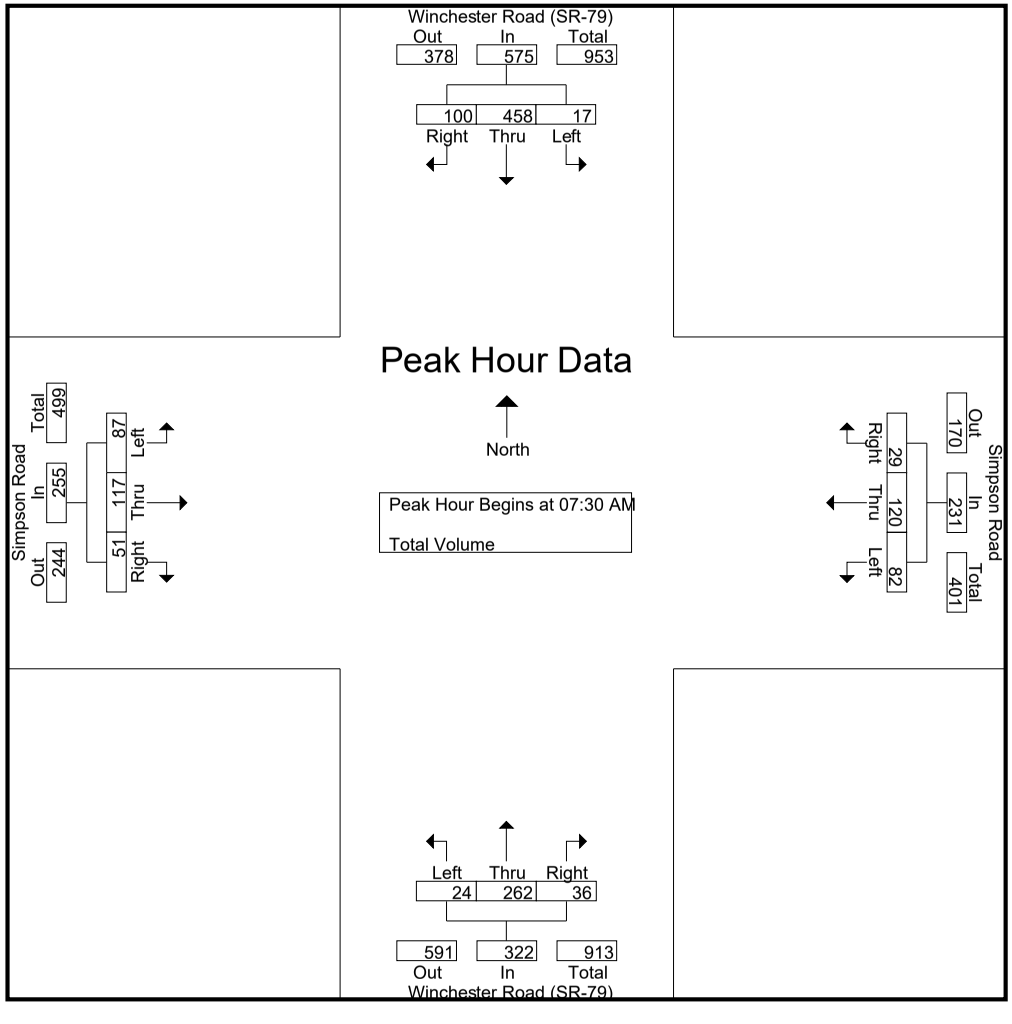
County of Riverside
N/S: Winchester Road (SR-79)
E/W: Simpson Road
Weather: Clear

File Name : 03_CRV_SR79_SI AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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	Winchester Road (SR-79) Southbound				Simpson Road Westbound				Winchester Road (SR-79) Northbound				Simpson Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:30 AM				07:00 AM				07:30 AM				
+0 mins.	**7**	128	**23**	158	**30**	28	6	**64**	**11**	78	8	**97**	17	27	13	57	
+15 mins.	1	101	19	121	20	28	5	53	8	**80**	5	93	10	22	11	43	
+30 mins.	7	**143**	23	**173**	14	**36**	**11**	61	4	73	3	80	24	**34**	11	69	
+45 mins.	2	109	16	127	18	28	7	53	8	66	**13**	87	**36**	34	**16**	**86**	
Total Volume	17	481	81	579	82	120	29	231	31	297	29	357	87	117	51	255	
% App. Total	2.9	83.1	14		35.5	51.9	12.6		8.7	83.2	8.1		34.1	45.9	20		
PHF	.607	.841	.880	.837	.683	.833	.659	.902	.705	.928	.558	.920	.604	.860	.797	.741	

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County of Riverside
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File Name : 03_CRV_SR79_SI PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Winchester Road (SR-79) Southbound					Simpson Road Westbound					Winchester Road (SR-79) Northbound					Simpson Road Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	6	81	14	4	101	10	24	7	2	41	15	128	18	6	161	16	27	9	4	52	16	355	371
04:15 PM	11	134	21	6	166	17	21	9	2	47	14	112	18	4	144	12	28	14	10	54	22	411	433
04:30 PM	11	103	12	3	126	7	19	8	2	34	14	130	18	6	162	14	30	16	7	60	18	382	400
04:45 PM	9	83	21	4	113	11	19	14	6	44	22	127	32	18	181	10	29	14	7	53	35	391	426
Total	37	401	68	17	506	45	83	38	12	166	65	497	86	34	648	52	114	53	28	219	91	1539	1630
05:00 PM	7	97	16	4	120	12	25	5	1	42	8	140	22	9	170	9	21	12	6	42	20	374	394
05:15 PM	1	105	24	9	130	16	20	5	2	41	14	146	25	12	185	17	29	14	4	60	27	416	443
05:30 PM	1	91	21	9	113	14	29	7	4	50	10	141	34	11	185	13	35	9	3	57	27	405	432
05:45 PM	4	101	24	7	129	8	19	7	1	34	7	119	26	12	152	16	25	13	4	54	24	369	393
Total	13	394	85	29	492	50	93	24	8	167	39	546	107	44	692	55	110	48	17	213	98	1564	1662
Grand Total	50	795	153	46	998	95	176	62	20	333	104	1043	193	78	1340	107	224	101	45	432	189	3103	3292
Apprch %	5	79.7	15.3			28.5	52.9	18.6			7.8	77.8	14.4			24.8	51.9	23.4					
Total %	1.6	25.6	4.9		32.2	3.1	5.7	2		10.7	3.4	33.6	6.2		43.2	3.4	7.2	3.3		13.9	5.7	94.3	

	Winchester Road (SR-79) Southbound				Simpson Road Westbound				Winchester Road (SR-79) Northbound				Simpson Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**9**	83	21	113	11	19	**14**	44	**22**	127	32	181	10	29	**14**	53	391
05:00 PM	7	97	16	120	12	25	5	42	8	140	22	170	9	21	12	42	374
05:15 PM	1	**105**	**24**	**130**	**16**	20	5	41	14	**146**	25	**185**	**17**	29	14	**60**	**416**
05:30 PM	1	91	21	113	14	**29**	7	**50**	10	141	**34**	185	13	**35**	9	57	405
Total Volume	18	376	82	476	53	93	31	177	54	554	113	721	49	114	49	212	1586
% App. Total	3.8	79	17.2		29.9	52.5	17.5		7.5	76.8	15.7		23.1	53.8	23.1		
PHF	.500	.895	.854	.915	.828	.802	.554	.885	.614	.949	.831	.974	.721	.814	.875	.883	.953

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E/W: Simpson Road
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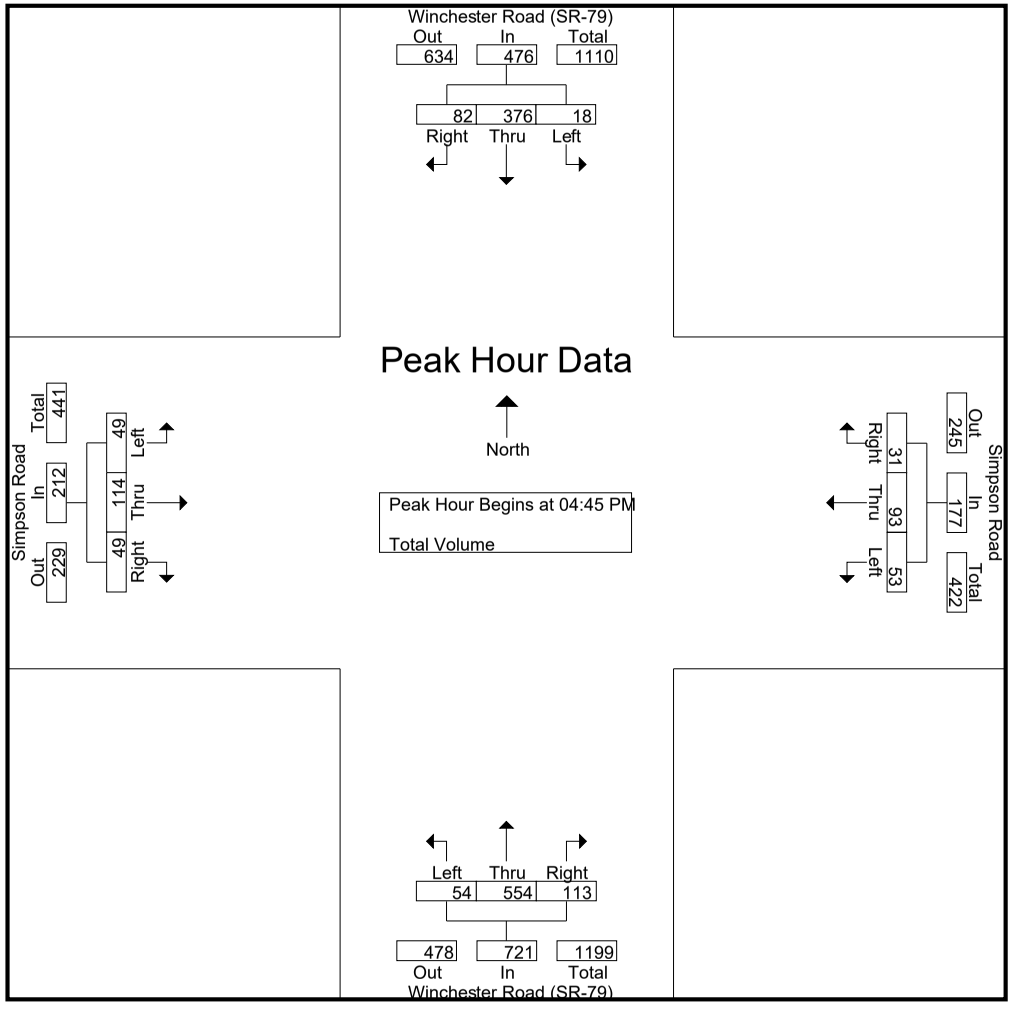
File Name : 03_CRV_SR79_SI PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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	Winchester Road (SR-79) Southbound				Simpson Road Westbound				Winchester Road (SR-79) Northbound				Simpson Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:45 PM				04:45 PM				04:00 PM				
+0 mins.	**11**	**134**	**21**	**166**	11	19	**14**	44	**22**	127	32	181	**16**	27	9	52	
+15 mins.	11	103	12	126	12	25	5	42	8	140	22	170	12	28	14	54	
+30 mins.	9	83	21	113	**16**	20	5	41	14	**146**	25	**185**	14	**30**	**16**	**60**	
+45 mins.	7	97	16	120	14	**29**	7	**50**	10	141	**34**	185	10	29	14	53	
Total Volume	38	417	70	525	53	93	31	177	54	554	113	721	52	114	53	219	
% App. Total	7.2	79.4	13.3		29.9	52.5	17.5		7.5	76.8	15.7		23.7	52.1	24.2		
PHF	.864	.778	.833	.791	.828	.802	.554	.885	.614	.949	.831	.974	.813	.950	.828	.913	

Location: County of Riverside
N/S: Winchester Road (SR-79)
E/W: Simpson Road

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Winchester Road (SR-79)	East Leg Simpson Road	South Leg Winchester Road (SR-79)	West Leg Simpson Road	TOTAL
7:00 AM	0	0	0	2	2
7:15 AM	0	1	1	1	3
7:30 AM	0	2	0	0	2
7:45 AM	3	5	0	2	10
8:00 AM	1	7	3	5	16
8:15 AM	0	1	2	2	5
8:30 AM	1	0	0	2	3
8:45 AM	0	0	0	3	3
TOTAL VOLUMES:	5	16	6	17	44

	North Leg Winchester Road (SR-79)	East Leg Simpson Road	South Leg Winchester Road (SR-79)	West Leg Simpson Road	TOTAL
4:00 PM	1	0	0	0	1
4:15 PM	0	3	4	2	9
4:30 PM	0	0	1	0	1
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	1	1
5:15 PM	0	0	0	0	0
5:30 PM	1	0	0	0	1
5:45 PM	2	0	4	2	8
TOTAL VOLUMES:	4	3	9	5	21

Location: County of Riverside
N/S: Winchester Road (SR-79)
E/W: Simpson Road

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Winchester Road (SR-79)	East Leg Simpson Road	South Leg Winchester Road (SR-79)	West Leg Simpson Road	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	1	0	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	4	0	0	0	4
TOTAL VOLUMES:	4	0	1	0	5

	North Leg Winchester Road (SR-79)	East Leg Simpson Road	South Leg Winchester Road (SR-79)	West Leg Simpson Road	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	1	0	1
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	1	0	1
TOTAL VOLUMES:	0	0	2	0	2

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County of Riverside
N/S: Winchester Road (SR-79)
E/W: Domenigoni Parkway
Weather: Clear

File Name : CRV79DO AM
Site Code : 05117030
Start Date : 1/19/2017
Page No : 1

Groups Printed- Total Volume

	Winchester Road Southbound					Domenigoni Parkway Westbound					Winchester Road Northbound					Domenigoni Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	7	93	34	17	134	152	199	2	1	353	9	45	130	77	184	22	165	26	8	213	103	884	987
07:15 AM	5	114	48	23	167	197	202	6	2	405	12	70	151	83	233	34	156	22	9	212	117	1017	1134
07:30 AM	7	91	39	28	137	221	245	6	2	472	19	54	147	91	220	35	227	27	9	289	130	1118	1248
07:45 AM	6	116	40	26	162	185	170	8	4	363	15	74	163	60	252	39	202	18	6	259	96	1036	1132
Total	25	414	161	94	600	755	816	22	9	1593	55	243	591	311	889	130	750	93	32	973	446	4055	4501
08:00 AM	2	56	36	22	94	179	174	10	2	363	12	54	117	59	183	32	203	17	8	252	91	892	983
08:15 AM	11	78	38	23	127	191	174	14	6	379	9	47	102	63	158	29	152	15	11	196	103	860	963
08:30 AM	10	90	29	15	129	129	198	18	9	345	10	43	101	55	154	23	142	13	5	178	84	806	890
08:45 AM	7	41	33	25	81	114	160	5	2	279	7	47	105	55	159	20	146	8	6	174	88	693	781
Total	30	265	136	85	431	613	706	47	19	1366	38	191	425	232	654	104	643	53	30	800	366	3251	3617
Grand Total	55	679	297	179	1031	1368	1522	69	28	2959	93	434	1016	543	1543	234	1393	146	62	1773	812	7306	8118
Apprch %	5.3	65.9	28.8			46.2	51.4	2.3			6	28.1	65.8			13.2	78.6	8.2					
Total %	0.8	9.3	4.1		14.1	18.7	20.8	0.9		40.5	1.3	5.9	13.9		21.1	3.2	19.1	2		24.3	10	90	

	Winchester Road Southbound				Domenigoni Parkway Westbound				Winchester Road Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	5	114	**48**	**167**	197	202	6	405	12	70	151	233	34	156	22	212	1017
07:30 AM	**7**	91	39	137	**221**	**245**	6	**472**	**19**	54	147	220	35	**227**	**27**	**289**	**1118**
07:45 AM	6	**116**	40	162	185	170	8	363	15	**74**	**163**	**252**	**39**	202	18	259	1036
08:00 AM	2	56	36	94	179	174	**10**	363	12	54	117	183	32	203	17	252	892
Total Volume	20	377	163	560	782	791	30	1603	58	252	578	888	140	788	84	1012	4063
% App. Total	3.6	67.3	29.1		48.8	49.3	1.9		6.5	28.4	65.1		13.8	77.9	8.3		
PHF	.714	.813	.849	.838	.885	.807	.750	.849	.763	.851	.887	.881	.897	.868	.778	.875	.909

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County of Riverside
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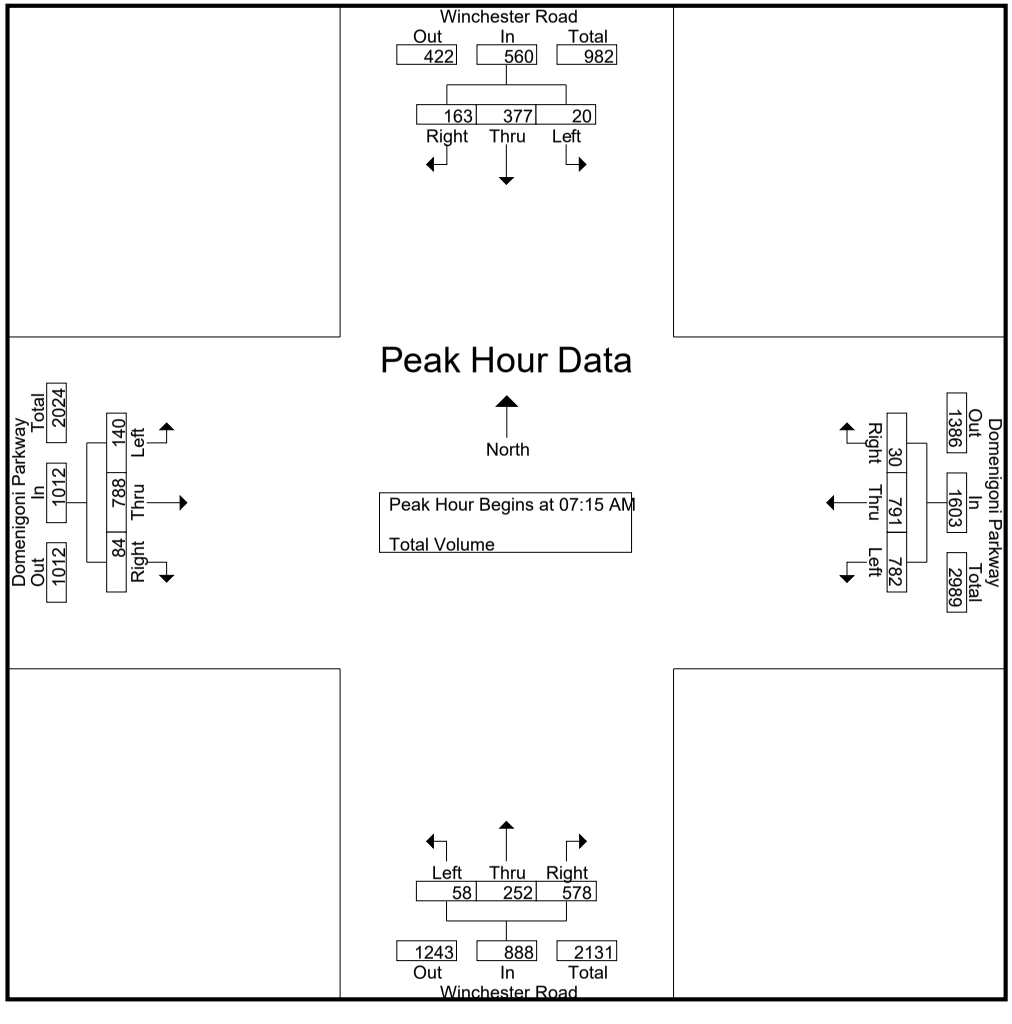
File Name : CRV79DO AM
Site Code : 05117030
Start Date : 1/19/2017
Page No : 2



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File Name : CRV79DO AM
Site Code : 05117030
Start Date : 1/19/2017
Page No : 3

	Winchester Road Southbound				Domenigoni Parkway Westbound				Winchester Road Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:15 AM				07:00 AM				07:15 AM				
+0 mins.	**7**	93	34	134	197	202	6	405	9	45	130	184	34	156	22	212	
+15 mins.	5	114	**48**	**167**	**221**	**245**	6	**472**	12	70	151	233	35	**227**	**27**	**289**	
+30 mins.	7	91	39	137	185	170	8	363	**19**	54	147	220	**39**	202	18	259	
+45 mins.	6	**116**	40	162	179	174	**10**	363	15	**74**	**163**	**252**	32	203	17	252	
Total Volume	25	414	161	600	782	791	30	1603	55	243	591	889	140	788	84	1012	
% App. Total	4.2	69	26.8		48.8	49.3	1.9		6.2	27.3	66.5		13.8	77.9	8.3		
PHF	.893	.892	.839	.898	.885	.807	.750	.849	.724	.821	.906	.882	.897	.868	.778	.875	

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File Name : CRV79DO PM
Site Code : 05117030
Start Date : 1/19/2017
Page No : 1

Groups Printed- Total Volume

	Winchester Road Southbound					Domenigoni Parkway Westbound					Winchester Road Northbound					Domenigoni Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	6	76	36	20	118	124	202	6	5	332	15	125	217	65	357	39	196	11	7	246	97	1053	1150
04:15 PM	3	50	24	9	77	178	197	3	1	378	10	120	204	88	334	47	199	10	4	256	102	1045	1147
04:30 PM	3	84	35	28	122	178	171	1	1	350	17	106	199	66	322	51	174	11	7	236	102	1030	1132
04:45 PM	4	66	34	22	104	138	203	3	2	344	18	120	201	84	339	52	204	17	10	273	118	1060	1178
Total	16	276	129	79	421	618	773	13	9	1404	60	471	821	303	1352	189	773	49	28	1011	419	4188	4607
05:00 PM	8	67	36	25	111	171	215	3	3	389	15	112	228	90	355	51	166	14	4	231	122	1086	1208
05:15 PM	2	72	33	17	107	161	193	7	5	361	13	126	225	93	364	41	204	10	4	255	119	1087	1206
05:30 PM	4	59	42	22	105	147	205	8	4	360	11	102	222	103	335	42	194	13	7	249	136	1049	1185
05:45 PM	8	53	30	17	91	144	180	0	0	324	19	104	226	72	349	42	215	4	0	261	89	1025	1114
Total	22	251	141	81	414	623	793	18	12	1434	58	444	901	358	1403	176	779	41	15	996	466	4247	4713
Grand Total	38	527	270	160	835	1241	1566	31	21	2838	118	915	1722	661	2755	365	1552	90	43	2007	885	8435	9320
Apprch %	4.6	63.1	32.3			43.7	55.2	1.1			4.3	33.2	62.5			18.2	77.3	4.5					
Total %	0.5	6.2	3.2		9.9	14.7	18.6	0.4		33.6	1.4	10.8	20.4		32.7	4.3	18.4	1.1		23.8	9.5	90.5	

	Winchester Road Southbound				Domenigoni Parkway Westbound				Winchester Road Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	4	66	34	104	138	203	3	344	**18**	120	201	339	**52**	**204**	**17**	**273**	1060
05:00 PM	**8**	67	36	**111**	**171**	**215**	3	**389**	15	112	**228**	355	51	166	14	231	1086
05:15 PM	2	**72**	33	107	161	193	7	361	13	**126**	225	**364**	41	204	10	255	**1087**
05:30 PM	4	59	**42**	105	147	205	**8**	360	11	102	222	335	42	194	13	249	1049
Total Volume	18	264	145	427	617	816	21	1454	57	460	876	1393	186	768	54	1008	4282
% App. Total	4.2	61.8	34		42.4	56.1	1.4		4.1	33	62.9		18.5	76.2	5.4		
PHF	.563	.917	.863	.962	.902	.949	.656	.934	.792	.913	.961	.957	.894	.941	.794	.923	.985

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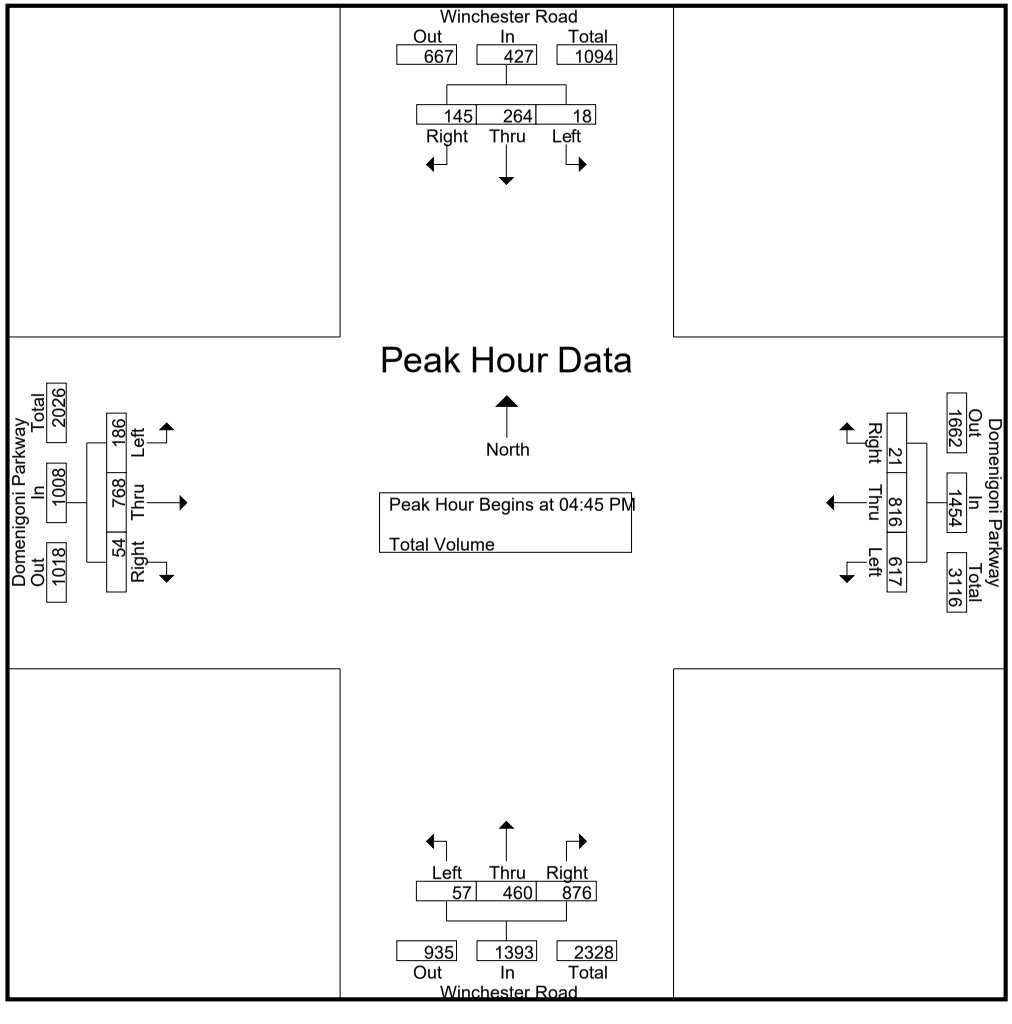
County of Riverside
N/S: Winchester Road (SR-79)
E/W: Domenigoni Parkway
Weather: Clear

File Name : CRV79DO PM
Site Code : 05117030
Start Date : 1/19/2017
Page No : 2



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County of Riverside
N/S: Winchester Road (SR-79)
E/W: Domenigoni Parkway
Weather: Clear

File Name : CRV79DO PM
Site Code : 05117030
Start Date : 1/19/2017
Page No : 3

	Winchester Road Southbound				Domenigoni Parkway Westbound				Winchester Road Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:15 PM				05:00 PM				04:00 PM				
+0 mins.	3	**84**	35	**122**	**178**	197	**3**	378	15	112	**228**	355	39	196	11	246	
+15 mins.	4	66	34	104	178	171	1	350	13	**126**	225	**364**	47	199	10	256	
+30 mins.	**8**	67	**36**	111	138	203	3	344	11	102	222	335	51	174	11	236	
+45 mins.	2	72	33	107	171	**215**	3	**389**	**19**	104	226	349	**52**	**204**	**17**	**273**	
Total Volume	17	289	138	444	665	786	10	1461	58	444	901	1403	189	773	49	1011	
% App. Total	3.8	65.1	31.1		45.5	53.8	0.7		4.1	31.6	64.2		18.7	76.5	4.8		
PHF	.531	.860	.958	.910	.934	.914	.833	.939	.763	.881	.988	.964	.909	.947	.721	.926	

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County of Riverside
N/S: Winchester Road (SR-79)
E/W: Domenigoni Parkway
Weather: Clear

File Name : CRV79DO SAT
Site Code : 05117030
Start Date : 1/21/2017
Page No : 1

Groups Printed- Total Volume

	Winchester Road Southbound					Domenigoni Parkway Westbound					Winchester Road Northbound					Domenigoni Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
11:00 AM	1	88	30	18	119	113	123	9	2	245	8	74	109	42	191	30	155	11	5	196	67	751	818
11:15 AM	7	68	29	18	104	167	150	7	4	324	14	63	103	52	180	37	152	6	4	195	78	803	881
11:30 AM	1	75	39	20	115	157	166	2	2	325	11	73	111	62	195	26	144	6	3	176	87	811	898
11:45 AM	3	59	27	14	89	149	134	5	2	288	9	69	119	49	197	34	142	11	3	187	68	761	829
Total	12	290	125	70	427	586	573	23	10	1182	42	279	442	205	763	127	593	34	15	754	300	3126	3426
12:00 PM	8	66	18	8	92	134	123	4	2	261	11	76	82	40	169	33	117	13	5	163	55	685	740
12:15 PM	6	85	26	14	117	147	144	5	3	296	21	57	90	31	168	35	131	12	5	178	53	759	812
12:30 PM	1	89	36	28	126	162	170	4	1	336	10	77	114	49	201	37	194	18	11	249	89	912	1001
12:45 PM	4	69	22	12	95	153	146	4	0	303	18	74	93	20	185	26	145	13	6	184	38	767	805
Total	19	309	102	62	430	596	583	17	6	1196	60	284	379	140	723	131	587	56	27	774	235	3123	3358
01:00 PM	9	58	26	20	93	144	143	7	2	294	10	66	129	56	205	34	153	14	9	201	87	793	880
01:15 PM	1	65	28	17	94	172	136	4	2	312	8	67	99	46	174	35	156	8	3	199	68	779	847
01:30 PM	2	61	34	16	97	163	151	6	4	320	15	60	111	54	186	38	146	16	6	200	80	803	883
01:45 PM	4	82	28	14	114	149	148	5	4	302	11	83	95	37	189	47	188	11	5	246	60	851	911
Total	16	266	116	67	398	628	578	22	12	1228	44	276	434	193	754	154	643	49	23	846	295	3226	3521
Grand Total	47	865	343	199	1255	1810	1734	62	28	3606	146	839	1255	538	2240	412	1823	139	65	2374	830	9475	10305
Apprch %	3.7	68.9	27.3			50.2	48.1	1.7			6.5	37.5	56			17.4	76.8	5.9					
Total %	0.5	9.1	3.6		13.2	19.1	18.3	0.7		38.1	1.5	8.9	13.2		23.6	4.3	19.2	1.5		25.1	8.1	91.9	

	Winchester Road Southbound				Domenigoni Parkway Westbound				Winchester Road Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:30 PM																	
12:30 PM	1	**89**	**36**	**126**	162	**170**	4	**336**	10	**77**	114	201	**37**	**194**	**18**	**249**	**912**
12:45 PM	4	69	22	95	153	146	4	303	**18**	74	93	185	26	145	13	184	767
01:00 PM	**9**	58	26	93	144	143	**7**	294	10	66	**129**	**205**	34	153	14	201	793
01:15 PM	1	65	28	94	**172**	136	4	312	8	67	99	174	35	156	8	199	779
Total Volume	15	281	112	408	631	595	19	1245	46	284	435	765	132	648	53	833	3251
% App. Total	3.7	68.9	27.5		50.7	47.8	1.5		6	37.1	56.9		15.8	77.8	6.4		
PHF	.417	.789	.778	.810	.917	.875	.679	.926	.639	.922	.843	.933	.892	.835	.736	.836	.891

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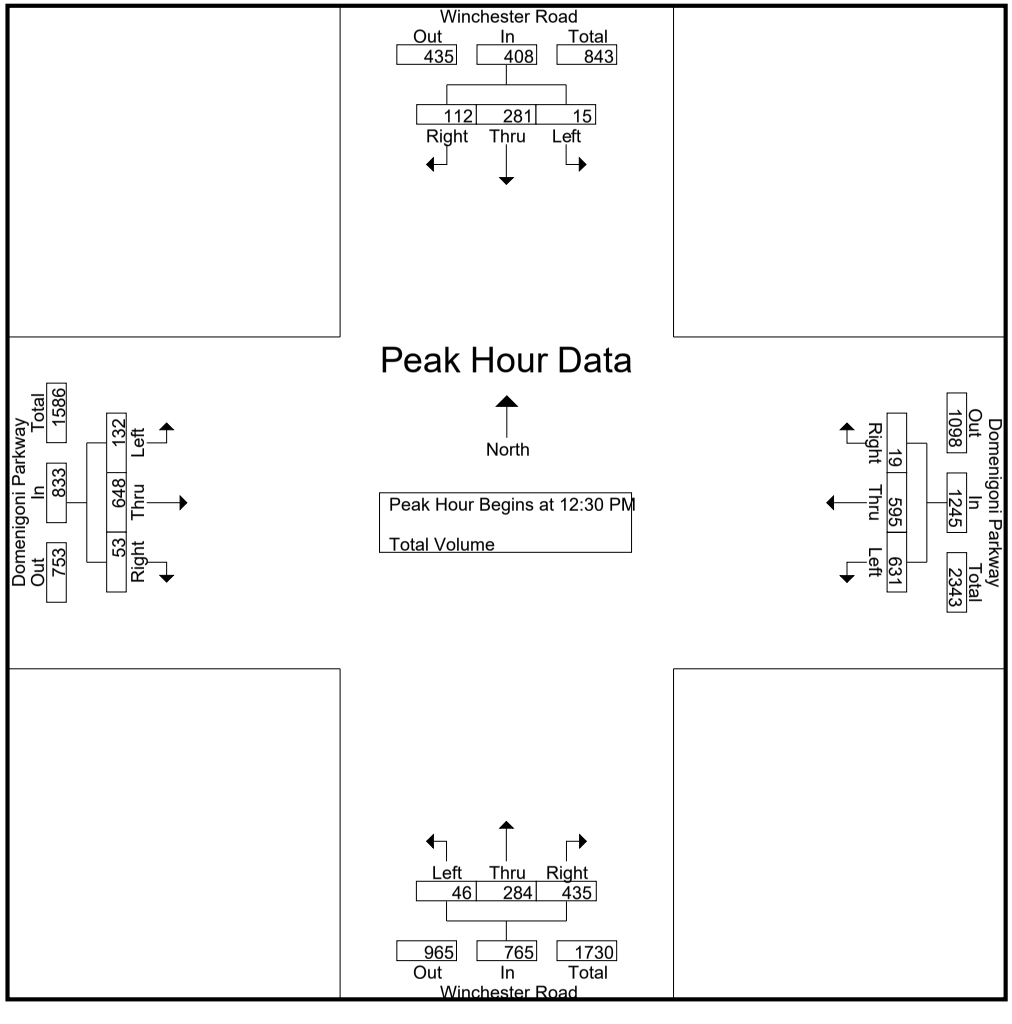
County of Riverside
N/S: Winchester Road (SR-79)
E/W: Domenigoni Parkway
Weather: Clear

File Name : CRV79DO SAT
Site Code : 05117030
Start Date : 1/21/2017
Page No : 2



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County of Riverside
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Page No : 3

	Winchester Road Southbound				Domenigoni Parkway Westbound				Winchester Road Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	12:15 PM				12:30 PM				12:30 PM				01:00 PM				
+0 mins.	6	85	26	117	162	**170**	4	**336**	10	**77**	114	201	34	153	14	201	
+15 mins.	1	**89**	**36**	**126**	153	146	4	303	**18**	74	93	185	35	156	8	199	
+30 mins.	4	69	22	95	144	143	**7**	294	10	66	**129**	**205**	38	146	**16**	200	
+45 mins.	**9**	58	26	93	**172**	136	4	312	8	67	99	174	**47**	**188**	11	**246**	
Total Volume	20	301	110	431	631	595	19	1245	46	284	435	765	154	643	49	846	
% App. Total	4.6	69.8	25.5		50.7	47.8	1.5		6	37.1	56.9		18.2	76	5.8		
PHF	.556	.846	.764	.855	.917	.875	.679	.926	.639	.922	.843	.933	.819	.855	.766	.860	

Location: County of Riverside
N/S: Winchester Road
E/W: Domenigoni Parkway

Date: 1/19/2017
Day: Thursday

PEDESTRIANS

	North Leg Winchester Road	East Leg Domenigoni Parkway	South Leg Winchester Road	West Leg Domenigoni Parkway	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Winchester Road	East Leg Domenigoni Parkway	South Leg Winchester Road	West Leg Domenigoni Parkway	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

PEDESTRIANS

Date: 1/21/2017
Day: Saturday

	North Leg Winchester Road	East Leg Domenigoni Parkway	South Leg Winchester Road	West Leg Domenigoni Parkway	TOTAL
11:00 AM	0	0	0	0	0
11:15 AM	0	0	0	0	0
11:30 AM	0	0	0	0	0
11:45 AM	0	0	0	0	0
12:00 PM	0	0	0	0	0
12:15 PM	0	0	0	0	0
12:30 PM	0	0	0	0	0
12:45 PM	0	0	0	0	0
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	0	0
1:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: County of Riverside
N/S: Winchester Road
E/W: Domenigoni Parkway

Date: 1/19/2017
Day: Thursday

BICYCLES

	North Leg Winchester Road	East Leg Domenigoni Parkway	South Leg Winchester Road	West Leg Domenigoni Parkway	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Winchester Road	East Leg Domenigoni Parkway	South Leg Winchester Road	West Leg Domenigoni Parkway	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	1	0	1
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

BICYCLES

Date: 1/21/2017
Day: Saturday

	North Leg Winchester Road	East Leg Domenigoni Parkway	South Leg Winchester Road	West Leg Domenigoni Parkway	TOTAL
11:00 AM	0	0	0	0	0
11:15 AM	0	0	3	0	3
11:30 AM	1	0	0	0	1
11:45 AM	2	0	0	0	2
12:00 PM	0	0	0	0	0
12:15 PM	0	0	0	0	0
12:30 PM	0	0	0	0	0
12:45 PM	0	0	0	1	1
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	0	0
1:45 PM	0	0	0	0	0
TOTAL VOLUMES:	3	0	3	1	7

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County of Riverside
N/S: Winchester Road (SR-79)
E/W: Domenigoni Parkway
Weather: Clear

File Name : 04_CRV_SR79_DO AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Winchester Road (SR-79) Southbound					Domenigoni Parkway Westbound					Winchester Road (SR-79) Northbound					Domenigoni Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	5	95	40	24	140	173	182	0	0	355	18	56	134	63	208	27	193	18	9	238	96	941	1037
07:15 AM	3	101	35	20	139	176	168	2	2	346	8	62	164	66	234	36	208	14	6	258	94	977	1071
07:30 AM	1	119	43	20	163	193	240	4	1	437	4	46	144	53	194	23	222	16	11	261	85	1055	1140
07:45 AM	4	104	40	27	148	161	181	12	8	354	6	57	126	59	189	26	166	14	8	206	102	897	999
Total	13	419	158	91	590	703	771	18	11	1492	36	221	568	241	825	112	789	62	34	963	377	3870	4247
08:00 AM	4	59	46	31	109	204	199	11	4	414	9	32	107	58	148	20	137	10	5	167	98	838	936
08:15 AM	6	68	31	19	105	165	181	20	5	366	8	47	99	67	154	22	141	10	4	173	95	798	893
08:30 AM	7	61	54	41	122	140	186	4	2	330	9	41	103	63	153	28	153	11	4	192	110	797	907
08:45 AM	2	63	28	22	93	139	173	5	1	317	10	32	97	69	139	20	113	9	5	142	97	691	788
Total	19	251	159	113	429	648	739	40	12	1427	36	152	406	257	594	90	544	40	18	674	400	3124	3524
Grand Total	32	670	317	204	1019	1351	1510	58	23	2919	72	373	974	498	1419	202	1333	102	52	1637	777	6994	7771
Apprch %	3.1	65.8	31.1			46.3	51.7	2			5.1	26.3	68.6			12.3	81.4	6.2					
Total %	0.5	9.6	4.5		14.6	19.3	21.6	0.8		41.7	1	5.3	13.9		20.3	2.9	19.1	1.5		23.4	10	90	

	Winchester Road (SR-79) Southbound				Domenigoni Parkway Westbound				Winchester Road (SR-79) Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**5**	95	40	140	173	182	0	355	**18**	56	134	208	27	193	**18**	238	941
07:15 AM	3	101	35	139	176	168	2	346	8	**62**	**164**	**234**	**36**	208	14	258	977
07:30 AM	1	**119**	**43**	**163**	**193**	**240**	4	**437**	4	46	144	194	23	**222**	16	**261**	**1055**
07:45 AM	4	104	40	148	161	181	**12**	354	6	57	126	189	26	166	14	206	897
Total Volume	13	419	158	590	703	771	18	1492	36	221	568	825	112	789	62	963	3870
% App. Total	2.2	71	26.8		47.1	51.7	1.2		4.4	26.8	68.8		11.6	81.9	6.4		
PHF	.650	.880	.919	.905	.911	.803	.375	.854	.500	.891	.866	.881	.778	.889	.861	.922	.917

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County of Riverside
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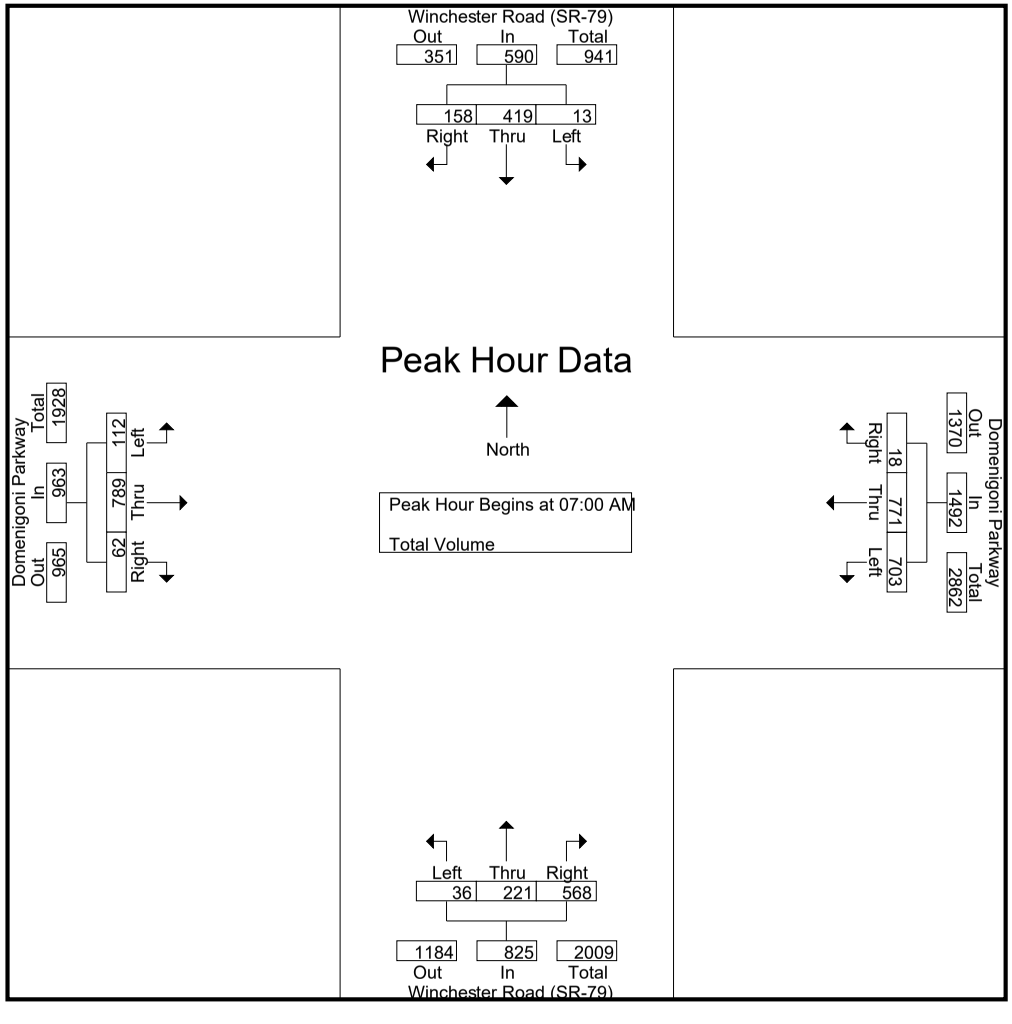
Weather: Clear

File Name : 04_CRV_SR79_DO AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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	Winchester Road (SR-79) Southbound				Domenigoni Parkway Westbound				Winchester Road (SR-79) Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:30 AM				07:00 AM				07:00 AM				
+0 mins.	**5**	95	40	140	193	**240**	4	**437**	**18**	56	134	208	27	193	**18**	238	
+15 mins.	3	101	35	139	161	181	12	354	8	**62**	**164**	**234**	**36**	208	14	258	
+30 mins.	1	**119**	**43**	**163**	**204**	199	11	414	4	46	144	194	23	**222**	16	**261**	
+45 mins.	4	104	40	148	165	181	**20**	366	6	57	126	189	26	166	14	206	
Total Volume	13	419	158	590	723	801	47	1571	36	221	568	825	112	789	62	963	
% App. Total	2.2	71	26.8		46	51	3		4.4	26.8	68.8		11.6	81.9	6.4		
PHF	.650	.880	.919	.905	.886	.834	.588	.899	.500	.891	.866	.881	.778	.889	.861	.922	

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County of Riverside
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File Name : 04_CRV_SR79_DO PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Winchester Road (SR-79) Southbound					Domenigoni Parkway Westbound					Winchester Road (SR-79) Northbound					Domenigoni Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	4	67	31	18	102	136	189	4	2	329	11	116	202	75	329	38	237	9	6	284	101	1044	1145
04:15 PM	4	80	42	28	126	163	188	6	3	357	29	113	215	80	357	38	194	12	8	244	119	1084	1203
04:30 PM	3	78	57	24	138	160	199	4	0	363	14	116	213	100	343	34	212	7	0	253	124	1097	1221
04:45 PM	2	71	27	17	100	159	192	2	2	353	21	142	224	98	387	44	157	16	11	217	128	1057	1185
Total	13	296	157	87	466	618	768	16	7	1402	75	487	854	353	1416	154	800	44	25	998	472	4282	4754
05:00 PM	5	71	31	24	107	141	176	4	1	321	14	103	189	72	306	45	198	11	4	254	101	988	1089
05:15 PM	4	69	48	35	121	148	209	10	5	367	14	137	246	104	397	51	209	12	5	272	149	1157	1306
05:30 PM	1	78	36	26	115	141	208	2	1	351	19	142	252	116	413	47	192	19	9	258	152	1137	1289
05:45 PM	8	62	44	16	114	121	157	5	2	283	14	103	215	122	332	58	188	10	7	256	147	985	1132
Total	18	280	159	101	457	551	750	21	9	1322	61	485	902	414	1448	201	787	52	25	1040	549	4267	4816
Grand Total	31	576	316	188	923	1169	1518	37	16	2724	136	972	1756	767	2864	355	1587	96	50	2038	1021	8549	9570
Apprch %	3.4	62.4	34.2			42.9	55.7	1.4			4.7	33.9	61.3			17.4	77.9	4.7					
Total %	0.4	6.7	3.7		10.8	13.7	17.8	0.4		31.9	1.6	11.4	20.5		33.5	4.2	18.6	1.1		23.8	10.7	89.3	

	Winchester Road (SR-79) Southbound				Domenigoni Parkway Westbound				Winchester Road (SR-79) Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	2	71	27	100	**159**	192	2	353	**21**	**142**	224	387	44	157	16	217	1057
05:00 PM	**5**	71	31	107	141	176	4	321	14	103	189	306	45	198	11	254	988
05:15 PM	4	69	**48**	**121**	148	**209**	**10**	**367**	14	137	246	397	**51**	**209**	12	**272**	**1157**
05:30 PM	1	**78**	36	115	141	208	2	351	19	142	**252**	**413**	47	192	**19**	258	1137
Total Volume	12	289	142	443	589	785	18	1392	68	524	911	1503	187	756	58	1001	4339
% App. Total	2.7	65.2	32.1		42.3	56.4	1.3		4.5	34.9	60.6		18.7	75.5	5.8		
PHF	.600	.926	.740	.915	.926	.939	.450	.948	.810	.923	.904	.910	.917	.904	.763	.920	.938

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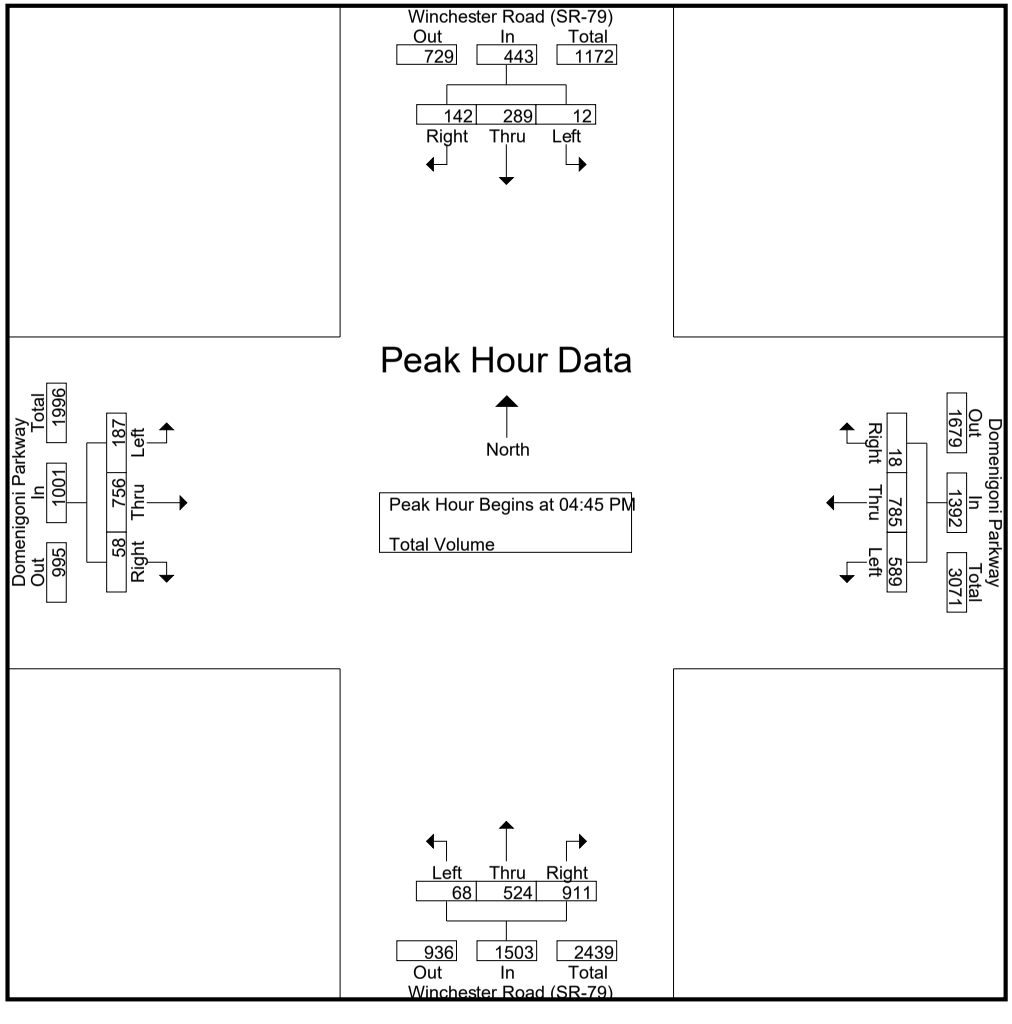
County of Riverside
N/S: Winchester Road (SR-79)
E/W: Domenigoni Parkway
Weather: Clear

File Name : 04_CRV_SR79_DO PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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County of Riverside
N/S: Winchester Road (SR-79)
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File Name : 04_CRV_SR79_DO PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Winchester Road (SR-79) Southbound				Domenigoni Parkway Westbound				Winchester Road (SR-79) Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:30 PM				04:45 PM				05:00 PM				
+0 mins.	4	**80**	42	126	**160**	199	4	363	**21**	**142**	224	387	45	198	11	254	
+15 mins.	3	78	**57**	**138**	159	192	2	353	14	103	189	306	51	**209**	12	**272**	
+30 mins.	2	71	27	100	141	176	4	321	14	137	246	397	47	192	**19**	258	
+45 mins.	**5**	71	31	107	148	**209**	**10**	**367**	19	142	**252**	**413**	**58**	188	10	256	
Total Volume	14	300	157	471	608	776	20	1404	68	524	911	1503	201	787	52	1040	
% App. Total	3	63.7	33.3		43.3	55.3	1.4		4.5	34.9	60.6		19.3	75.7	5		
PHF	.700	.938	.689	.853	.950	.928	.500	.956	.810	.923	.904	.910	.866	.941	.684	.956	

Location: County of Riverside
N/S: Winchester Road (SR-79)
E/W: Domenigoni Parkway

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Winchester Road (SR-79)	East Leg Domenigoni Parkway	South Leg Winchester Road (SR-79)	West Leg Domenigoni Parkway	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Winchester Road (SR-79)	East Leg Domenigoni Parkway	South Leg Winchester Road (SR-79)	West Leg Domenigoni Parkway	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Riverside
N/S: Winchester Road (SR-79)
E/W: Domenigoni Parkway

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Winchester Road (SR-79)	East Leg Domenigoni Parkway	South Leg Winchester Road (SR-79)	West Leg Domenigoni Parkway	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Winchester Road (SR-79)	East Leg Domenigoni Parkway	South Leg Winchester Road (SR-79)	West Leg Domenigoni Parkway	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	1	0	1
TOTAL VOLUMES:	0	0	1	0	1

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County of Riverside
N/S: Patterson Avenue
E/W: East Grand Avenue
Weather: Clear

File Name : 05_CRV_PA_GR AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Patterson Avenue Southbound				East Grand Avenue Westbound				Patterson Avenue Northbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	0	1	1	1	0	2	5	1	0	6	0	9	9
07:15 AM	0	2	0	2	1	0	0	1	3	0	0	3	0	6	6
07:30 AM	0	2	0	2	1	0	0	1	2	0	0	2	0	5	5
07:45 AM	0	1	0	1	2	1	0	3	5	0	0	5	0	9	9
Total	0	6	0	6	5	2	0	7	15	1	0	16	0	29	29
08:00 AM	0	1	0	1	1	0	0	1	3	1	0	4	0	6	6
08:15 AM	0	3	0	3	0	0	0	0	4	0	0	4	0	7	7
08:30 AM	0	2	0	2	0	0	0	0	1	1	0	2	0	4	4
08:45 AM	0	2	0	2	0	0	0	0	2	0	0	2	0	4	4
Total	0	8	0	8	1	0	0	1	10	2	0	12	0	21	21
Grand Total	0	14	0	14	6	2	0	8	25	3	0	28	0	50	50
Apprch %	0	100			75	25			89.3	10.7					
Total %	0	28		28	12	4		16	50	6		56	0	100	

	Patterson Avenue Southbound			East Grand Avenue Westbound			Patterson Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	1	1	1	**1**	2	**5**	**1**	**6**	**9**
07:15 AM	0	**2**	**2**	1	0	1	3	0	3	6
07:30 AM	0	2	2	1	0	1	2	0	2	5
07:45 AM	0	1	1	**2**	1	**3**	5	0	5	9
Total Volume	0	6	6	5	2	7	15	1	16	29
% App. Total	0	100		71.4	28.6		93.8	6.2		
PHF	.000	.750	.750	.625	.500	.583	.750	.250	.667	.806

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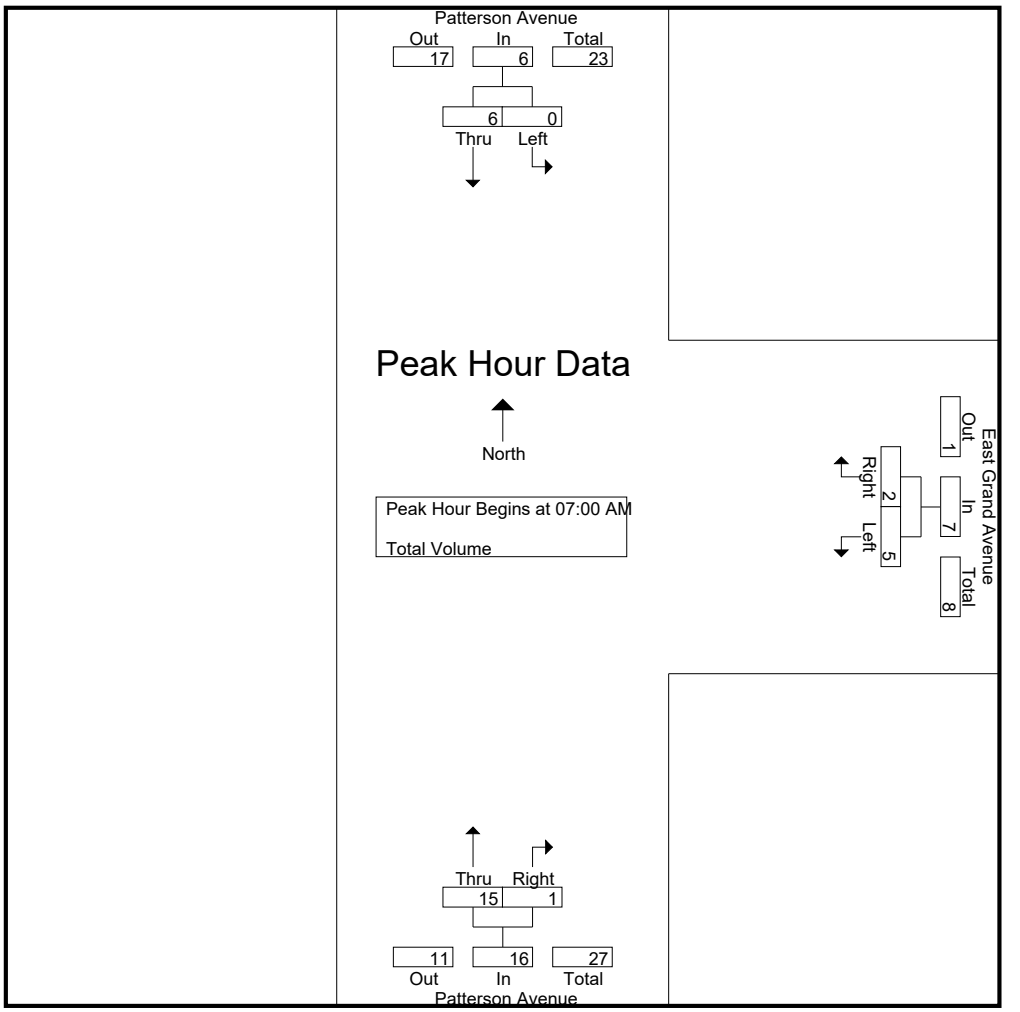
County of Riverside
N/S: Patterson Avenue
E/W: East Grand Avenue
Weather: Clear

File Name : 05_CRV_PA_GR AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	1	1	1	**1**	2	**5**	**1**	**6**
+15 mins.	0	**3**	**3**	1	0	1	3	0	3
+30 mins.	0	2	2	1	0	1	2	0	2
+45 mins.	0	2	2	**2**	1	**3**	5	0	5
Total Volume	0	8	8	5	2	7	15	1	16
% App. Total	0	100		71.4	28.6		93.8	6.2	
PHF	.000	.667	.667	.625	.500	.583	.750	.250	.667

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County of Riverside
N/S: Patterson Avenue
E/W: East Grand Avenue
Weather: Clear

File Name : 05_CRV_PA_GR PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Patterson Avenue Southbound				East Grand Avenue Westbound				Patterson Avenue Northbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	3	0	3	1	1	0	2	5	2	0	7	0	12	12
04:15 PM	0	3	0	3	1	0	0	1	1	1	0	2	0	6	6
04:30 PM	0	1	0	1	0	0	0	0	3	0	0	3	0	4	4
04:45 PM	0	4	0	4	1	0	0	1	3	0	0	3	0	8	8
Total	0	11	0	11	3	1	0	4	12	3	0	15	0	30	30
05:00 PM	2	6	0	8	0	0	0	0	8	0	0	8	0	16	16
05:15 PM	0	2	0	2	0	0	0	0	2	1	0	3	0	5	5
05:30 PM	0	3	0	3	0	0	0	0	4	1	0	5	0	8	8
05:45 PM	0	3	0	3	0	0	0	0	1	1	0	2	0	5	5
Total	2	14	0	16	0	0	0	0	15	3	0	18	0	34	34
Grand Total	2	25	0	27	3	1	0	4	27	6	0	33	0	64	64
Apprch %	7.4	92.6			75	25			81.8	18.2					
Total %	3.1	39.1		42.2	4.7	1.6		6.2	42.2	9.4		51.6	0	100	

	Patterson Avenue Southbound			East Grand Avenue Westbound			Patterson Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	4	4	**1**	0	**1**	3	0	3	8
05:00 PM	**2**	**6**	**8**	0	0	0	**8**	0	**8**	**16**
05:15 PM	0	2	2	0	0	0	2	**1**	3	5
05:30 PM	0	3	3	0	0	0	4	1	5	8
Total Volume	2	15	17	1	0	1	17	2	19	37
% App. Total	11.8	88.2		100	0		89.5	10.5		
PHF	.250	.625	.531	.250	.000	.250	.531	.500	.594	.578

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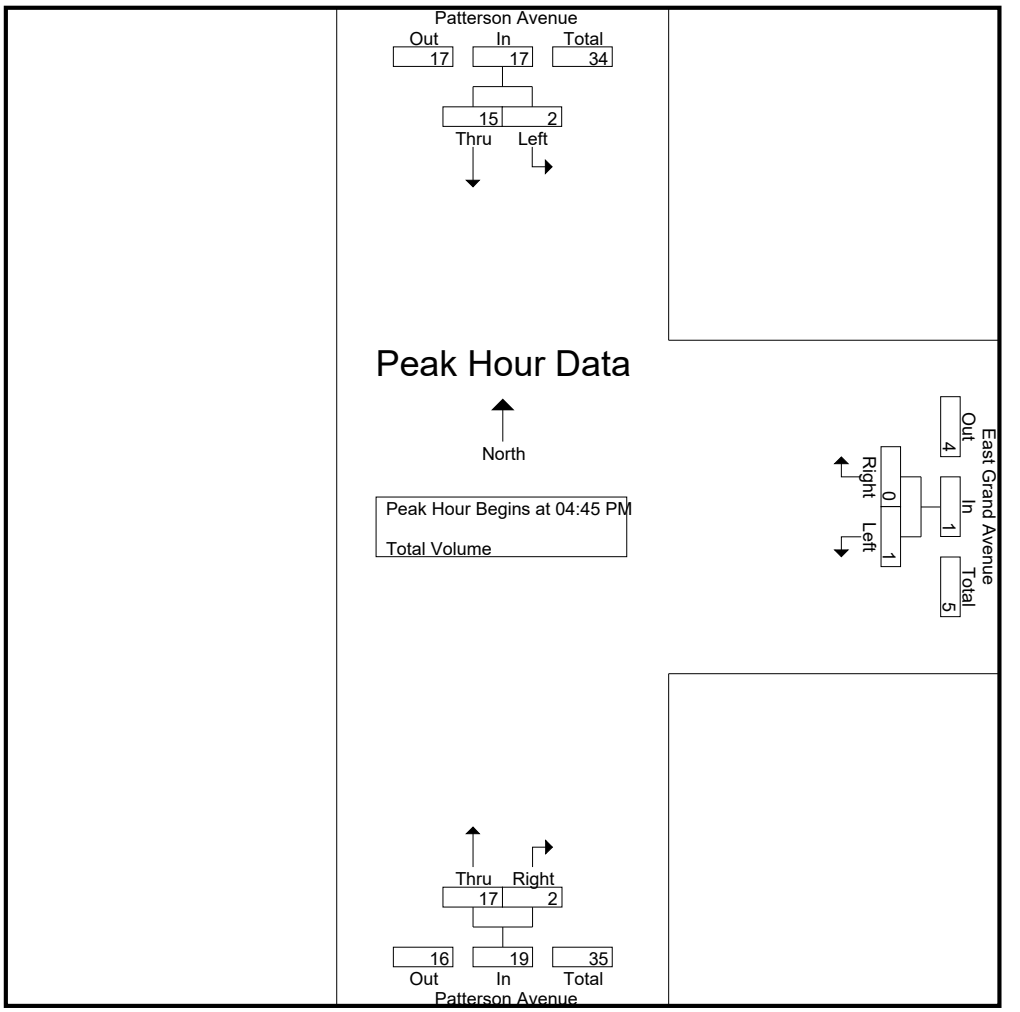
County of Riverside
N/S: Patterson Avenue
E/W: East Grand Avenue
Weather: Clear

File Name : 05_CRV_PA_GR PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:00 PM			04:45 PM		
+0 mins.	0	4	4	**1**	**1**	**2**	3	0	3
+15 mins.	**2**	**6**	**8**	1	0	1	**8**	0	**8**
+30 mins.	0	2	2	0	0	0	2	**1**	3
+45 mins.	0	3	3	1	0	1	4	1	5
Total Volume	2	15	17	3	1	4	17	2	19
% App. Total	11.8	88.2		75	25		89.5	10.5	
PHF	.250	.625	.531	.750	.250	.500	.531	.500	.594

Location: County of Riverside
N/S: Patterson Avenue
E/W: East Grand Avenue

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Patterson Avenue	East Leg East Grand Avenue	South Leg Patterson Avenue	West Leg Dead End	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Patterson Avenue	East Leg East Grand Avenue	South Leg Patterson Avenue	West Leg Dead End	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Riverside
N/S: Patterson Avenue
E/W: East Grand Avenue

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Patterson Avenue	East Leg East Grand Avenue	South Leg Patterson Avenue	West Leg Dead End	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	1	0	0	1
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	1

	North Leg Patterson Avenue	East Leg East Grand Avenue	South Leg Patterson Avenue	West Leg Dead End	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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County of Riverside
N/S: Patterson Avenue
E/W: Domenigoni Parkway
Weather: Clear

File Name : 06_CRV_PA_DO AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Patterson Avenue Southbound					Domenigoni Parkway Westbound					Patterson Avenue Northbound					Domenigoni Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	352	0	0	352	0	0	0	0	0	0	319	0	0	319	0	671	671
07:15 AM	0	0	0	0	0	0	361	0	0	361	0	0	0	0	0	0	368	0	0	368	0	729	729
07:30 AM	0	0	1	0	1	0	430	1	0	431	0	0	0	0	0	0	364	0	0	364	0	796	796
07:45 AM	0	0	0	0	0	0	363	0	0	363	0	0	0	0	0	0	296	0	0	296	0	659	659
Total	0	0	1	0	1	0	1506	1	0	1507	0	0	0	0	0	0	1347	0	0	1347	0	2855	2855
08:00 AM	0	0	0	0	0	0	404	0	0	404	0	0	0	0	0	0	244	0	0	244	0	648	648
08:15 AM	0	0	0	0	0	0	363	0	0	363	0	0	0	0	0	0	242	0	0	242	0	605	605
08:30 AM	0	0	0	0	0	0	337	0	0	337	0	0	0	0	0	0	252	0	0	252	0	589	589
08:45 AM	0	0	0	0	0	0	314	0	0	314	0	0	0	0	0	0	215	0	0	215	0	529	529
Total	0	0	0	0	0	0	1418	0	0	1418	0	0	0	0	0	0	953	0	0	953	0	2371	2371
Grand Total	0	0	1	0	1	0	2924	1	0	2925	0	0	0	0	0	0	2300	0	0	2300	0	5226	5226
Apprch %	0	0	100			0	100	0			0	0	0			0	100	0					
Total %	0	0	0		0	0	56	0		56	0	0	0		0	0	44	0		44	0	100	

	Patterson Avenue Southbound				Domenigoni Parkway Westbound				Patterson Avenue Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	352	0	352	0	0	0	0	0	319	0	319	671
07:15 AM	0	0	0	0	0	361	0	361	0	0	0	0	0	**368**	0	**368**	729
07:30 AM	0	0	**1**	**1**	0	**430**	**1**	**431**	0	0	0	0	0	364	0	364	**796**
07:45 AM	0	0	0	0	0	363	0	363	0	0	0	0	0	296	0	296	659
Total Volume	0	0	1	1	0	1506	1	1507	0	0	0	0	0	1347	0	1347	2855
% App. Total	0	0	100		0	99.9	0.1		0	0	0		0	100	0		
PHF	.000	.000	.250	.250	.000	.876	.250	.874	.000	.000	.000	.000	.000	.915	.000	.915	.897

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County of Riverside
N/S: Patterson Avenue
E/W: Domenigoni Parkway
Weather: Clear

File Name : 06_CRV_PA_DO AM
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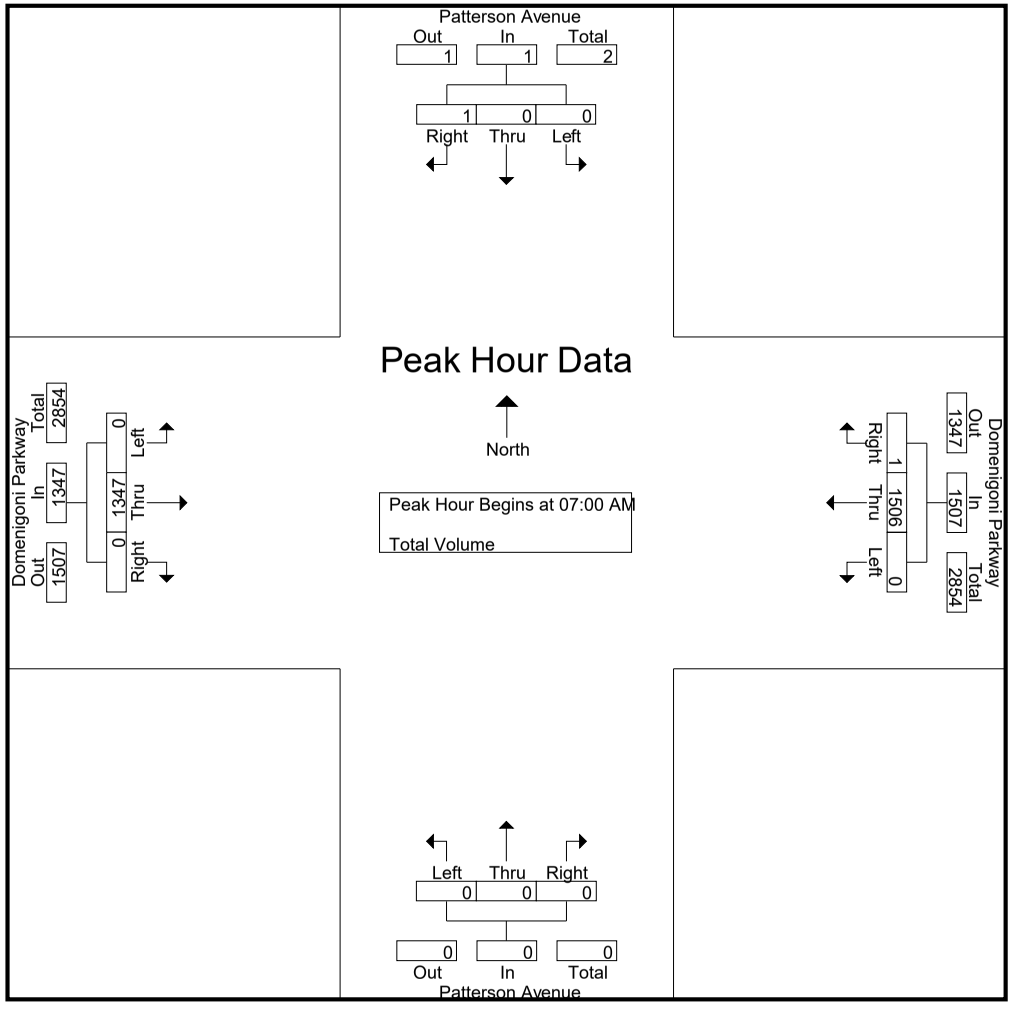

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N/S: Patterson Avenue
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File Name : 06_CRV_PA_DO AM
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	Patterson Avenue Southbound				Domenigoni Parkway Westbound				Patterson Avenue Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:30 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	**430**	**1**	**431**	0	0	0	0	0	319	0	319	
+15 mins.	0	0	0	0	0	363	0	363	0	0	0	0	0	**368**	0	**368**	
+30 mins.	0	0	**1**	**1**	0	404	0	404	0	0	0	0	0	364	0	364	
+45 mins.	0	0	0	0	0	363	0	363	0	0	0	0	0	296	0	296	
Total Volume	0	0	1	1	0	1560	1	1561	0	0	0	0	0	1347	0	1347	
% App. Total	0	0	100		0	99.9	0.1		0	0	0		0	100	0		
PHF	.000	.000	.250	.250	.000	.907	.250	.905	.000	.000	.000	.000	.000	.915	.000	.915	

Counts Unlimited
PO Box 1178
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(951) 268-6268

County of Riverside
N/S: Patterson Avenue
E/W: Domenigoni Parkway
Weather: Clear

File Name : 06_CRV_PA_DO PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Patterson Avenue Southbound					Domenigoni Parkway Westbound					Patterson Avenue Northbound					Domenigoni Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	339	0	0	339	0	0	0	0	0	0	428	1	0	429	0	768	768
04:15 PM	0	0	0	0	0	0	374	0	0	374	0	0	0	0	0	0	399	0	0	399	0	773	773
04:30 PM	0	0	0	0	0	0	348	0	0	348	0	0	0	0	0	0	414	1	0	415	0	763	763
04:45 PM	0	0	0	0	0	0	370	0	0	370	0	0	0	0	0	1	376	1	0	378	0	748	748
Total	0	0	0	0	0	0	1431	0	0	1431	0	0	0	0	0	1	1617	3	0	1621	0	3052	3052
05:00 PM	0	0	0	0	0	0	319	0	0	319	0	0	1	0	1	0	381	0	0	381	0	701	701
05:15 PM	0	0	0	0	0	0	373	0	0	373	0	0	0	0	0	0	446	0	0	446	0	819	819
05:30 PM	0	0	0	0	0	0	347	0	0	347	0	0	0	0	0	0	431	0	0	431	0	778	778
05:45 PM	0	0	0	0	0	0	290	0	0	290	0	0	0	0	0	0	401	0	0	401	0	691	691
Total	0	0	0	0	0	0	1329	0	0	1329	0	0	1	0	1	0	1659	0	0	1659	0	2989	2989
Grand Total	0	0	0	0	0	0	2760	0	0	2760	0	0	1	0	1	1	3276	3	0	3280	0	6041	6041
Apprch %	0	0	0			0	100	0			0	0	100			0	99.9	0.1					
Total %	0	0	0		0	0	45.7	0		45.7	0	0	0		0	0	54.2	0		54.3	0	100	

	Patterson Avenue Southbound				Domenigoni Parkway Westbound				Patterson Avenue Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	339	0	339	0	0	0	0	0	**428**	**1**	**429**	768
04:15 PM	0	0	0	0	0	**374**	0	**374**	0	0	0	0	0	399	0	399	**773**
04:30 PM	0	0	0	0	0	348	0	348	0	0	0	0	0	414	1	415	763
04:45 PM	0	0	0	0	0	370	0	370	0	0	0	0	**1**	376	1	378	748
Total Volume	0	0	0	0	0	1431	0	1431	0	0	0	0	1	1617	3	1621	3052
% App. Total	0	0	0		0	100	0		0	0	0		0.1	99.8	0.2		
PHF	.000	.000	.000	.000	.000	.957	.000	.957	.000	.000	.000	.000	.250	.945	.750	.945	.987

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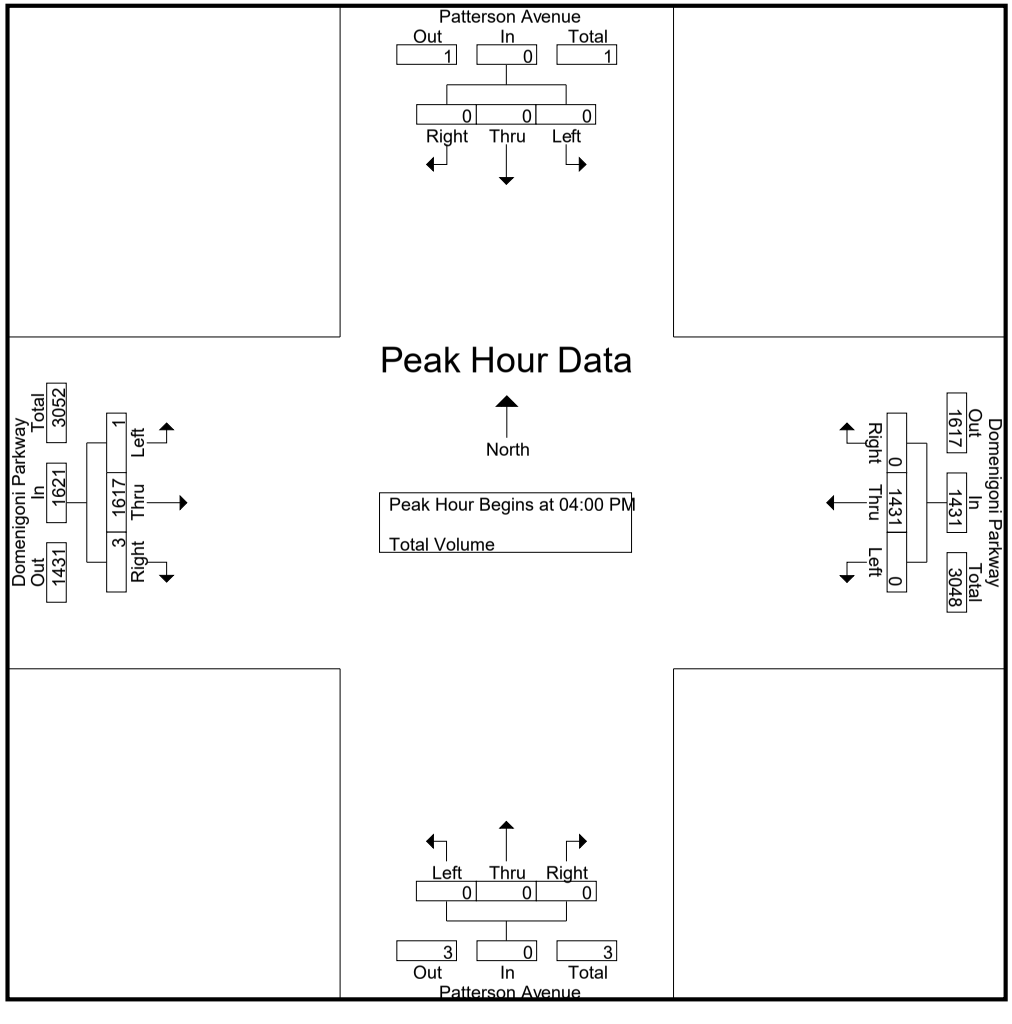
County of Riverside
N/S: Patterson Avenue
E/W: Domenigoni Parkway
Weather: Clear

File Name : 06_CRV_PA_DO PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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County of Riverside
N/S: Patterson Avenue
E/W: Domenigoni Parkway
Weather: Clear

File Name : 06_CRV_PA_DO PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Patterson Avenue Southbound				Domenigoni Parkway Westbound				Patterson Avenue Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:15 PM				05:00 PM				
+0 mins.	0	0	0	0	0	339	0	339	0	0	0	0	0	381	0	381	
+15 mins.	0	0	0	0	0	**374**	0	**374**	0	0	0	0	0	**446**	0	**446**	
+30 mins.	0	0	0	0	0	348	0	348	0	0	0	0	0	431	0	431	
+45 mins.	0	0	0	0	0	370	0	370	0	0	**1**	**1**	0	401	0	401	
Total Volume	0	0	0	0	0	1431	0	1431	0	0	1	1	0	1659	0	1659	
% App. Total	0	0	0		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.000	.000	.000	.957	.000	.957	.000	.000	.250	.250	.000	.930	.000	.930	

Location: County of Riverside
N/S: Patterson Avenue
E/W: Domenigoni Parkway

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Patterson Avenue	East Leg Domenigoni Parkway	South Leg Patterson Avenue	West Leg Domenigoni Parkway	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Patterson Avenue	East Leg Domenigoni Parkway	South Leg Patterson Avenue	West Leg Domenigoni Parkway	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: County of Riverside
N/S: Patterson Avenue
E/W: Domenigoni Parkway

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Patterson Avenue	East Leg Domenigoni Parkway	South Leg Patterson Avenue	West Leg Domenigoni Parkway	TOTAL
7:00 AM	0	0	1	0	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	4	0	0	0	4
TOTAL VOLUMES:	5	0	1	0	6

	North Leg Patterson Avenue	East Leg Domenigoni Parkway	South Leg Patterson Avenue	West Leg Domenigoni Parkway	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	1	0	1
TOTAL VOLUMES:	0	0	1	0	1

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County of Riverside
N/S: El Callado Road/Remington Way
E/W: East Grand Avenue
Weather: Clear

File Name : 07_CRV_EL_GR AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	El Callado Road Southbound					East Grand Avenue Westbound					Remington Way Northbound					East Grand Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1
Grand Total	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	3	3
Apprch %	0	0	100			0	0	0			0	0	0			100	0	0					
Total %	0	0	33.3		33.3	0	0	0		0	0	0	0		0	66.7	0	0		66.7	0	100	

	El Callado Road Southbound				East Grand Avenue Westbound				Remington Way Northbound				East Grand Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**	**1**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	2
% App. Total	0	0	100		0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.500

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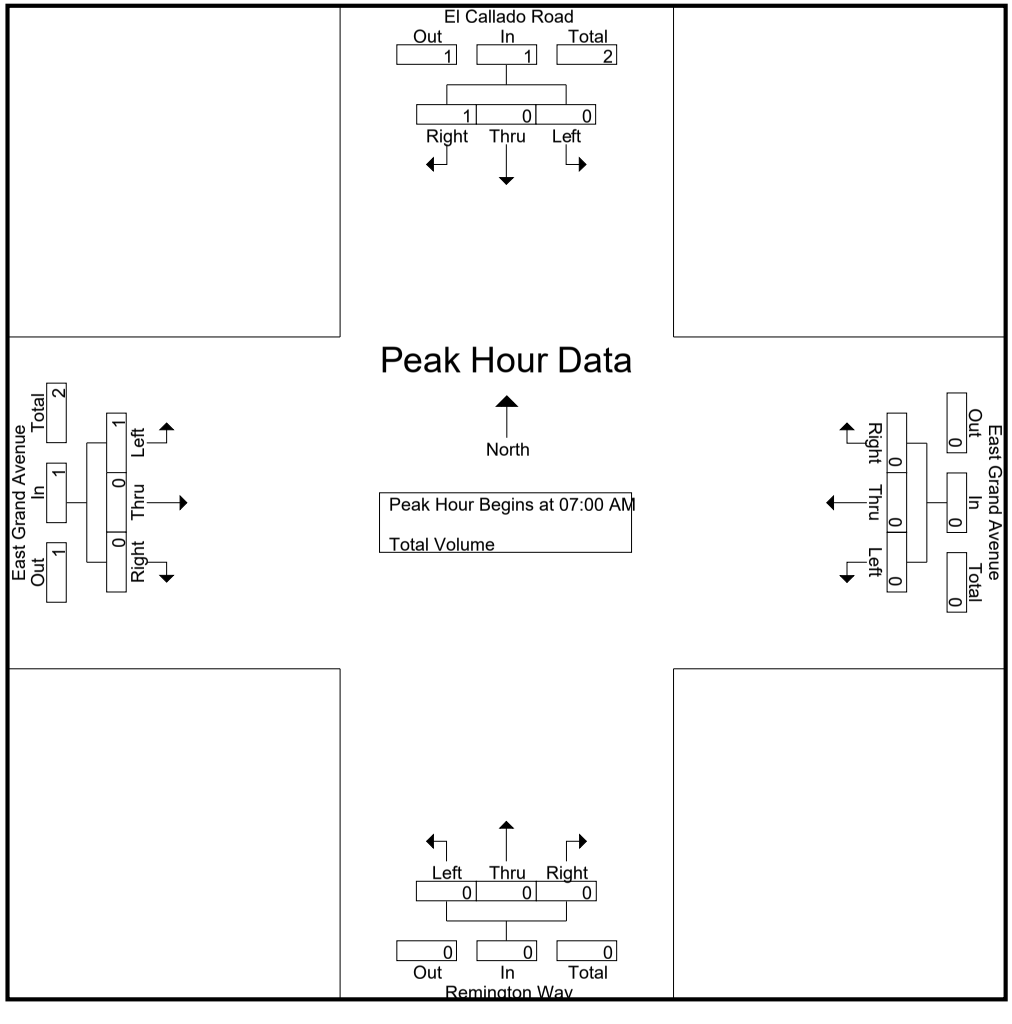
County of Riverside
N/S: El Callado Road/Remington Way
E/W: East Grand Avenue
Weather: Clear

File Name : 07_CRV_EL_GR AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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County of Riverside
N/S: El Callado Road/Remington Way
E/W: East Grand Avenue
Weather: Clear

File Name : 07_CRV_EL_GR AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	El Callado Road Southbound				East Grand Avenue Westbound				Remington Way Northbound				East Grand Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	
% App. Total	0	0	100		0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	

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County of Riverside
N/S: El Callado Road/Remington Way
E/W: East Grand Avenue
Weather: Clear

File Name : 07_CRV_EL_GR PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	El Callado Road Southbound					East Grand Avenue Westbound					Remington Way Northbound					East Grand Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	3	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	4	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1
Grand Total	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	5	5
Apprch %	0	0	100			0	0	0			0	0	0			75	25	0					
Total %	0	0	20		20	0	0	0		0	0	0	0		0	60	20	0		80	0	100	

	El Callado Road Southbound				East Grand Avenue Westbound				Remington Way Northbound				East Grand Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	**1**	**1**	0	0	0	0	0	0	0	0	**1**	**1**	0	**2**	**3**
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	1	1	0	0	0	0	0	0	0	0	2	1	0	3	4
% App. Total	0	0	100		0	0	0		0	0	0		66.7	33.3	0		
PHF	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.500	.250	.000	.375	.333

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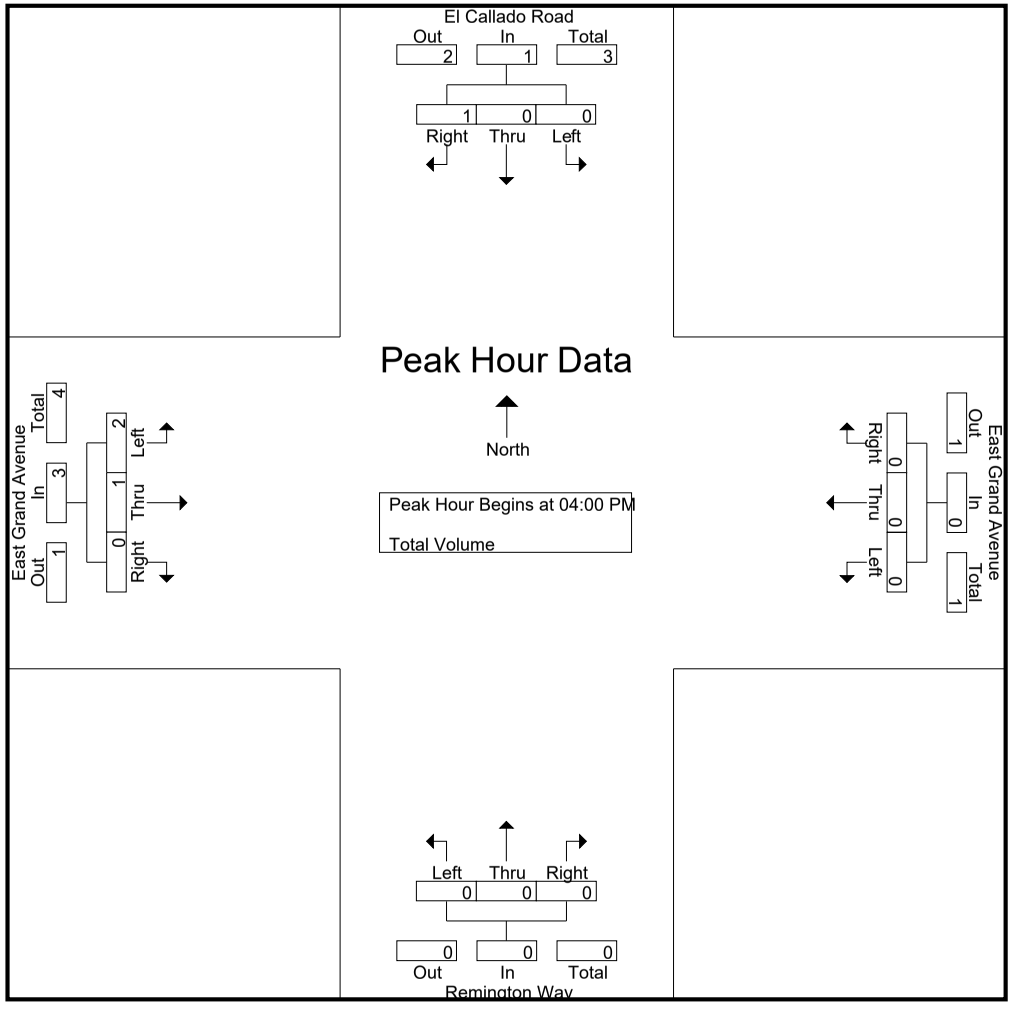
County of Riverside
N/S: El Callado Road/Remington Way
E/W: East Grand Avenue
Weather: Clear

File Name : 07_CRV_EL_GR PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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County of Riverside
N/S: El Callado Road/Remington Way
E/W: East Grand Avenue
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File Name : 07_CRV_EL_GR PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	El Callado Road Southbound				East Grand Avenue Westbound				Remington Way Northbound				East Grand Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:00 PM				04:00 PM				
+0 mins.	0	0	**1**	**1**	0	0	0	0	0	0	0	0	**1**	**1**	0	**2**	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	1	1	0	0	0	0	0	0	0	0	2	1	0	3	
% App. Total	0	0	100		0	0	0		0	0	0		66.7	33.3	0		
PHF	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.500	.250	.000	.375	

Location: County of Riverside
N/S: El Callado Road/Remington Way
E/W: East Grand Avenue

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg El Callado Road	East Leg East Grand Avenue	South Leg Remington Way	West Leg Dead End	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg El Callado Road	East Leg East Grand Avenue	South Leg Remington Way	West Leg Dead End	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Riverside
N/S: El Callado Road/Remington Way
E/W: East Grand Avenue

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg El Callado Road	East Leg East Grand Avenue	South Leg Remington Way	West Leg Dead End	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	1	1
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	1

	North Leg El Callado Road	East Leg East Grand Avenue	South Leg Remington Way	West Leg Dead End	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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County of Riverside
N/S: California Avenue
E/W: Stowe Road
Weather: Clear

File Name : 08_CRV_CA_ST AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	California Avenue Southbound				California Avenue Northbound				Stowe Road Eastbound						
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	23	0	24	0	0	0	0	19	0	0	19	0	43	43
07:15 AM	2	34	0	36	2	2	0	4	18	0	0	18	0	58	58
07:30 AM	1	17	0	18	0	1	0	1	21	0	0	21	0	40	40
07:45 AM	0	23	0	23	1	0	0	1	25	0	0	25	0	49	49
Total	4	97	0	101	3	3	0	6	83	0	0	83	0	190	190
08:00 AM	0	19	0	19	1	3	0	4	18	0	0	18	0	41	41
08:15 AM	0	12	0	12	0	0	0	0	15	0	0	15	0	27	27
08:30 AM	1	16	0	17	0	2	0	2	21	1	0	22	0	41	41
08:45 AM	1	19	0	20	0	6	0	6	19	1	0	20	0	46	46
Total	2	66	0	68	1	11	0	12	73	2	0	75	0	155	155
Grand Total	6	163	0	169	4	14	0	18	156	2	0	158	0	345	345
Apprch %	3.6	96.4			22.2	77.8			98.7	1.3					
Total %	1.7	47.2		49	1.2	4.1		5.2	45.2	0.6		45.8	0	100	

	California Avenue Southbound			California Avenue Northbound			Stowe Road Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	23	24	0	0	0	19	0	19	43
07:15 AM	**2**	**34**	**36**	**2**	**2**	**4**	18	0	18	**58**
07:30 AM	1	17	18	0	1	1	21	0	21	40
07:45 AM	0	23	23	1	0	1	**25**	0	**25**	49
Total Volume	4	97	101	3	3	6	83	0	83	190
% App. Total	4	96		50	50		100	0		
PHF	.500	.713	.701	.375	.375	.375	.830	.000	.830	.819

Counts Unlimited
PO Box 1178
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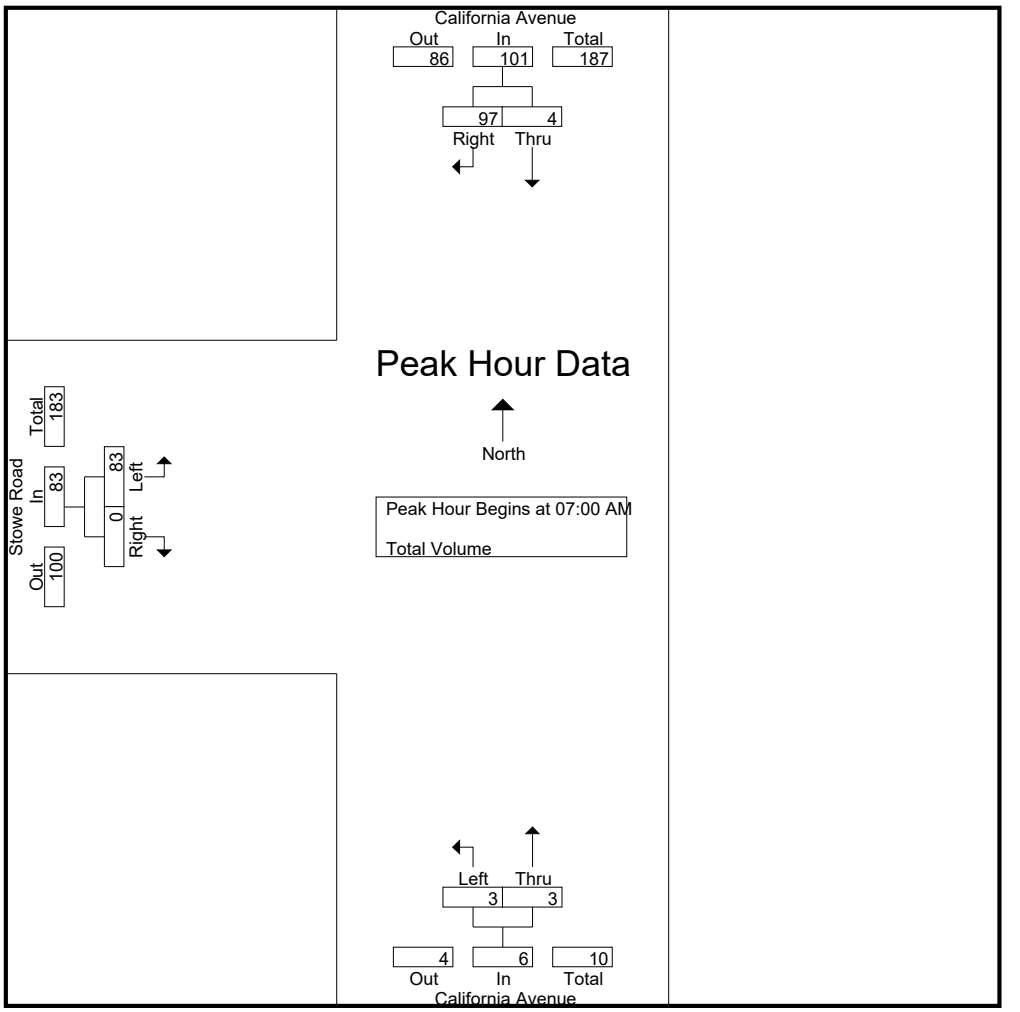
(951) 268-6268

County of Riverside
N/S: California Avenue
E/W: Stowe Road
Weather: Clear

File Name : 08_CRV_CA_ST AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			08:00 AM			07:00 AM		
+0 mins.	1	23	24	**1**	3	4	19	0	19
+15 mins.	**2**	**34**	**36**	0	0	0	18	0	18
+30 mins.	1	17	18	0	2	2	21	0	21
+45 mins.	0	23	23	0	**6**	**6**	**25**	0	**25**
Total Volume	4	97	101	1	11	12	83	0	83
% App. Total	4	96		8.3	91.7		100	0	
PHF	.500	.713	.701	.250	.458	.500	.830	.000	.830

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County of Riverside
N/S: California Avenue
E/W: Stowe Road
Weather: Clear

File Name : 08_CRV_CA_ST PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	California Avenue Southbound				California Avenue Northbound				Stowe Road Eastbound						
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	3	14	0	17	1	0	0	1	27	0	0	27	0	45	45
04:15 PM	1	13	0	14	1	3	0	4	31	2	0	33	0	51	51
04:30 PM	3	33	0	36	0	3	0	3	29	2	0	31	0	70	70
04:45 PM	3	21	0	24	1	3	0	4	32	1	0	33	0	61	61
Total	10	81	0	91	3	9	0	12	119	5	0	124	0	227	227
05:00 PM	2	23	0	25	0	0	0	0	27	0	0	27	0	52	52
05:15 PM	3	19	0	22	1	1	0	2	26	1	0	27	0	51	51
05:30 PM	1	14	0	15	0	1	0	1	29	3	0	32	0	48	48
05:45 PM	0	19	0	19	0	2	0	2	16	0	0	16	0	37	37
Total	6	75	0	81	1	4	0	5	98	4	0	102	0	188	188
Grand Total	16	156	0	172	4	13	0	17	217	9	0	226	0	415	415
Apprch %	9.3	90.7			23.5	76.5			96	4					
Total %	3.9	37.6		41.4	1	3.1		4.1	52.3	2.2		54.5	0	100	

	California Avenue Southbound			California Avenue Northbound			Stowe Road Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	1	13	14	**1**	**3**	**4**	31	**2**	**33**	51
04:30 PM	**3**	**33**	**36**	0	3	3	29	2	31	**70**
04:45 PM	3	21	24	1	3	4	**32**	1	33	61
05:00 PM	2	23	25	0	0	0	27	0	27	52
Total Volume	9	90	99	2	9	11	119	5	124	234
% App. Total	9.1	90.9		18.2	81.8		96	4		
PHF	.750	.682	.688	.500	.750	.688	.930	.625	.939	.836

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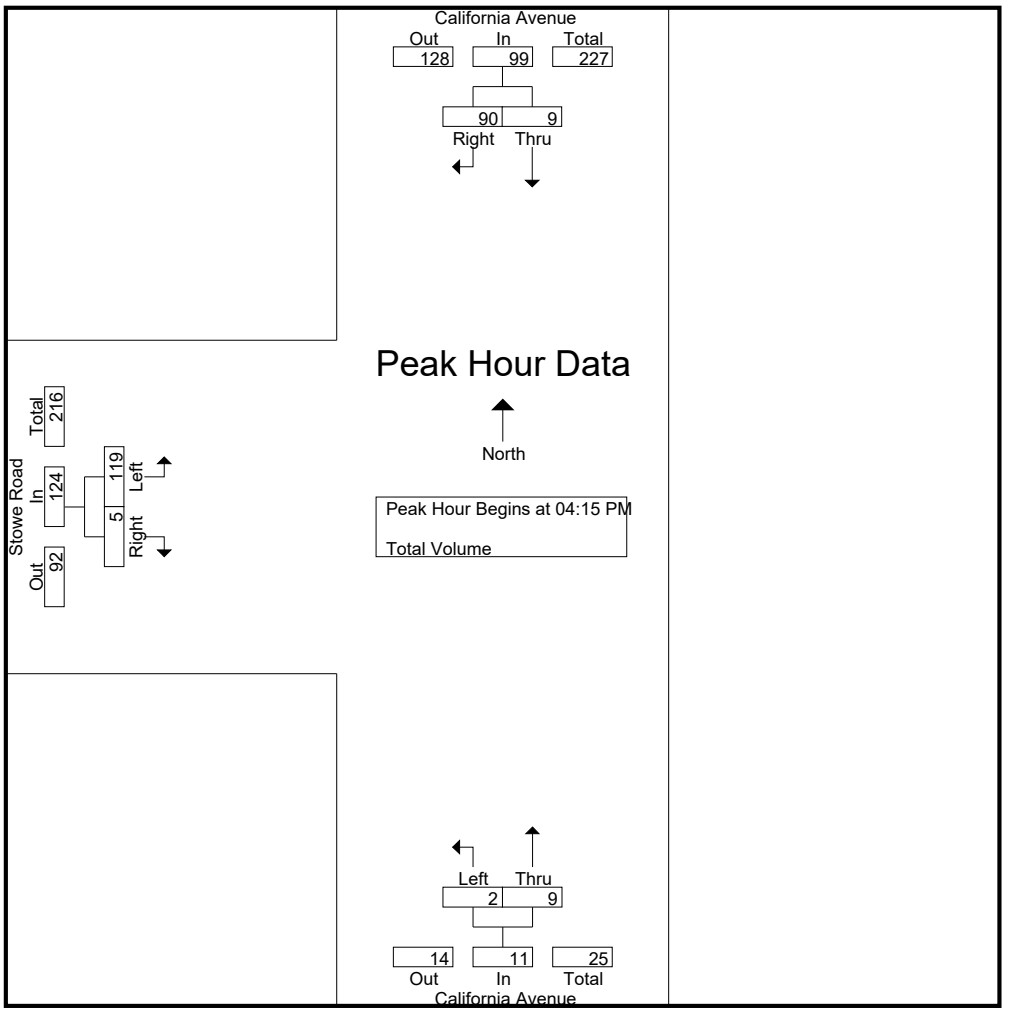
County of Riverside
N/S: California Avenue
E/W: Stowe Road
Weather: Clear

File Name : 08_CRV_CA_ST PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:00 PM			04:00 PM		
+0 mins.	**3**	**33**	**36**	**1**	0	1	27	0	27
+15 mins.	3	21	24	1	**3**	**4**	31	**2**	**33**
+30 mins.	2	23	25	0	3	3	29	2	31
+45 mins.	3	19	22	1	3	4	**32**	1	33
Total Volume	11	96	107	3	9	12	119	5	124
% App. Total	10.3	89.7		25	75		96	4	
PHF	.917	.727	.743	.750	.750	.750	.930	.625	.939

Location: County of Riverside
N/S: California Avenue
E/W: Stowe Road

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg California Avenue	East Leg Dead End	South Leg California Avenue	West Leg Stowe Road	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg California Avenue	East Leg Dead End	South Leg California Avenue	West Leg Stowe Road	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: County of Riverside
N/S: California Avenue
E/W: Stowe Road

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg California Avenue	East Leg Dead End	South Leg California Avenue	West Leg Stowe Road	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg California Avenue	East Leg Dead End	South Leg California Avenue	West Leg Stowe Road	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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County of Riverside
N/S: California Avenue
E/W: Marvin Hull Road
Weather: Clear

File Name : 09_CRV_CA_MU AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	California Avenue Southbound				California Avenue Northbound				Marvin Hull Road Eastbound						
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	0	1	0	1	0	1	0	0	0	0	0	2	2
07:15 AM	1	0	0	1	0	0	0	0	1	0	0	1	0	2	2
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	1	0	3	0	1	0	1	1	0	0	1	0	5	5
08:00 AM	0	0	0	0	0	3	0	3	1	0	0	1	0	4	4
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	2	0	0	2	0	1	0	1	0	0	0	0	0	3	3
08:45 AM	2	0	0	2	0	5	0	5	1	0	0	1	0	8	8
Total	4	0	0	4	0	9	0	9	2	0	0	2	0	15	15
Grand Total	6	1	0	7	0	10	0	10	3	0	0	3	0	20	20
Apprch %	85.7	14.3			0	100			100	0					
Total %	30	5		35	0	50		50	15	0		15	0	100	

	California Avenue Southbound			California Avenue Northbound			Marvin Hull Road Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	0	0	0	0	3	3	**1**	0	**1**	4
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	**2**	0	**2**	0	1	1	0	0	0	3
08:45 AM	2	0	2	0	**5**	**5**	1	0	1	**8**
Total Volume	4	0	4	0	9	9	2	0	2	15
% App. Total	100	0		0	100		100	0		
PHF	.500	.000	.500	.000	.450	.450	.500	.000	.500	.469

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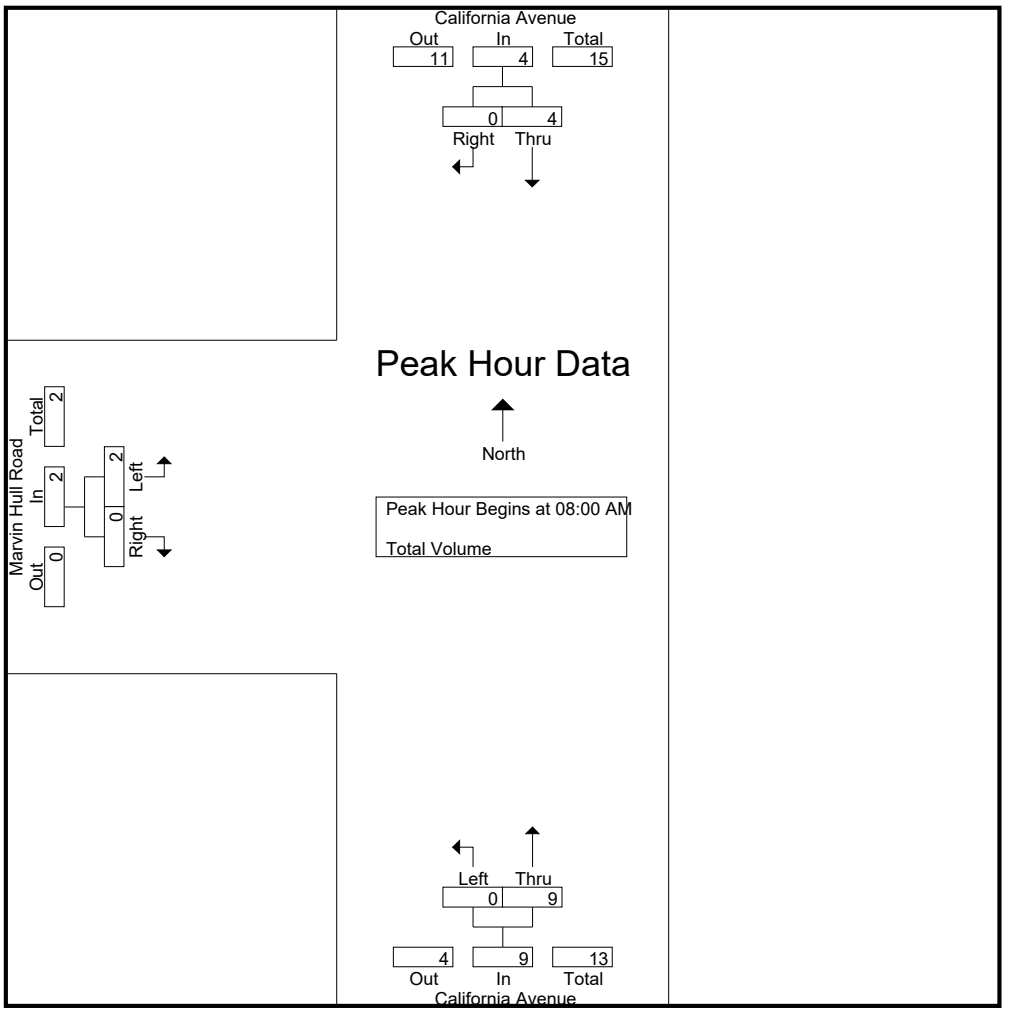
County of Riverside
N/S: California Avenue
E/W: Marvin Hull Road
Weather: Clear

File Name : 09_CRV_CA_MU AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			08:00 AM			07:15 AM		
+0 mins.	0	0	0	0	3	3	**1**	0	**1**
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	**2**	0	**2**	0	1	1	0	0	0
+45 mins.	2	0	2	0	**5**	**5**	1	0	1
Total Volume	4	0	4	0	9	9	2	0	2
% App. Total	100	0		0	100		100	0	
PHF	.500	.000	.500	.000	.450	.450	.500	.000	.500

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County of Riverside
N/S: California Avenue
E/W: Marvin Hull Road
Weather: Clear

File Name : 09_CRV_CA_MU PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	California Avenue Southbound				California Avenue Northbound				Marvin Hull Road Eastbound						
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	2	0	3	0	0	0	0	1	0	0	1	0	4	4
04:15 PM	1	0	0	1	0	1	0	1	3	0	0	3	0	5	5
04:30 PM	5	0	0	5	0	2	0	2	0	0	0	0	0	7	7
04:45 PM	3	1	0	4	1	3	0	4	2	0	0	2	0	10	10
Total	10	3	0	13	1	6	0	7	6	0	0	6	0	26	26
05:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1
05:15 PM	2	1	0	3	0	2	0	2	0	0	0	0	0	5	5
05:30 PM	3	0	0	3	0	1	0	1	0	0	0	0	0	4	4
05:45 PM	1	0	0	1	0	1	0	1	0	0	0	0	0	2	2
Total	7	1	0	8	0	4	0	4	0	0	0	0	0	12	12
Grand Total	17	4	0	21	1	10	0	11	6	0	0	6	0	38	38
Apprch %	81	19			9.1	90.9			100	0					
Total %	44.7	10.5		55.3	2.6	26.3		28.9	15.8	0		15.8	0	100	

	California Avenue Southbound			California Avenue Northbound			Marvin Hull Road Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	1	**2**	3	0	0	0	1	0	1	4
04:15 PM	1	0	1	0	1	1	**3**	0	**3**	5
04:30 PM	**5**	0	**5**	0	2	2	0	0	0	7
04:45 PM	3	1	4	**1**	**3**	**4**	2	0	2	**10**
Total Volume	10	3	13	1	6	7	6	0	6	26
% App. Total	76.9	23.1		14.3	85.7		100	0		
PHF	.500	.375	.650	.250	.500	.438	.500	.000	.500	.650

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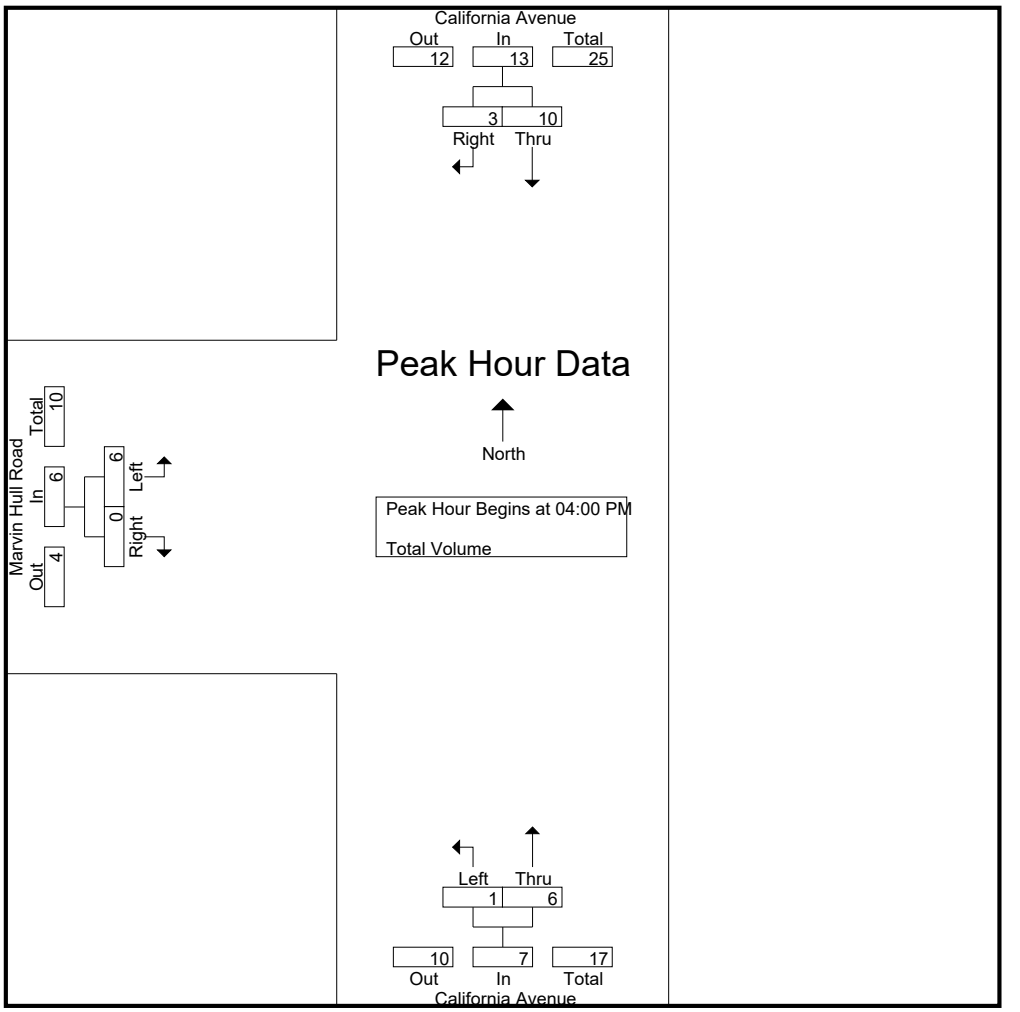
County of Riverside
N/S: California Avenue
E/W: Marvin Hull Road
Weather: Clear

File Name : 09_CRV_CA_MU PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:30 PM			04:00 PM		
+0 mins.	1	**2**	3	0	2	2	1	0	1
+15 mins.	1	0	1	**1**	**3**	**4**	**3**	0	**3**
+30 mins.	**5**	0	**5**	0	0	0	0	0	0
+45 mins.	3	1	4	0	2	2	2	0	2
Total Volume	10	3	13	1	7	8	6	0	6
% App. Total	76.9	23.1		12.5	87.5		100	0	
PHF	.500	.375	.650	.250	.583	.500	.500	.000	.500

Location: County of Riverside
N/S: California Road
E/W: Marvin Hull Road

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg California Road	East Leg Marvin Hull Road	South Leg California Road	West Leg Dead End	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg California Road	East Leg Marvin Hull Road	South Leg California Road	West Leg Dead End	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited
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Location: County of Riverside
N/S: California Road
E/W: Marvin Hull Road

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg California Road	East Leg Marvin Hull Road	South Leg California Road	West Leg Dead End	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	1	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	1

	North Leg California Road	East Leg Marvin Hull Road	South Leg California Road	West Leg Dead End	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Counts Unlimited
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County of Riverside
N/S: California Avenue
E/W: Simpson Road
Weather: Clear

File Name : 10_CRV_CA_SI AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	California Avenue Southbound					Simpson Road Westbound					California Avenue Northbound					Simpson Road Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	33	0	0	33	0	0	0	0	0	0	28	0	0	28	0	61	61
07:15 AM	1	0	1	0	2	0	47	0	0	47	1	0	0	0	1	0	39	0	0	39	0	89	89
07:30 AM	0	0	1	0	1	0	53	1	0	54	0	0	0	0	0	0	45	0	0	45	0	100	100
07:45 AM	0	0	0	0	0	0	43	0	0	43	0	0	0	0	0	1	32	0	0	33	0	76	76
Total	1	0	2	0	3	0	176	1	0	177	1	0	0	0	1	1	144	0	0	145	0	326	326
08:00 AM	1	1	2	0	4	0	48	0	0	48	1	1	0	0	2	1	43	0	0	44	0	98	98
08:15 AM	1	0	0	0	1	0	31	0	0	31	0	0	0	0	0	1	35	0	0	36	0	68	68
08:30 AM	0	0	0	0	0	0	28	2	0	30	1	0	0	0	1	0	33	0	0	33	0	64	64
08:45 AM	0	0	0	0	0	0	20	0	0	20	2	1	0	0	3	0	18	1	0	19	0	42	42
Total	2	1	2	0	5	0	127	2	0	129	4	2	0	0	6	2	129	1	0	132	0	272	272
Grand Total	3	1	4	0	8	0	303	3	0	306	5	2	0	0	7	3	273	1	0	277	0	598	598
Apprch %	37.5	12.5	50			0	99	1			71.4	28.6	0			1.1	98.6	0.4					
Total %	0.5	0.2	0.7		1.3	0	50.7	0.5		51.2	0.8	0.3	0		1.2	0.5	45.7	0.2		46.3	0	100	

	California Avenue Southbound				Simpson Road Westbound				California Avenue Northbound				Simpson Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**1**	0	1	2	0	47	0	47	**1**	0	0	1	0	39	0	39	89
07:30 AM	0	0	1	1	0	**53**	**1**	**54**	0	0	0	0	0	**45**	0	**45**	**100**
07:45 AM	0	0	0	0	0	43	0	43	0	0	0	0	**1**	32	0	33	76
08:00 AM	1	**1**	**2**	**4**	0	48	0	48	1	**1**	0	**2**	1	43	0	44	98
Total Volume	2	1	4	7	0	191	1	192	2	1	0	3	2	159	0	161	363
% App. Total	28.6	14.3	57.1		0	99.5	0.5		66.7	33.3	0		1.2	98.8	0		
PHF	.500	.250	.500	.438	.000	.901	.250	.889	.500	.250	.000	.375	.500	.883	.000	.894	.908

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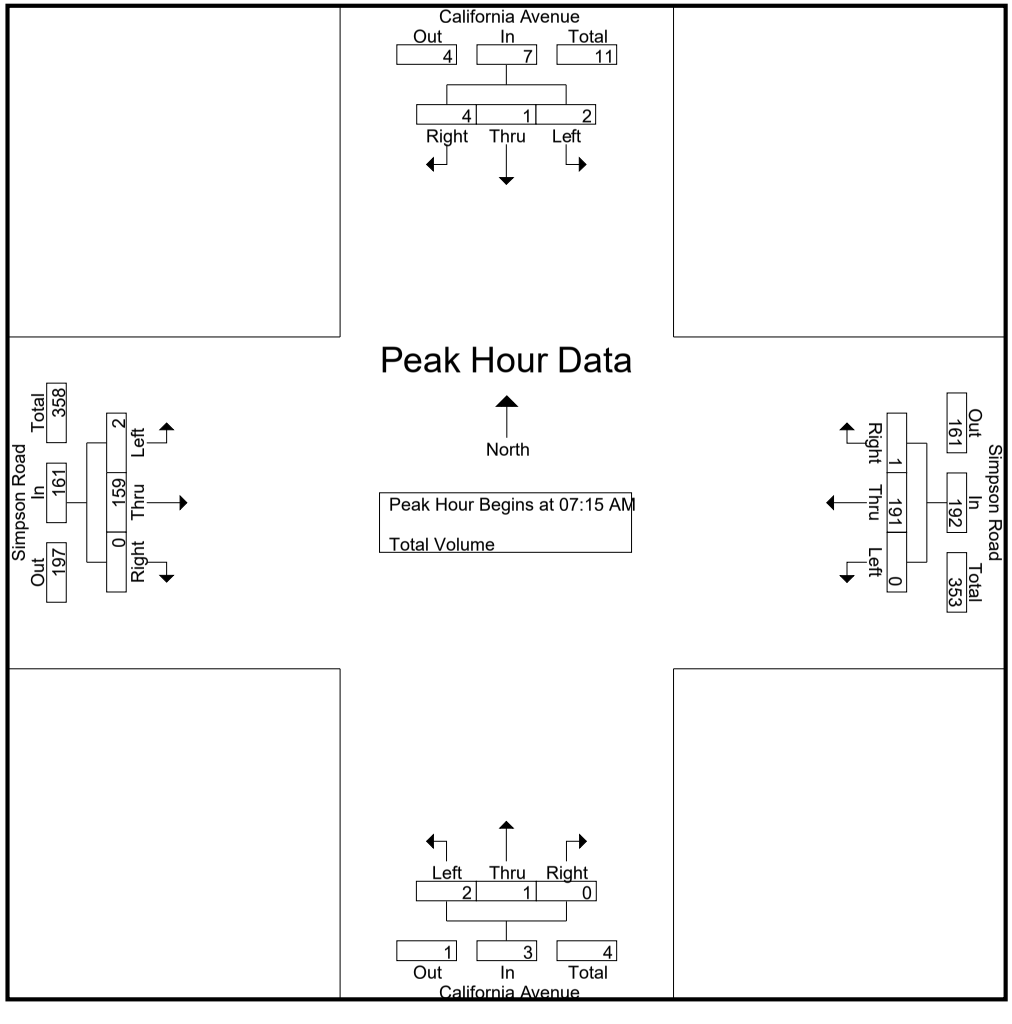
County of Riverside
N/S: California Avenue
E/W: Simpson Road
Weather: Clear

File Name : 10_CRV_CA_SI AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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	California Avenue Southbound				Simpson Road Westbound				California Avenue Northbound				Simpson Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				08:00 AM				07:15 AM				
+0 mins.	**1**	0	1	2	0	47	0	47	1	**1**	0	2	0	39	0	39	
+15 mins.	0	0	1	1	0	**53**	**1**	**54**	0	0	0	0	0	**45**	0	**45**	
+30 mins.	0	0	0	0	0	43	0	43	1	0	0	1	**1**	32	0	33	
+45 mins.	1	**1**	**2**	**4**	0	48	0	48	**2**	1	0	**3**	1	43	0	44	
Total Volume	2	1	4	7	0	191	1	192	4	2	0	6	2	159	0	161	
% App. Total	28.6	14.3	57.1		0	99.5	0.5		66.7	33.3	0		1.2	98.8	0		
PHF	.500	.250	.500	.438	.000	.901	.250	.889	.500	.500	.000	.500	.500	.883	.000	.894	

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Groups Printed- Total Volume

	California Avenue Southbound					Simpson Road Westbound					California Avenue Northbound					Simpson Road Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	0	0	1	0	43	1	0	44	1	1	0	0	2	1	45	0	0	46	0	93	93
04:15 PM	0	0	2	0	2	0	28	0	0	28	0	0	1	0	1	0	44	0	0	44	0	75	75
04:30 PM	0	0	4	0	4	0	28	0	0	28	0	1	1	0	2	0	61	0	0	61	0	95	95
04:45 PM	0	0	1	0	1	0	29	0	0	29	1	0	0	0	1	1	47	1	0	49	0	80	80
Total	0	1	7	0	8	0	128	1	0	129	2	2	2	0	6	2	197	1	0	200	0	343	343
05:00 PM	0	0	1	0	1	0	35	0	0	35	0	1	1	0	2	0	49	0	0	49	0	87	87
05:15 PM	0	2	0	0	2	1	38	0	0	39	0	0	0	0	0	0	53	1	0	54	0	95	95
05:30 PM	1	0	0	0	1	1	45	0	0	46	0	0	1	0	1	1	55	0	0	56	0	104	104
05:45 PM	0	0	0	0	0	0	28	0	0	28	0	0	1	0	1	0	49	1	0	50	0	79	79
Total	1	2	1	0	4	2	146	0	0	148	0	1	3	0	4	1	206	2	0	209	0	365	365
Grand Total	1	3	8	0	12	2	274	1	0	277	2	3	5	0	10	3	403	3	0	409	0	708	708
Apprch %	8.3	25	66.7			0.7	98.9	0.4			20	30	50			0.7	98.5	0.7					
Total %	0.1	0.4	1.1		1.7	0.3	38.7	0.1		39.1	0.3	0.4	0.7		1.4	0.4	56.9	0.4		57.8	0	100	

	California Avenue Southbound				Simpson Road Westbound				California Avenue Northbound				Simpson Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	**1**	1	0	29	0	29	**1**	0	0	1	**1**	47	**1**	49	80
05:00 PM	0	0	1	1	0	35	0	35	0	**1**	**1**	**2**	0	49	0	49	87
05:15 PM	0	**2**	0	**2**	**1**	38	0	39	0	0	0	0	0	53	1	54	95
05:30 PM	**1**	0	0	1	1	**45**	0	**46**	0	0	1	1	1	**55**	0	**56**	**104**
Total Volume	1	2	2	5	2	147	0	149	1	1	2	4	2	204	2	208	366
% App. Total	20	40	40		1.3	98.7	0		25	25	50		1	98.1	1		
PHF	.250	.250	.500	.625	.500	.817	.000	.810	.250	.250	.500	.500	.500	.927	.500	.929	.880

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E/W: Simpson Road
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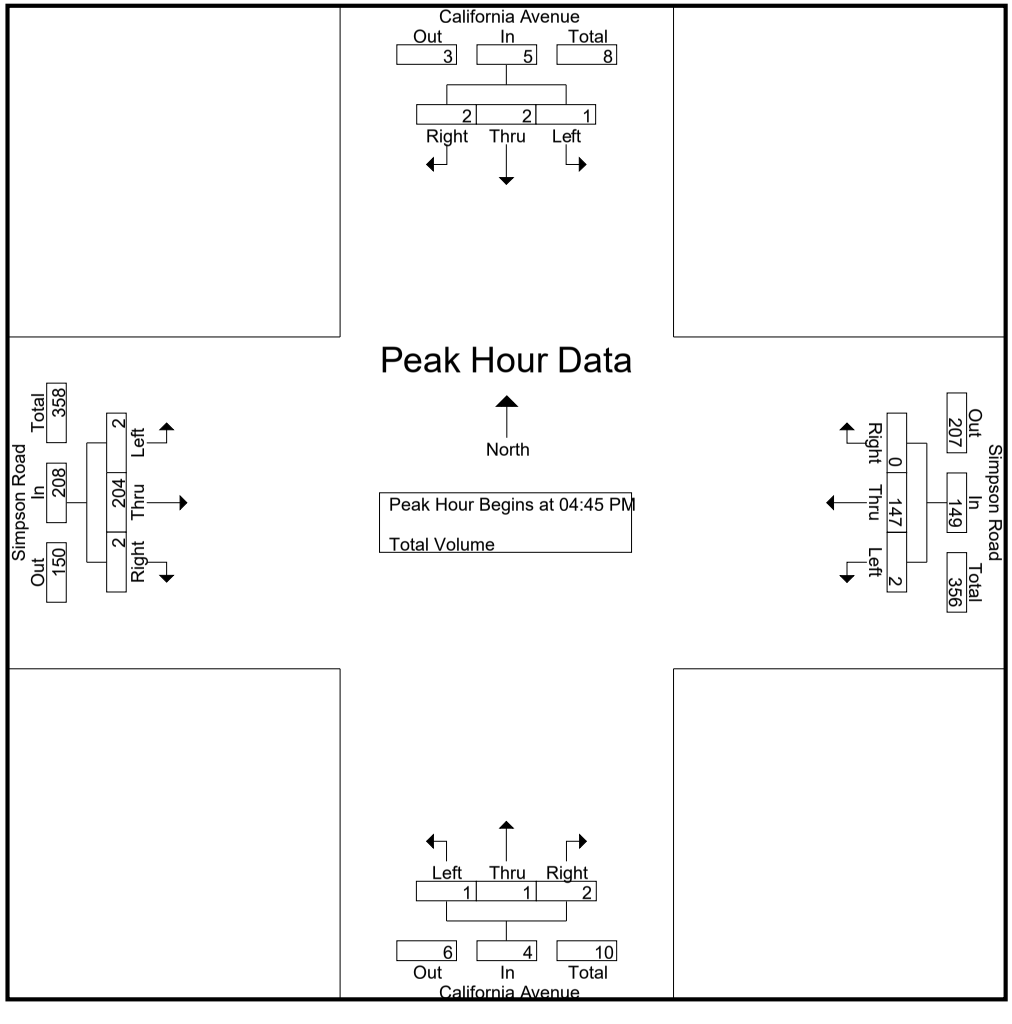
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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	California Avenue Southbound				Simpson Road Westbound				California Avenue Northbound				Simpson Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:45 PM				04:00 PM				04:30 PM				
+0 mins.	0	**1**	0	1	0	29	0	29	**1**	**1**	0	**2**	0	**61**	0	**61**	
+15 mins.	0	0	2	2	0	35	0	35	0	0	**1**	1	**1**	47	**1**	49	
+30 mins.	0	0	**4**	**4**	**1**	38	0	39	0	1	1	2	0	49	0	49	
+45 mins.	0	0	1	1	1	**45**	0	**46**	1	0	0	1	0	53	1	54	
Total Volume	0	1	7	8	2	147	0	149	2	2	2	6	1	210	2	213	
% App. Total	0	12.5	87.5		1.3	98.7	0		33.3	33.3	33.3		0.5	98.6	0.9		
PHF	.000	.250	.438	.500	.500	.817	.000	.810	.500	.500	.500	.750	.250	.861	.500	.873	

Location: County of Riverside
N/S: California Road
E/W: Simpson Road

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg California Road	East Leg Simpson Road	South Leg California Road	West Leg Simpson Road	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg California Road	East Leg Simpson Road	South Leg California Road	West Leg Simpson Road	TOTAL
4:00 PM	4	0	0	0	4
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	4	0	0	0	4

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Location: County of Riverside
N/S: California Road
E/W: Simpson Road

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg California Road	East Leg Simpson Road	South Leg California Road	West Leg Simpson Road	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg California Road	East Leg Simpson Road	South Leg California Road	West Leg Simpson Road	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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City of Hemet
N/S: Warren Road
E/W: Esplanade Avenue
Weather: Clear

File Name : 11_HEM_WA_ES AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound					Esplanade Avenue Westbound					Warren Road Northbound					Esplanade Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	8	74	1	0	83	42	4	15	0	61	0	106	22	0	128	6	6	1	0	13	0	285	285
07:15 AM	9	66	1	0	76	46	3	18	0	67	1	112	37	0	150	4	7	1	0	12	0	305	305
07:30 AM	5	72	3	0	80	40	1	9	0	50	1	121	50	0	172	9	8	0	0	17	0	319	319
07:45 AM	3	82	2	0	87	34	7	8	0	49	0	91	45	0	136	6	10	1	0	17	0	289	289
Total	25	294	7	0	326	162	15	50	0	227	2	430	154	0	586	25	31	3	0	59	0	1198	1198
08:00 AM	5	56	1	0	62	43	2	15	0	60	0	102	29	0	131	3	3	0	0	6	0	259	259
08:15 AM	4	59	1	0	64	35	3	11	0	49	1	83	32	0	116	1	2	0	0	3	0	232	232
08:30 AM	7	61	1	0	69	26	4	10	0	40	1	74	32	0	107	0	10	0	0	10	0	226	226
08:45 AM	8	68	1	0	77	34	4	5	0	43	0	79	34	0	113	1	3	0	0	4	0	237	237
Total	24	244	4	0	272	138	13	41	0	192	2	338	127	0	467	5	18	0	0	23	0	954	954
Grand Total	49	538	11	0	598	300	28	91	0	419	4	768	281	0	1053	30	49	3	0	82	0	2152	2152
Apprch %	8.2	90	1.8			71.6	6.7	21.7			0.4	72.9	26.7			36.6	59.8	3.7					
Total %	2.3	25	0.5		27.8	13.9	1.3	4.2		19.5	0.2	35.7	13.1		48.9	1.4	2.3	0.1		3.8	0	100	

	Warren Road Southbound				Esplanade Avenue Westbound				Warren Road Northbound				Esplanade Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	8	74	1	83	42	4	15	61	0	106	22	128	6	6	**1**	13	285
07:15 AM	**9**	66	1	76	**46**	3	**18**	**67**	**1**	112	37	150	4	7	1	12	305
07:30 AM	5	72	**3**	80	40	1	9	50	1	**121**	**50**	**172**	**9**	8	0	**17**	**319**
07:45 AM	3	**82**	2	**87**	34	**7**	8	49	0	91	45	136	6	**10**	1	17	289
Total Volume	25	294	7	326	162	15	50	227	2	430	154	586	25	31	3	59	1198
% App. Total	7.7	90.2	2.1		71.4	6.6	22		0.3	73.4	26.3		42.4	52.5	5.1		
PHF	.694	.896	.583	.937	.880	.536	.694	.847	.500	.888	.770	.852	.694	.775	.750	.868	.939

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City of Hemet
N/S: Warren Road
E/W: Esplanade Avenue
Weather: Clear

File Name : 11_HEM_WA_ES AM
Site Code : 05117481
Start Date : 8/10/2017
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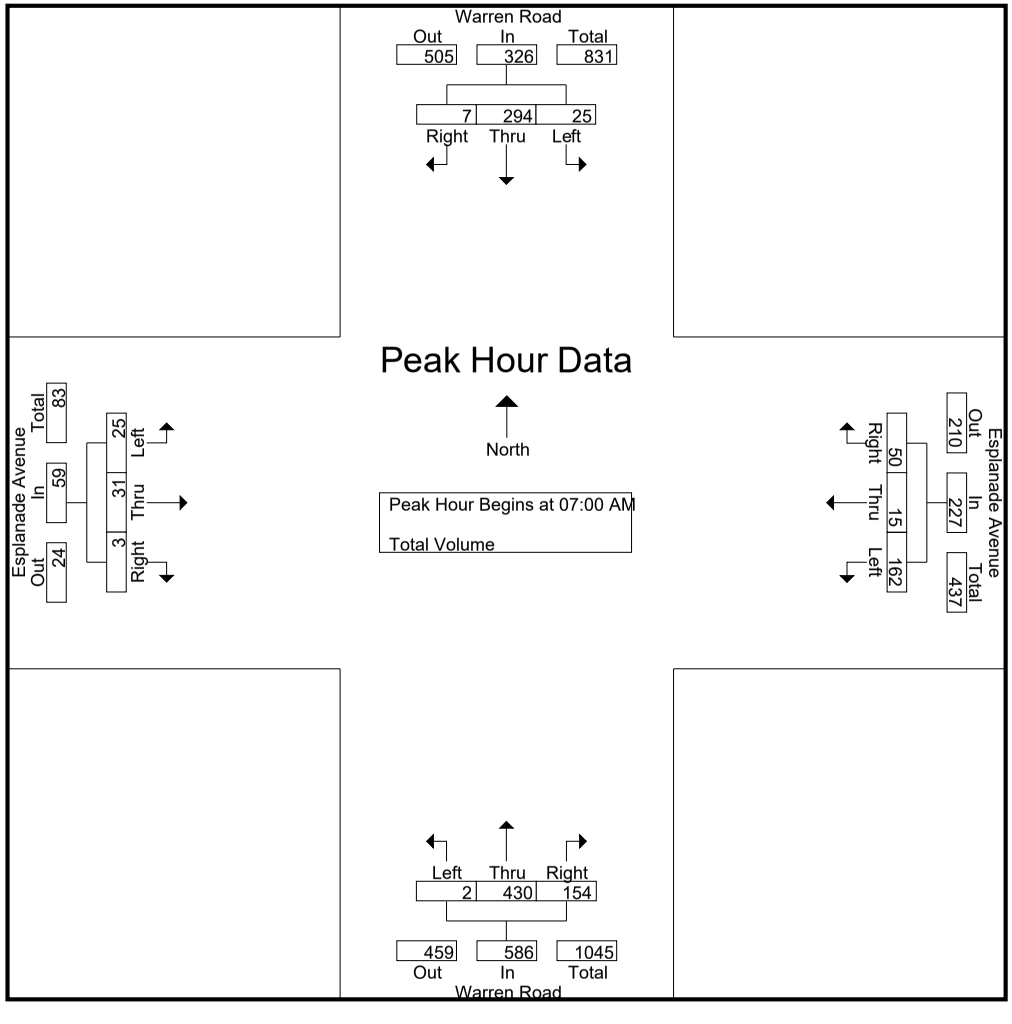

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	Warren Road Southbound				Esplanade Avenue Westbound				Warren Road Northbound				Esplanade Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:15 AM				07:00 AM				
+0 mins.	8	74	1	83	42	4	15	61	**1**	112	37	150	6	6	**1**	13	
+15 mins.	**9**	66	1	76	**46**	3	**18**	**67**	1	**121**	**50**	**172**	4	7	1	12	
+30 mins.	5	72	**3**	80	40	1	9	50	0	91	45	136	**9**	8	0	**17**	
+45 mins.	3	**82**	2	**87**	34	**7**	8	49	0	102	29	131	6	**10**	1	17	
Total Volume	25	294	7	326	162	15	50	227	2	426	161	589	25	31	3	59	
% App. Total	7.7	90.2	2.1		71.4	6.6	22		0.3	72.3	27.3		42.4	52.5	5.1		
PHF	.694	.896	.583	.937	.880	.536	.694	.847	.500	.880	.805	.856	.694	.775	.750	.868	

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Groups Printed- Total Volume

	Warren Road Southbound					Esplanade Avenue Westbound					Warren Road Northbound					Esplanade Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	32	84	14	0	130	27	15	7	0	49	0	107	46	0	153	6	4	0	0	10	0	342	342
04:15 PM	19	83	9	0	111	24	13	15	0	52	0	98	46	0	144	2	6	0	0	8	0	315	315
04:30 PM	23	101	11	0	135	24	10	9	0	43	1	97	34	0	132	3	1	1	0	5	0	315	315
04:45 PM	18	103	9	0	130	13	8	10	0	31	0	111	40	0	151	4	7	0	0	11	0	323	323
Total	92	371	43	0	506	88	46	41	0	175	1	413	166	0	580	15	18	1	0	34	0	1295	1295
05:00 PM	22	97	10	0	129	28	17	9	0	54	0	99	35	0	134	2	5	0	0	7	0	324	324
05:15 PM	19	100	7	0	126	25	5	12	0	42	0	99	49	0	148	6	6	1	0	13	0	329	329
05:30 PM	18	92	15	0	125	32	9	5	0	46	0	104	43	0	147	2	7	0	0	9	0	327	327
05:45 PM	23	104	5	0	132	22	2	6	0	30	1	98	52	0	151	1	2	0	0	3	0	316	316
Total	82	393	37	0	512	107	33	32	0	172	1	400	179	0	580	11	20	1	0	32	0	1296	1296
Grand Total	174	764	80	0	1018	195	79	73	0	347	2	813	345	0	1160	26	38	2	0	66	0	2591	2591
Apprch %	17.1	75	7.9			56.2	22.8	21			0.2	70.1	29.7			39.4	57.6	3					
Total %	6.7	29.5	3.1		39.3	7.5	3	2.8		13.4	0.1	31.4	13.3		44.8	1	1.5	0.1		2.5	0	100	

	Warren Road Southbound				Esplanade Avenue Westbound				Warren Road Northbound				Esplanade Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	18	**103**	9	**130**	13	8	10	31	0	**111**	40	**151**	4	**7**	0	11	323
05:00 PM	**22**	97	10	129	28	**17**	9	**54**	0	99	35	134	2	5	0	7	324
05:15 PM	19	100	7	126	25	5	**12**	42	0	99	**49**	148	**6**	6	**1**	**13**	**329**
05:30 PM	18	92	**15**	125	**32**	9	5	46	0	104	43	147	2	7	0	9	327
Total Volume	77	392	41	510	98	39	36	173	0	413	167	580	14	25	1	40	1303
% App. Total	15.1	76.9	8		56.6	22.5	20.8		0	71.2	28.8		35	62.5	2.5		
PHF	.875	.951	.683	.981	.766	.574	.750	.801	.000	.930	.852	.960	.583	.893	.250	.769	.990

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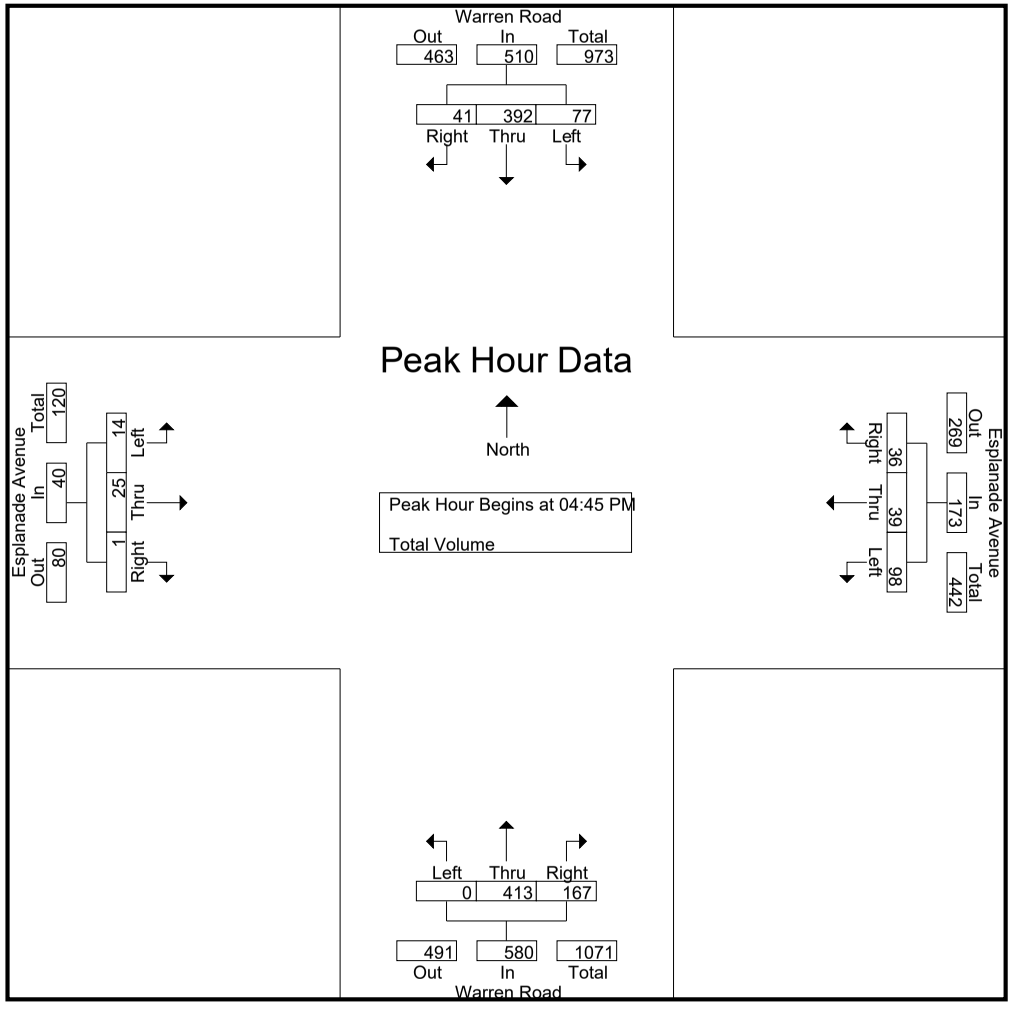
Start Date : 8/10/2017
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Hemet
N/S: Warren Road
E/W: Esplanade Avenue
Weather: Clear

File Name : 11_HEM_WA_ES PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Warren Road Southbound				Esplanade Avenue Westbound				Warren Road Northbound				Esplanade Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:15 PM				04:00 PM				04:45 PM				
+0 mins.	**23**	101	**11**	**135**	24	13	**15**	52	0	107	**46**	**153**	4	**7**	0	11	
+15 mins.	18	**103**	9	130	24	10	9	43	0	98	46	144	2	5	0	7	
+30 mins.	22	97	10	129	13	8	10	31	**1**	97	34	132	**6**	6	**1**	**13**	
+45 mins.	19	100	7	126	**28**	**17**	9	**54**	0	**111**	40	151	2	7	0	9	
Total Volume	82	401	37	520	89	48	43	180	1	413	166	580	14	25	1	40	
% App. Total	15.8	77.1	7.1		49.4	26.7	23.9		0.2	71.2	28.6		35	62.5	2.5		
PHF	.891	.973	.841	.963	.795	.706	.717	.833	.250	.930	.902	.948	.583	.893	.250	.769	

Location: City of Hemet
N/S: Warren Road
E/W: Esplanade Avenue

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Warren Road	East Leg Esplanade Avenue	South Leg Warren Road	West Leg Esplanade Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	1	1	0	2
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	1	1	0	2

	North Leg Warren Road	East Leg Esplanade Avenue	South Leg Warren Road	West Leg Esplanade Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: City of Hemet
N/S: Warren Road
E/W: Esplanade Avenue

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Warren Road	East Leg Esplanade Avenue	South Leg Warren Road	West Leg Esplanade Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	1	0	0	1
TOTAL VOLUMES:	0	1	0	0	1

	North Leg Warren Road	East Leg Esplanade Avenue	South Leg Warren Road	West Leg Esplanade Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Hemet
N/S: Warren Road
E/W: Devonshire Avenue
Weather: Clear

File Name : 12_HEM_WA_DE AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound					Devonshire Avenue Westbound					Warren Road Northbound					Devonshire Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	4	73	47	0	124	5	55	7	0	67	0	81	7	0	88	46	31	2	0	79	0	358	358
07:15 AM	4	71	36	0	111	8	46	7	0	61	1	103	2	0	106	49	44	4	0	97	0	375	375
07:30 AM	3	69	26	0	98	14	69	6	0	89	1	102	11	0	114	62	27	2	0	91	0	392	392
07:45 AM	8	86	27	0	121	16	42	7	0	65	2	78	4	0	84	43	29	2	0	74	0	344	344
Total	19	299	136	0	454	43	212	27	0	282	4	364	24	0	392	200	131	10	0	341	0	1469	1469
08:00 AM	2	86	18	0	106	10	49	8	0	67	0	78	11	0	89	34	28	0	0	62	0	324	324
08:15 AM	3	61	23	0	87	9	34	6	0	49	3	81	9	0	93	33	29	2	0	64	0	293	293
08:30 AM	3	61	29	0	93	8	42	2	0	52	3	75	4	0	82	40	45	5	0	90	0	317	317
08:45 AM	0	73	26	0	99	17	48	6	0	71	4	70	6	0	80	29	32	5	0	66	0	316	316
Total	8	281	96	0	385	44	173	22	0	239	10	304	30	0	344	136	134	12	0	282	0	1250	1250
Grand Total	27	580	232	0	839	87	385	49	0	521	14	668	54	0	736	336	265	22	0	623	0	2719	2719
Apprch %	3.2	69.1	27.7			16.7	73.9	9.4			1.9	90.8	7.3			53.9	42.5	3.5					
Total %	1	21.3	8.5		30.9	3.2	14.2	1.8		19.2	0.5	24.6	2		27.1	12.4	9.7	0.8		22.9	0	100	

	Warren Road Southbound				Devonshire Avenue Westbound				Warren Road Northbound				Devonshire Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	4	73	**47**	**124**	5	55	**7**	67	0	81	7	88	46	31	2	79	358
07:15 AM	4	71	36	111	8	46	7	61	1	**103**	2	106	49	**44**	**4**	**97**	375
07:30 AM	3	69	26	98	14	**69**	6	**89**	1	102	**11**	**114**	**62**	27	2	91	**392**
07:45 AM	**8**	**86**	27	121	**16**	42	7	65	**2**	78	4	84	43	29	2	74	344
Total Volume	19	299	136	454	43	212	27	282	4	364	24	392	200	131	10	341	1469
% App. Total	4.2	65.9	30		15.2	75.2	9.6		1	92.9	6.1		58.7	38.4	2.9		
PHF	.594	.869	.723	.915	.672	.768	.964	.792	.500	.883	.545	.860	.806	.744	.625	.879	.937

Counts Unlimited
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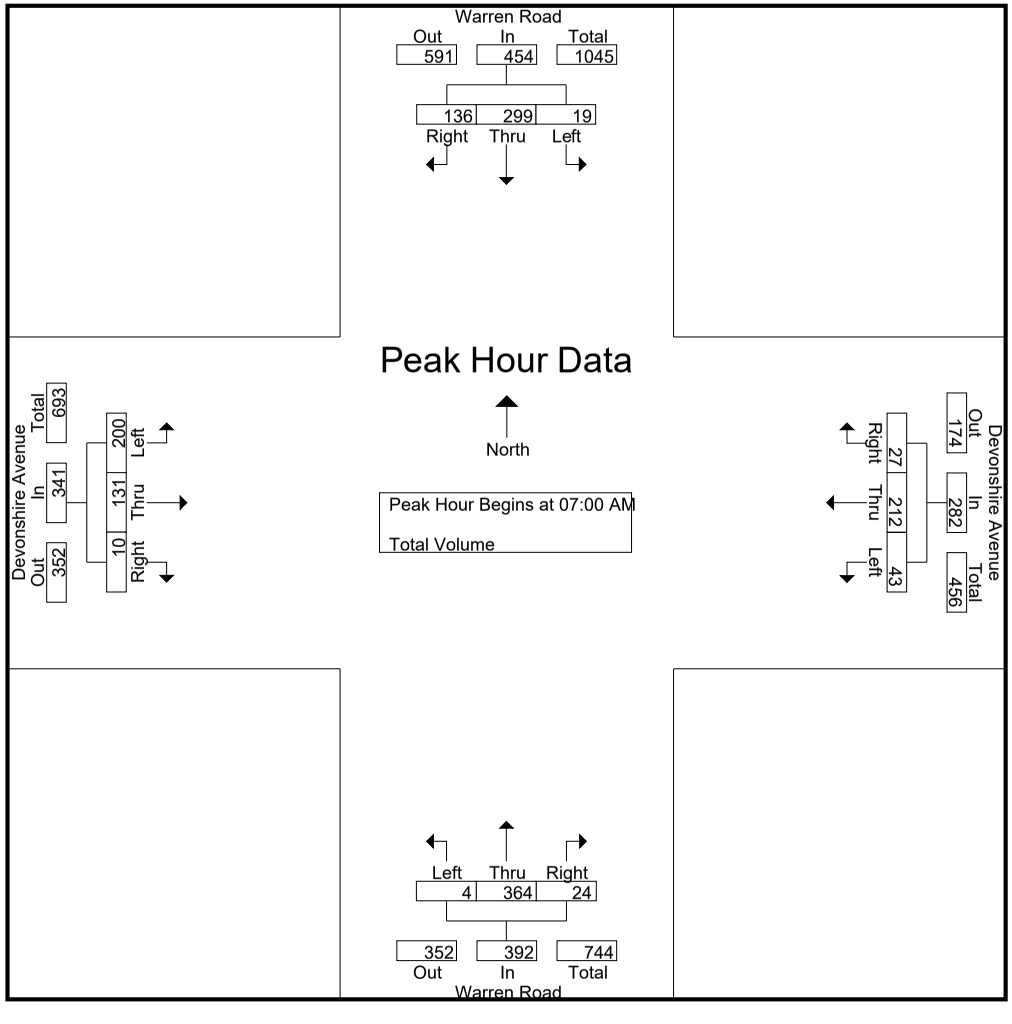
City of Hemet
N/S: Warren Road
E/W: Devonshire Avenue
Weather: Clear

File Name : 12_HEM_WA_DE AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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City of Hemet
N/S: Warren Road
E/W: Devonshire Avenue
Weather: Clear

File Name : 12_HEM_WA_DE AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Warren Road Southbound				Devonshire Avenue Westbound				Warren Road Northbound				Devonshire Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:15 AM				07:00 AM				
+0 mins.	4	73	**47**	**124**	5	55	**7**	67	1	**103**	2	106	46	31	2	79	
+15 mins.	4	71	36	111	8	46	7	61	1	102	**11**	**114**	49	**44**	**4**	**97**	
+30 mins.	3	69	26	98	14	**69**	6	**89**	**2**	78	4	84	**62**	27	2	91	
+45 mins.	**8**	**86**	27	121	**16**	42	7	65	0	78	11	89	43	29	2	74	
Total Volume	19	299	136	454	43	212	27	282	4	361	28	393	200	131	10	341	
% App. Total	4.2	65.9	30		15.2	75.2	9.6		1	91.9	7.1		58.7	38.4	2.9		
PHF	.594	.869	.723	.915	.672	.768	.964	.792	.500	.876	.636	.862	.806	.744	.625	.879	

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City of Hemet
N/S: Warren Road
E/W: Devonshire Avenue
Weather: Clear

File Name : 12_HEM_WA_DE PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound					Devonshire Avenue Westbound					Warren Road Northbound					Devonshire Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	3	80	27	0	110	7	70	8	0	85	4	84	13	0	101	52	37	3	0	92	0	388	388
04:15 PM	4	76	31	0	111	15	64	7	0	86	2	94	12	0	108	39	44	3	0	86	0	391	391
04:30 PM	5	78	34	0	117	10	49	5	0	64	5	87	10	0	102	51	36	2	0	89	0	372	372
04:45 PM	5	86	29	0	120	11	39	7	0	57	7	89	13	0	109	51	44	3	0	98	0	384	384
Total	17	320	121	0	458	43	222	27	0	292	18	354	48	0	420	193	161	11	0	365	0	1535	1535
05:00 PM	8	94	30	0	132	8	47	7	0	62	2	89	11	0	102	39	43	4	0	86	0	382	382
05:15 PM	4	89	25	0	118	13	71	3	0	87	5	89	11	0	105	55	36	2	0	93	0	403	403
05:30 PM	11	68	36	0	115	10	53	5	0	68	4	96	9	0	109	44	39	2	0	85	0	377	377
05:45 PM	6	77	31	0	114	5	57	5	0	67	5	90	14	0	109	51	47	2	0	100	0	390	390
Total	29	328	122	0	479	36	228	20	0	284	16	364	45	0	425	189	165	10	0	364	0	1552	1552
Grand Total	46	648	243	0	937	79	450	47	0	576	34	718	93	0	845	382	326	21	0	729	0	3087	3087
Apprch %	4.9	69.2	25.9			13.7	78.1	8.2			4	85	11			52.4	44.7	2.9					
Total %	1.5	21	7.9		30.4	2.6	14.6	1.5		18.7	1.1	23.3	3		27.4	12.4	10.6	0.7		23.6	0	100	

	Warren Road Southbound				Devonshire Avenue Westbound				Warren Road Northbound				Devonshire Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	8	**94**	30	**132**	8	47	**7**	62	2	89	11	102	39	43	**4**	86	382
05:15 PM	4	89	25	118	**13**	**71**	3	**87**	**5**	89	11	105	**55**	36	2	93	**403**
05:30 PM	**11**	68	**36**	115	10	53	5	68	4	**96**	9	**109**	44	39	2	85	377
05:45 PM	6	77	31	114	5	57	5	67	5	90	**14**	109	51	**47**	2	**100**	390
Total Volume	29	328	122	479	36	228	20	284	16	364	45	425	189	165	10	364	1552
% App. Total	6.1	68.5	25.5		12.7	80.3	7		3.8	85.6	10.6		51.9	45.3	2.7		
PHF	.659	.872	.847	.907	.692	.803	.714	.816	.800	.948	.804	.975	.859	.878	.625	.910	.963

Counts Unlimited
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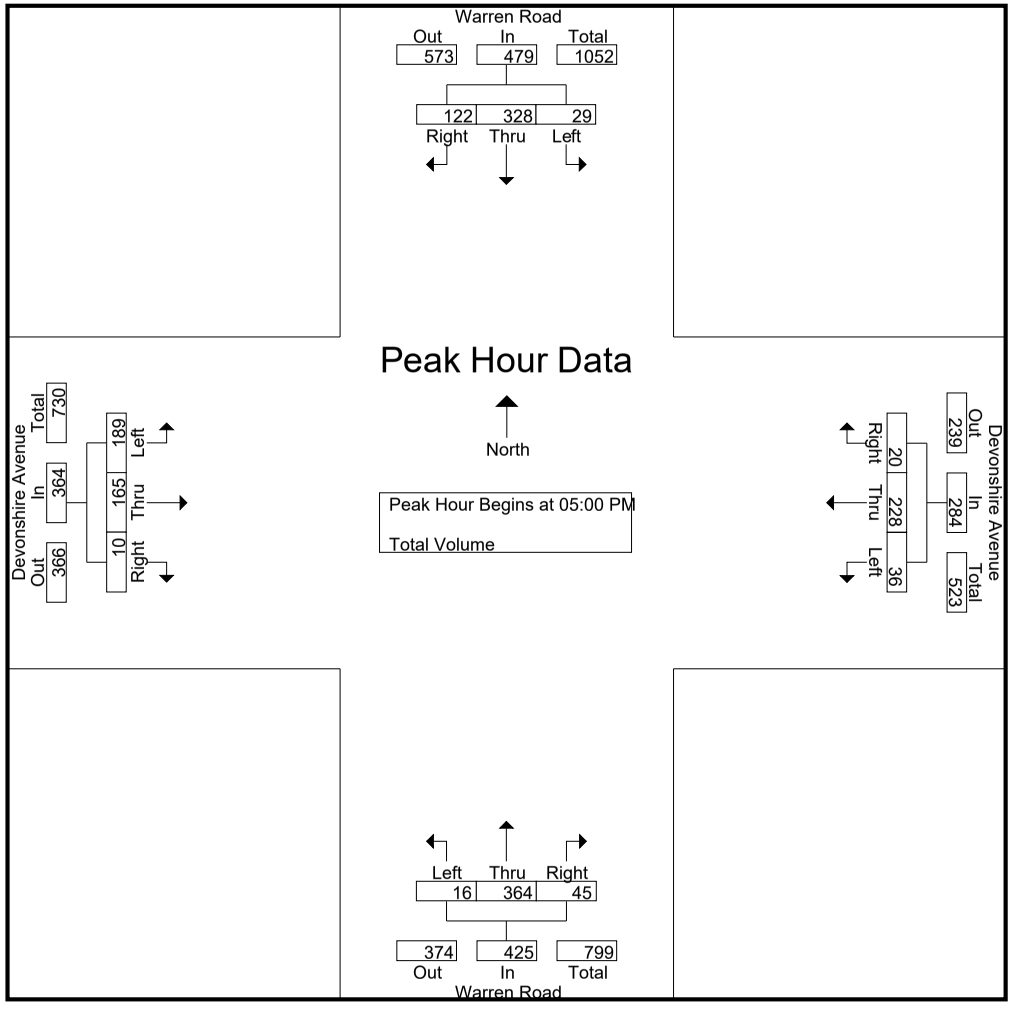
City of Hemet
N/S: Warren Road
E/W: Devonshire Avenue
Weather: Clear

File Name : 12_HEM_WA_DE PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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City of Hemet
N/S: Warren Road
E/W: Devonshire Avenue
Weather: Clear

File Name : 12_HEM_WA_DE PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Warren Road Southbound				Devonshire Avenue Westbound				Warren Road Northbound				Devonshire Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:00 PM				04:45 PM				04:30 PM				
+0 mins.	5	78	**34**	117	7	**70**	**8**	85	**7**	89	**13**	**109**	51	36	2	89	
+15 mins.	5	86	29	120	**15**	64	7	**86**	2	89	11	102	51	**44**	3	**98**	
+30 mins.	**8**	**94**	30	**132**	10	49	5	64	5	89	11	105	39	43	**4**	86	
+45 mins.	4	89	25	118	11	39	7	57	4	**96**	9	109	**55**	36	2	93	
Total Volume	22	347	118	487	43	222	27	292	18	363	44	425	196	159	11	366	
% App. Total	4.5	71.3	24.2		14.7	76	9.2		4.2	85.4	10.4		53.6	43.4	3		
PHF	.688	.923	.868	.922	.717	.793	.844	.849	.643	.945	.846	.975	.891	.903	.688	.934	

Location: City of Hemet
N/S: Warren Road
E/W: Devonshire Avenue

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Warren Road	East Leg Devonshire Avenue	South Leg Warren Road	West Leg Devonshire Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	1	0	0	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	1

	North Leg Warren Road	East Leg Devonshire Avenue	South Leg Warren Road	West Leg Devonshire Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: City of Hemet
N/S: Warren Road
E/W: Devonshire Avenue

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Warren Road	East Leg Devonshire Avenue	South Leg Warren Road	West Leg Devonshire Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	1	0	0	1
TOTAL VOLUMES:	0	1	0	0	1

	North Leg Warren Road	East Leg Devonshire Avenue	South Leg Warren Road	West Leg Devonshire Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Counts Unlimited
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City of Hemet
N/S: Warren Road
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 13_HEM_WA_74 AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound					Florida Avenue (SR-74) Westbound					Warren Road Northbound					Florida Avenue (SR-74) Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	4	63	24	16	91	33	105	2	0	140	39	48	24	13	111	38	117	31	19	186	48	528	576
07:15 AM	2	58	19	14	79	40	132	5	2	177	42	73	19	8	134	36	124	31	12	191	36	581	617
07:30 AM	3	64	22	16	89	49	117	3	1	169	31	84	37	14	152	24	142	40	15	206	46	616	662
07:45 AM	4	69	27	17	100	61	102	3	1	166	37	60	32	14	129	17	148	53	25	218	57	613	670
Total	13	254	92	63	359	183	456	13	4	652	149	265	112	49	526	115	531	155	71	801	187	2338	2525
08:00 AM	6	76	24	16	106	42	121	2	0	165	31	68	27	8	126	25	151	37	10	213	34	610	644
08:15 AM	2	43	25	17	70	36	115	11	5	162	32	45	22	7	99	33	155	26	10	214	39	545	584
08:30 AM	3	53	16	13	72	40	115	4	2	159	26	52	23	17	101	25	173	33	16	231	48	563	611
08:45 AM	4	72	16	10	92	31	100	4	2	135	43	48	31	14	122	15	151	34	19	200	45	549	594
Total	15	244	81	56	340	149	451	21	9	621	132	213	103	46	448	98	630	130	55	858	166	2267	2433
Grand Total	28	498	173	119	699	332	907	34	13	1273	281	478	215	95	974	213	1161	285	126	1659	353	4605	4958
Apprch %	4	71.2	24.7			26.1	71.2	2.7			28.9	49.1	22.1			12.8	70	17.2					
Total %	0.6	10.8	3.8		15.2	7.2	19.7	0.7		27.6	6.1	10.4	4.7		21.2	4.6	25.2	6.2		36	7.1	92.9	

	Warren Road Southbound				Florida Avenue (SR-74) Westbound				Warren Road Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	2	58	19	79	40	**132**	**5**	**177**	**42**	73	19	134	**36**	124	31	191	581
07:30 AM	3	64	22	89	49	117	3	169	31	**84**	**37**	**152**	24	142	40	206	**616**
07:45 AM	4	69	**27**	100	**61**	102	3	166	37	60	32	129	17	148	**53**	**218**	613
08:00 AM	**6**	**76**	24	**106**	42	121	2	165	31	68	27	126	25	**151**	37	213	610
Total Volume	15	267	92	374	192	472	13	677	141	285	115	541	102	565	161	828	2420
% App. Total	4	71.4	24.6		28.4	69.7	1.9		26.1	52.7	21.3		12.3	68.2	19.4		
PHF	.625	.878	.852	.882	.787	.894	.650	.956	.839	.848	.777	.890	.708	.935	.759	.950	.982

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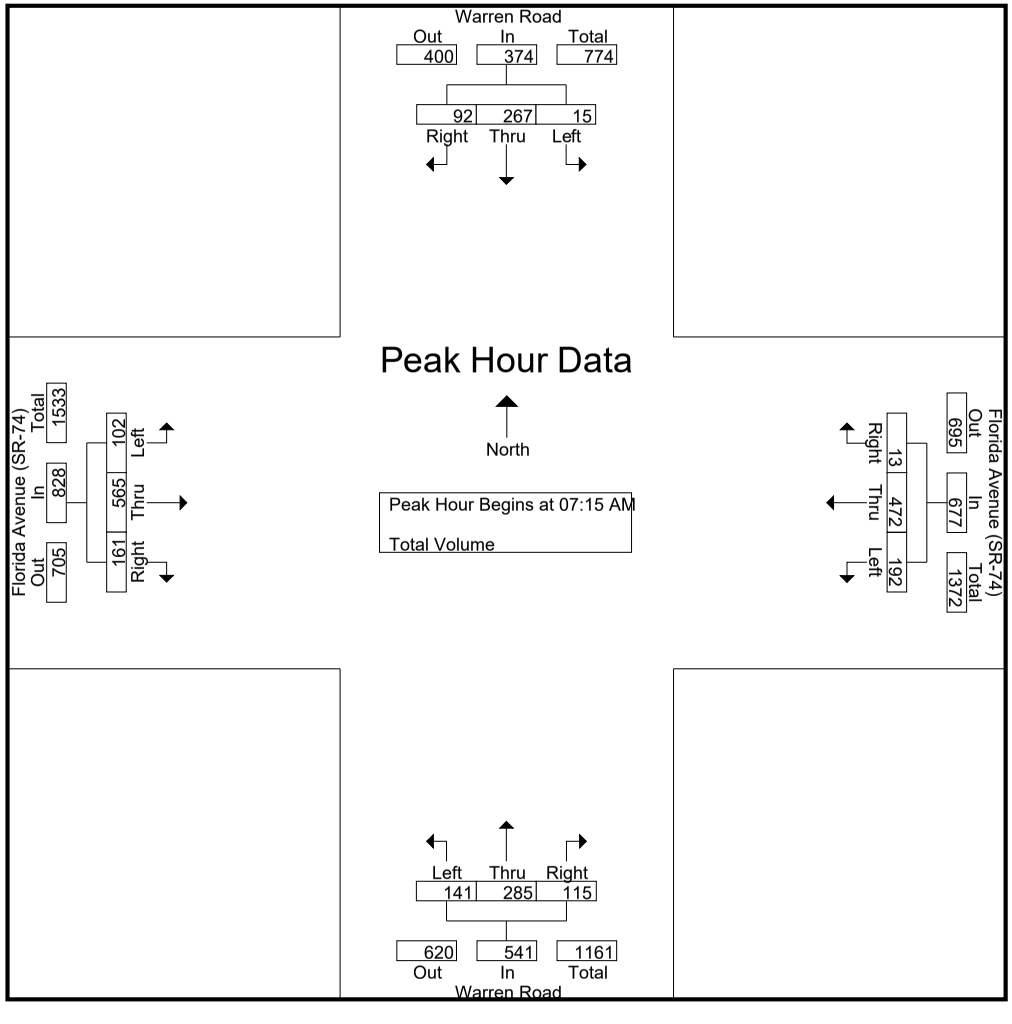
City of Hemet
N/S: Warren Road
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 13_HEM_WA_74 AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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City of Hemet
N/S: Warren Road
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 13_HEM_WA_74 AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Warren Road Southbound				Florida Avenue (SR-74) Westbound				Warren Road Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:45 AM				
+0 mins.	2	58	19	79	40	**132**	**5**	**177**	**42**	73	19	134	17	148	**53**	218	
+15 mins.	3	64	22	89	49	117	3	169	31	**84**	**37**	**152**	25	151	37	213	
+30 mins.	4	69	**27**	100	**61**	102	3	166	37	60	32	129	**33**	155	26	214	
+45 mins.	**6**	**76**	24	**106**	42	121	2	165	31	68	27	126	25	**173**	33	**231**	
Total Volume	15	267	92	374	192	472	13	677	141	285	115	541	100	627	149	876	
% App. Total	4	71.4	24.6		28.4	69.7	1.9		26.1	52.7	21.3		11.4	71.6	17		
PHF	.625	.878	.852	.882	.787	.894	.650	.956	.839	.848	.777	.890	.758	.906	.703	.948	

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City of Hemet
N/S: Warren Road
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 13_HEM_WA_74 PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound					Florida Avenue (SR-74) Westbound					Warren Road Northbound					Florida Avenue (SR-74) Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	8	60	24	16	92	32	176	6	0	214	40	71	63	29	174	27	217	43	22	287	67	767	834
04:15 PM	5	51	32	19	88	44	173	4	2	221	54	64	56	26	174	30	201	47	17	278	64	761	825
04:30 PM	12	49	31	18	92	32	143	7	2	182	38	83	68	41	189	24	211	43	15	278	76	741	817
04:45 PM	13	61	27	14	101	27	144	6	1	177	57	74	59	29	190	22	206	39	23	267	67	735	802
Total	38	221	114	67	373	135	636	23	5	794	189	292	246	125	727	103	835	172	77	1110	274	3004	3278
05:00 PM	5	71	27	14	103	43	173	4	1	220	56	74	73	40	203	25	195	29	16	249	71	775	846
05:15 PM	5	59	39	21	103	37	219	3	0	259	46	77	62	25	185	30	200	35	22	265	68	812	880
05:30 PM	8	50	26	15	84	27	185	8	3	220	32	83	70	25	185	29	215	27	10	271	53	760	813
05:45 PM	7	48	22	15	77	30	160	4	2	194	45	71	46	20	162	34	236	42	14	312	51	745	796
Total	25	228	114	65	367	137	737	19	6	893	179	305	251	110	735	118	846	133	62	1097	243	3092	3335
Grand Total	63	449	228	132	740	272	1373	42	11	1687	368	597	497	235	1462	221	1681	305	139	2207	517	6096	6613
Apprch %	8.5	60.7	30.8			16.1	81.4	2.5			25.2	40.8	34			10	76.2	13.8					
Total %	1	7.4	3.7		12.1	4.5	22.5	0.7		27.7	6	9.8	8.2		24	3.6	27.6	5		36.2	7.8	92.2	

	Warren Road Southbound				Florida Avenue (SR-74) Westbound				Warren Road Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	5	**71**	27	**103**	**43**	173	4	220	**56**	74	**73**	**203**	25	195	29	249	775
05:15 PM	5	59	**39**	103	37	**219**	3	**259**	46	77	62	185	30	200	35	265	**812**
05:30 PM	**8**	50	26	84	27	185	**8**	220	32	**83**	70	185	29	215	27	271	760
05:45 PM	7	48	22	77	30	160	4	194	45	71	46	162	**34**	**236**	**42**	**312**	745
Total Volume	25	228	114	367	137	737	19	893	179	305	251	735	118	846	133	1097	3092
% App. Total	6.8	62.1	31.1		15.3	82.5	2.1		24.4	41.5	34.1		10.8	77.1	12.1		
PHF	.781	.803	.731	.891	.797	.841	.594	.862	.799	.919	.860	.905	.868	.896	.792	.879	.952

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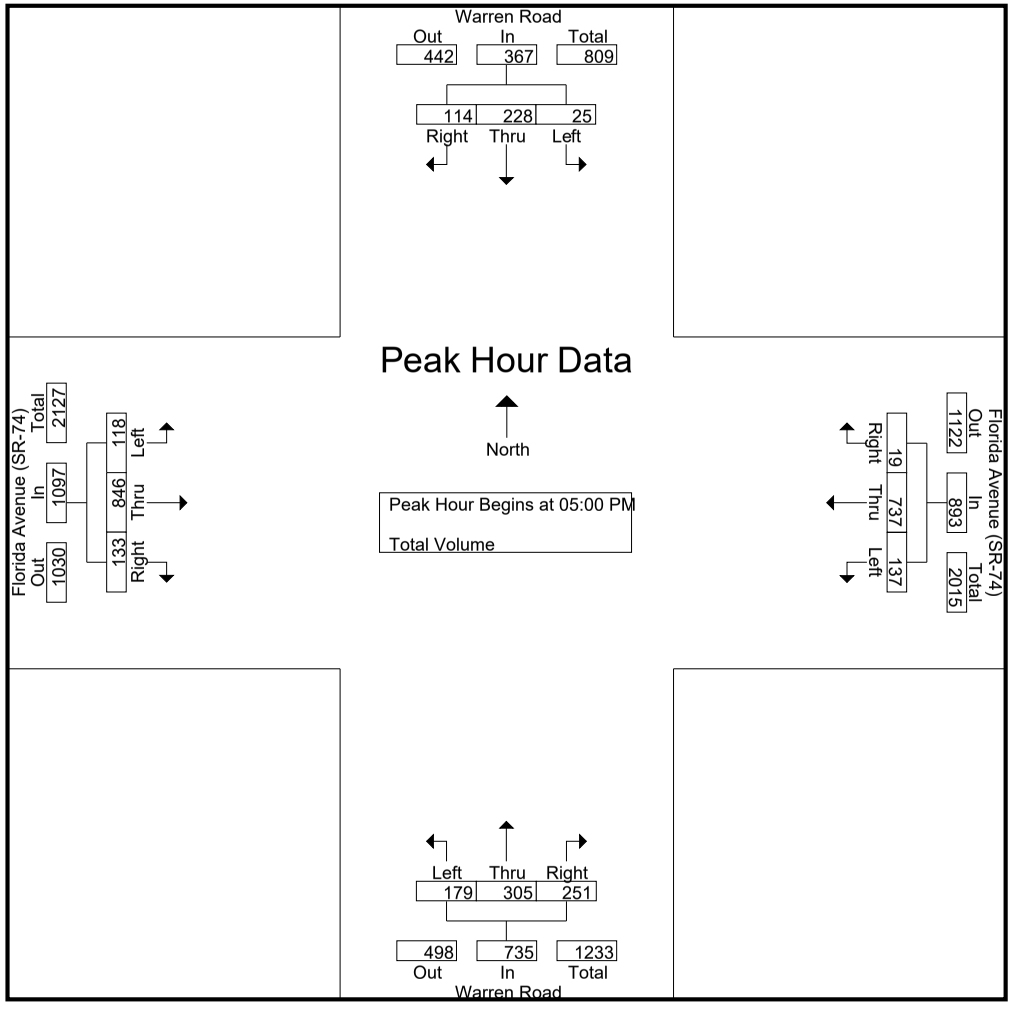
City of Hemet
N/S: Warren Road
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 13_HEM_WA_74 PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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City of Hemet
N/S: Warren Road
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 13_HEM_WA_74 PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Warren Road Southbound				Florida Avenue (SR-74) Westbound				Warren Road Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				05:00 PM				04:30 PM				04:00 PM				
+0 mins.	12	49	31	92	**43**	173	4	220	38	**83**	68	189	27	**217**	43	**287**	
+15 mins.	**13**	61	27	101	37	**219**	3	**259**	**57**	74	59	190	**30**	201	**47**	278	
+30 mins.	5	**71**	27	**103**	27	185	**8**	220	56	74	**73**	**203**	24	211	43	278	
+45 mins.	5	59	**39**	103	30	160	4	194	46	77	62	185	22	206	39	267	
Total Volume	35	240	124	399	137	737	19	893	197	308	262	767	103	835	172	1110	
% App. Total	8.8	60.2	31.1		15.3	82.5	2.1		25.7	40.2	34.2		9.3	75.2	15.5		
PHF	.673	.845	.795	.968	.797	.841	.594	.862	.864	.928	.897	.945	.858	.962	.915	.967	

Location: City of Hemet
N/S: Warren Road
E/W: Florida Avenue (SR-74)

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Warren Road	East Leg Florida Avenue (SR-74)	South Leg Warren Road	West Leg Florida Avenue (SR-74)	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	3	3
7:45 AM	2	2	0	0	4
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	2	2	0	3	7

	North Leg Warren Road	East Leg Florida Avenue (SR-74)	South Leg Warren Road	West Leg Florida Avenue (SR-74)	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: City of Hemet
N/S: Warren Road
E/W: Florida Avenue (SR-74)

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Warren Road	East Leg Florida Avenue (SR-74)	South Leg Warren Road	West Leg Florida Avenue (SR-74)	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	1	0	0	1
TOTAL VOLUMES:	0	1	0	0	1

	North Leg Warren Road	East Leg Florida Avenue (SR-74)	South Leg Warren Road	West Leg Florida Avenue (SR-74)	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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City of Hemet
N/S: Warren Road
E/W: Auto Boulevard
Weather: Clear

File Name : 14_HEM_WA_AU AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound				Auto Boulevard Westbound				Warren Road Northbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	18	100	0	118	0	1	0	1	115	13	0	128	0	247	247
07:15 AM	16	110	0	126	1	5	0	6	138	8	0	146	0	278	278
07:30 AM	55	94	0	149	2	3	0	5	134	17	0	151	0	305	305
07:45 AM	62	95	0	157	1	10	0	11	128	21	0	149	0	317	317
Total	151	399	0	550	4	19	0	23	515	59	0	574	0	1147	1147
08:00 AM	58	90	0	148	2	19	0	21	102	24	0	126	0	295	295
08:15 AM	33	58	0	91	8	14	0	22	84	16	0	100	0	213	213
08:30 AM	31	72	0	103	11	19	0	30	86	11	0	97	0	230	230
08:45 AM	38	87	0	125	3	21	0	24	88	13	0	101	0	250	250
Total	160	307	0	467	24	73	0	97	360	64	0	424	0	988	988
Grand Total	311	706	0	1017	28	92	0	120	875	123	0	998	0	2135	2135
Apprch %	30.6	69.4			23.3	76.7			87.7	12.3					
Total %	14.6	33.1		47.6	1.3	4.3		5.6	41	5.8		46.7	0	100	

	Warren Road Southbound			Auto Boulevard Westbound			Warren Road Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	16	**110**	126	1	5	6	**138**	8	146	278
07:30 AM	55	94	149	**2**	3	5	134	17	**151**	305
07:45 AM	**62**	95	**157**	1	10	11	128	21	149	**317**
08:00 AM	58	90	148	2	**19**	**21**	102	**24**	126	295
Total Volume	191	389	580	6	37	43	502	70	572	1195
% App. Total	32.9	67.1		14	86		87.8	12.2		
PHF	.770	.884	.924	.750	.487	.512	.909	.729	.947	.942

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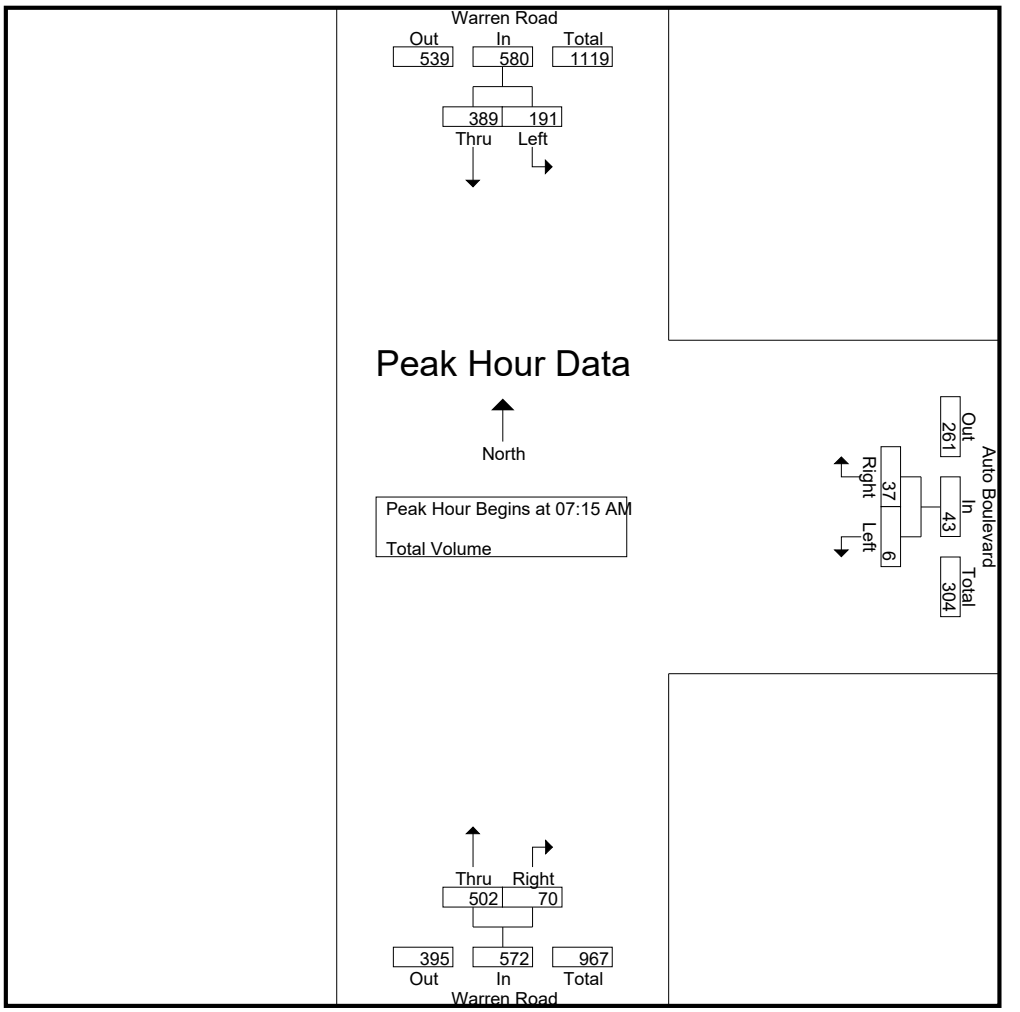
City of Hemet
N/S: Warren Road
E/W: Auto Boulevard
Weather: Clear

File Name : 14_HEM_WA_AU AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			08:00 AM			07:00 AM		
+0 mins.	16	**110**	126	2	19	21	115	13	128
+15 mins.	55	94	149	8	14	22	**138**	8	146
+30 mins.	**62**	95	**157**	**11**	19	**30**	134	17	**151**
+45 mins.	58	90	148	3	**21**	24	128	**21**	149
Total Volume	191	389	580	24	73	97	515	59	574
% App. Total	32.9	67.1		24.7	75.3		89.7	10.3	
PHF	.770	.884	.924	.545	.869	.808	.933	.702	.950

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City of Hemet
N/S: Warren Road
E/W: Auto Boulevard
Weather: Clear

File Name : 14_HEM_WA_AU PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound				Auto Boulevard Westbound				Warren Road Northbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	23	96	0	119	2	36	0	38	114	12	0	126	0	283	283
04:15 PM	19	108	0	127	11	40	0	51	117	4	0	121	0	299	299
04:30 PM	24	103	0	127	10	34	0	44	130	10	0	140	0	311	311
04:45 PM	22	95	0	117	11	38	0	49	123	6	0	129	0	295	295
Total	88	402	0	490	34	148	0	182	484	32	0	516	0	1188	1188
05:00 PM	27	119	0	146	13	61	0	74	159	13	0	172	0	392	392
05:15 PM	20	112	0	132	17	63	0	80	123	7	0	130	0	342	342
05:30 PM	14	85	0	99	7	40	0	47	148	10	0	158	0	304	304
05:45 PM	25	109	0	134	10	32	0	42	129	11	0	140	0	316	316
Total	86	425	0	511	47	196	0	243	559	41	0	600	0	1354	1354
Grand Total	174	827	0	1001	81	344	0	425	1043	73	0	1116	0	2542	2542
Apprch %	17.4	82.6			19.1	80.9			93.5	6.5					
Total %	6.8	32.5		39.4	3.2	13.5		16.7	41	2.9		43.9	0	100	

	Warren Road Southbound			Auto Boulevard Westbound			Warren Road Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	**27**	**119**	**146**	13	61	74	**159**	**13**	**172**	**392**
05:15 PM	20	112	132	**17**	**63**	**80**	123	7	130	342
05:30 PM	14	85	99	7	40	47	148	10	158	304
05:45 PM	25	109	134	10	32	42	129	11	140	316
Total Volume	86	425	511	47	196	243	559	41	600	1354
% App. Total	16.8	83.2		19.3	80.7		93.2	6.8		
PHF	.796	.893	.875	.691	.778	.759	.879	.788	.872	.864

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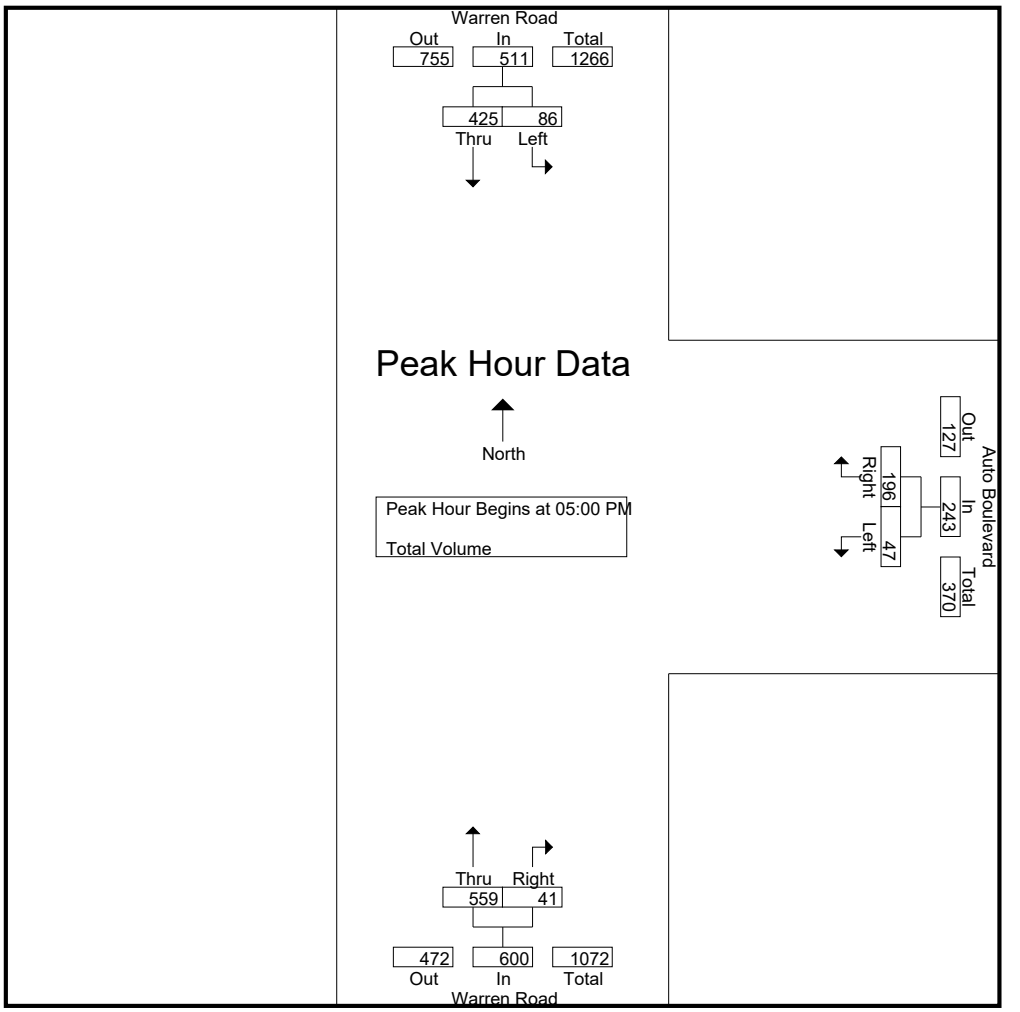
City of Hemet
N/S: Warren Road
E/W: Auto Boulevard
Weather: Clear

File Name : 14_HEM_WA_AU PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:45 PM			05:00 PM		
+0 mins.	24	103	127	11	38	49	**159**	**13**	**172**
+15 mins.	22	95	117	13	61	74	123	7	130
+30 mins.	**27**	**119**	**146**	**17**	**63**	**80**	148	10	158
+45 mins.	20	112	132	7	40	47	129	11	140
Total Volume	93	429	522	48	202	250	559	41	600
% App. Total	17.8	82.2		19.2	80.8		93.2	6.8	
PHF	.861	.901	.894	.706	.802	.781	.879	.788	.872

Location: City of Hemet
N/S: Warren Road
E/W: Auto Boulevard

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Warren Road	East Leg Auto Boulevard	South Leg Warren Road	West Leg Auto Boulevard	TOTAL
7:00 AM	0	1	0	0	1
7:15 AM	0	1	0	0	1
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	2	0	0	2

	North Leg Warren Road	East Leg Auto Boulevard	South Leg Warren Road	West Leg Auto Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: City of Hemet
N/S: Warren Road
E/W: Auto Boulevard

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Warren Road	East Leg Auto Boulevard	South Leg Warren Road	West Leg Auto Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	1	0	0	1
TOTAL VOLUMES:	0	1	0	0	1

	North Leg Warren Road	East Leg Auto Boulevard	South Leg Warren Road	West Leg Auto Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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City of Hemet
N/S: Warren Road
E/W: Whittier Avenue
Weather: Clear

File Name : 15_HEM_WA_WH AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound				Whittier Avenue Westbound				Warren Road Northbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	6	97	0	103	0	18	0	18	124	2	0	126	0	247	247
07:15 AM	3	108	0	111	0	4	0	4	151	0	0	151	0	266	266
07:30 AM	5	94	0	99	0	15	0	15	147	1	0	148	0	262	262
07:45 AM	3	98	0	101	0	4	0	4	163	0	0	163	0	268	268
Total	17	397	0	414	0	41	0	41	585	3	0	588	0	1043	1043
08:00 AM	3	103	0	106	0	2	0	2	137	0	0	137	0	245	245
08:15 AM	0	82	0	82	0	0	0	0	114	1	0	115	0	197	197
08:30 AM	0	100	0	100	0	0	0	0	110	0	0	110	0	210	210
08:45 AM	0	110	0	110	0	1	0	1	114	1	0	115	0	226	226
Total	3	395	0	398	0	3	0	3	475	2	0	477	0	878	878
Grand Total	20	792	0	812	0	44	0	44	1060	5	0	1065	0	1921	1921
Apprch %	2.5	97.5			0	100			99.5	0.5					
Total %	1	41.2		42.3	0	2.3		2.3	55.2	0.3		55.4	0	100	

	Warren Road Southbound			Whittier Avenue Westbound			Warren Road Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**6**	97	103	0	**18**	**18**	124	**2**	126	247
07:15 AM	3	**108**	**111**	0	4	4	151	0	151	266
07:30 AM	5	94	99	0	15	15	147	1	148	262
07:45 AM	3	98	101	0	4	4	**163**	0	**163**	**268**
Total Volume	17	397	414	0	41	41	585	3	588	1043
% App. Total	4.1	95.9		0	100		99.5	0.5		
PHF	.708	.919	.932	.000	.569	.569	.897	.375	.902	.973

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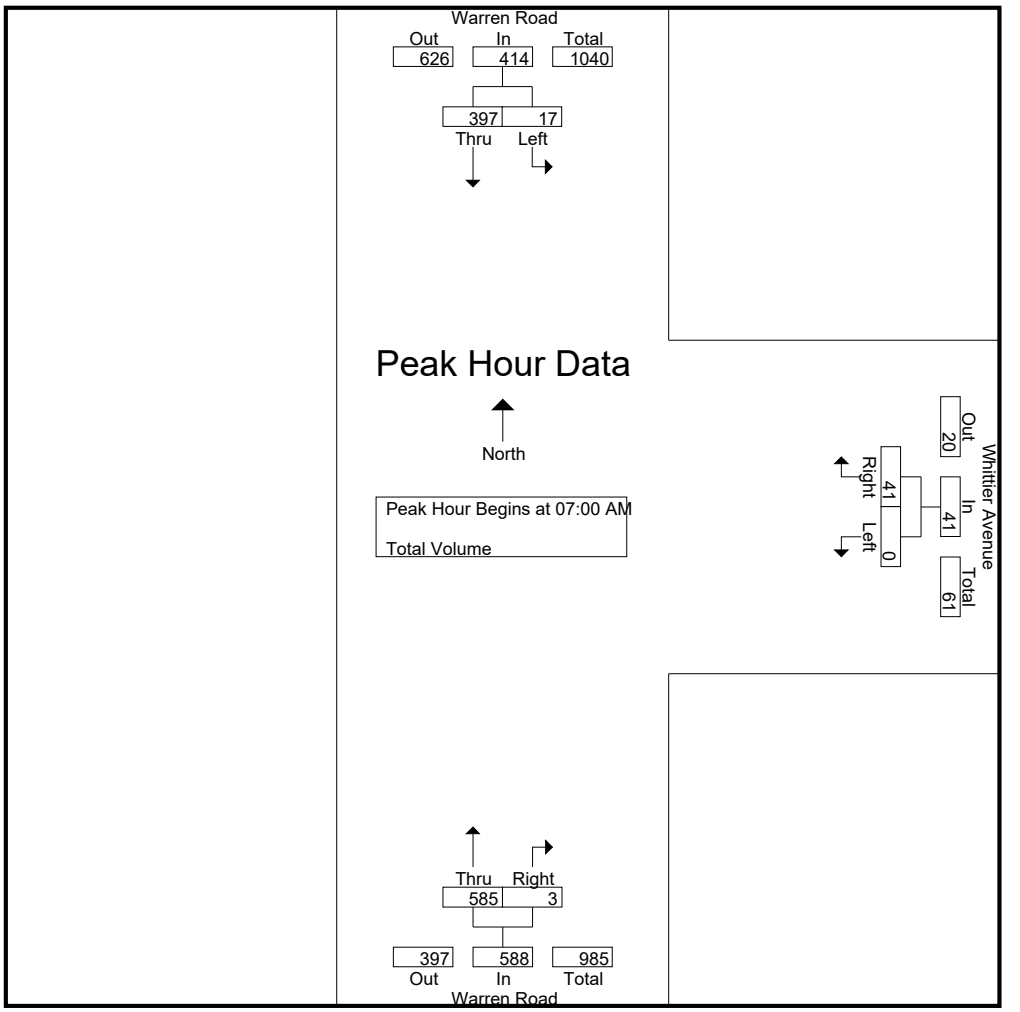
City of Hemet
N/S: Warren Road
E/W: Whittier Avenue
Weather: Clear

File Name : 15_HEM_WA_WH AM
Site Code : 05117481
Start Date : 8/10/2017



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:00 AM			07:15 AM		
+0 mins.	3	**108**	**111**	0	**18**	**18**	151	0	151
+15 mins.	**5**	94	99	0	4	4	147	**1**	148
+30 mins.	3	98	101	0	15	15	**163**	0	**163**
+45 mins.	3	103	106	0	4	4	137	0	137
Total Volume	14	403	417	0	41	41	598	1	599
% App. Total	3.4	96.6		0	100		99.8	0.2	
PHF	.700	.933	.939	.000	.569	.569	.917	.250	.919

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City of Hemet
N/S: Warren Road
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Weather: Clear

File Name : 15_HEM_WA_WH PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound				Whittier Avenue Westbound				Warren Road Northbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	119	0	119	2	6	0	8	134	0	0	134	0	261	261
04:15 PM	0	136	0	136	1	1	0	2	138	1	0	139	0	277	277
04:30 PM	0	127	0	127	0	8	0	8	147	1	0	148	0	283	283
04:45 PM	0	126	0	126	2	2	0	4	132	1	0	133	0	263	263
Total	0	508	0	508	5	17	0	22	551	3	0	554	0	1084	1084
05:00 PM	0	149	0	149	0	1	0	1	157	0	0	157	0	307	307
05:15 PM	0	144	0	144	0	3	0	3	123	0	0	123	0	270	270
05:30 PM	1	97	0	98	0	3	0	3	145	0	0	145	0	246	246
05:45 PM	1	128	0	129	0	3	0	3	129	0	0	129	0	261	261
Total	2	518	0	520	0	10	0	10	554	0	0	554	0	1084	1084
Grand Total	2	1026	0	1028	5	27	0	32	1105	3	0	1108	0	2168	2168
Apprch %	0.2	99.8			15.6	84.4			99.7	0.3					
Total %	0.1	47.3		47.4	0.2	1.2		1.5	51	0.1		51.1	0	100	

	Warren Road Southbound			Whittier Avenue Westbound			Warren Road Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	136	136	1	1	2	138	**1**	139	277
04:30 PM	0	127	127	0	**8**	**8**	147	1	148	283
04:45 PM	0	126	126	**2**	2	4	132	1	133	263
05:00 PM	0	**149**	**149**	0	1	1	**157**	0	**157**	**307**
Total Volume	0	538	538	3	12	15	574	3	577	1130
% App. Total	0	100		20	80		99.5	0.5		
PHF	.000	.903	.903	.375	.375	.469	.914	.750	.919	.920

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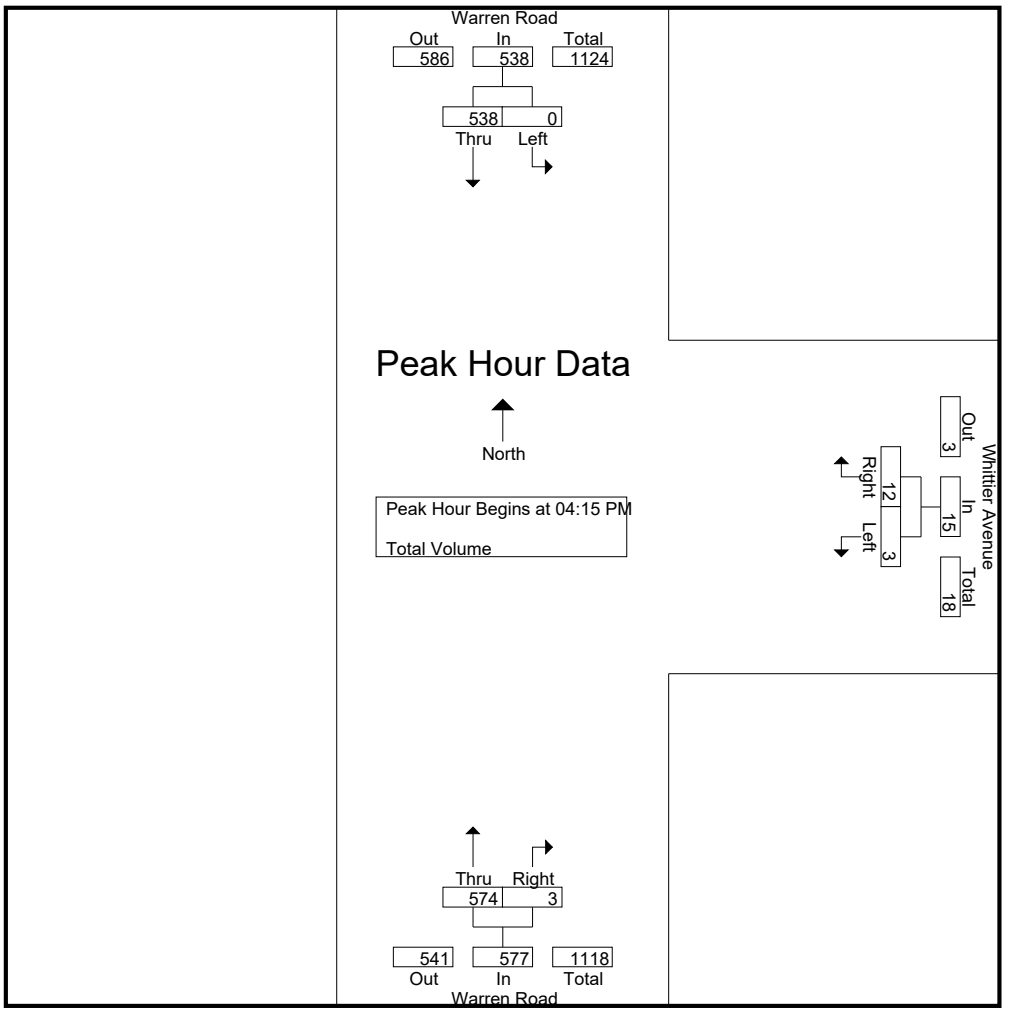
City of Hemet
N/S: Warren Road
E/W: Whittier Avenue
Weather: Clear

File Name : 15_HEM_WA_WH PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:00 PM			04:15 PM		
+0 mins.	0	127	127	**2**	6	**8**	138	**1**	139
+15 mins.	0	126	126	1	1	2	147	1	148
+30 mins.	0	**149**	**149**	0	**8**	8	132	1	133
+45 mins.	0	144	144	2	2	4	**157**	0	**157**
Total Volume	0	546	546	5	17	22	574	3	577
% App. Total	0	100		22.7	77.3		99.5	0.5	
PHF	.000	.916	.916	.625	.531	.688	.914	.750	.919

Location: City of Hemet
N/S: Warren Road
E/W: Whittier Avenue

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Warren Road	East Leg Whittier Avenue	South Leg Warren Road	West Leg Whittier Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Warren Road	East Leg Whittier Avenue	South Leg Warren Road	West Leg Whittier Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: City of Hemet
N/S: Warren Road
E/W: Whittier Avenue

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Warren Road	East Leg Whittier Avenue	South Leg Warren Road	West Leg Whittier Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	1	0	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	1

	North Leg Warren Road	East Leg Whittier Avenue	South Leg Warren Road	West Leg Whittier Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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City of Hemet
N/S: Warren Road
E/W: Stetson Avenue
Weather: Clear

File Name : 16_HEM_WA_ST AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound					Stetson Avenue Westbound					Warren Road Northbound					Stetson Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	29	62	5	0	96	11	17	48	0	76	1	70	12	0	83	7	13	0	0	20	0	275	275
07:15 AM	31	67	8	0	106	18	26	47	0	91	0	102	12	0	114	7	10	1	0	18	0	329	329
07:30 AM	30	63	5	0	98	28	11	48	0	87	1	91	24	0	116	5	15	4	0	24	0	325	325
07:45 AM	38	61	2	0	101	21	19	60	0	100	1	91	17	0	109	6	18	0	0	24	0	334	334
Total	128	253	20	0	401	78	73	203	0	354	3	354	65	0	422	25	56	5	0	86	0	1263	1263
08:00 AM	31	67	6	0	104	12	11	50	0	73	1	75	14	0	90	9	13	0	0	22	0	289	289
08:15 AM	23	56	5	0	84	9	7	48	0	64	1	64	17	0	82	2	7	0	0	9	0	239	239
08:30 AM	32	56	6	0	94	9	10	38	0	57	1	64	10	0	75	9	18	1	0	28	0	254	254
08:45 AM	38	64	7	0	109	10	12	50	0	72	0	56	7	0	63	8	16	1	0	25	0	269	269
Total	124	243	24	0	391	40	40	186	0	266	3	259	48	0	310	28	54	2	0	84	0	1051	1051
Grand Total	252	496	44	0	792	118	113	389	0	620	6	613	113	0	732	53	110	7	0	170	0	2314	2314
Apprch %	31.8	62.6	5.6			19	18.2	62.7			0.8	83.7	15.4			31.2	64.7	4.1					
Total %	10.9	21.4	1.9		34.2	5.1	4.9	16.8		26.8	0.3	26.5	4.9		31.6	2.3	4.8	0.3		7.3	0	100	

	Warren Road Southbound				Stetson Avenue Westbound				Warren Road Northbound				Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	31	**67**	**8**	**106**	18	**26**	47	91	0	**102**	12	114	7	10	1	18	329
07:30 AM	30	63	5	98	**28**	11	48	87	**1**	91	**24**	**116**	5	15	**4**	**24**	325
07:45 AM	**38**	61	2	101	21	19	**60**	**100**	1	91	17	109	6	**18**	0	24	**334**
08:00 AM	31	67	6	104	12	11	50	73	1	75	14	90	**9**	13	0	22	289
Total Volume	130	258	21	409	79	67	205	351	3	359	67	429	27	56	5	88	1277
% App. Total	31.8	63.1	5.1		22.5	19.1	58.4		0.7	83.7	15.6		30.7	63.6	5.7		
PHF	.855	.963	.656	.965	.705	.644	.854	.878	.750	.880	.698	.925	.750	.778	.313	.917	.956

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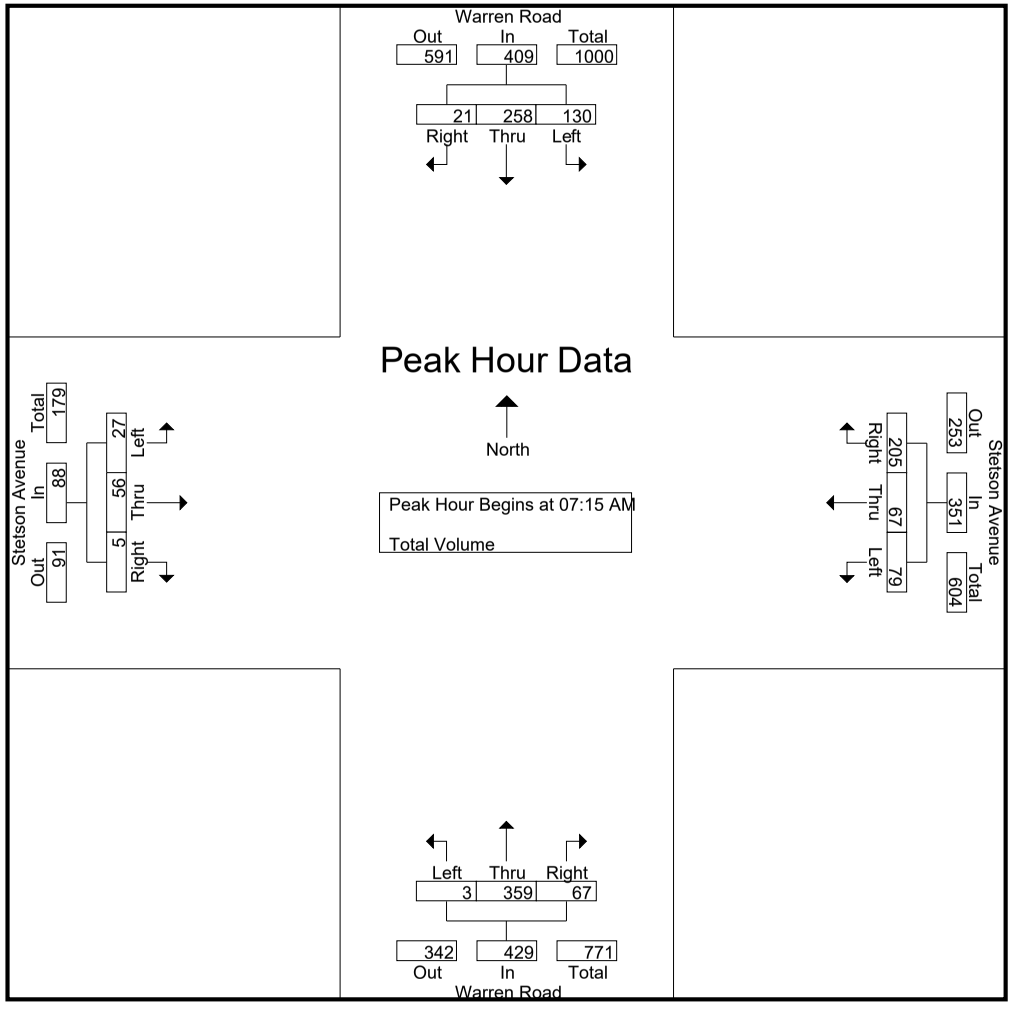
City of Hemet
N/S: Warren Road
E/W: Stetson Avenue
Weather: Clear

File Name : 16_HEM_WA_ST AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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City of Hemet
N/S: Warren Road
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File Name : 16_HEM_WA_ST AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Warren Road Southbound				Stetson Avenue Westbound				Warren Road Northbound				Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:00 AM				07:15 AM				07:15 AM				
+0 mins.	31	**67**	**8**	**106**	11	17	48	76	0	**102**	12	114	7	10	1	18	
+15 mins.	30	63	5	98	18	**26**	47	91	**1**	91	**24**	**116**	5	15	**4**	**24**	
+30 mins.	**38**	61	2	101	**28**	11	48	87	1	91	17	109	6	**18**	0	24	
+45 mins.	31	67	6	104	21	19	**60**	**100**	1	75	14	90	**9**	13	0	22	
Total Volume	130	258	21	409	78	73	203	354	3	359	67	429	27	56	5	88	
% App. Total	31.8	63.1	5.1		22	20.6	57.3		0.7	83.7	15.6		30.7	63.6	5.7		
PHF	.855	.963	.656	.965	.696	.702	.846	.885	.750	.880	.698	.925	.750	.778	.313	.917	

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City of Hemet
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File Name : 16_HEM_WA_ST PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound					Stetson Avenue Westbound					Warren Road Northbound					Stetson Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	50	69	6	0	125	19	16	49	0	84	0	75	8	0	83	11	22	1	0	34	0	326	326
04:15 PM	59	79	7	0	145	17	9	48	0	74	0	81	16	0	97	6	19	0	0	25	0	341	341
04:30 PM	58	55	11	0	124	19	29	47	0	95	0	86	14	0	100	13	21	2	0	36	0	355	355
04:45 PM	47	77	5	0	129	10	21	58	0	89	0	71	16	0	87	9	32	1	0	42	0	347	347
Total	214	280	29	0	523	65	75	202	0	342	0	313	54	0	367	39	94	4	0	137	0	1369	1369
05:00 PM	46	91	11	0	148	19	16	51	0	86	0	85	8	0	93	12	10	2	0	24	0	351	351
05:15 PM	57	81	7	0	145	22	17	49	0	88	0	61	15	0	76	7	18	0	0	25	0	334	334
05:30 PM	29	69	4	0	102	19	12	41	0	72	1	92	14	0	107	12	16	0	0	28	0	309	309
05:45 PM	46	72	4	0	122	18	16	37	0	71	1	85	19	0	105	10	17	3	0	30	0	328	328
Total	178	313	26	0	517	78	61	178	0	317	2	323	56	0	381	41	61	5	0	107	0	1322	1322
Grand Total	392	593	55	0	1040	143	136	380	0	659	2	636	110	0	748	80	155	9	0	244	0	2691	2691
Apprch %	37.7	57	5.3			21.7	20.6	57.7			0.3	85	14.7			32.8	63.5	3.7					
Total %	14.6	22	2		38.6	5.3	5.1	14.1		24.5	0.1	23.6	4.1		27.8	3	5.8	0.3		9.1	0	100	

	Warren Road Southbound				Stetson Avenue Westbound				Warren Road Northbound				Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**59**	79	7	145	17	9	48	74	0	81	**16**	97	6	19	0	25	341
04:30 PM	58	55	**11**	124	**19**	**29**	47	**95**	0	**86**	14	**100**	**13**	21	**2**	36	**355**
04:45 PM	47	77	5	129	10	21	**58**	89	0	71	16	87	9	**32**	1	**42**	347
05:00 PM	46	**91**	11	**148**	19	16	51	86	0	85	8	93	12	10	2	24	351
Total Volume	210	302	34	546	65	75	204	344	0	323	54	377	40	82	5	127	1394
% App. Total	38.5	55.3	6.2		18.9	21.8	59.3		0	85.7	14.3		31.5	64.6	3.9		
PHF	.890	.830	.773	.922	.855	.647	.879	.905	.000	.939	.844	.943	.769	.641	.625	.756	.982

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City of Hemet
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File Name : 16_HEM_WA_ST PM
Site Code : 05117481
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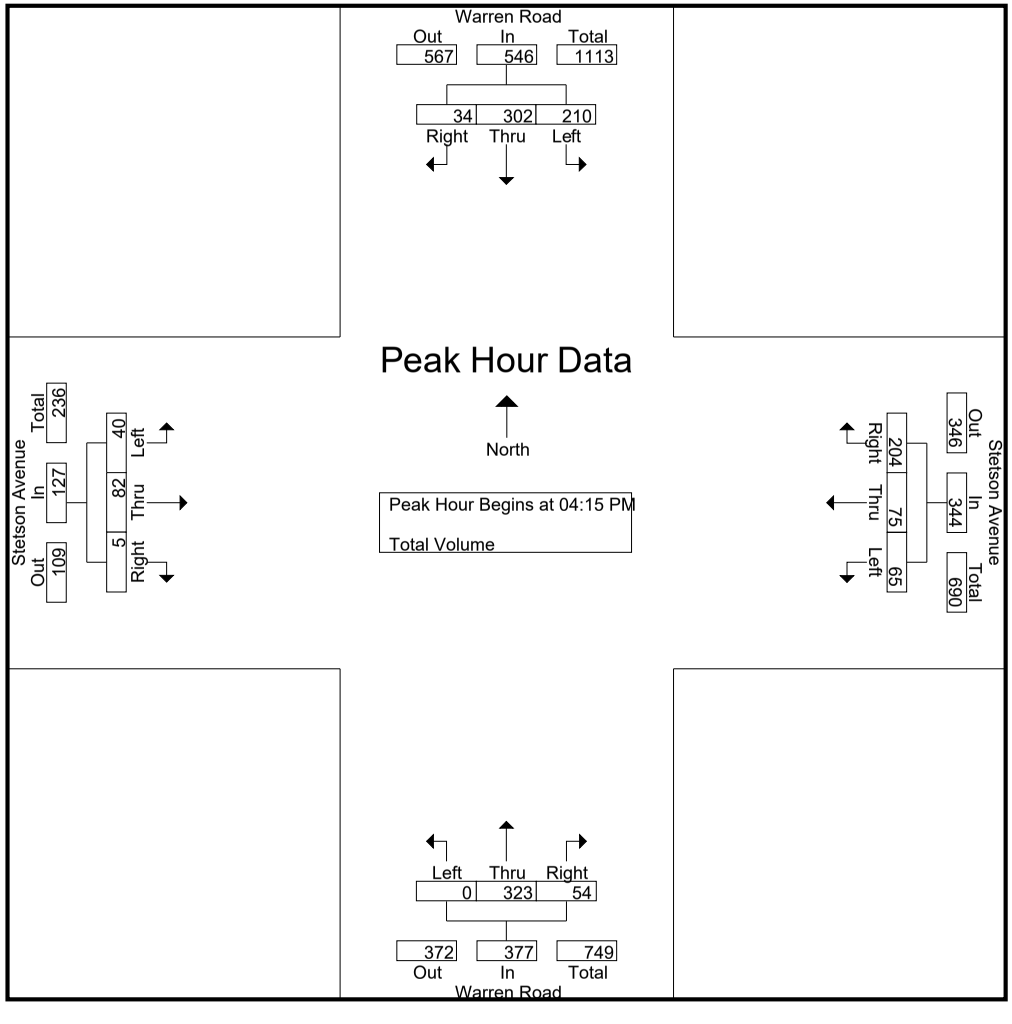

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File Name : 16_HEM_WA_ST PM
Site Code : 05117481
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Page No : 3

	Warren Road Southbound				Stetson Avenue Westbound				Warren Road Northbound				Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:30 PM				05:00 PM				04:00 PM				
+0 mins.	**59**	79	7	145	19	**29**	47	**95**	0	85	8	93	11	22	1	34	
+15 mins.	58	55	**11**	124	10	21	**58**	89	0	61	15	76	6	19	0	25	
+30 mins.	47	77	5	129	19	16	51	86	**1**	**92**	14	**107**	**13**	21	**2**	36	
+45 mins.	46	**91**	11	**148**	**22**	17	49	88	1	85	**19**	105	9	**32**	1	**42**	
Total Volume	210	302	34	546	70	83	205	358	2	323	56	381	39	94	4	137	
% App. Total	38.5	55.3	6.2		19.6	23.2	57.3		0.5	84.8	14.7		28.5	68.6	2.9		
PHF	.890	.830	.773	.922	.795	.716	.884	.942	.500	.878	.737	.890	.750	.734	.500	.815	

Location: City of Hemet
N/S: Warren Road
E/W: Stetson Avenue

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Warren Road	East Leg Stetson Avenue	South Leg Warren Road	West Leg Stetson Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Warren Road	East Leg Stetson Avenue	South Leg Warren Road	West Leg Stetson Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: City of Hemet
N/S: Warren Road
E/W: Stetson Avenue

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Warren Road	East Leg Stetson Avenue	South Leg Warren Road	West Leg Stetson Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Warren Road	East Leg Stetson Avenue	South Leg Warren Road	West Leg Stetson Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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City of Hemet
N/S: Warren Road
E/W: New Stetson Avenue
Weather: Clear

File Name : 17_HEM_WA_NS AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound					New Stetson Avenue Westbound					Warren Road Northbound					New Stetson Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	71	0	0	71	0	0	0	0	0	0	77	0	0	77	0	0	0	0	0	0	148	148
07:15 AM	0	86	0	0	86	0	0	0	0	0	0	121	0	0	121	0	0	0	0	0	0	207	207
07:30 AM	0	89	0	0	89	0	0	0	0	0	0	113	0	0	113	0	0	0	0	0	0	202	202
07:45 AM	0	79	0	0	79	0	0	0	0	0	0	102	0	0	102	0	0	0	0	0	0	181	181
Total	0	325	0	0	325	0	0	0	0	0	0	413	0	0	413	0	0	0	0	0	0	738	738
08:00 AM	0	84	0	0	84	0	0	0	0	0	0	86	0	0	86	0	0	0	0	0	0	170	170
08:15 AM	0	59	0	0	59	0	0	0	0	0	0	84	0	0	84	0	0	0	0	0	0	143	143
08:30 AM	0	73	0	0	73	0	0	0	0	0	0	81	0	0	81	0	0	0	0	0	0	154	154
08:45 AM	0	72	0	0	72	0	0	0	0	0	0	62	0	0	62	0	0	0	0	0	0	134	134
Total	0	288	0	0	288	0	0	0	0	0	0	313	0	0	313	0	0	0	0	0	0	601	601
Grand Total	0	613	0	0	613	0	0	0	0	0	0	726	0	0	726	0	0	0	0	0	0	1339	1339
Apprch %	0	100	0			0	0	0			0	100	0			0	0	0					
Total %	0	45.8	0		45.8	0	0	0		0	0	54.2	0		54.2	0	0	0		0	0	100	

	Warren Road Southbound				New Stetson Avenue Westbound				Warren Road Northbound				New Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	86	0	86	0	0	0	0	0	**121**	0	**121**	0	0	0	0	**207**
07:30 AM	0	**89**	0	**89**	0	0	0	0	0	113	0	113	0	0	0	0	202
07:45 AM	0	79	0	79	0	0	0	0	0	102	0	102	0	0	0	0	181
08:00 AM	0	84	0	84	0	0	0	0	0	86	0	86	0	0	0	0	170
Total Volume	0	338	0	338	0	0	0	0	0	422	0	422	0	0	0	0	760
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.949	.000	.949	.000	.000	.000	.000	.000	.872	.000	.872	.000	.000	.000	.000	.918

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N/S: Warren Road
E/W: New Stetson Avenue
Weather: Clear

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Site Code : 05117481
Start Date : 8/10/2017
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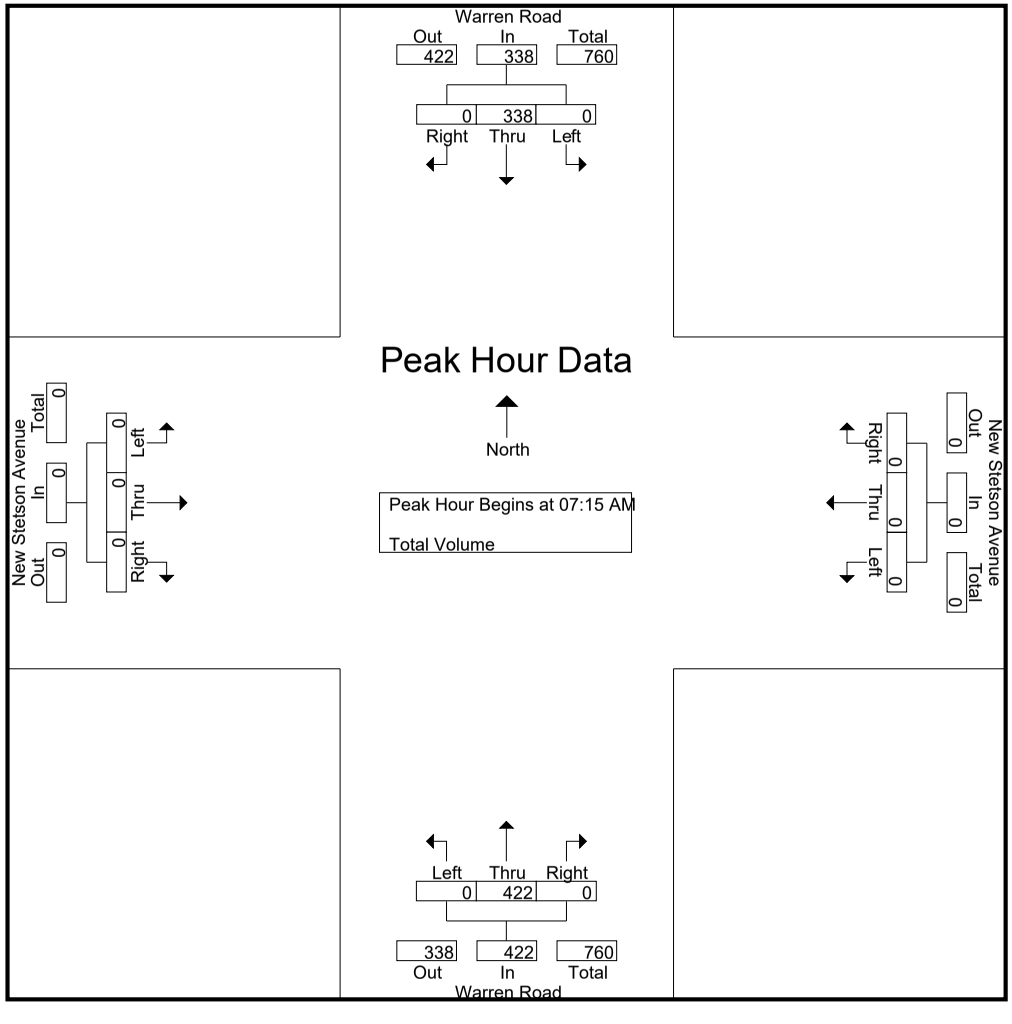

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	Warren Road Southbound				New Stetson Avenue Westbound				Warren Road Northbound				New Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:00 AM				07:15 AM				07:00 AM				
+0 mins.	0	86	0	86	0	0	0	0	0	**121**	0	**121**	0	0	0	0	
+15 mins.	0	**89**	0	**89**	0	0	0	0	0	113	0	113	0	0	0	0	
+30 mins.	0	79	0	79	0	0	0	0	0	102	0	102	0	0	0	0	
+45 mins.	0	84	0	84	0	0	0	0	0	86	0	86	0	0	0	0	
Total Volume	0	338	0	338	0	0	0	0	0	422	0	422	0	0	0	0	
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.949	.000	.949	.000	.000	.000	.000	.000	.872	.000	.872	.000	.000	.000	.000	

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City of Hemet
N/S: Warren Road
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File Name : 17_HEM_WA_NS PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound					New Stetson Avenue Westbound					Warren Road Northbound					New Stetson Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	93	0	0	93	0	0	0	0	0	0	87	0	0	87	0	0	0	0	0	0	180	180
04:15 PM	0	98	0	0	98	0	0	0	0	0	0	91	0	0	91	0	0	0	0	0	0	189	189
04:30 PM	0	75	0	0	75	0	0	0	0	0	0	106	0	0	106	0	0	0	0	0	0	181	181
04:45 PM	0	94	0	0	94	0	0	0	0	0	0	87	0	0	87	0	0	0	0	0	0	181	181
Total	0	360	0	0	360	0	0	0	0	0	0	371	0	0	371	0	0	0	0	0	0	731	731
05:00 PM	0	105	0	0	105	0	0	0	0	0	0	92	0	0	92	0	0	0	0	0	0	197	197
05:15 PM	0	107	0	0	107	0	0	0	0	0	0	89	0	0	89	0	0	0	0	0	0	196	196
05:30 PM	0	88	0	0	88	0	0	0	0	0	0	113	0	0	113	0	0	0	0	0	0	201	201
05:45 PM	0	97	0	0	97	0	0	0	0	0	0	93	0	0	93	0	0	0	0	0	0	190	190
Total	0	397	0	0	397	0	0	0	0	0	0	387	0	0	387	0	0	0	0	0	0	784	784
Grand Total	0	757	0	0	757	0	0	0	0	0	0	758	0	0	758	0	0	0	0	0	0	1515	1515
Apprch %	0	100	0			0	0	0			0	100	0			0	0	0					
Total %	0	50	0		50	0	0	0		0	0	50	0		50	0	0	0		0	0	100	

	Warren Road Southbound				New Stetson Avenue Westbound				Warren Road Northbound				New Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	105	0	105	0	0	0	0	0	92	0	92	0	0	0	0	197
05:15 PM	0	**107**	0	**107**	0	0	0	0	0	89	0	89	0	0	0	0	196
05:30 PM	0	88	0	88	0	0	0	0	0	**113**	0	**113**	0	0	0	0	**201**
05:45 PM	0	97	0	97	0	0	0	0	0	93	0	93	0	0	0	0	190
Total Volume	0	397	0	397	0	0	0	0	0	387	0	387	0	0	0	0	784
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.928	.000	.928	.000	.000	.000	.000	.000	.856	.000	.856	.000	.000	.000	.000	.975

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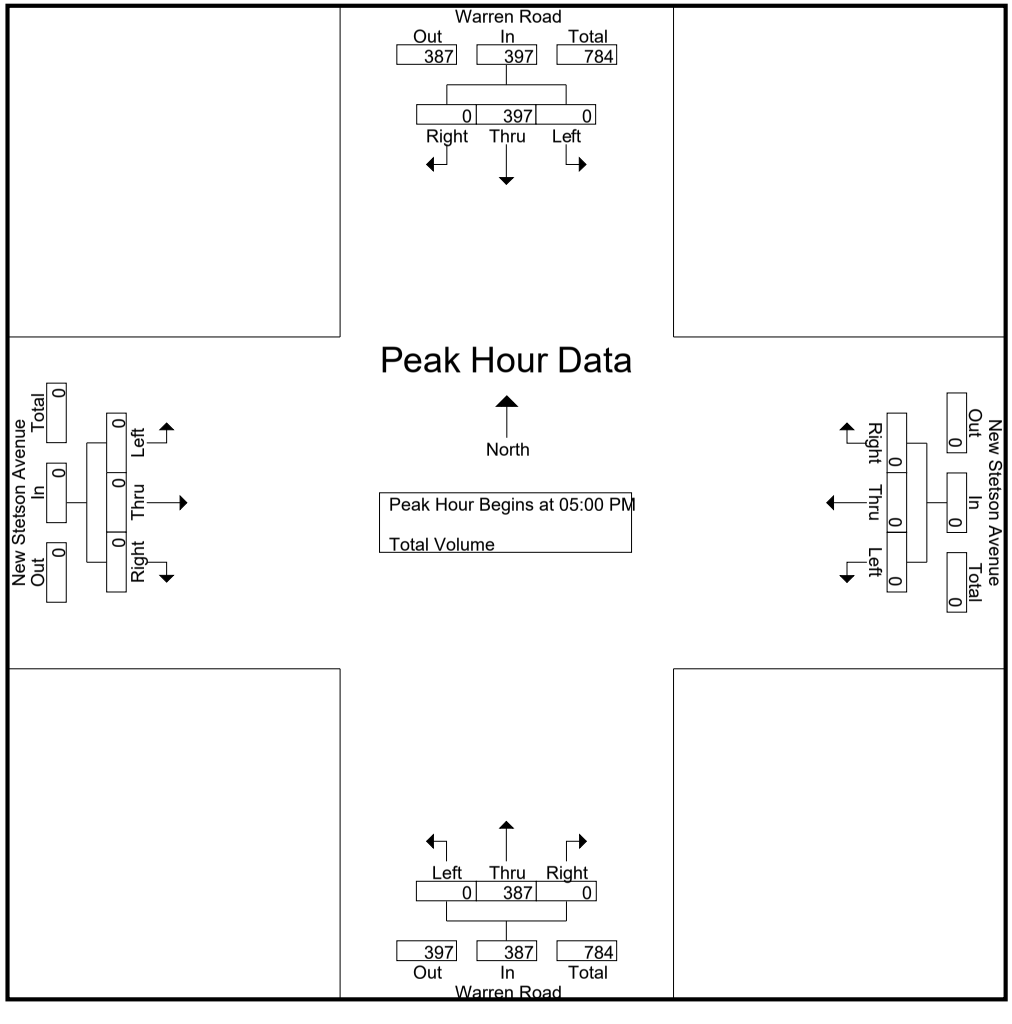

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File Name : 17_HEM_WA_NS PM
Site Code : 05117481
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Page No : 3

	Warren Road Southbound				New Stetson Avenue Westbound				Warren Road Northbound				New Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				04:00 PM				05:00 PM				04:00 PM				
+0 mins.	0	105	0	105	0	0	0	0	0	92	0	92	0	0	0	0	
+15 mins.	0	**107**	0	**107**	0	0	0	0	0	89	0	89	0	0	0	0	
+30 mins.	0	88	0	88	0	0	0	0	0	**113**	0	**113**	0	0	0	0	
+45 mins.	0	97	0	97	0	0	0	0	0	93	0	93	0	0	0	0	
Total Volume	0	397	0	397	0	0	0	0	0	387	0	387	0	0	0	0	
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.928	.000	.928	.000	.000	.000	.000	.000	.856	.000	.856	.000	.000	.000	.000	

Location: City of Hemet
N/S: Warren Road
E/W: New Stetson Avenue

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Warren Road	East Leg New Stetson Avenue	South Leg Warren Road	West Leg New Stetson Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	1	0	0	1
7:30 AM	0	0	2	0	2
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	1	2	0	3

	North Leg Warren Road	East Leg New Stetson Avenue	South Leg Warren Road	West Leg New Stetson Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: City of Hemet
N/S: Warren Road
E/W: New Stetson Avenue

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Warren Road	East Leg New Stetson Avenue	South Leg Warren Road	West Leg New Stetson Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	1	0	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

	North Leg Warren Road	East Leg New Stetson Avenue	South Leg Warren Road	West Leg New Stetson Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	1	0	1
TOTAL VOLUMES:	0	0	1	0	1

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City of Hemet
N/S: Warren Road
E/W: Mustang Way
Weather: Clear

File Name : 18_HEM_WA_MU AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound				Mustang Way Westbound				Warren Road Northbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	7	67	0	74	33	12	7	45	75	16	3	91	10	210	220
07:15 AM	10	78	0	88	64	13	6	77	95	24	1	119	7	284	291
07:30 AM	11	83	0	94	52	12	7	64	110	23	3	133	10	291	301
07:45 AM	8	78	0	86	50	17	13	67	74	29	6	103	19	256	275
Total	36	306	0	342	199	54	33	253	354	92	13	446	46	1041	1087
08:00 AM	6	69	0	75	33	21	16	54	65	25	3	90	19	219	238
08:15 AM	8	54	0	62	49	11	6	60	62	29	3	91	9	213	222
08:30 AM	4	64	0	68	41	11	6	52	59	22	2	81	8	201	209
08:45 AM	6	62	0	68	19	13	11	32	52	14	1	66	12	166	178
Total	24	249	0	273	142	56	39	198	238	90	9	328	48	799	847
Grand Total	60	555	0	615	341	110	72	451	592	182	22	774	94	1840	1934
Apprch %	9.8	90.2			75.6	24.4			76.5	23.5					
Total %	3.3	30.2		33.4	18.5	6		24.5	32.2	9.9		42.1	4.9	95.1	

	Warren Road Southbound			Mustang Way Westbound			Warren Road Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	10	78	88	**64**	13	**77**	95	24	119	284
07:30 AM	**11**	**83**	**94**	52	12	64	**110**	23	**133**	**291**
07:45 AM	8	78	86	50	17	67	74	**29**	103	256
08:00 AM	6	69	75	33	**21**	54	65	25	90	219
Total Volume	35	308	343	199	63	262	344	101	445	1050
% App. Total	10.2	89.8		76	24		77.3	22.7		
PHF	.795	.928	.912	.777	.750	.851	.782	.871	.836	.902

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City of Hemet
N/S: Warren Road
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Weather: Clear

File Name : 18_HEM_WA_MU AM
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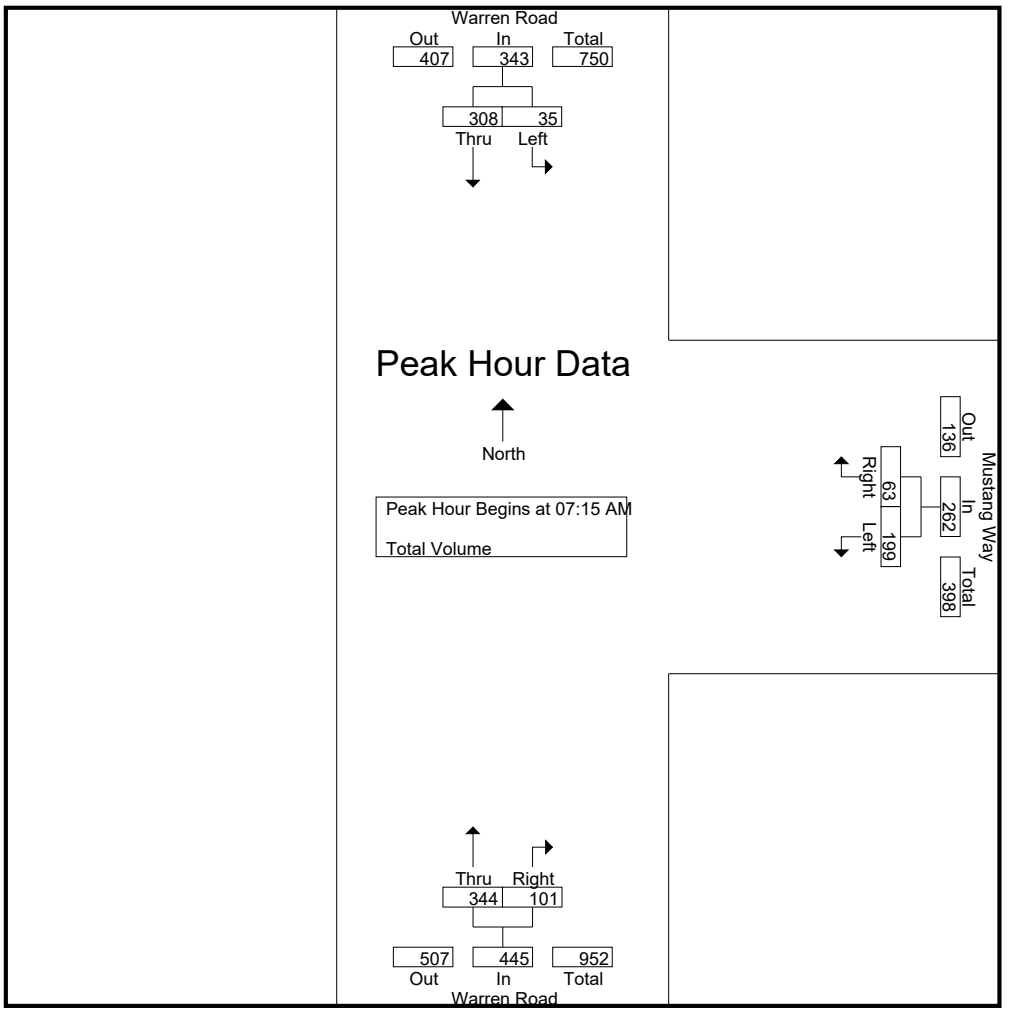

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:00 AM		
+0 mins.	10	78	88	**64**	13	**77**	75	16	91
+15 mins.	**11**	**83**	**94**	52	12	64	95	24	119
+30 mins.	8	78	86	50	17	67	**110**	23	**133**
+45 mins.	6	69	75	33	**21**	54	74	**29**	103
Total Volume	35	308	343	199	63	262	354	92	446
% App. Total	10.2	89.8		76	24		79.4	20.6	
PHF	.795	.928	.912	.777	.750	.851	.805	.793	.838

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File Name : 18_HEM_WA_MU PM
Site Code : 05117481
Start Date : 8/10/2017
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Groups Printed- Total Volume

	Warren Road Southbound				Mustang Way Westbound				Warren Road Northbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	15	70	0	85	31	9	6	40	77	34	4	111	10	236	246
04:15 PM	9	83	0	92	16	14	12	30	84	41	5	125	17	247	264
04:30 PM	9	64	0	73	16	9	5	25	91	48	3	139	8	237	245
04:45 PM	11	81	0	92	37	10	8	47	74	41	7	115	15	254	269
Total	44	298	0	342	100	42	31	142	326	164	19	490	50	974	1024
05:00 PM	18	91	0	109	27	7	4	34	81	46	7	127	11	270	281
05:15 PM	9	86	0	95	35	7	6	42	77	45	4	122	10	259	269
05:30 PM	7	80	0	87	16	7	5	23	100	56	3	156	8	266	274
05:45 PM	17	77	0	94	24	13	11	37	80	50	10	130	21	261	282
Total	51	334	0	385	102	34	26	136	338	197	24	535	50	1056	1106
Grand Total	95	632	0	727	202	76	57	278	664	361	43	1025	100	2030	2130
Apprch %	13.1	86.9			72.7	27.3			64.8	35.2					
Total %	4.7	31.1		35.8	10	3.7		13.7	32.7	17.8		50.5	4.7	95.3	

	Warren Road Southbound			Mustang Way Westbound			Warren Road Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	**18**	**91**	**109**	27	7	34	81	46	127	**270**
05:15 PM	9	86	95	**35**	7	**42**	77	45	122	259
05:30 PM	7	80	87	16	7	23	**100**	**56**	**156**	266
05:45 PM	17	77	94	24	**13**	37	80	50	130	261
Total Volume	51	334	385	102	34	136	338	197	535	1056
% App. Total	13.2	86.8		75	25		63.2	36.8		
PHF	.708	.918	.883	.729	.654	.810	.845	.879	.857	.978

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Start Date : 8/10/2017
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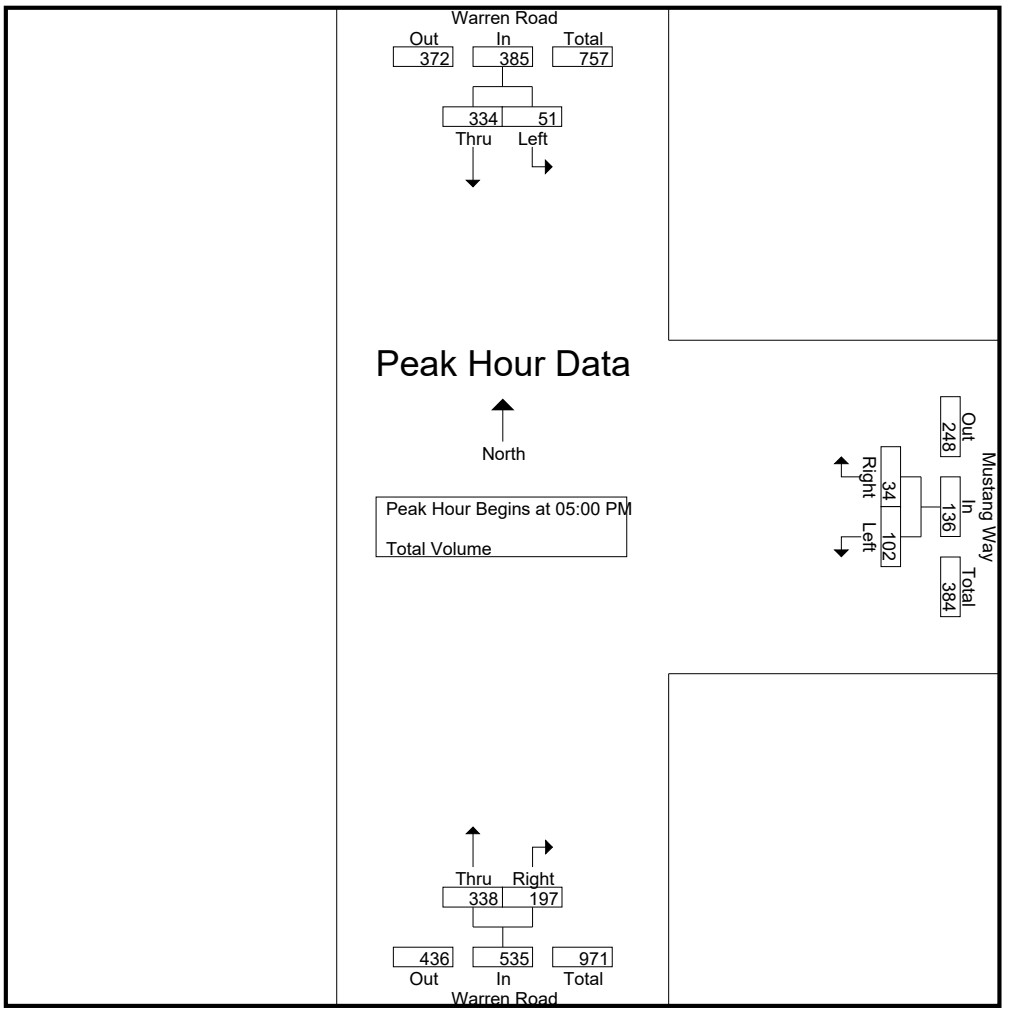

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:30 PM			05:00 PM		
+0 mins.	**18**	**91**	**109**	16	9	25	81	46	127
+15 mins.	9	86	95	**37**	**10**	**47**	77	45	122
+30 mins.	7	80	87	27	7	34	**100**	**56**	**156**
+45 mins.	17	77	94	35	7	42	80	50	130
Total Volume	51	334	385	115	33	148	338	197	535
% App. Total	13.2	86.8		77.7	22.3		63.2	36.8	
PHF	.708	.918	.883	.777	.825	.787	.845	.879	.857

Location: City of Hemet
N/S: Warren Road
E/W: Mustang Way

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Warren Road	East Leg Mustang Way	South Leg Warren Road	West Leg Dead End	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Warren Road	East Leg Mustang Way	South Leg Warren Road	West Leg Dead End	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	1	0	0	1
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	1

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Location: City of Hemet
N/S: Warren Road
E/W: Mustang Way

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Warren Road	East Leg Mustang Way	South Leg Warren Road	West Leg Dead End	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Warren Road	East Leg Mustang Way	South Leg Warren Road	West Leg Dead End	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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City of Hemet
N/S: Warren Road
E/W: Simpson Road
Weather: Clear

File Name : 19_HEM_WA_SI AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Simpson Road Westbound				Warren Road Northbound				Simpson Road Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	72	25	0	97	8	69	0	77	22	4	0	26	0	200	200
07:15 AM	87	39	0	126	10	95	0	105	24	12	0	36	0	267	267
07:30 AM	96	47	0	143	8	94	0	102	40	8	0	48	0	293	293
07:45 AM	83	38	0	121	5	75	0	80	27	5	0	32	0	233	233
Total	338	149	0	487	31	333	0	364	113	29	0	142	0	993	993
08:00 AM	80	31	0	111	15	57	0	72	37	3	0	40	0	223	223
08:15 AM	75	27	0	102	4	56	0	60	35	7	0	42	0	204	204
08:30 AM	81	31	0	112	1	52	0	53	27	8	0	35	0	200	200
08:45 AM	63	17	0	80	6	52	0	58	15	4	0	19	0	157	157
Total	299	106	0	405	26	217	0	243	114	22	0	136	0	784	784
Grand Total	637	255	0	892	57	550	0	607	227	51	0	278	0	1777	1777
Apprch %	71.4	28.6			9.4	90.6			81.7	18.3					
Total %	35.8	14.4		50.2	3.2	31		34.2	12.8	2.9		15.6	0	100	

	Simpson Road Westbound			Warren Road Northbound			Simpson Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	87	39	126	10	**95**	**105**	24	**12**	36	267
07:30 AM	**96**	**47**	**143**	8	94	102	**40**	8	**48**	**293**
07:45 AM	83	38	121	5	75	80	27	5	32	233
08:00 AM	80	31	111	**15**	57	72	37	3	40	223
Total Volume	346	155	501	38	321	359	128	28	156	1016
% App. Total	69.1	30.9		10.6	89.4		82.1	17.9		
PHF	.901	.824	.876	.633	.845	.855	.800	.583	.813	.867

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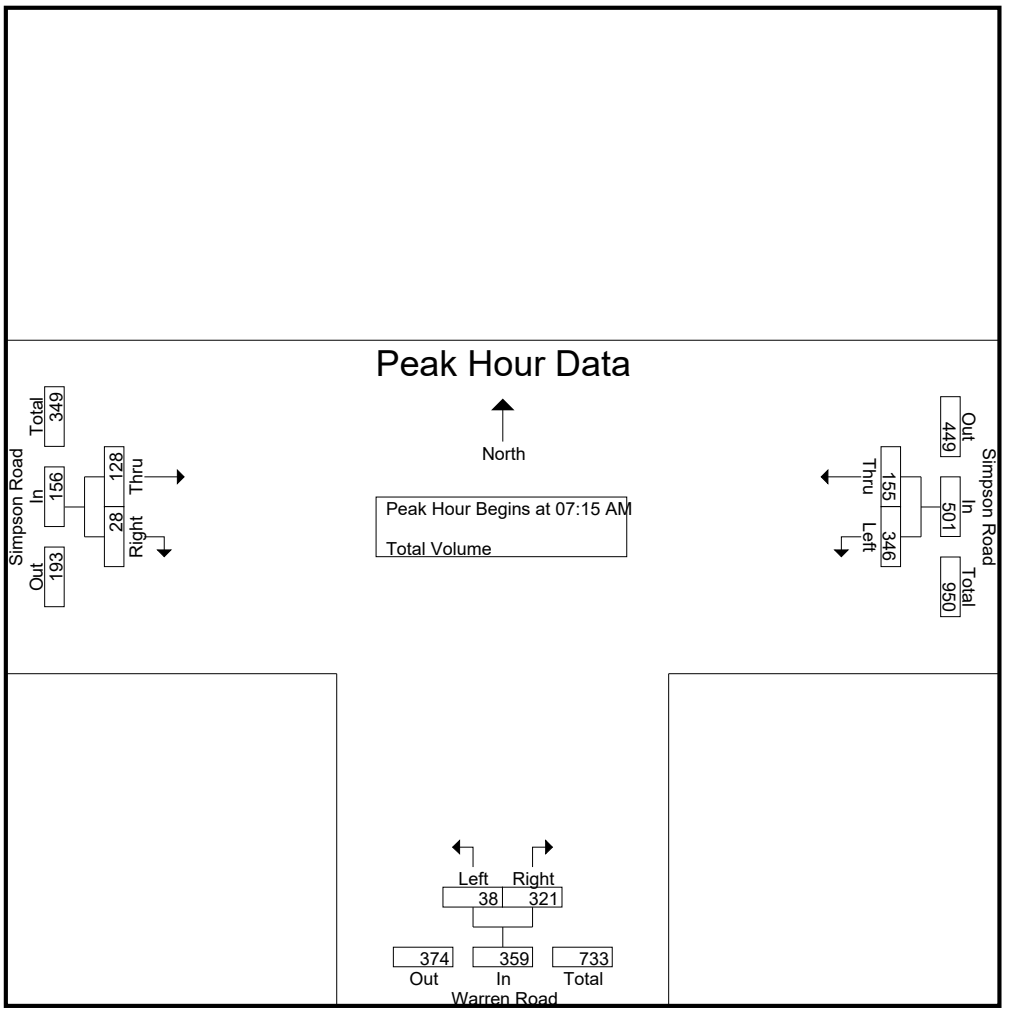
City of Hemet
N/S: Warren Road
E/W: Simpson Road
Weather: Clear

File Name : 19_HEM_WA_SI AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:00 AM			07:30 AM		
+0 mins.	87	39	126	8	69	77	**40**	**8**	**48**
+15 mins.	**96**	**47**	**143**	**10**	**95**	**105**	27	5	32
+30 mins.	83	38	121	8	94	102	37	3	40
+45 mins.	80	31	111	5	75	80	35	7	42
Total Volume	346	155	501	31	333	364	139	23	162
% App. Total	69.1	30.9		8.5	91.5		85.8	14.2	
PHF	.901	.824	.876	.775	.876	.867	.869	.719	.844

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City of Hemet
N/S: Warren Road
E/W: Simpson Road
Weather: Clear

File Name : 19_HEM_WA_SI PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Simpson Road Westbound				Warren Road Northbound				Simpson Road Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	80	32	0	112	6	72	0	78	38	4	0	42	0	232	232
04:15 PM	73	30	0	103	3	88	0	91	38	8	0	46	0	240	240
04:30 PM	55	23	0	78	6	85	0	91	49	8	0	57	0	226	226
04:45 PM	78	27	0	105	5	78	0	83	39	7	0	46	0	234	234
Total	286	112	0	398	20	323	0	343	164	27	0	191	0	932	932
05:00 PM	90	28	0	118	7	87	0	94	45	11	0	56	0	268	268
05:15 PM	84	37	0	121	5	83	0	88	42	6	0	48	0	257	257
05:30 PM	67	39	0	106	6	99	0	105	53	8	0	61	0	272	272
05:45 PM	73	26	0	99	4	76	0	80	46	5	0	51	0	230	230
Total	314	130	0	444	22	345	0	367	186	30	0	216	0	1027	1027
Grand Total	600	242	0	842	42	668	0	710	350	57	0	407	0	1959	1959
Apprch %	71.3	28.7			5.9	94.1			86	14					
Total %	30.6	12.4		43	2.1	34.1		36.2	17.9	2.9		20.8	0	100	

	Simpson Road Westbound			Warren Road Northbound			Simpson Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	78	27	105	5	78	83	39	7	46	234
05:00 PM	**90**	28	118	**7**	87	94	45	**11**	56	268
05:15 PM	84	37	**121**	5	83	88	42	6	48	257
05:30 PM	67	**39**	106	6	**99**	**105**	**53**	8	**61**	**272**
Total Volume	319	131	450	23	347	370	179	32	211	1031
% App. Total	70.9	29.1		6.2	93.8		84.8	15.2		
PHF	.886	.840	.930	.821	.876	.881	.844	.727	.865	.948

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City of Hemet
N/S: Warren Road
E/W: Simpson Road
Weather: Clear

File Name : 19_HEM_WA_SI PM
Site Code : 05117481
Start Date : 8/10/2017
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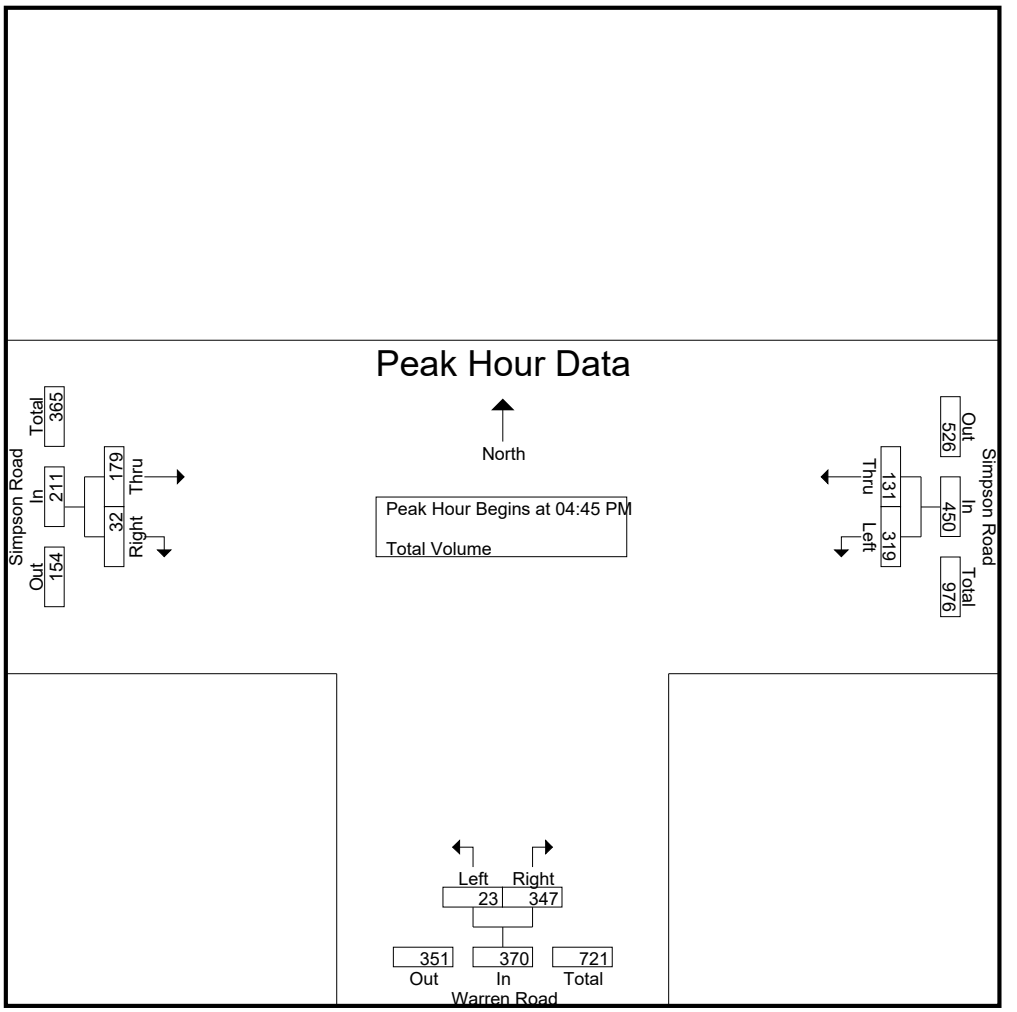

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			05:00 PM		
+0 mins.	78	27	105	5	78	83	45	**11**	56
+15 mins.	**90**	28	118	**7**	87	94	42	6	48
+30 mins.	84	37	**121**	5	83	88	**53**	8	**61**
+45 mins.	67	**39**	106	6	**99**	**105**	46	5	51
Total Volume	319	131	450	23	347	370	186	30	216
% App. Total	70.9	29.1		6.2	93.8		86.1	13.9	
PHF	.886	.840	.930	.821	.876	.881	.877	.682	.885

Location: City of Hemet
N/S: Warren Road
E/W: Simpson Road

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Warren Road	East Leg Simpson Road	South Leg Warren Road	West Leg Simpson Road	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Warren Road	East Leg Simpson Road	South Leg Warren Road	West Leg Simpson Road	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: City of Hemet
N/S: Warren Road
E/W: Simpson Road

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Warren Road	East Leg Simpson Road	South Leg Warren Road	West Leg Simpson Road	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	1	0	1
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

	North Leg Warren Road	East Leg Simpson Road	South Leg Warren Road	West Leg Simpson Road	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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City of Hemet
N/S: Warren Road
E/W: Domenigoni Parkway
Weather: Clear

File Name : 20_HEM_WA_DO AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound					Domenigoni Parkway Westbound					Warren Road Northbound					Domenigoni Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	5	0	78	24	83	1	262	10	2	273	0	1	0	0	1	73	242	1	0	316	26	673	699
07:15 AM	11	1	83	36	95	0	325	11	3	336	0	1	1	1	2	84	263	1	0	348	40	781	821
07:30 AM	16	1	87	36	104	0	327	8	3	335	2	2	0	0	4	91	290	0	0	381	39	824	863
07:45 AM	10	0	80	36	90	1	293	13	1	307	1	0	0	0	1	74	236	0	0	310	37	708	745
Total	42	2	328	132	372	2	1207	42	9	1251	3	4	1	1	8	322	1031	2	0	1355	142	2986	3128
08:00 AM	3	1	80	37	84	0	291	16	3	307	0	2	0	0	2	55	203	2	0	260	40	653	693
08:15 AM	3	2	77	34	82	0	289	4	1	293	0	0	0	0	0	52	201	0	0	253	35	628	663
08:30 AM	10	1	82	40	93	0	246	1	0	247	0	0	0	0	0	52	195	0	0	247	40	587	627
08:45 AM	3	0	60	33	63	0	242	8	2	250	1	1	0	0	2	53	176	0	0	229	35	544	579
Total	19	4	299	144	322	0	1068	29	6	1097	1	3	0	0	4	212	775	2	0	989	150	2412	2562
Grand Total	61	6	627	276	694	2	2275	71	15	2348	4	7	1	1	12	534	1806	4	0	2344	292	5398	5690
Apprch %	8.8	0.9	90.3			0.1	96.9	3			33.3	58.3	8.3			22.8	77	0.2					
Total %	1.1	0.1	11.6		12.9	0	42.1	1.3		43.5	0.1	0.1	0		0.2	9.9	33.5	0.1		43.4	5.1	94.9	

	Warren Road Southbound				Domenigoni Parkway Westbound				Warren Road Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	5	0	78	83	**1**	262	10	273	0	1	0	1	73	242	**1**	316	673
07:15 AM	11	**1**	83	95	0	325	11	**336**	0	1	**1**	2	84	263	1	348	781
07:30 AM	**16**	1	**87**	**104**	0	**327**	8	335	**2**	**2**	0	**4**	**91**	**290**	0	**381**	**824**
07:45 AM	10	0	80	90	1	293	**13**	307	1	0	0	1	74	236	0	310	708
Total Volume	42	2	328	372	2	1207	42	1251	3	4	1	8	322	1031	2	1355	2986
% App. Total	11.3	0.5	88.2		0.2	96.5	3.4		37.5	50	12.5		23.8	76.1	0.1		
PHF	.656	.500	.943	.894	.500	.923	.808	.931	.375	.500	.250	.500	.885	.889	.500	.889	.906

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City of Hemet
N/S: Warren Road
E/W: Domenigoni Parkway
Weather: Clear

File Name : 20_HEM_WA_DO AM
Site Code : 05117481
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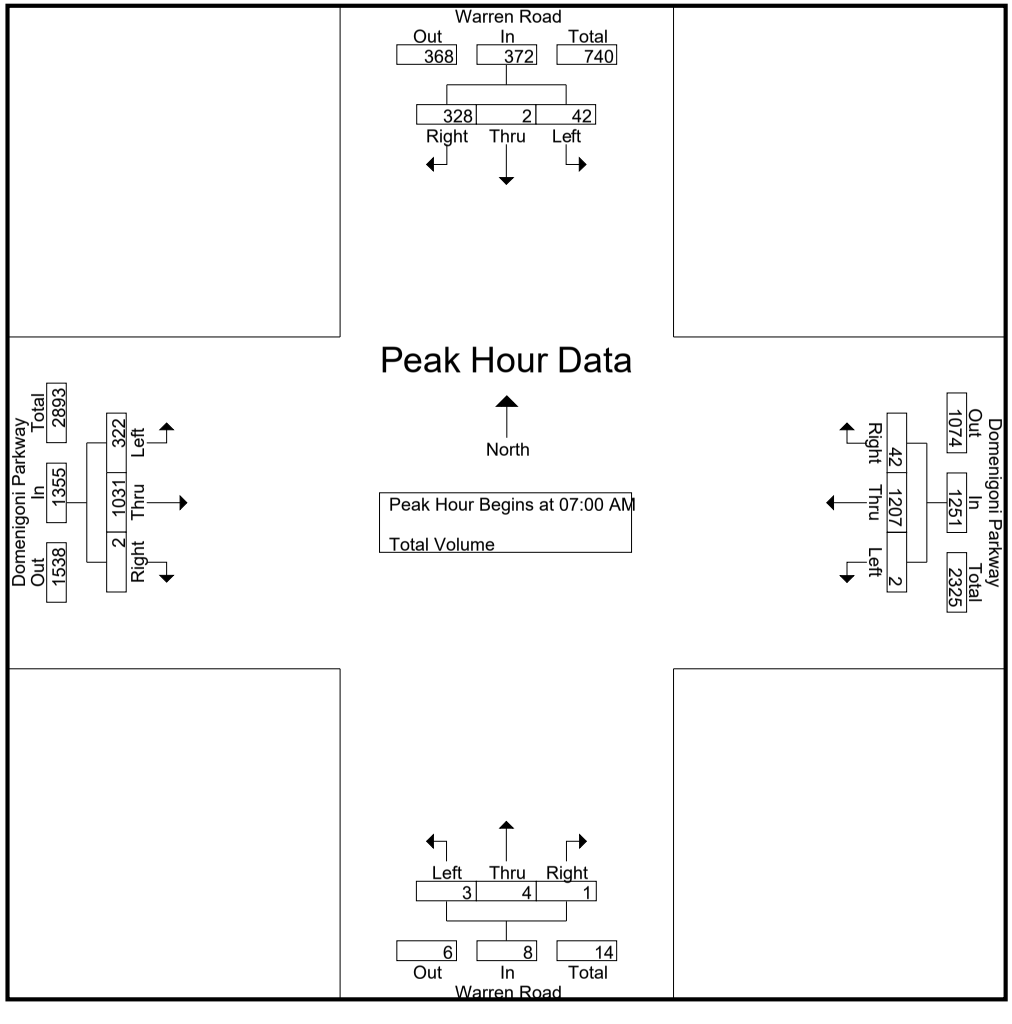

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City of Hemet
N/S: Warren Road
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Weather: Clear

File Name : 20_HEM_WA_DO AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Warren Road Southbound				Domenigoni Parkway Westbound				Warren Road Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:00 AM				
+0 mins.	11	**1**	83	95	0	325	11	**336**	0	1	**1**	2	73	242	**1**	316	
+15 mins.	**16**	1	**87**	**104**	0	**327**	8	335	**2**	**2**	0	**4**	84	263	1	348	
+30 mins.	10	0	80	90	**1**	293	13	307	1	0	0	1	**91**	**290**	0	**381**	
+45 mins.	3	1	80	84	0	291	**16**	307	0	2	0	2	74	236	0	310	
Total Volume	40	3	330	373	1	1236	48	1285	3	5	1	9	322	1031	2	1355	
% App. Total	10.7	0.8	88.5		0.1	96.2	3.7		33.3	55.6	11.1		23.8	76.1	0.1		
PHF	.625	.750	.948	.897	.250	.945	.750	.956	.375	.625	.250	.563	.885	.889	.500	.889	

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City of Hemet
N/S: Warren Road
E/W: Domenigoni Parkway
Weather: Clear

File Name : 20_HEM_WA_DO PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Warren Road Southbound					Domenigoni Parkway Westbound					Warren Road Northbound					Domenigoni Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	7	1	84	43	92	1	252	7	2	260	1	1	0	0	2	70	340	0	0	410	45	764	809
04:15 PM	6	0	66	37	72	0	314	4	1	318	1	0	0	0	1	82	331	1	0	414	38	805	843
04:30 PM	13	0	58	25	71	0	284	5	1	289	0	2	0	0	2	90	323	2	0	415	26	777	803
04:45 PM	7	0	81	45	88	1	284	5	1	290	0	0	0	0	0	72	319	3	2	394	48	772	820
Total	33	1	289	150	323	2	1134	21	5	1157	2	3	0	0	5	314	1313	6	2	1633	157	3118	3275
05:00 PM	10	0	80	52	90	1	249	6	2	256	2	3	0	0	5	82	316	1	0	399	54	750	804
05:15 PM	8	0	92	57	100	1	293	10	4	304	0	0	1	0	1	88	347	1	0	436	61	841	902
05:30 PM	9	2	74	47	85	0	261	4	0	265	1	0	0	0	1	99	331	1	0	431	47	782	829
05:45 PM	9	0	69	32	78	0	232	8	1	240	0	1	0	0	1	71	332	0	0	403	33	722	755
Total	36	2	315	188	353	2	1035	28	7	1065	3	4	1	0	8	340	1326	3	0	1669	195	3095	3290
Grand Total	69	3	604	338	676	4	2169	49	12	2222	5	7	1	0	13	654	2639	9	2	3302	352	6213	6565
Apprch %	10.2	0.4	89.3			0.2	97.6	2.2			38.5	53.8	7.7			19.8	79.9	0.3					
Total %	1.1	0	9.7		10.9	0.1	34.9	0.8		35.8	0.1	0.1	0		0.2	10.5	42.5	0.1		53.1	5.4	94.6	

	Warren Road Southbound				Domenigoni Parkway Westbound				Warren Road Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	7	0	81	88	**1**	284	5	290	0	0	0	0	72	319	**3**	394	772
05:00 PM	**10**	0	80	90	1	249	6	256	**2**	**3**	0	**5**	82	316	1	399	750
05:15 PM	8	0	**92**	**100**	1	**293**	**10**	**304**	0	0	**1**	1	88	**347**	1	**436**	**841**
05:30 PM	9	**2**	74	85	0	261	4	265	1	0	0	1	**99**	331	1	431	782
Total Volume	34	2	327	363	3	1087	25	1115	3	3	1	7	341	1313	6	1660	3145
% App. Total	9.4	0.6	90.1		0.3	97.5	2.2		42.9	42.9	14.3		20.5	79.1	0.4		
PHF	.850	.250	.889	.908	.750	.927	.625	.917	.375	.250	.250	.350	.861	.946	.500	.952	.935

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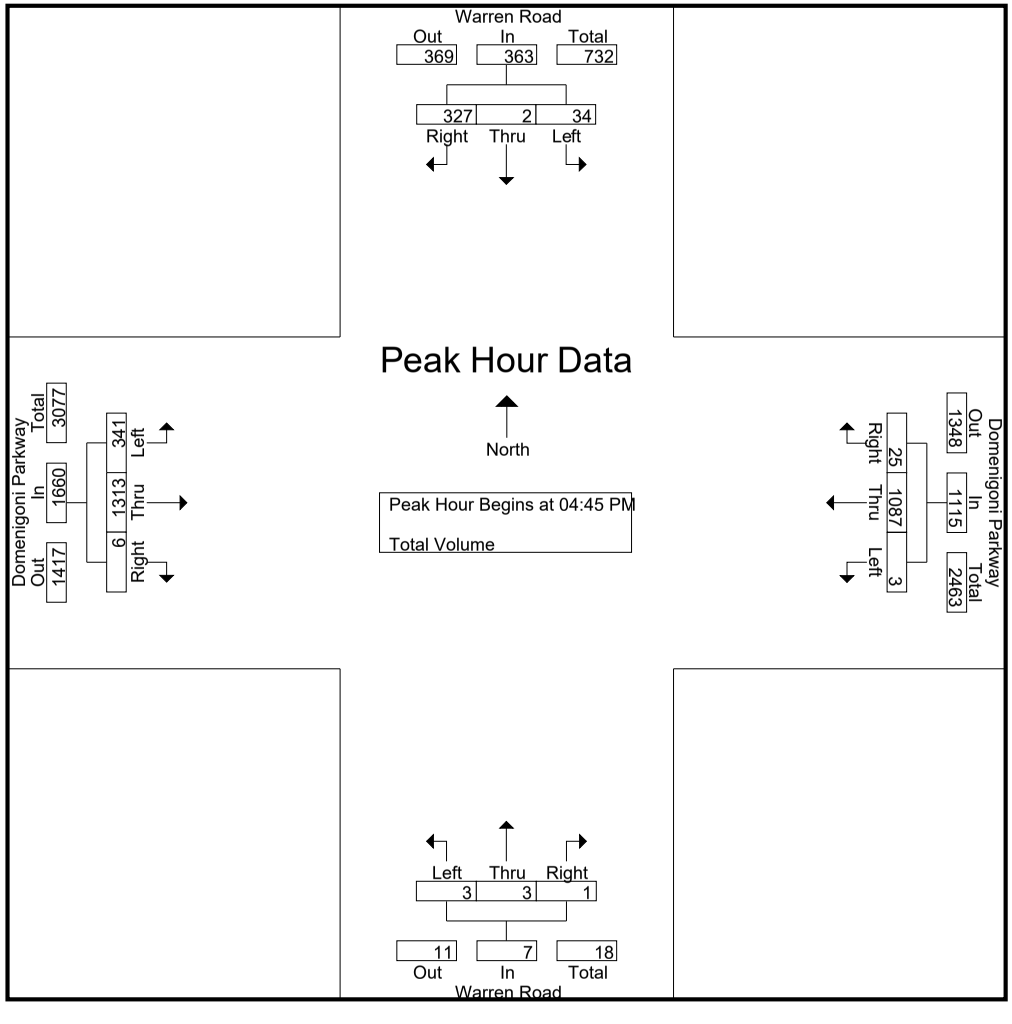
City of Hemet
N/S: Warren Road
E/W: Domenigoni Parkway
Weather: Clear

File Name : 20_HEM_WA_DO PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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City of Hemet
N/S: Warren Road
E/W: Domenigoni Parkway
Weather: Clear

File Name : 20_HEM_WA_DO PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Warren Road Southbound				Domenigoni Parkway Westbound				Warren Road Northbound				Domenigoni Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:00 PM				04:15 PM				05:00 PM				
+0 mins.	7	0	81	88	**1**	252	**7**	260	1	0	0	1	82	316	**1**	399	
+15 mins.	**10**	0	80	90	0	**314**	4	**318**	0	2	0	2	88	**347**	1	**436**	
+30 mins.	8	0	**92**	**100**	0	284	5	289	0	0	0	0	**99**	331	1	431	
+45 mins.	9	**2**	74	85	1	284	5	290	**2**	**3**	0	**5**	71	332	0	403	
Total Volume	34	2	327	363	2	1134	21	1157	3	5	0	8	340	1326	3	1669	
% App. Total	9.4	0.6	90.1		0.2	98	1.8		37.5	62.5	0		20.4	79.4	0.2		
PHF	.850	.250	.889	.908	.500	.903	.750	.910	.375	.417	.000	.400	.859	.955	.750	.957	

Location: City of Hemet
N/S: Warren Road
E/W: Domenigoni Parkway

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Warren Road	East Leg Domenigoni Parkway	South Leg Warren Road	West Leg Domenigoni Parkway	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Warren Road	East Leg Domenigoni Parkway	South Leg Warren Road	West Leg Domenigoni Parkway	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: City of Hemet
N/S: Warren Road
E/W: Domenigoni Parkway

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Warren Road	East Leg Domenigoni Parkway	South Leg Warren Road	West Leg Domenigoni Parkway	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	1	0	1
7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	4	0	0	0	4
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	5	0	1	0	6

	North Leg Warren Road	East Leg Domenigoni Parkway	South Leg Warren Road	West Leg Domenigoni Parkway	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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City of Hemet
N/S: Myers Street
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 21_HEM_MY_74 AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Myers Street Southbound					Florida Avenue (SR-74) Westbound					Myers Street Northbound					Florida Avenue (SR-74) Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	2	11	8	13	2	130	1	0	133	6	2	1	0	9	13	136	0	0	149	8	304	312
07:15 AM	1	0	18	10	19	3	155	3	0	161	3	3	7	1	13	19	125	1	0	145	11	338	349
07:30 AM	0	1	17	15	18	5	143	0	0	148	1	0	4	3	5	20	171	1	0	192	18	363	381
07:45 AM	0	1	25	21	26	2	143	1	0	146	4	5	8	7	17	17	161	1	0	179	28	368	396
Total	1	4	71	54	76	12	571	5	0	588	14	10	20	11	44	69	593	3	0	665	65	1373	1438
08:00 AM	0	6	21	14	27	2	138	0	0	140	6	3	6	2	15	16	161	1	0	178	16	360	376
08:15 AM	0	1	11	9	12	7	132	3	0	142	7	5	10	6	22	12	165	1	0	178	15	354	369
08:30 AM	1	2	11	10	14	4	135	3	0	142	4	3	12	9	19	17	174	1	0	192	19	367	386
08:45 AM	1	6	8	5	15	9	131	0	0	140	5	8	11	6	24	13	167	5	0	185	11	364	375
Total	2	15	51	38	68	22	536	6	0	564	22	19	39	23	80	58	667	8	0	733	61	1445	1506
Grand Total	3	19	122	92	144	34	1107	11	0	1152	36	29	59	34	124	127	1260	11	0	1398	126	2818	2944
Apprch %	2.1	13.2	84.7			3	96.1	1			29	23.4	47.6			9.1	90.1	0.8					
Total %	0.1	0.7	4.3		5.1	1.2	39.3	0.4		40.9	1.3	1	2.1		4.4	4.5	44.7	0.4		49.6	4.3	95.7	

	Myers Street Southbound				Florida Avenue (SR-74) Westbound				Myers Street Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	1	**25**	26	2	**143**	1	**146**	4	**5**	8	17	**17**	161	**1**	179	**368**
08:00 AM	0	**6**	21	**27**	2	138	0	140	6	3	6	15	16	161	1	178	360
08:15 AM	0	1	11	12	**7**	132	**3**	142	**7**	5	10	**22**	12	165	1	178	354
08:30 AM	**1**	2	11	14	4	135	3	142	4	3	**12**	19	17	**174**	1	**192**	367
Total Volume	1	10	68	79	15	548	7	570	21	16	36	73	62	661	4	727	1449
% App. Total	1.3	12.7	86.1		2.6	96.1	1.2		28.8	21.9	49.3		8.5	90.9	0.6		
PHF	.250	.417	.680	.731	.536	.958	.583	.976	.750	.800	.750	.830	.912	.950	1.00	.947	.984

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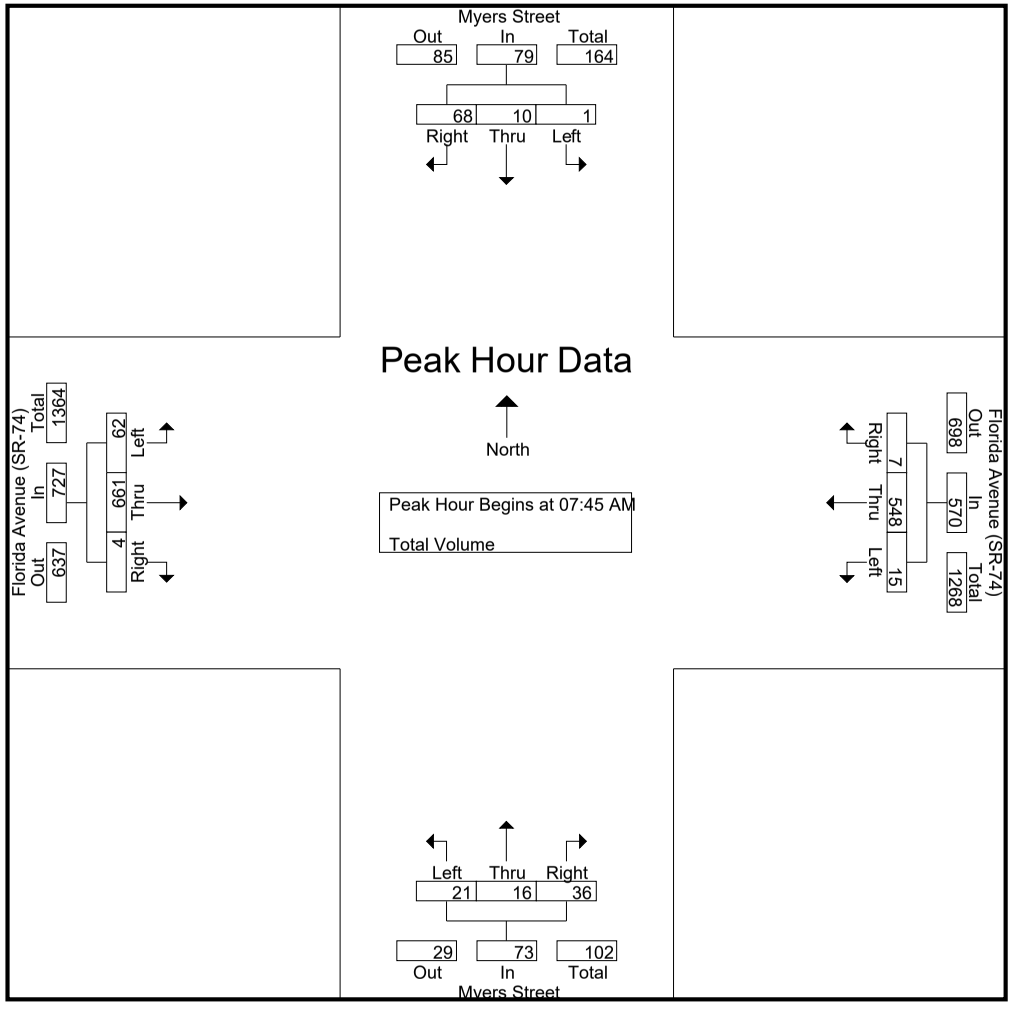
City of Hemet
N/S: Myers Street
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 21_HEM_MY_74 AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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City of Hemet
N/S: Myers Street
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File Name : 21_HEM_MY_74 AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Myers Street Southbound				Florida Avenue (SR-74) Westbound				Myers Street Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				08:00 AM				08:00 AM				
+0 mins.	**1**	0	18	19	3	**155**	**3**	**161**	6	3	6	15	16	161	1	178	
+15 mins.	0	1	17	18	**5**	143	0	148	**7**	5	10	22	12	165	1	178	
+30 mins.	0	1	**25**	26	2	143	1	146	4	3	**12**	19	**17**	**174**	1	**192**	
+45 mins.	0	**6**	21	**27**	2	138	0	140	5	**8**	11	**24**	13	167	**5**	185	
Total Volume	1	8	81	90	12	579	4	595	22	19	39	80	58	667	8	733	
% App. Total	1.1	8.9	90		2	97.3	0.7		27.5	23.8	48.8		7.9	91	1.1		
PHF	.250	.333	.810	.833	.600	.934	.333	.924	.786	.594	.813	.833	.853	.958	.400	.954	

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City of Hemet
N/S: Myers Street
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 21_HEM_MY_74 PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Myers Street Southbound					Florida Avenue (SR-74) Westbound					Myers Street Northbound					Florida Avenue (SR-74) Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	2	19	16	21	17	191	2	1	210	1	4	11	8	16	32	253	10	3	295	28	542	570
04:15 PM	3	5	16	12	24	9	189	1	0	199	6	3	7	5	16	26	218	4	2	248	19	487	506
04:30 PM	1	5	20	18	26	13	168	3	2	184	1	2	8	6	11	32	254	6	3	292	29	513	542
04:45 PM	3	4	12	9	19	9	172	2	2	183	3	3	10	9	16	30	254	7	3	291	23	509	532
Total	7	16	67	55	90	48	720	8	5	776	11	12	36	28	59	120	979	27	11	1126	99	2051	2150
05:00 PM	2	6	13	8	21	8	196	4	2	208	0	8	16	10	24	40	216	5	3	261	23	514	537
05:15 PM	1	4	19	16	24	10	249	3	2	262	2	7	6	3	15	33	239	2	1	274	22	575	597
05:30 PM	4	5	12	12	21	19	205	3	0	227	1	6	5	4	12	40	234	6	4	280	20	540	560
05:45 PM	3	1	14	12	18	11	176	2	2	189	2	7	8	4	17	32	253	6	1	291	19	515	534
Total	10	16	58	48	84	48	826	12	6	886	5	28	35	21	68	145	942	19	9	1106	84	2144	2228
Grand Total	17	32	125	103	174	96	1546	20	11	1662	16	40	71	49	127	265	1921	46	20	2232	183	4195	4378
Apprch %	9.8	18.4	71.8			5.8	93	1.2			12.6	31.5	55.9			11.9	86.1	2.1					
Total %	0.4	0.8	3		4.1	2.3	36.9	0.5		39.6	0.4	1	1.7		3	6.3	45.8	1.1		53.2	4.2	95.8	

	Myers Street Southbound				Florida Avenue (SR-74) Westbound				Myers Street Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	2	**6**	13	21	8	196	**4**	208	0	**8**	**16**	**24**	**40**	216	5	261	514
05:15 PM	1	4	**19**	**24**	10	**249**	3	**262**	**2**	7	6	15	33	239	2	274	**575**
05:30 PM	**4**	5	12	21	**19**	205	3	227	1	6	5	12	40	234	**6**	280	540
05:45 PM	3	1	14	18	11	176	2	189	2	7	8	17	32	**253**	6	**291**	515
Total Volume	10	16	58	84	48	826	12	886	5	28	35	68	145	942	19	1106	2144
% App. Total	11.9	19	69		5.4	93.2	1.4		7.4	41.2	51.5		13.1	85.2	1.7		
PHF	.625	.667	.763	.875	.632	.829	.750	.845	.625	.875	.547	.708	.906	.931	.792	.950	.932

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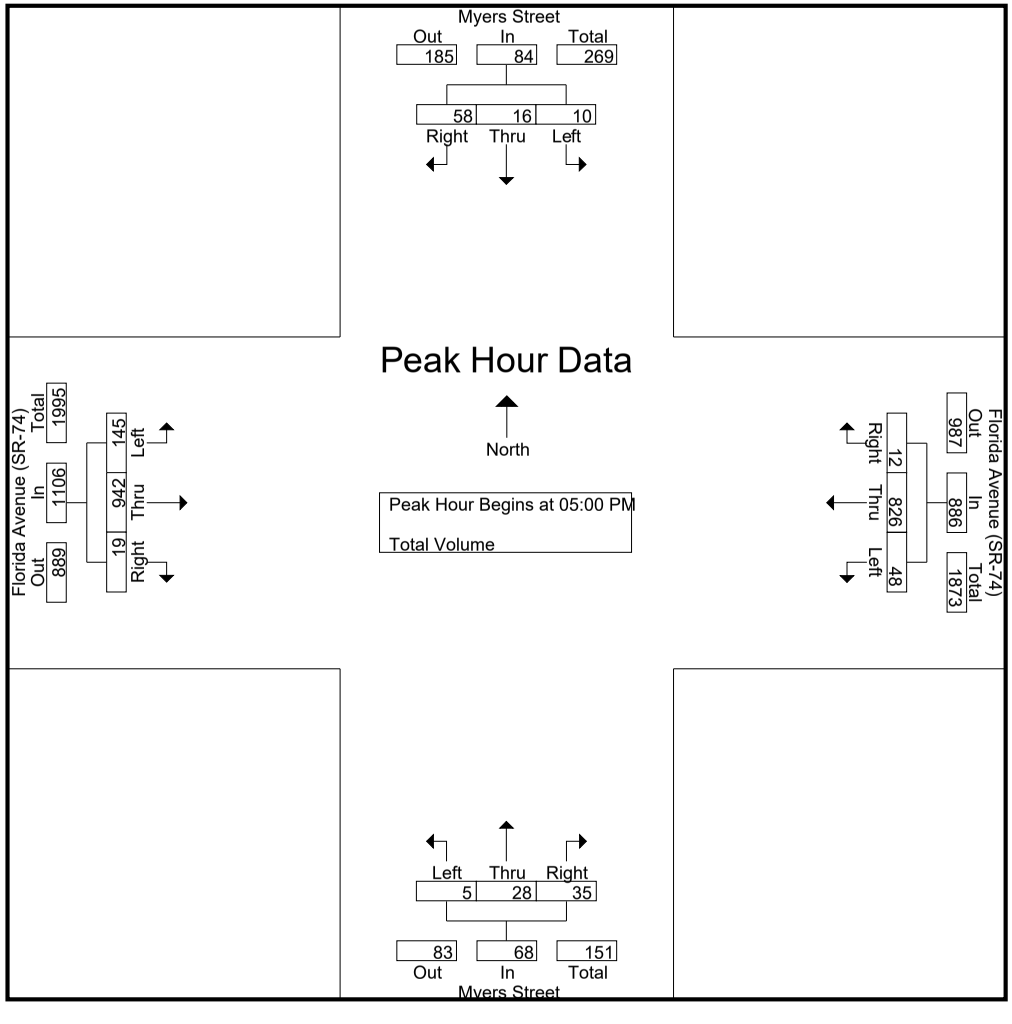
City of Hemet
N/S: Myers Street
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 21_HEM_MY_74 PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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City of Hemet
N/S: Myers Street
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 21_HEM_MY_74 PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Myers Street Southbound				Florida Avenue (SR-74) Westbound				Myers Street Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				05:00 PM				05:00 PM				04:00 PM				
+0 mins.	0	2	19	21	8	196	**4**	208	0	**8**	**16**	**24**	**32**	253	**10**	**295**	
+15 mins.	**3**	**5**	16	24	10	**249**	3	**262**	**2**	7	6	15	26	218	4	248	
+30 mins.	1	5	**20**	**26**	**19**	205	3	227	1	6	5	12	32	**254**	6	292	
+45 mins.	3	4	12	19	11	176	2	189	2	7	8	17	30	254	7	291	
Total Volume	7	16	67	90	48	826	12	886	5	28	35	68	120	979	27	1126	
% App. Total	7.8	17.8	74.4		5.4	93.2	1.4		7.4	41.2	51.5		10.7	86.9	2.4		
PHF	.583	.800	.838	.865	.632	.829	.750	.845	.625	.875	.547	.708	.938	.964	.675	.954	

Location: City of Hemet
N/S: Myers Street
E/W: Florida Avenue (SR-74)

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Myers Street	East Leg Florida Avenue (SR-74)	South Leg Myers Street	West Leg Florida Avenue (SR-74)	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	2	0	0	0	2
8:15 AM	1	0	0	0	1
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	3	0	0	0	3

	North Leg Myers Street	East Leg Florida Avenue (SR-74)	South Leg Myers Street	West Leg Florida Avenue (SR-74)	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	1	0	0	1	2
4:30 PM	1	0	0	1	2
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	2	0	0	2	4

Location: City of Hemet
N/S: Myers Street
E/W: Florida Avenue (SR-74)

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Myers Street	East Leg Florida Avenue (SR-74)	South Leg Myers Street	West Leg Florida Avenue (SR-74)	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	1	2
7:30 AM	0	0	0	0	0
7:45 AM	0	0	1	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	1	1	3

	North Leg Myers Street	East Leg Florida Avenue (SR-74)	South Leg Myers Street	West Leg Florida Avenue (SR-74)	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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City of Hemet
N/S: West Acacia Avenue
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 22_HEM_AC_74 AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Florida Avenue (SR-74) Westbound				West Acacia Avenue Northbound				Florida Avenue (SR-74) Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	144	0	144	1	0	0	1	114	34	0	148	0	293	293
07:15 AM	1	163	0	164	1	0	0	1	118	19	0	137	0	302	302
07:30 AM	1	164	0	165	1	0	0	1	157	23	0	180	0	346	346
07:45 AM	0	171	0	171	1	0	0	1	158	35	0	193	0	365	365
Total	2	642	0	644	4	0	0	4	547	111	0	658	0	1306	1306
08:00 AM	0	155	0	155	2	0	0	2	143	26	0	169	0	326	326
08:15 AM	0	176	0	176	2	0	0	2	173	25	0	198	0	376	376
08:30 AM	0	145	0	145	1	0	0	1	174	27	0	201	0	347	347
08:45 AM	1	167	0	168	0	2	0	2	156	25	0	181	0	351	351
Total	1	643	0	644	5	2	0	7	646	103	0	749	0	1400	1400
Grand Total	3	1285	0	1288	9	2	0	11	1193	214	0	1407	0	2706	2706
Apprch %	0.2	99.8			81.8	18.2			84.8	15.2					
Total %	0.1	47.5		47.6	0.3	0.1		0.4	44.1	7.9		52	0	100	

	Florida Avenue (SR-74) Westbound			West Acacia Avenue Northbound			Florida Avenue (SR-74) Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	171	171	1	0	1	158	**35**	193	365
08:00 AM	0	155	155	**2**	0	**2**	143	26	169	326
08:15 AM	0	**176**	**176**	2	0	2	173	25	198	**376**
08:30 AM	0	145	145	1	0	1	**174**	27	**201**	347
Total Volume	0	647	647	6	0	6	648	113	761	1414
% App. Total	0	100		100	0		85.2	14.8		
PHF	.000	.919	.919	.750	.000	.750	.931	.807	.947	.940

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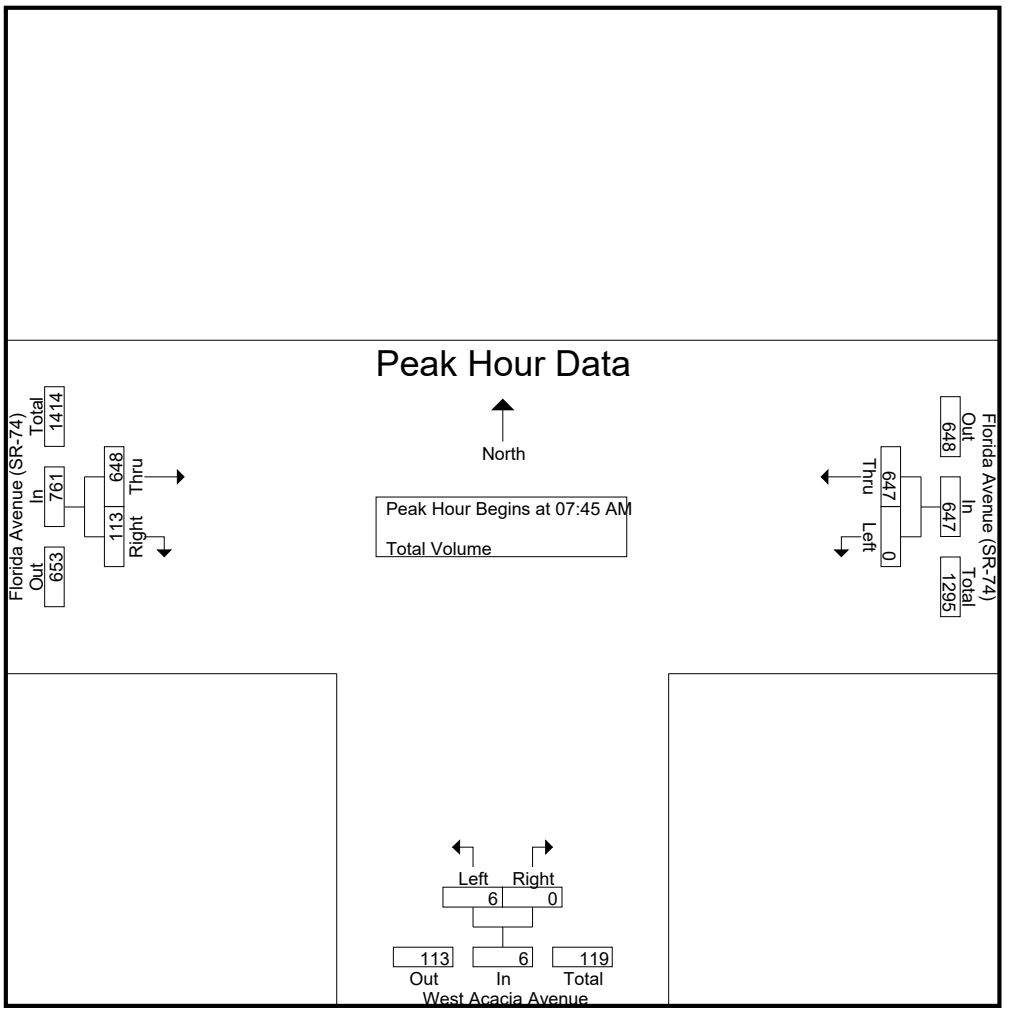
City of Hemet
N/S: West Acacia Avenue
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 22_HEM_AC_74 AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			08:00 AM			07:45 AM		
+0 mins.	**1**	164	165	**2**	0	**2**	158	**35**	193
+15 mins.	0	171	171	2	0	2	143	26	169
+30 mins.	0	155	155	1	0	1	173	25	198
+45 mins.	0	**176**	**176**	0	**2**	2	**174**	27	**201**
Total Volume	1	666	667	5	2	7	648	113	761
% App. Total	0.1	99.9		71.4	28.6		85.2	14.8	
PHF	.250	.946	.947	.625	.250	.875	.931	.807	.947

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City of Hemet
N/S: West Acacia Avenue
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 22_HEM_AC_74 PM
Site Code : 05117481
Start Date : 8/10/2017
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Groups Printed- Total Volume

	Florida Avenue (SR-74) Westbound				West Acacia Avenue Northbound				Florida Avenue (SR-74) Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	221	0	221	1	0	0	1	214	61	0	275	0	497	497
04:15 PM	0	228	0	228	1	2	0	3	219	61	0	280	0	511	511
04:30 PM	0	204	0	204	3	2	0	5	238	46	0	284	0	493	493
04:45 PM	1	202	0	203	2	1	0	3	208	64	0	272	0	478	478
Total	1	855	0	856	7	5	0	12	879	232	0	1111	0	1979	1979
05:00 PM	1	232	0	233	2	0	0	2	219	53	0	272	0	507	507
05:15 PM	0	284	0	284	2	1	0	3	217	47	0	264	0	551	551
05:30 PM	0	226	0	226	1	1	0	2	214	43	0	257	0	485	485
05:45 PM	0	211	0	211	1	0	0	1	247	58	0	305	0	517	517
Total	1	953	0	954	6	2	0	8	897	201	0	1098	0	2060	2060
Grand Total	2	1808	0	1810	13	7	0	20	1776	433	0	2209	0	4039	4039
Apprch %	0.1	99.9			65	35			80.4	19.6					
Total %	0	44.8		44.8	0.3	0.2		0.5	44	10.7		54.7	0	100	

	Florida Avenue (SR-74) Westbound			West Acacia Avenue Northbound			Florida Avenue (SR-74) Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	**1**	232	233	**2**	0	2	219	53	272	507
05:15 PM	0	**284**	**284**	2	**1**	**3**	217	47	264	**551**
05:30 PM	0	226	226	1	1	2	214	43	257	485
05:45 PM	0	211	211	1	0	1	**247**	**58**	**305**	517
Total Volume	1	953	954	6	2	8	897	201	1098	2060
% App. Total	0.1	99.9		75	25		81.7	18.3		
PHF	.250	.839	.840	.750	.500	.667	.908	.866	.900	.935

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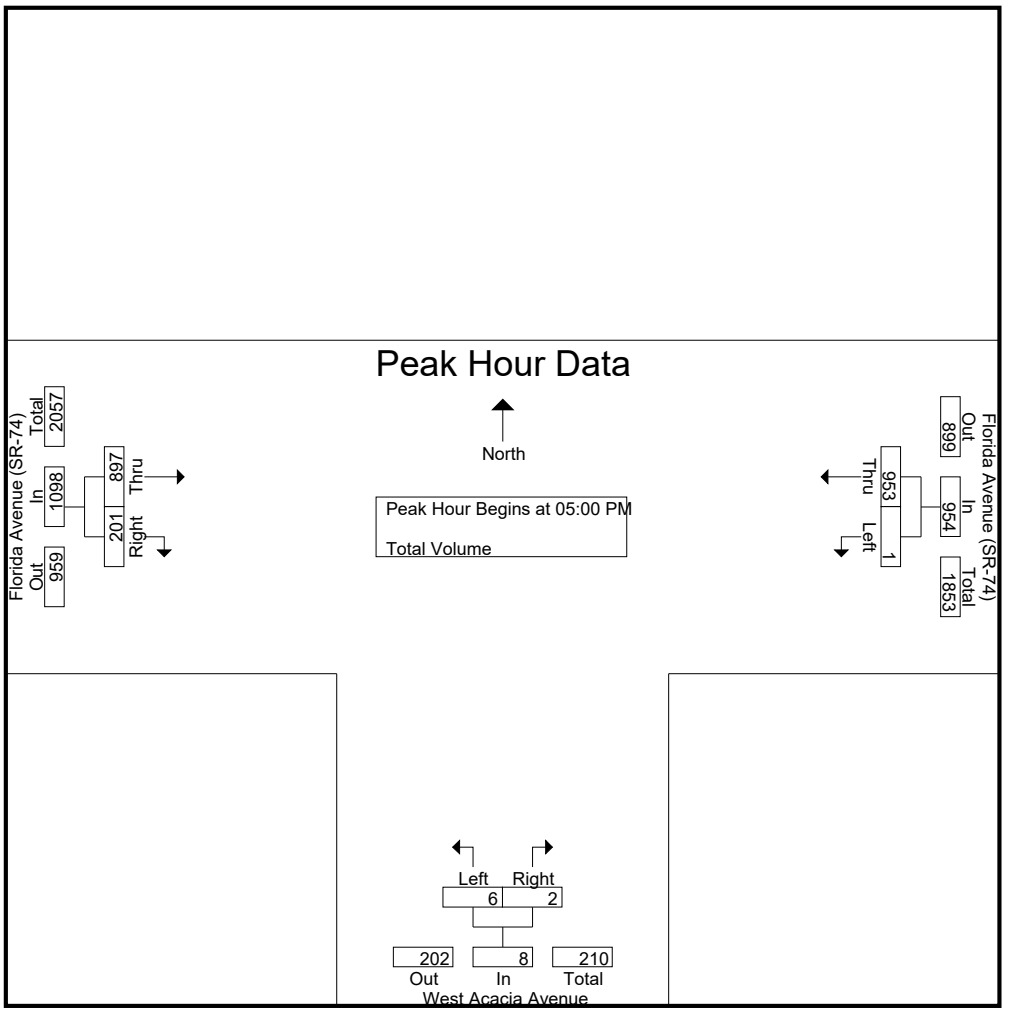
City of Hemet
N/S: West Acacia Avenue
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 22_HEM_AC_74 PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:15 PM			04:00 PM		
+0 mins.	**1**	232	233	1	**2**	3	214	61	275
+15 mins.	0	**284**	**284**	**3**	2	**5**	219	61	280
+30 mins.	0	226	226	2	1	3	**238**	46	**284**
+45 mins.	0	211	211	2	0	2	208	**64**	272
Total Volume	1	953	954	8	5	13	879	232	1111
% App. Total	0.1	99.9		61.5	38.5		79.1	20.9	
PHF	.250	.839	.840	.667	.625	.650	.923	.906	.978

Location: City of Hemet
N/S: West Acacia Avenue
E/W: Florida Avenue (SR-74)

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg West Acacia Avenue	East Leg Florida Avenue (SR-74)	South Leg West Acacia Avenue	West Leg Florida Avenue (SR-74)	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	2	0	2
TOTAL VOLUMES:	0	0	2	0	2

	North Leg West Acacia Avenue	East Leg Florida Avenue (SR-74)	South Leg West Acacia Avenue	West Leg Florida Avenue (SR-74)	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: City of Hemet
N/S: West Acacia Avenue
E/W: Florida Avenue (SR-74)

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg West Acacia Avenue	East Leg Florida Avenue (SR-74)	South Leg West Acacia Avenue	West Leg Florida Avenue (SR-74)	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	1	0	0	1
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	1

	North Leg West Acacia Avenue	East Leg Florida Avenue (SR-74)	South Leg West Acacia Avenue	West Leg Florida Avenue (SR-74)	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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City of Hemet
N/S: Cawston Avenue
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 23_HEM_CW_74 AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Cawston Avenue Southbound					Florida Avenue (SR-74) Westbound					Cawston Avenue Northbound					Florida Avenue (SR-74) Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	6	15	18	12	39	0	102	7	3	109	17	8	1	0	26	19	88	0	0	107	15	281	296
07:15 AM	9	21	32	21	62	0	124	7	3	131	12	11	1	1	24	17	97	1	0	115	25	332	357
07:30 AM	9	33	35	26	77	1	97	11	6	109	22	19	1	0	42	19	127	1	0	147	32	375	407
07:45 AM	26	13	21	18	60	0	125	14	8	139	30	8	1	0	39	20	123	4	1	147	27	385	412
Total	50	82	106	77	238	1	448	39	20	488	81	46	4	1	131	75	435	6	1	516	99	1373	1472
08:00 AM	17	19	22	17	58	1	111	11	4	123	29	21	3	2	53	19	136	3	0	158	23	392	415
08:15 AM	21	10	20	13	51	1	120	13	4	134	17	7	1	1	25	21	135	1	0	157	18	367	385
08:30 AM	18	13	26	17	57	1	110	11	5	122	23	12	0	0	35	28	148	2	0	178	22	392	414
08:45 AM	23	17	24	19	64	1	117	12	3	130	21	11	2	0	34	21	146	2	1	169	23	397	420
Total	79	59	92	66	230	4	458	47	16	509	90	51	6	3	147	89	565	8	1	662	86	1548	1634
Grand Total	129	141	198	143	468	5	906	86	36	997	171	97	10	4	278	164	1000	14	2	1178	185	2921	3106
Apprch %	27.6	30.1	42.3			0.5	90.9	8.6			61.5	34.9	3.6			13.9	84.9	1.2					
Total %	4.4	4.8	6.8		16	0.2	31	2.9		34.1	5.9	3.3	0.3		9.5	5.6	34.2	0.5		40.3	6	94	

	Cawston Avenue Southbound				Florida Avenue (SR-74) Westbound				Cawston Avenue Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	17	**19**	22	58	**1**	111	11	123	**29**	**21**	**3**	**53**	19	136	**3**	158	392
08:15 AM	21	10	20	51	1	**120**	**13**	**134**	17	7	1	25	21	135	1	157	367
08:30 AM	18	13	**26**	57	1	110	11	122	23	12	0	35	**28**	**148**	2	**178**	392
08:45 AM	**23**	17	24	**64**	1	117	12	130	21	11	2	34	21	146	2	169	**397**
Total Volume	79	59	92	230	4	458	47	509	90	51	6	147	89	565	8	662	1548
% App. Total	34.3	25.7	40		0.8	90	9.2		61.2	34.7	4.1		13.4	85.3	1.2		
PHF	.859	.776	.885	.898	1.00	.954	.904	.950	.776	.607	.500	.693	.795	.954	.667	.930	.975

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City of Hemet
N/S: Cawston Avenue
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Weather: Clear

File Name : 23_HEM_CW_74 AM
Site Code : 05117481
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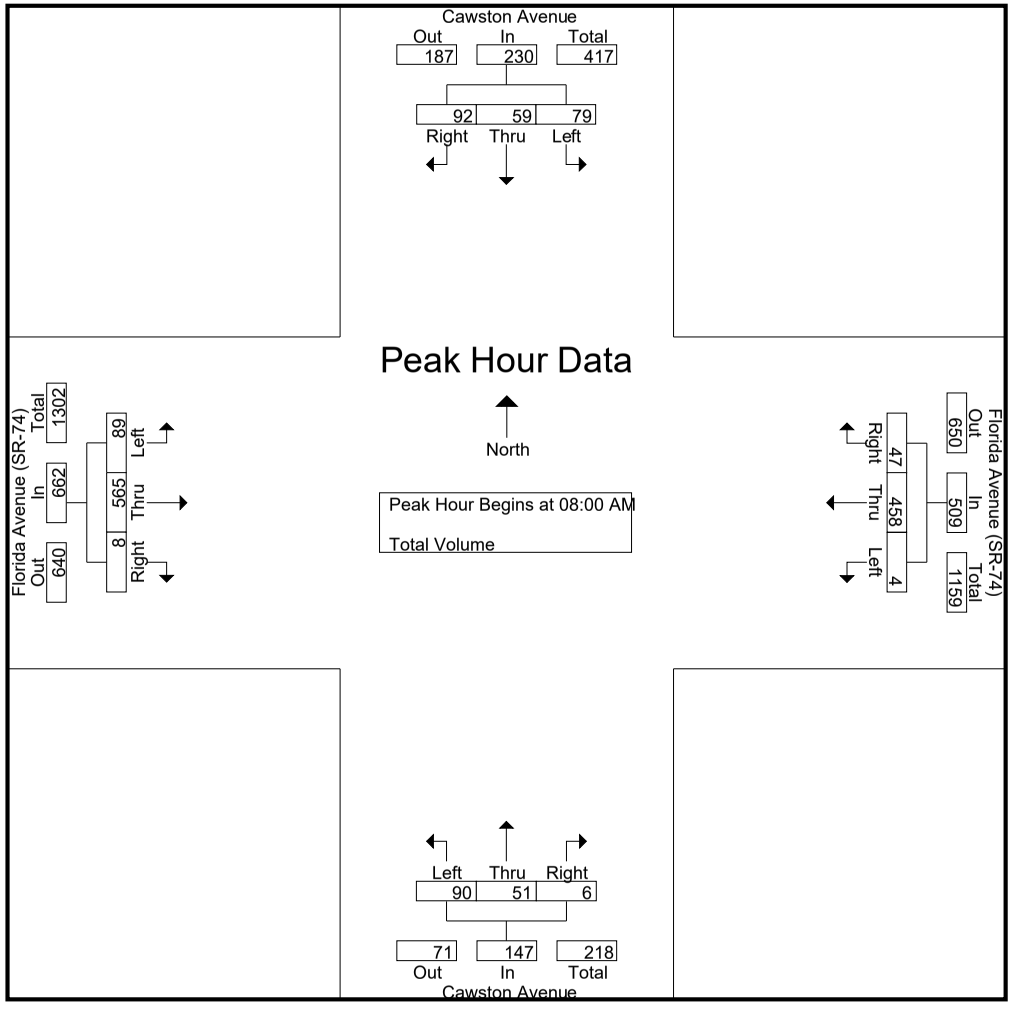

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	Cawston Avenue Southbound				Florida Avenue (SR-74) Westbound				Cawston Avenue Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:45 AM				07:30 AM				08:00 AM				
+0 mins.	9	21	32	62	0	**125**	**14**	**139**	22	19	1	42	19	136	**3**	158	
+15 mins.	9	**33**	**35**	**77**	**1**	111	11	123	**30**	8	1	39	21	135	1	157	
+30 mins.	**26**	13	21	60	1	120	13	134	29	**21**	**3**	**53**	**28**	**148**	2	**178**	
+45 mins.	17	19	22	58	1	110	11	122	17	7	1	25	21	146	2	169	
Total Volume	61	86	110	257	3	466	49	518	98	55	6	159	89	565	8	662	
% App. Total	23.7	33.5	42.8		0.6	90	9.5		61.6	34.6	3.8		13.4	85.3	1.2		
PHF	.587	.652	.786	.834	.750	.932	.875	.932	.817	.655	.500	.750	.795	.954	.667	.930	

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Groups Printed- Total Volume

	Cawston Avenue Southbound					Florida Avenue (SR-74) Westbound					Cawston Avenue Northbound					Florida Avenue (SR-74) Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	39	29	25	20	93	2	159	24	9	185	34	22	5	2	61	27	175	4	2	206	33	545	578
04:15 PM	26	22	37	27	85	4	150	18	11	172	25	13	8	3	46	32	176	4	1	212	42	515	557
04:30 PM	22	14	15	12	51	3	133	30	7	166	41	12	8	3	61	30	205	7	2	242	24	520	544
04:45 PM	26	18	20	17	64	1	144	25	8	170	43	15	7	2	65	28	177	2	0	207	27	506	533
Total	113	83	97	76	293	10	586	97	35	693	143	62	28	10	233	117	733	17	5	867	126	2086	2212
05:00 PM	21	23	26	16	70	3	173	24	11	200	41	17	4	1	62	36	198	1	0	235	28	567	595
05:15 PM	44	22	35	21	101	3	185	33	10	221	45	16	1	1	62	28	171	5	1	204	33	588	621
05:30 PM	24	31	25	9	80	2	167	20	9	189	33	30	4	3	67	37	184	3	1	224	22	560	582
05:45 PM	29	22	23	15	74	4	152	36	12	192	30	20	1	1	51	40	186	2	0	228	28	545	573
Total	118	98	109	61	325	12	677	113	42	802	149	83	10	6	242	141	739	11	2	891	111	2260	2371
Grand Total	231	181	206	137	618	22	1263	210	77	1495	292	145	38	16	475	258	1472	28	7	1758	237	4346	4583
Apprch %	37.4	29.3	33.3			1.5	84.5	14			61.5	30.5	8			14.7	83.7	1.6					
Total %	5.3	4.2	4.7		14.2	0.5	29.1	4.8		34.4	6.7	3.3	0.9		10.9	5.9	33.9	0.6		40.5	5.2	94.8	

	Cawston Avenue Southbound				Florida Avenue (SR-74) Westbound				Cawston Avenue Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	21	23	26	70	3	173	24	200	41	17	**4**	62	36	**198**	1	**235**	567
05:15 PM	**44**	22	**35**	**101**	3	**185**	33	**221**	**45**	16	1	62	28	171	**5**	204	**588**
05:30 PM	24	**31**	25	80	2	167	20	189	33	**30**	4	**67**	37	184	3	224	560
05:45 PM	29	22	23	74	**4**	152	**36**	192	30	20	1	51	**40**	186	2	228	545
Total Volume	118	98	109	325	12	677	113	802	149	83	10	242	141	739	11	891	2260
% App. Total	36.3	30.2	33.5		1.5	84.4	14.1		61.6	34.3	4.1		15.8	82.9	1.2		
PHF	.670	.790	.779	.804	.750	.915	.785	.907	.828	.692	.625	.903	.881	.933	.550	.948	.961

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City of Hemet
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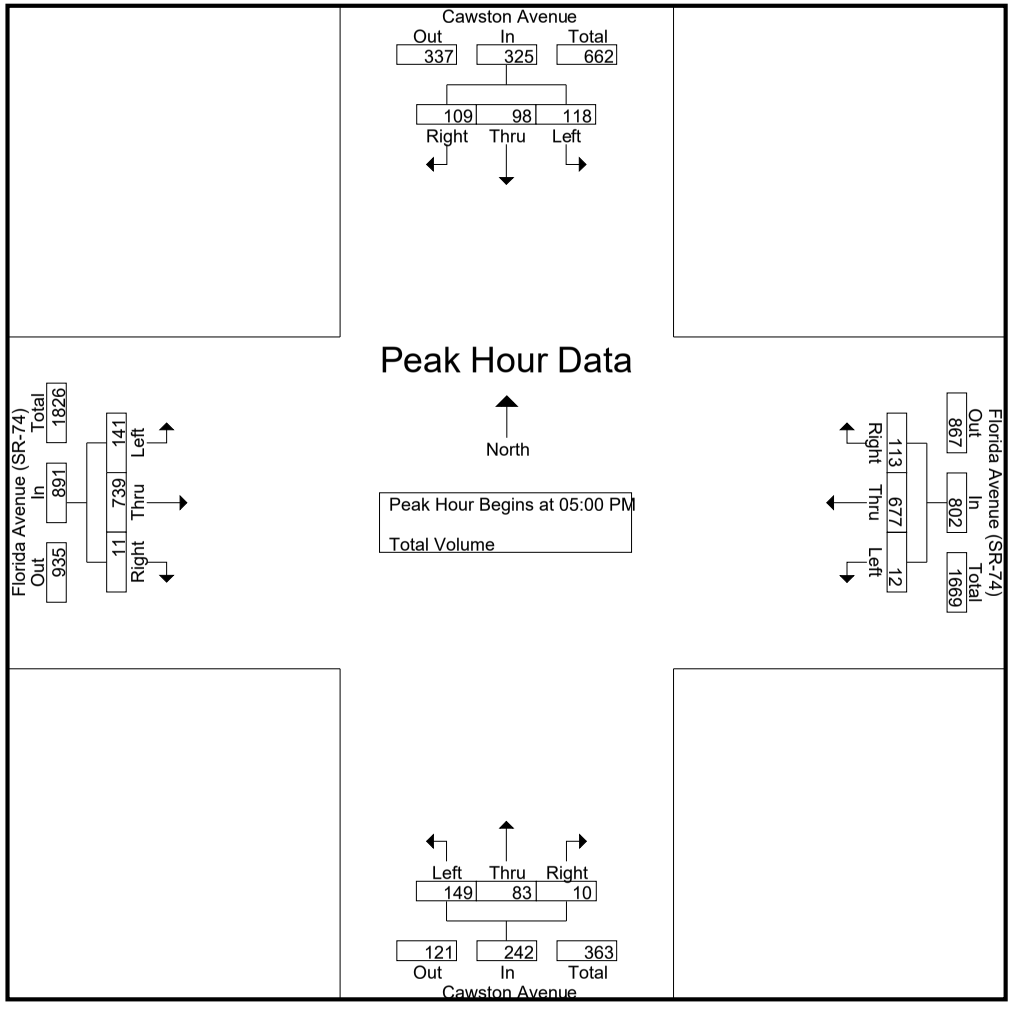

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	Cawston Avenue Southbound				Florida Avenue (SR-74) Westbound				Cawston Avenue Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				05:00 PM				04:45 PM				04:15 PM				
+0 mins.	21	23	26	70	3	173	24	200	43	15	**7**	65	32	176	4	212	
+15 mins.	**44**	22	**35**	**101**	3	**185**	33	**221**	41	17	4	62	30	**205**	**7**	**242**	
+30 mins.	24	**31**	25	80	2	167	20	189	**45**	16	1	62	28	177	2	207	
+45 mins.	29	22	23	74	**4**	152	**36**	192	33	**30**	4	**67**	**36**	198	1	235	
Total Volume	118	98	109	325	12	677	113	802	162	78	16	256	126	756	14	896	
% App. Total	36.3	30.2	33.5		1.5	84.4	14.1		63.3	30.5	6.2		14.1	84.4	1.6		
PHF	.670	.790	.779	.804	.750	.915	.785	.907	.900	.650	.571	.955	.875	.922	.500	.926	

Location: City of Hemet
N/S: Cawston Avenue
E/W: Florida Avenue (SR-74)

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Cawston Avenue	East Leg Florida Avenue (SR-74)	South Leg Cawston Avenue	West Leg Florida Avenue (SR-74)	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	1	0	0	1
TOTAL VOLUMES:	0	1	0	0	1

	North Leg Cawston Avenue	East Leg Florida Avenue (SR-74)	South Leg Cawston Avenue	West Leg Florida Avenue (SR-74)	TOTAL
4:00 PM	0	1	0	0	1
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	2	0	0	2
5:15 PM	0	0	0	0	0
5:30 PM	4	4	0	0	8
5:45 PM	1	1	0	0	2
TOTAL VOLUMES:	5	8	0	0	13

Location: City of Hemet
N/S: Cawston Avenue
E/W: Florida Avenue (SR-74)

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Cawston Avenue	East Leg Florida Avenue (SR-74)	South Leg Cawston Avenue	West Leg Florida Avenue (SR-74)	TOTAL
7:00 AM	0	1	0	0	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	1	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	1	1	0	2

	North Leg Cawston Avenue	East Leg Florida Avenue (SR-74)	South Leg Cawston Avenue	West Leg Florida Avenue (SR-74)	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	2	1	0	0	3
5:00 PM	0	1	0	0	1
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	2	2	0	0	4

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City of Hemet
N/S: Cawston Avenue
E/W: Stetson Avenue
Weather: Clear

File Name : 24_HEM_CW_ST AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Cawston Avenue Southbound					Stetson Avenue Westbound					Cawston Avenue Northbound					Stetson Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	5	6	3	11	16	63	5	1	84	13	16	36	21	65	7	45	1	1	53	26	213	239
07:15 AM	1	15	6	2	22	28	67	2	0	97	12	29	36	23	77	9	43	0	0	52	25	248	273
07:30 AM	3	26	5	4	34	60	77	6	3	143	14	39	45	29	98	12	44	5	0	61	36	336	372
07:45 AM	11	29	9	6	49	46	71	6	0	123	20	39	67	30	126	12	56	5	2	73	38	371	409
Total	15	75	26	15	116	150	278	19	4	447	59	123	184	103	366	40	188	11	3	239	125	1168	1293
08:00 AM	1	27	2	1	30	30	54	4	2	88	13	31	44	18	88	6	39	6	0	51	21	257	278
08:15 AM	2	22	3	3	27	21	45	4	1	70	11	36	63	37	110	5	39	2	0	46	41	253	294
08:30 AM	1	16	7	2	24	21	37	4	1	62	15	38	52	27	105	7	47	7	2	61	32	252	284
08:45 AM	2	14	8	3	24	35	60	3	1	98	7	26	39	24	72	5	53	4	1	62	29	256	285
Total	6	79	20	9	105	107	196	15	5	318	46	131	198	106	375	23	178	19	3	220	123	1018	1141
Grand Total	21	154	46	24	221	257	474	34	9	765	105	254	382	209	741	63	366	30	6	459	248	2186	2434
Apprch %	9.5	69.7	20.8			33.6	62	4.4			14.2	34.3	51.6			13.7	79.7	6.5					
Total %	1	7	2.1		10.1	11.8	21.7	1.6		35	4.8	11.6	17.5		33.9	2.9	16.7	1.4		21	10.2	89.8	

	Cawston Avenue Southbound				Stetson Avenue Westbound				Cawston Avenue Northbound				Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	3	26	5	34	**60**	**77**	**6**	**143**	14	**39**	45	98	**12**	44	5	61	336
07:45 AM	**11**	**29**	**9**	**49**	46	71	6	123	**20**	39	**67**	**126**	12	**56**	5	**73**	**371**
08:00 AM	1	27	2	30	30	54	4	88	13	31	44	88	6	39	**6**	51	257
08:15 AM	2	22	3	27	21	45	4	70	11	36	63	110	5	39	2	46	253
Total Volume	17	104	19	140	157	247	20	424	58	145	219	422	35	178	18	231	1217
% App. Total	12.1	74.3	13.6		37	58.3	4.7		13.7	34.4	51.9		15.2	77.1	7.8		
PHF	.386	.897	.528	.714	.654	.802	.833	.741	.725	.929	.817	.837	.729	.795	.750	.791	.820

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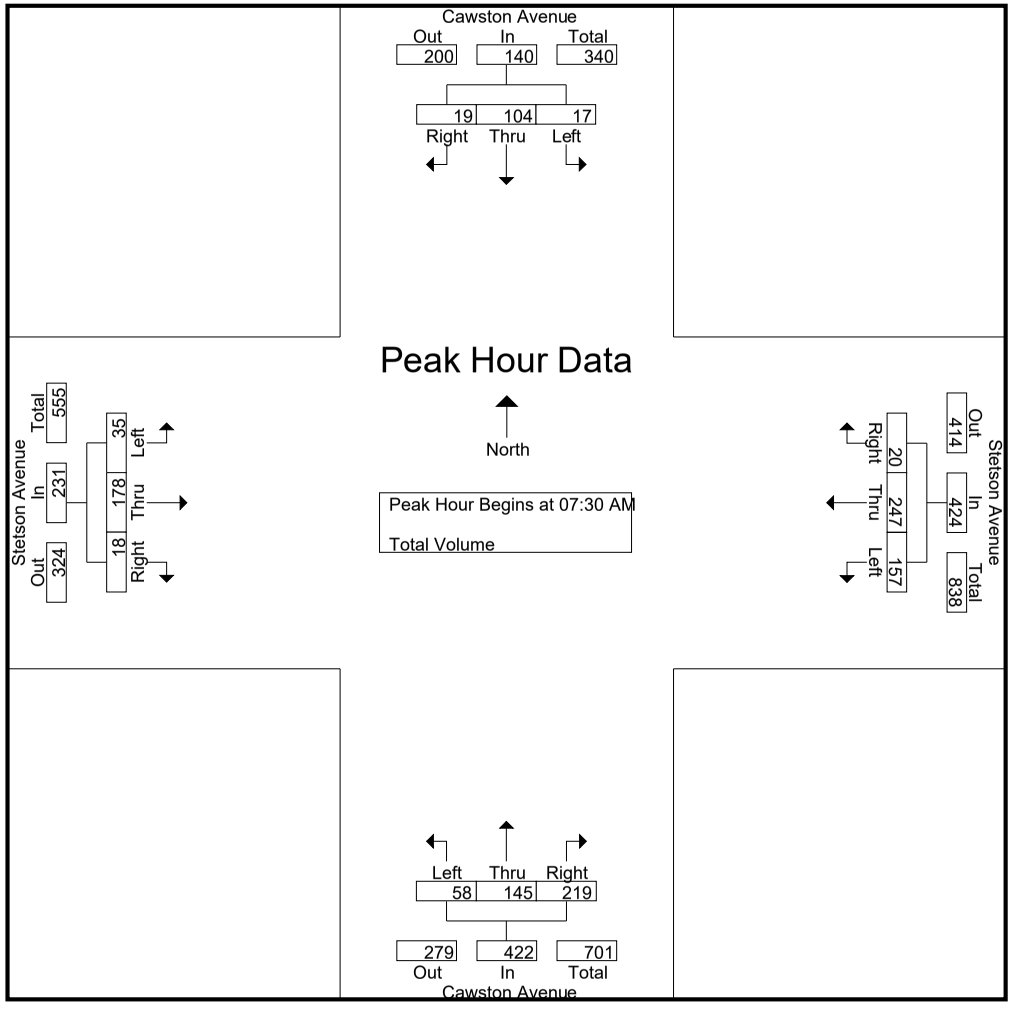
City of Hemet
N/S: Cawston Avenue
E/W: Stetson Avenue
Weather: Clear

File Name : 24_HEM_CW_ST AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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City of Hemet
N/S: Cawston Avenue
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	Cawston Avenue Southbound				Stetson Avenue Westbound				Cawston Avenue Northbound				Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:15 AM				07:45 AM				07:00 AM				
+0 mins.	3	26	5	34	28	67	2	97	**20**	**39**	**67**	**126**	7	45	1	53	
+15 mins.	**11**	**29**	**9**	**49**	**60**	**77**	**6**	**143**	13	31	44	88	9	43	0	52	
+30 mins.	1	27	2	30	46	71	6	123	11	36	63	110	**12**	44	**5**	61	
+45 mins.	2	22	3	27	30	54	4	88	15	38	52	105	12	**56**	5	**73**	
Total Volume	17	104	19	140	164	269	18	451	59	144	226	429	40	188	11	239	
% App. Total	12.1	74.3	13.6		36.4	59.6	4		13.8	33.6	52.7		16.7	78.7	4.6		
PHF	.386	.897	.528	.714	.683	.873	.750	.788	.738	.923	.843	.851	.833	.839	.550	.818	

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City of Hemet
N/S: Cawston Avenue
E/W: Stetson Avenue
Weather: Clear

File Name : 24_HEM_CW_ST PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Cawston Avenue Southbound					Stetson Avenue Westbound					Cawston Avenue Northbound					Stetson Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	4	38	18	7	60	38	60	6	1	104	10	27	29	17	66	5	62	14	3	81	28	311	339
04:15 PM	5	45	7	5	57	38	50	0	0	88	12	29	34	20	75	6	76	10	4	92	29	312	341
04:30 PM	4	20	17	8	41	26	58	7	0	91	11	19	47	33	77	8	71	16	4	95	45	304	349
04:45 PM	3	32	8	6	43	43	77	5	2	125	8	19	36	15	63	3	87	9	2	99	25	330	355
Total	16	135	50	26	201	145	245	18	3	408	41	94	146	85	281	22	296	49	13	367	127	1257	1384
05:00 PM	3	37	26	14	66	25	65	3	0	93	6	18	31	11	55	3	49	8	0	60	25	274	299
05:15 PM	0	32	12	9	44	47	66	2	0	115	3	30	20	15	53	6	76	10	1	92	25	304	329
05:30 PM	1	27	10	8	38	26	59	5	1	90	6	29	39	18	74	5	48	9	3	62	30	264	294
05:45 PM	2	40	15	6	57	30	53	7	2	90	2	17	34	19	53	6	67	8	2	81	29	281	310
Total	6	136	63	37	205	128	243	17	3	388	17	94	124	63	235	20	240	35	6	295	109	1123	1232
Grand Total	22	271	113	63	406	273	488	35	6	796	58	188	270	148	516	42	536	84	19	662	236	2380	2616
Apprch %	5.4	66.7	27.8			34.3	61.3	4.4			11.2	36.4	52.3			6.3	81	12.7					
Total %	0.9	11.4	4.7		17.1	11.5	20.5	1.5		33.4	2.4	7.9	11.3		21.7	1.8	22.5	3.5		27.8	9	91	

	Cawston Avenue Southbound				Stetson Avenue Westbound				Cawston Avenue Northbound				Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	4	38	**18**	**60**	38	60	6	104	10	27	29	66	5	62	14	81	311
04:15 PM	**5**	**45**	7	57	38	50	0	88	**12**	**29**	34	75	6	76	10	92	312
04:30 PM	4	20	17	41	26	58	**7**	91	11	19	**47**	**77**	**8**	71	**16**	95	304
04:45 PM	3	32	8	43	**43**	**77**	5	**125**	8	19	36	63	3	**87**	9	**99**	**330**
Total Volume	16	135	50	201	145	245	18	408	41	94	146	281	22	296	49	367	1257
% App. Total	8	67.2	24.9		35.5	60	4.4		14.6	33.5	52		6	80.7	13.4		
PHF	.800	.750	.694	.838	.843	.795	.643	.816	.854	.810	.777	.912	.688	.851	.766	.927	.952

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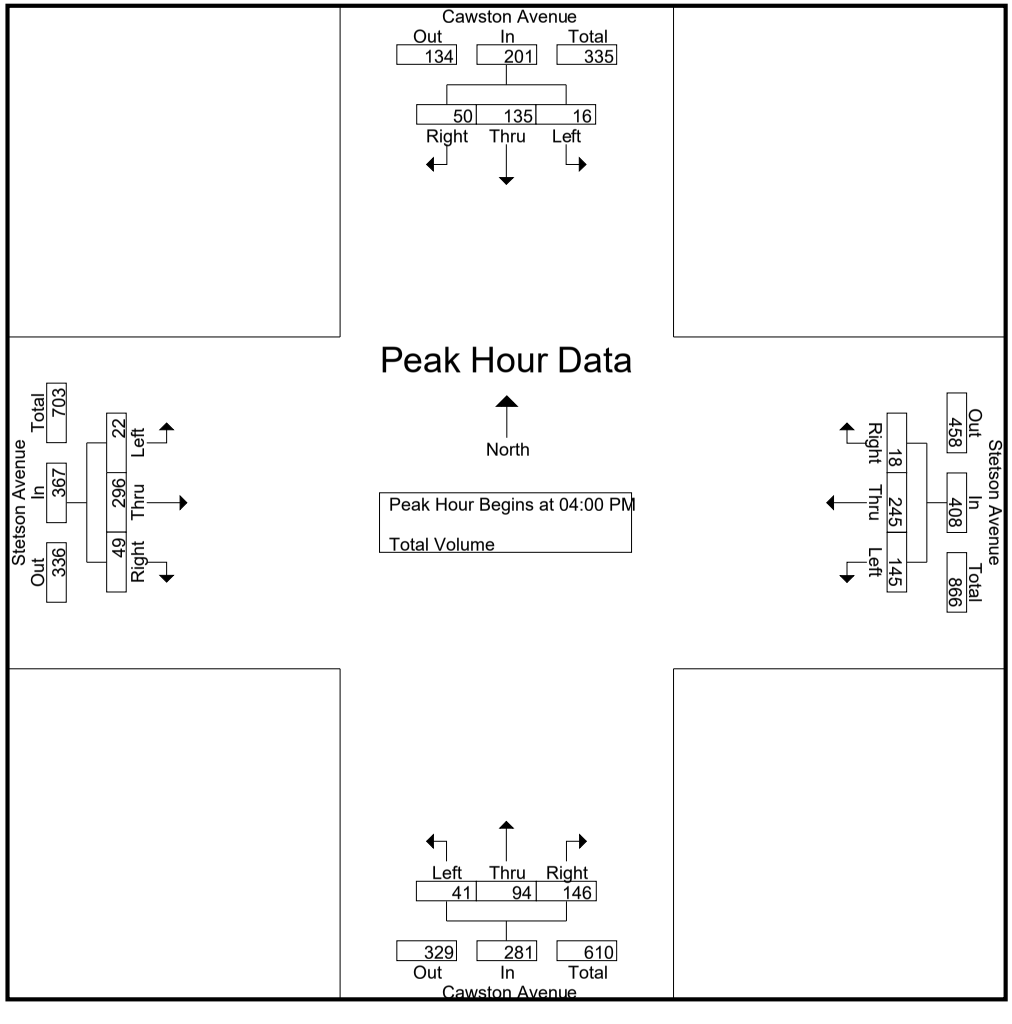
City of Hemet
N/S: Cawston Avenue
E/W: Stetson Avenue
Weather: Clear

File Name : 24_HEM_CW_ST PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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City of Hemet
N/S: Cawston Avenue
E/W: Stetson Avenue
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File Name : 24_HEM_CW_ST PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Cawston Avenue Southbound				Stetson Avenue Westbound				Cawston Avenue Northbound				Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:30 PM				04:00 PM				04:00 PM				
+0 mins.	**5**	**45**	7	57	26	58	**7**	91	10	27	29	66	5	62	14	81	
+15 mins.	4	20	17	41	43	**77**	5	**125**	**12**	**29**	34	75	6	76	10	92	
+30 mins.	3	32	8	43	25	65	3	93	11	19	**47**	**77**	**8**	71	**16**	95	
+45 mins.	3	37	**26**	**66**	**47**	66	2	115	8	19	36	63	3	**87**	9	**99**	
Total Volume	15	134	58	207	141	266	17	424	41	94	146	281	22	296	49	367	
% App. Total	7.2	64.7	28		33.3	62.7	4		14.6	33.5	52		6	80.7	13.4		
PHF	.750	.744	.558	.784	.750	.864	.607	.848	.854	.810	.777	.912	.688	.851	.766	.927	

Location: City of Hemet
N/S: Cawston Avenue
E/W: Stetson Avenue

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Cawston Avenue	East Leg Stetson Avenue	South Leg Cawston Avenue	West Leg Stetson Avenue	TOTAL
7:00 AM	0	0	1	0	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

	North Leg Cawston Avenue	East Leg Stetson Avenue	South Leg Cawston Avenue	West Leg Stetson Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	1	0	0	1
TOTAL VOLUMES:	0	1	0	0	1

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Location: City of Hemet
N/S: Cawston Avenue
E/W: Stetson Avenue

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Cawston Avenue	East Leg Stetson Avenue	South Leg Cawston Avenue	West Leg Stetson Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	1	1
8:15 AM	0	0	0	0	0
8:30 AM	1	0	0	0	1
8:45 AM	0	0	0	1	1
TOTAL VOLUMES:	1	0	0	2	3

	North Leg Cawston Avenue	East Leg Stetson Avenue	South Leg Cawston Avenue	West Leg Stetson Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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City of Hemet
N/S: Sanderson Avenue
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 25_HEM_SD_74 AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Sanderson Avenue Southbound					Florida Avenue (SR-74) Westbound					Sanderson Avenue Northbound					Florida Avenue (SR-74) Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	26	122	16	4	164	27	79	20	8	126	17	186	20	11	223	30	63	5	4	98	27	611	638
07:15 AM	32	149	23	9	204	32	82	21	12	135	17	117	32	14	166	26	79	9	5	114	40	619	659
07:30 AM	24	179	19	2	222	31	104	24	15	159	17	158	31	14	206	33	113	8	7	154	38	741	779
07:45 AM	35	123	38	26	196	45	104	23	12	172	30	210	43	22	283	38	102	13	13	153	73	804	877
Total	117	573	96	41	786	135	369	88	47	592	81	671	126	61	878	127	357	35	29	519	178	2775	2953
08:00 AM	33	124	17	10	174	24	73	26	17	123	34	173	44	18	251	29	110	9	5	148	50	696	746
08:15 AM	35	113	25	9	173	38	100	23	10	161	36	138	20	9	194	44	118	4	1	166	29	694	723
08:30 AM	36	107	16	8	159	39	83	34	10	156	30	112	29	12	171	32	136	21	8	189	38	675	713
08:45 AM	46	144	28	17	218	32	101	23	13	156	25	122	37	19	184	42	95	12	10	149	59	707	766
Total	150	488	86	44	724	133	357	106	50	596	125	545	130	58	800	147	459	46	24	652	176	2772	2948
Grand Total	267	1061	182	85	1510	268	726	194	97	1188	206	1216	256	119	1678	274	816	81	53	1171	354	5547	5901
Apprch %	17.7	70.3	12.1			22.6	61.1	16.3			12.3	72.5	15.3			23.4	69.7	6.9			6	94	
Total %	4.8	19.1	3.3		27.2	4.8	13.1	3.5		21.4	3.7	21.9	4.6		30.3	4.9	14.7	1.5		21.1			

	Sanderson Avenue Southbound				Florida Avenue (SR-74) Westbound				Sanderson Avenue Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	24	**179**	19	**222**	31	**104**	24	159	17	158	31	206	33	113	8	154	741
07:45 AM	**35**	123	**38**	196	**45**	104	23	**172**	30	**210**	43	**283**	38	102	**13**	153	**804**
08:00 AM	33	124	17	174	24	73	**26**	123	34	173	**44**	251	29	110	9	148	696
08:15 AM	35	113	25	173	38	100	23	161	**36**	138	20	194	**44**	**118**	4	**166**	694
Total Volume	127	539	99	765	138	381	96	615	117	679	138	934	144	443	34	621	2935
% App. Total	16.6	70.5	12.9		22.4	62	15.6		12.5	72.7	14.8		23.2	71.3	5.5		
PHF	.907	.753	.651	.861	.767	.916	.923	.894	.813	.808	.784	.825	.818	.939	.654	.935	.913

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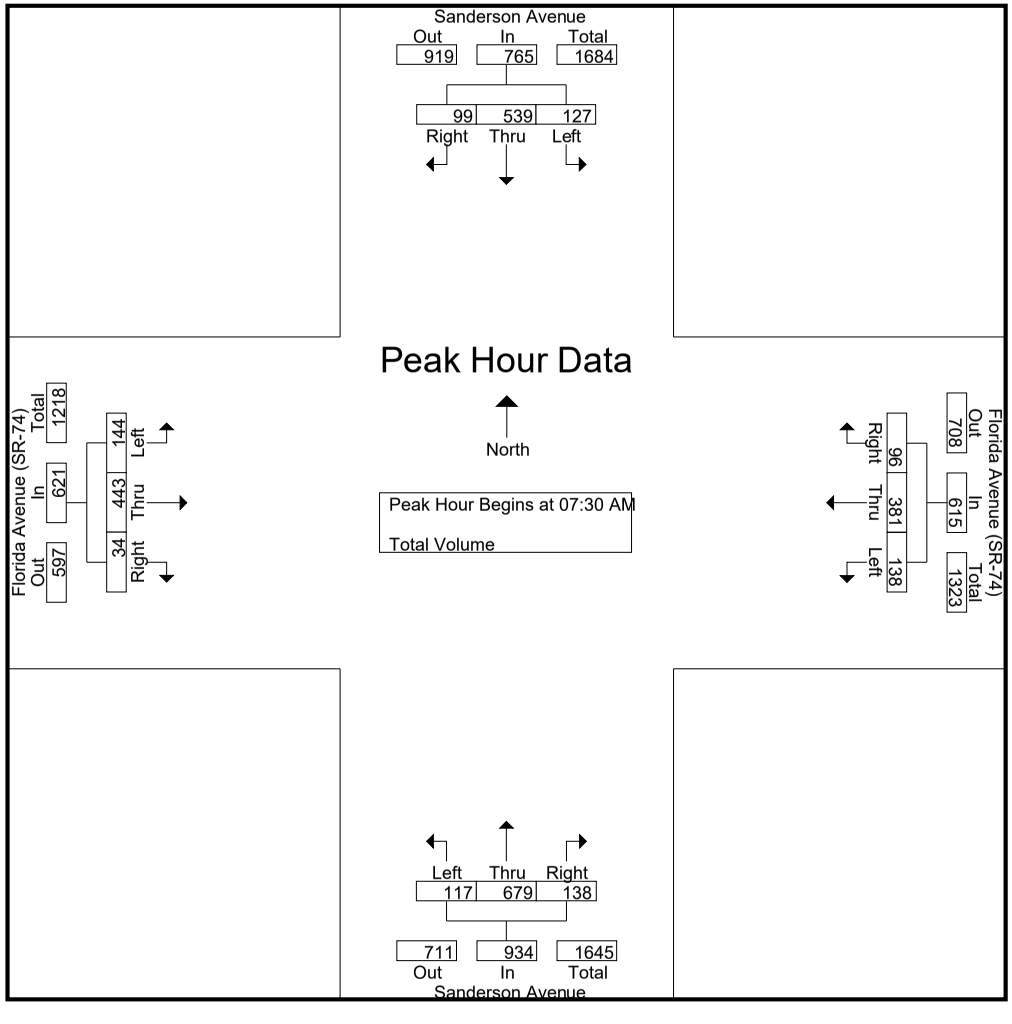
City of Hemet
N/S: Sanderson Avenue
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 25_HEM_SD_74 AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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City of Hemet
N/S: Sanderson Avenue
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 25_HEM_SD_74 AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Sanderson Avenue Southbound				Florida Avenue (SR-74) Westbound				Sanderson Avenue Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:30 AM				07:30 AM				07:45 AM				
+0 mins.	32	149	23	204	31	**104**	24	159	17	158	31	206	38	102	13	153	
+15 mins.	24	**179**	19	**222**	**45**	104	23	**172**	30	**210**	43	**283**	29	110	9	148	
+30 mins.	**35**	123	**38**	196	24	73	**26**	123	34	173	**44**	251	**44**	118	4	166	
+45 mins.	33	124	17	174	38	100	23	161	**36**	138	20	194	32	**136**	**21**	**189**	
Total Volume	124	575	97	796	138	381	96	615	117	679	138	934	143	466	47	656	
% App. Total	15.6	72.2	12.2		22.4	62	15.6		12.5	72.7	14.8		21.8	71	7.2		
PHF	.886	.803	.638	.896	.767	.916	.923	.894	.813	.808	.784	.825	.813	.857	.560	.868	

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City of Hemet
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File Name : 25_HEM_SD_74 PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Sanderson Avenue Southbound					Florida Avenue (SR-74) Westbound					Sanderson Avenue Northbound					Florida Avenue (SR-74) Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	61	198	36	16	295	55	128	30	13	213	54	172	34	12	260	45	167	35	11	247	52	1015	1067
04:15 PM	35	183	33	14	251	64	134	32	14	230	42	149	51	17	242	59	197	31	11	287	56	1010	1066
04:30 PM	44	164	34	10	242	50	116	35	19	201	33	131	58	25	222	54	183	31	16	268	70	933	1003
04:45 PM	48	195	26	12	269	48	116	27	12	191	65	183	57	26	305	47	161	20	12	228	62	993	1055
Total	188	740	129	52	1057	217	494	124	58	835	194	635	200	80	1029	205	708	117	50	1030	240	3951	4191
05:00 PM	37	160	28	13	225	52	162	37	6	251	43	146	51	23	240	64	204	27	12	295	54	1011	1065
05:15 PM	40	199	42	24	281	60	139	37	19	236	52	147	41	18	240	57	174	16	8	247	69	1004	1073
05:30 PM	53	141	36	8	230	53	129	43	19	225	51	196	51	18	298	52	161	14	8	227	53	980	1033
05:45 PM	45	175	25	7	245	51	115	35	20	201	49	165	64	25	278	51	192	15	9	258	61	982	1043
Total	175	675	131	52	981	216	545	152	64	913	195	654	207	84	1056	224	731	72	37	1027	237	3977	4214
Grand Total	363	1415	260	104	2038	433	1039	276	122	1748	389	1289	407	164	2085	429	1439	189	87	2057	477	7928	8405
Apprch %	17.8	69.4	12.8			24.8	59.4	15.8			18.7	61.8	19.5			20.9	70	9.2					
Total %	4.6	17.8	3.3		25.7	5.5	13.1	3.5		22	4.9	16.3	5.1		26.3	5.4	18.2	2.4		25.9	5.7	94.3	

	Sanderson Avenue Southbound				Florida Avenue (SR-74) Westbound				Sanderson Avenue Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	48	195	26	269	48	116	27	191	**65**	183	**57**	**305**	47	161	20	228	993
05:00 PM	37	160	28	225	52	**162**	37	**251**	43	146	51	240	**64**	**204**	**27**	**295**	**1011**
05:15 PM	40	**199**	**42**	**281**	**60**	139	37	236	52	147	41	240	57	174	16	247	1004
05:30 PM	**53**	141	36	230	53	129	**43**	225	51	**196**	51	298	52	161	14	227	980
Total Volume	178	695	132	1005	213	546	144	903	211	672	200	1083	220	700	77	997	3988
% App. Total	17.7	69.2	13.1		23.6	60.5	15.9		19.5	62	18.5		22.1	70.2	7.7		
PHF	.840	.873	.786	.894	.888	.843	.837	.899	.812	.857	.877	.888	.859	.858	.713	.845	.986

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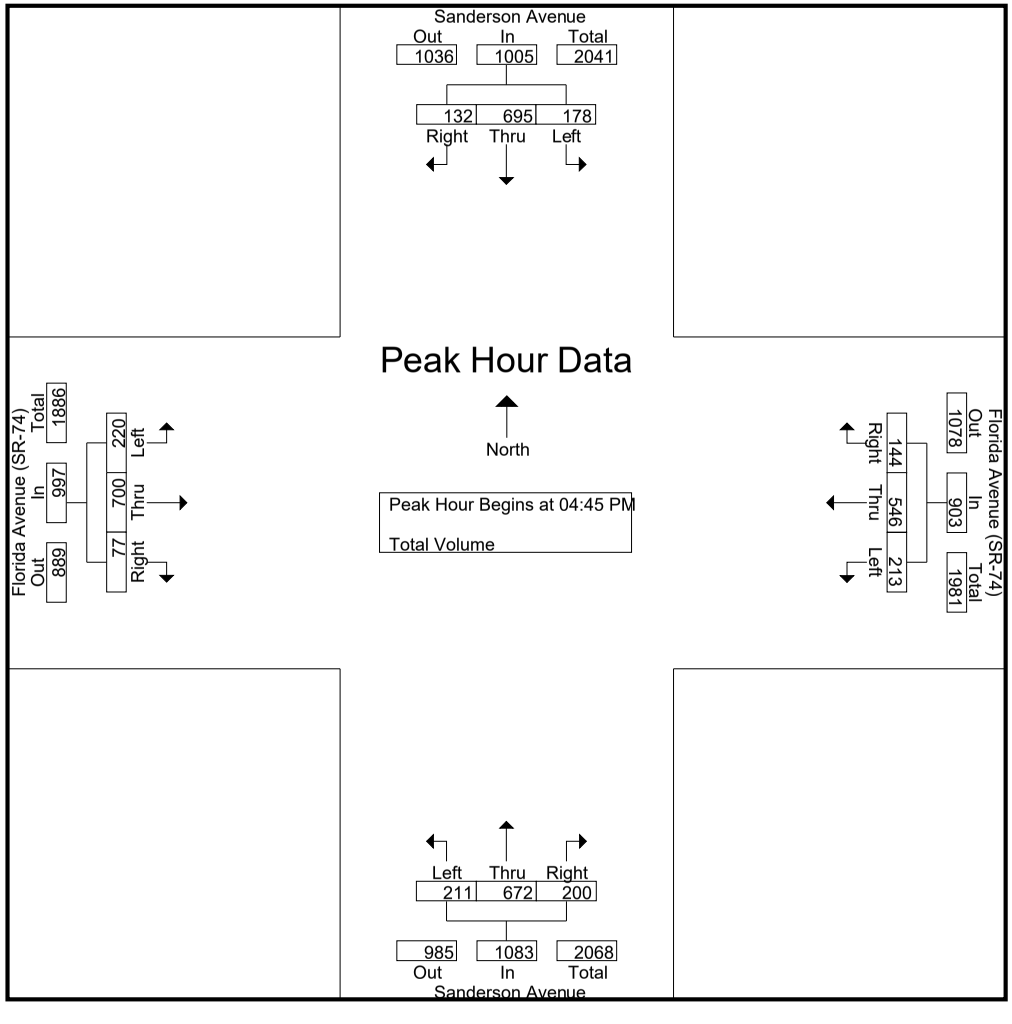
City of Hemet
N/S: Sanderson Avenue
E/W: Florida Avenue (SR-74)
Weather: Clear

File Name : 25_HEM_SD_74 PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 2



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City of Hemet
N/S: Sanderson Avenue
E/W: Florida Avenue (SR-74)
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File Name : 25_HEM_SD_74 PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 3

	Sanderson Avenue Southbound				Florida Avenue (SR-74) Westbound				Sanderson Avenue Northbound				Florida Avenue (SR-74) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				05:00 PM				04:45 PM				04:15 PM				
+0 mins.	**61**	**198**	**36**	**295**	52	**162**	37	**251**	**65**	183	**57**	**305**	59	197	**31**	287	
+15 mins.	35	183	33	251	**60**	139	37	236	43	146	51	240	54	183	31	268	
+30 mins.	44	164	34	242	53	129	**43**	225	52	147	41	240	47	161	20	228	
+45 mins.	48	195	26	269	51	115	35	201	51	**196**	51	298	**64**	**204**	27	**295**	
Total Volume	188	740	129	1057	216	545	152	913	211	672	200	1083	224	745	109	1078	
% App. Total	17.8	70	12.2		23.7	59.7	16.6		19.5	62	18.5		20.8	69.1	10.1		
PHF	.770	.934	.896	.896	.900	.841	.884	.909	.812	.857	.877	.888	.875	.913	.879	.914	

Location: City of Hemet
N/S: Sanderson Avenue
E/W: Florida Avenue (SR-74)

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Sanderson Avenue	East Leg Florida Avenue (SR-74)	South Leg Sanderson Avenue	West Leg Florida Avenue (SR-74)	TOTAL
7:00 AM	0	1	0	0	1
7:15 AM	1	1	1	0	3
7:30 AM	1	2	1	0	4
7:45 AM	0	5	3	0	8
8:00 AM	4	5	1	0	10
8:15 AM	0	3	0	0	3
8:30 AM	2	4	1	0	7
8:45 AM	1	3	1	1	6
TOTAL VOLUMES:	9	24	8	1	42

	North Leg Sanderson Avenue	East Leg Florida Avenue (SR-74)	South Leg Sanderson Avenue	West Leg Florida Avenue (SR-74)	TOTAL
4:00 PM	4	0	2	0	6
4:15 PM	0	0	2	0	2
4:30 PM	1	0	1	0	2
4:45 PM	0	0	1	0	1
5:00 PM	0	0	2	0	2
5:15 PM	4	3	0	0	7
5:30 PM	0	3	1	2	6
5:45 PM	0	1	1	0	2
TOTAL VOLUMES:	9	7	10	2	28

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Location: City of Hemet
N/S: Sanderson Avenue
E/W: Florida Avenue (SR-74)

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Sanderson Avenue	East Leg Florida Avenue (SR-74)	South Leg Sanderson Avenue	West Leg Florida Avenue (SR-74)	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	0	1
7:30 AM	0	1	0	0	1
7:45 AM	0	1	0	0	1
8:00 AM	1	2	1	0	4
8:15 AM	1	2	0	0	3
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	3	6	1	0	10

	North Leg Sanderson Avenue	East Leg Florida Avenue (SR-74)	South Leg Sanderson Avenue	West Leg Florida Avenue (SR-74)	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	1	0	0	0	1
4:45 PM	0	0	1	0	1
5:00 PM	0	1	0	0	1
5:15 PM	0	0	0	1	1
5:30 PM	1	1	1	0	3
5:45 PM	0	0	1	0	1
TOTAL VOLUMES:	2	2	3	1	8

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City of Hemet
N/S: Sanderson Avenue
E/W: Stetson Avenue
Weather: Clear

File Name : 26_HEM_SD_ST AM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Sanderson Avenue Southbound					Stetson Avenue Westbound					Sanderson Avenue Northbound					Stetson Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	25	109	10	1	144	82	78	25	6	185	1	130	69	28	200	18	54	1	1	73	36	602	638
07:15 AM	21	194	19	0	234	103	95	19	2	217	6	142	127	67	275	17	68	4	0	89	69	815	884
07:30 AM	14	205	20	1	239	125	173	29	5	327	11	147	136	71	294	17	73	3	1	93	78	953	1031
07:45 AM	19	169	29	2	217	137	175	36	1	348	2	192	171	104	365	21	103	3	0	127	107	1057	1164
Total	79	677	78	4	834	447	521	109	14	1077	20	611	503	270	1134	73	298	11	2	382	290	3427	3717
08:00 AM	15	116	14	2	145	81	100	40	7	221	6	180	149	85	335	26	77	1	0	104	94	805	899
08:15 AM	26	108	12	2	146	88	74	32	9	194	9	100	75	44	184	26	84	2	0	112	55	636	691
08:30 AM	25	110	21	5	156	82	70	17	8	169	3	116	80	53	199	26	72	3	1	101	67	625	692
08:45 AM	20	104	19	2	143	80	102	48	11	230	5	95	70	38	170	27	69	1	0	97	51	640	691
Total	86	438	66	11	590	331	346	137	35	814	23	491	374	220	888	105	302	7	1	414	267	2706	2973
Grand Total	165	1115	144	15	1424	778	867	246	49	1891	43	1102	877	490	2022	178	600	18	3	796	557	6133	6690
Apprch %	11.6	78.3	10.1			41.1	45.8	13			2.1	54.5	43.4			22.4	75.4	2.3					
Total %	2.7	18.2	2.3		23.2	12.7	14.1	4		30.8	0.7	18	14.3		33	2.9	9.8	0.3		13	8.3	91.7	

	Sanderson Avenue Southbound				Stetson Avenue Westbound				Sanderson Avenue Northbound				Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**21**	194	19	234	103	95	19	217	6	142	127	275	17	68	**4**	89	815
07:30 AM	14	**205**	20	**239**	125	173	29	327	**11**	147	136	294	17	73	3	93	953
07:45 AM	19	169	**29**	217	**137**	**175**	36	**348**	2	**192**	**171**	**365**	21	**103**	3	**127**	**1057**
08:00 AM	15	116	14	145	81	100	**40**	221	6	180	149	335	**26**	77	1	104	805
Total Volume	69	684	82	835	446	543	124	1113	25	661	583	1269	81	321	11	413	3630
% App. Total	8.3	81.9	9.8		40.1	48.8	11.1		2	52.1	45.9		19.6	77.7	2.7		
PHF	.821	.834	.707	.873	.814	.776	.775	.800	.568	.861	.852	.869	.779	.779	.688	.813	.859

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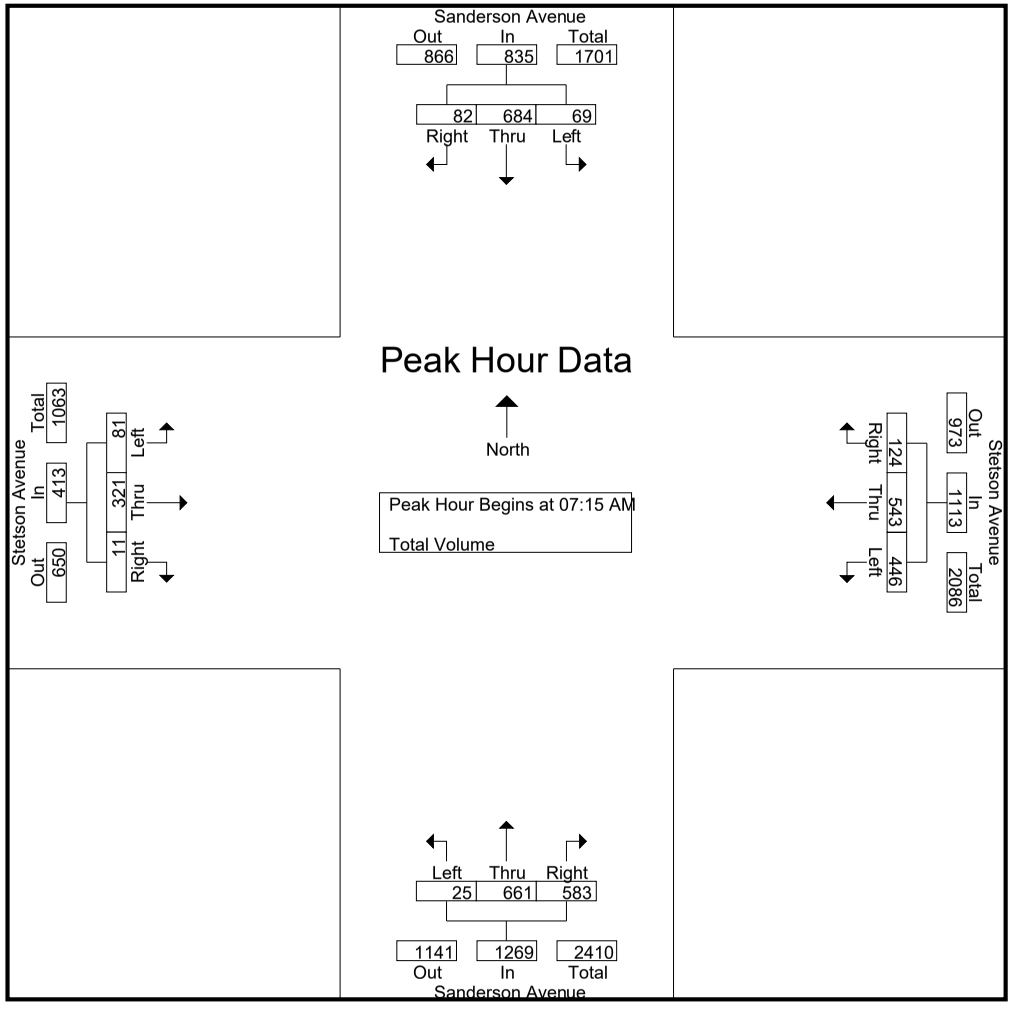

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City of Hemet
N/S: Sanderson Avenue
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Site Code : 05117481
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Page No : 3

	Sanderson Avenue Southbound				Stetson Avenue Westbound				Sanderson Avenue Northbound				Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:45 AM				
+0 mins.	**21**	194	19	234	103	95	19	217	6	142	127	275	21	**103**	**3**	**127**	
+15 mins.	14	**205**	20	**239**	125	173	29	327	**11**	147	136	294	**26**	77	1	104	
+30 mins.	19	169	**29**	217	**137**	**175**	36	**348**	2	**192**	**171**	**365**	26	84	2	112	
+45 mins.	15	116	14	145	81	100	**40**	221	6	180	149	335	26	72	3	101	
Total Volume	69	684	82	835	446	543	124	1113	25	661	583	1269	99	336	9	444	
% App. Total	8.3	81.9	9.8		40.1	48.8	11.1		2	52.1	45.9		22.3	75.7	2		
PHF	.821	.834	.707	.873	.814	.776	.775	.800	.568	.861	.852	.869	.952	.816	.750	.874	

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City of Hemet
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File Name : 26_HEM_SD_ST PM
Site Code : 05117481
Start Date : 8/10/2017
Page No : 1

Groups Printed- Total Volume

	Sanderson Avenue Southbound					Stetson Avenue Westbound					Sanderson Avenue Northbound					Stetson Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	52	174	34	1	260	105	105	37	6	247	4	134	124	68	262	39	87	6	0	132	75	901	976
04:15 PM	39	190	39	5	268	94	97	24	8	215	4	149	126	71	279	60	105	5	0	170	84	932	1016
04:30 PM	49	165	35	7	249	99	84	41	4	224	7	145	104	51	256	51	117	6	1	174	63	903	966
04:45 PM	35	176	28	5	239	116	120	47	1	283	4	155	113	69	272	48	114	5	1	167	76	961	1037
Total	175	705	136	18	1016	414	406	149	19	969	19	583	467	259	1069	198	423	22	2	643	298	3697	3995
05:00 PM	45	194	21	0	260	100	99	30	3	229	1	146	108	58	255	46	130	6	0	182	61	926	987
05:15 PM	47	195	31	5	273	114	111	35	5	260	2	155	117	65	274	37	105	4	1	146	76	953	1029
05:30 PM	40	154	20	2	214	127	103	50	9	280	5	150	116	67	271	41	87	8	1	136	79	901	980
05:45 PM	40	197	24	3	261	89	86	34	7	209	3	166	97	56	266	47	98	2	0	147	66	883	949
Total	172	740	96	10	1008	430	399	149	24	978	11	617	438	246	1066	171	420	20	2	611	282	3663	3945
Grand Total	347	1445	232	28	2024	844	805	298	43	1947	30	1200	905	505	2135	369	843	42	4	1254	580	7360	7940
Apprch %	17.1	71.4	11.5			43.3	41.3	15.3			1.4	56.2	42.4			29.4	67.2	3.3					
Total %	4.7	19.6	3.2		27.5	11.5	10.9	4		26.5	0.4	16.3	12.3		29	5	11.5	0.6		17	7.3	92.7	

	Sanderson Avenue Southbound				Stetson Avenue Westbound				Sanderson Avenue Northbound				Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**49**	165	**35**	249	99	84	41	224	**7**	145	104	256	**51**	117	**6**	174	903
04:45 PM	35	176	28	239	**116**	**120**	**47**	**283**	4	**155**	113	272	48	114	5	167	**961**
05:00 PM	45	194	21	260	100	99	30	229	1	146	108	255	46	**130**	6	**182**	926
05:15 PM	47	**195**	31	**273**	114	111	35	260	2	155	**117**	**274**	37	105	4	146	953
Total Volume	176	730	115	1021	429	414	153	996	14	601	442	1057	182	466	21	669	3743
% App. Total	17.2	71.5	11.3		43.1	41.6	15.4		1.3	56.9	41.8		27.2	69.7	3.1		
PHF	.898	.936	.821	.935	.925	.863	.814	.880	.500	.969	.944	.964	.892	.896	.875	.919	.974

Counts Unlimited
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File Name : 26_HEM_SD_ST PM
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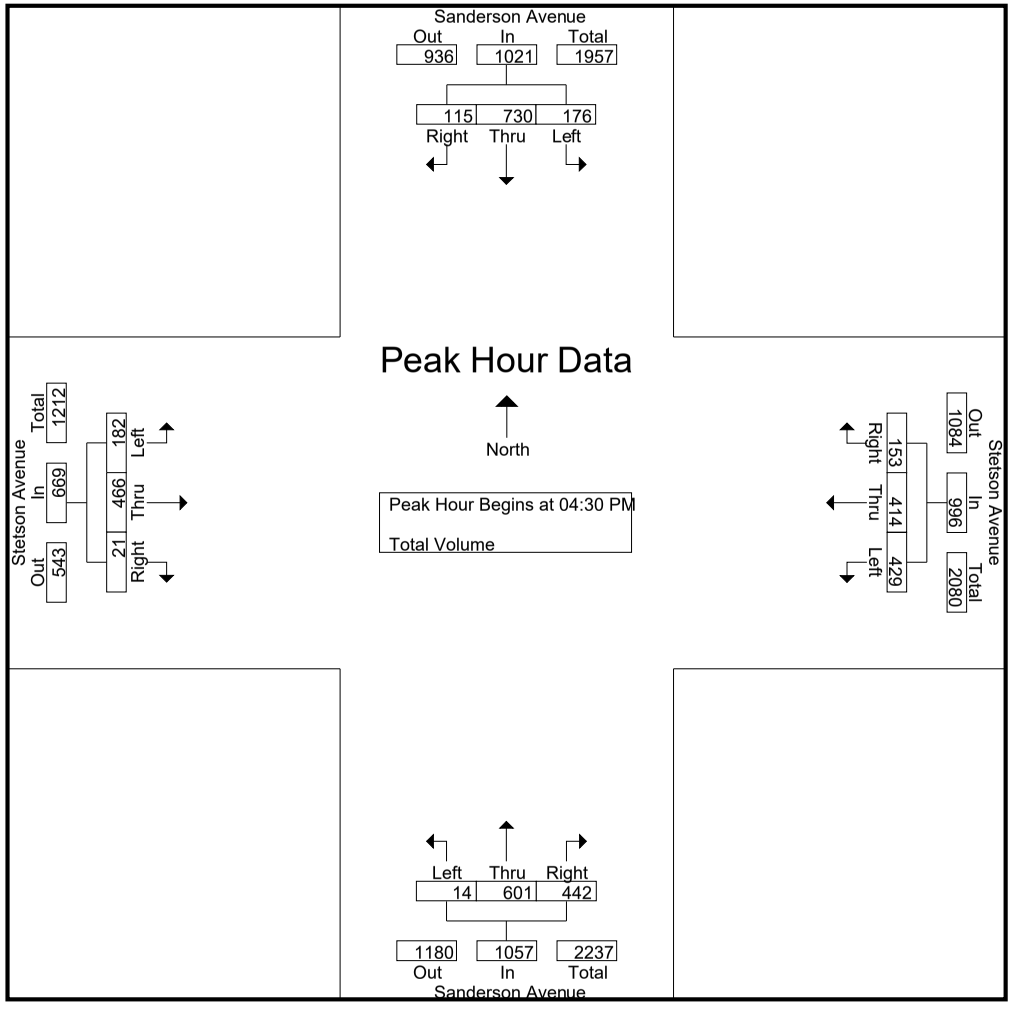

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City of Hemet
N/S: Sanderson Avenue
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Site Code : 05117481
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Page No : 3

	Sanderson Avenue Southbound				Stetson Avenue Westbound				Sanderson Avenue Northbound				Stetson Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:45 PM				04:45 PM				04:15 PM				
+0 mins.	**49**	165	**35**	249	116	**120**	47	**283**	4	**155**	113	272	**60**	105	5	170	
+15 mins.	35	176	28	239	100	99	30	229	1	146	108	255	51	117	**6**	174	
+30 mins.	45	194	21	260	114	111	35	260	2	155	**117**	**274**	48	114	5	167	
+45 mins.	47	**195**	31	**273**	**127**	103	**50**	280	**5**	150	116	271	46	**130**	6	**182**	
Total Volume	176	730	115	1021	457	433	162	1052	12	606	454	1072	205	466	22	693	
% App. Total	17.2	71.5	11.3		43.4	41.2	15.4		1.1	56.5	42.4		29.6	67.2	3.2		
PHF	.898	.936	.821	.935	.900	.902	.810	.929	.600	.977	.970	.978	.854	.896	.917	.952	

Location: City of Hemet
N/S: Sanderson Avenue
E/W: Stetson Avenue

Date: 8/10/2017
Day: Thursday

PEDESTRIANS

	North Leg Sanderson Avenue	East Leg Stetson Avenue	South Leg Sanderson Avenue	West Leg Stetson Avenue	TOTAL
7:00 AM	0	3	2	0	5
7:15 AM	0	10	8	0	18
7:30 AM	0	7	11	1	19
7:45 AM	0	4	1	0	5
8:00 AM	0	0	2	0	2
8:15 AM	0	0	2	0	2
8:30 AM	0	1	1	0	2
8:45 AM	0	0	1	1	2
TOTAL VOLUMES:	0	25	28	2	55

	North Leg Sanderson Avenue	East Leg Stetson Avenue	South Leg Sanderson Avenue	West Leg Stetson Avenue	TOTAL
4:00 PM	0	0	6	1	7
4:15 PM	0	1	3	0	4
4:30 PM	0	2	5	0	7
4:45 PM	0	0	1	0	1
5:00 PM	0	1	2	0	3
5:15 PM	1	3	3	0	7
5:30 PM	0	0	1	0	1
5:45 PM	0	0	1	1	2
TOTAL VOLUMES:	1	7	22	2	32

Location: City of Hemet
N/S: Sanderson Avenue
E/W: Stetson Avenue

Date: 8/10/2017
Day: Thursday

BICYCLES

	North Leg Sanderson Avenue	East Leg Stetson Avenue	South Leg Sanderson Avenue	West Leg Stetson Avenue	TOTAL
7:00 AM	0	2	2	0	4
7:15 AM	0	3	0	0	3
7:30 AM	0	1	5	0	6
7:45 AM	0	0	0	0	0
8:00 AM	0	0	1	0	1
8:15 AM	1	0	1	1	3
8:30 AM	0	0	0	2	2
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	6	9	3	19

	North Leg Sanderson Avenue	East Leg Stetson Avenue	South Leg Sanderson Avenue	West Leg Stetson Avenue	TOTAL
4:00 PM	0	1	2	0	3
4:15 PM	0	1	1	1	3
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	1	3	0	4
5:15 PM	0	1	2	0	3
5:30 PM	0	0	1	0	1
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	4	9	1	14

Counts Unlimited
P.O. Box 1178
Corona, CA 92878
(951) 268-6268

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APPENDIX 3.2:

EXISTING (2017) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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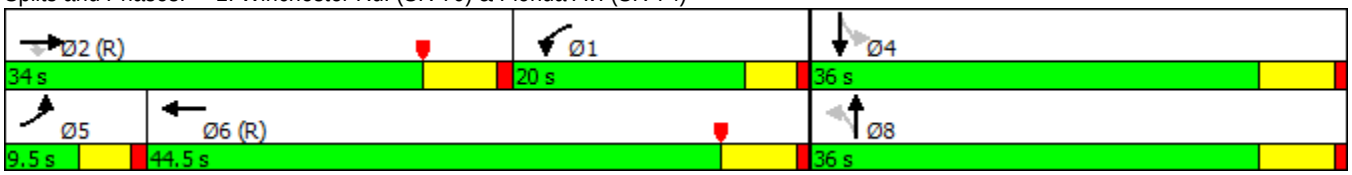
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	11	692	87	325	673	81	9	16	25
Future Volume (vph)	11	692	87	325	673	81	9	16	25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	28.0	28.0	15.5	46.1	30.0	30.0	30.0	30.0
Actuated g/C Ratio	0.06	0.31	0.31	0.17	0.51	0.33	0.33	0.33	0.33
v/c Ratio	0.11	0.65	0.16	1.10	0.40	0.18	0.42	0.06	0.04
Control Delay	43.1	30.0	4.0	118.9	14.8	22.7	5.1	21.2	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	30.0	4.0	118.9	14.8	22.7	5.1	21.2	20.6
LOS	D	C	A	F	B	C	A	C	C
Approach Delay		27.3			47.8		8.9		20.9
Approach LOS		C			D		A		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay: 33.5	Intersection LOS: C
Intersection Capacity Utilization 80.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	692	87	325	673	26	81	9	286	16	25	0
Future Volume (veh/h)	11	692	87	325	673	26	81	9	286	16	25	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	713	51	335	694	25	84	9	115	16	26	0
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	24	1101	493	775	2617	94	526	39	494	430	621	0
Arrive On Green	0.01	0.31	0.31	0.44	0.75	0.75	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3485	125	1378	116	1483	1261	1863	0
Grp Volume(v), veh/h	11	713	51	335	352	367	84	0	124	16	26	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1841	1378	0	1599	1261	1863	0
Q Serve(g_s), s	0.6	15.6	2.1	11.8	5.6	5.6	4.0	0.0	5.0	0.8	0.8	0.0
Cycle Q Clear(g_c), s	0.6	15.6	2.1	11.8	5.6	5.6	4.8	0.0	5.0	5.9	0.8	0.0
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.93	1.00		0.00
Lane Grp Cap(c), veh/h	24	1101	493	775	1329	1382	526	0	533	430	621	0
V/C Ratio(X)	0.46	0.65	0.10	0.43	0.27	0.27	0.16	0.00	0.23	0.04	0.04	0.00
Avail Cap(c_a), veh/h	99	1101	493	775	1329	1382	526	0	533	430	621	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.1	26.7	22.1	17.6	3.5	3.5	21.9	0.0	21.7	23.8	20.3	0.0
Incr Delay (d2), s/veh	5.2	2.9	0.4	0.1	0.5	0.5	0.6	0.0	1.0	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	8.1	1.0	5.8	2.8	2.9	1.6	0.0	2.4	0.3	0.5	0.0
LnGrp Delay(d),s/veh	49.2	29.7	22.5	17.8	4.0	4.0	22.6	0.0	22.7	24.0	20.4	0.0
LnGrp LOS	D	C	C	B	A	A	C		C	C	C	
Approach Vol, veh/h		775			1054			208			42	
Approach Delay, s/veh		29.5			8.3			22.6			21.8	
Approach LOS		C			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	45.3	34.0		36.0	5.7	73.6		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	13.8	17.6		7.9	2.6	7.6		7.0
Green Ext Time (p_c), s	0.2	2.2		0.6	0.0	2.8		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	17.9
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	1	20	0	0	2	19	350	1	2	570	25
Future Vol, veh/h	26	1	20	0	0	2	19	350	1	2	570	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	1	22	0	0	2	20	376	1	2	613	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1050	1049	626	1049	1062	377	640	0	0	377	0	0
Stage 1	631	631	-	418	418	-	-	-	-	-	-	-
Stage 2	419	418	-	631	644	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	195	210	484	195	205	801	944	-	-	1211	-	-
Stage 1	469	474	-	709	632	-	-	-	-	-	-	-
Stage 2	707	632	-	469	468	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	191	205	484	183	200	801	944	-	-	1211	-	-
Mov Cap-2 Maneuver	191	205	-	183	200	-	-	-	-	-	-	-
Stage 1	459	473	-	694	619	-	-	-	-	-	-	-
Stage 2	690	619	-	446	467	-	-	-	-	-	-	-

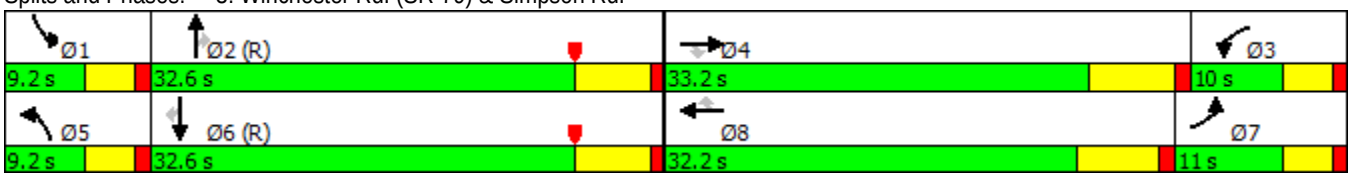
Approach	EB	WB	NB	SB
HCM Control Delay, s	21.1	9.5	0.5	0
HCM LOS	C	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	944	-	-	191	484	801	1211	-	-
HCM Lane V/C Ratio	0.022	-	-	0.152	0.044	0.003	0.002	-	-
HCM Control Delay (s)	8.9	-	-	27.2	12.8	9.5	8	-	-
HCM Lane LOS	A	-	-	D	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.1	0	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	117	51	82	120	29	24	262	36	17	458	100
Future Volume (vph)	87	117	51	82	120	29	24	262	36	17	458	100
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	11.0	33.2	33.2	10.0	32.2	32.2	9.2	32.6	32.6	9.2	32.6	32.6
Total Split (%)	12.9%	39.1%	39.1%	11.8%	37.9%	37.9%	10.8%	38.4%	38.4%	10.8%	38.4%	38.4%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	8.2	14.0	14.0	8.0	14.1	14.1	5.4	44.6	44.6	5.3	44.5	44.5
Actuated g/C Ratio	0.10	0.16	0.16	0.09	0.17	0.17	0.06	0.52	0.52	0.06	0.52	0.52
v/c Ratio	0.56	0.42	0.15	0.53	0.42	0.09	0.23	0.15	0.05	0.17	0.27	0.13
Control Delay	51.0	34.4	0.8	50.0	34.5	0.4	42.9	14.1	0.1	41.4	14.9	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	34.4	0.8	50.0	34.5	0.4	42.9	14.1	0.1	41.4	14.9	2.1
LOS	D	C	A	D	C	A	D	B	A	D	B	A
Approach Delay		33.4			35.7			14.7			13.4	
Approach LOS		C			D			B			B	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 21.1	Intersection LOS: C
Intersection Capacity Utilization 50.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	117	51	82	120	29	24	262	36	17	458	100
Future Volume (veh/h)	87	117	51	82	120	29	24	262	36	17	458	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	95	127	30	89	130	15	26	285	27	18	498	64
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	255	212	115	255	214	48	1891	834	36	1868	829
Arrive On Green	0.07	0.14	0.14	0.06	0.14	0.14	0.03	0.53	0.53	0.02	0.53	0.53
Sat Flow, veh/h	1774	1863	1545	1774	1863	1560	1774	3539	1561	1774	3539	1570
Grp Volume(v), veh/h	95	127	30	89	130	15	26	285	27	18	498	64
Grp Sat Flow(s),veh/h/ln	1774	1863	1545	1774	1863	1560	1774	1770	1561	1774	1770	1570
Q Serve(g_s), s	4.5	5.4	1.2	4.2	5.5	0.6	1.2	3.5	0.4	0.9	6.6	1.0
Cycle Q Clear(g_c), s	4.5	5.4	1.2	4.2	5.5	0.6	1.2	3.5	0.4	0.9	6.6	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	121	255	212	115	255	214	48	1891	834	36	1868	829
V/C Ratio(X)	0.78	0.50	0.14	0.78	0.51	0.07	0.54	0.15	0.03	0.50	0.27	0.08
Avail Cap(c_a), veh/h	142	585	485	121	570	477	104	1891	834	104	1868	829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	34.0	21.9	39.1	34.0	22.3	40.8	10.0	3.5	41.2	11.0	3.6
Incr Delay (d2), s/veh	17.9	1.5	0.3	22.7	1.6	0.1	3.4	0.2	0.1	3.9	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.9	0.5	2.8	2.9	0.3	0.7	1.7	0.2	0.5	3.3	0.5
LnGrp Delay(d),s/veh	56.9	35.5	22.2	61.8	35.6	22.4	44.2	10.2	3.5	45.1	11.4	3.8
LnGrp LOS	E	D	C	E	D	C	D	B	A	D	B	A
Approach Vol, veh/h		252			234			338			580	
Approach Delay, s/veh		42.0			44.7			12.3			11.6	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	51.2	9.7	18.1	6.5	50.7	10.0	17.8
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 5	26.8	5.8	* 27	* 5	26.8	6.8	* 26
Max Q Clear Time (g_c+I1), s	2.9	5.5	6.2	7.4	3.2	8.6	6.5	7.5
Green Ext Time (p_c), s	0.0	7.1	0.0	0.6	0.0	6.6	0.0	0.5

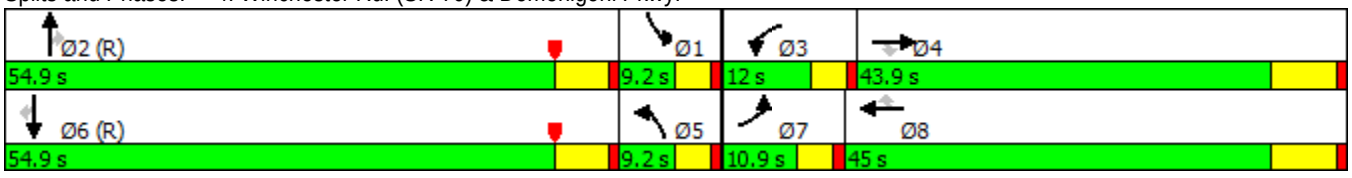
Intersection Summary	
HCM 2010 Ctrl Delay	22.7
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	789	62	710	779	18	36	221	568	13	419	158
Future Volume (vph)	112	789	62	710	779	18	36	221	568	13	419	158
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	10.9	43.9	43.9	12.0	45.0	45.0	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.1%	36.6%	36.6%	10.0%	37.5%	37.5%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	6.6	34.2	34.2	9.6	37.2	37.2	5.0	55.6	55.6	5.0	51.9	51.9
Actuated g/C Ratio	0.06	0.28	0.28	0.08	0.31	0.31	0.04	0.46	0.46	0.04	0.43	0.43
v/c Ratio	0.65	0.85	0.13	2.80	0.54	0.04	0.53	0.15	0.71	0.19	0.30	0.22
Control Delay	72.2	49.5	2.4	841.3	35.7	0.1	82.3	19.8	21.4	61.8	23.4	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.2	49.5	2.4	841.3	35.7	0.1	82.3	19.8	21.4	61.8	23.4	4.0
LOS	E	D	A	F	D	A	F	B	C	E	C	A
Approach Delay		49.1			414.7			23.6			19.0	
Approach LOS		D			F			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.80	
Intersection Signal Delay: 181.0	Intersection LOS: F
Intersection Capacity Utilization 75.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	789	62	710	779	18	36	221	568	13	419	158
Future Volume (veh/h)	112	789	62	710	779	18	36	221	568	13	419	158
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	122	858	30	772	847	8	39	240	355	14	455	73
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	1024	458	224	1544	481	108	1448	648	108	1448	648
Arrive On Green	0.05	0.29	0.29	0.07	0.30	0.30	0.06	0.41	0.41	0.06	0.41	0.41
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	122	858	30	772	847	8	39	240	355	14	455	73
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.2	27.3	1.3	7.8	16.7	0.3	2.5	5.2	15.3	0.9	10.5	2.6
Cycle Q Clear(g_c), s	4.2	27.3	1.3	7.8	16.7	0.3	2.5	5.2	15.3	0.9	10.5	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	1024	458	224	1544	481	108	1448	648	108	1448	648
V/C Ratio(X)	0.70	0.84	0.07	3.45	0.55	0.02	0.36	0.17	0.55	0.13	0.31	0.11
Avail Cap(c_a), veh/h	192	1091	488	224	1615	503	108	1448	648	108	1448	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	56.1	40.0	19.0	56.1	34.9	17.8	54.1	22.5	15.1	53.4	24.0	13.1
Incr Delay (d2), s/veh	7.4	5.6	0.1	1114.1	0.4	0.0	0.8	0.2	3.3	0.2	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	14.1	0.6	38.3	7.9	0.1	1.3	2.5	7.3	0.4	5.2	1.2
LnGrp Delay(d),s/veh	63.5	45.6	19.1	1170.2	35.3	17.8	54.9	22.7	18.5	53.5	24.6	13.5
LnGrp LOS	E	D	B	F	D	B	D	C	B	D	C	B
Approach Vol, veh/h		1010			1627			634			542	
Approach Delay, s/veh		47.0			573.7			22.3			23.8	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	54.9	12.0	41.6	11.5	54.9	10.3	43.3
Change Period (Y+Rc), s	4.2	* 5.8	* 4.2	6.9	4.2	* 5.8	* 4.2	6.9
Max Green Setting (Gmax), s	5.0	* 49	* 7.8	37.0	5.0	* 49	* 6.7	38.1
Max Q Clear Time (g_c+I1), s	2.9	17.3	9.8	29.3	4.5	12.5	6.2	18.7
Green Ext Time (p_c), s	0.0	4.3	0.0	5.4	0.0	4.7	0.0	10.4

Intersection Summary		
HCM 2010 Ctrl Delay		264.4
HCM 2010 LOS		F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1370	0	0	1506	1	0	0	0	0	0	1
Future Vol, veh/h	0	1370	0	0	1506	1	0	0	0	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1522	0	0	1673	1	0	0	0	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	761	-	-	837
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*537	0	0	310
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*537	-	-	310
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	16.7
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	310
HCM Lane V/C Ratio	-	-	-	-	-	0.004
HCM Control Delay (s)	0	-	-	-	-	16.7
HCM Lane LOS	A	-	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	83	0	3	3	4	97
Future Vol, veh/h	83	0	3	3	4	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	101	0	4	4	5	118

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	16	5	5	0	-	0
Stage 1	5	-	-	-	-	-
Stage 2	11	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1002	1078	1616	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1012	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1000	1078	1616	-	-	-
Mov Cap-2 Maneuver	1000	-	-	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1010	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	3.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1616	-	1000	-	-
HCM Lane V/C Ratio	0.002	-	0.101	-	-
HCM Control Delay (s)	7.2	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	159	0	0	191	1	2	1	0	2	1	4
Future Vol, veh/h	2	159	0	0	191	1	2	1	0	2	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	175	0	0	210	1	2	1	0	2	1	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	211	0	0	175	0	0	392	390	175	390	389	210
Stage 1	-	-	-	-	-	-	179	179	-	210	210	-
Stage 2	-	-	-	-	-	-	213	211	-	180	179	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1360	-	-	1401	-	-	567	545	868	569	546	830
Stage 1	-	-	-	-	-	-	823	751	-	792	728	-
Stage 2	-	-	-	-	-	-	789	728	-	822	751	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1360	-	-	1401	-	-	562	544	868	567	545	830
Mov Cap-2 Maneuver	-	-	-	-	-	-	562	544	-	567	545	-
Stage 1	-	-	-	-	-	-	821	749	-	790	728	-
Stage 2	-	-	-	-	-	-	784	728	-	819	749	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	11.5	10.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	556	1360	-	-	1401	-	-	688
HCM Lane V/C Ratio	0.006	0.002	-	-	-	-	-	0.011
HCM Control Delay (s)	11.5	7.7	0	-	0	-	-	10.3
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Intersection Delay, s/veh	33.8
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	25	31	3	0	162	15	50	0	2	435	154
Future Vol, veh/h	0	25	31	3	0	162	15	50	0	2	435	154
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	27	33	3	0	172	16	53	0	2	463	164
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	11.7	15.5	52
HCM LOS	B	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	42%	71%	8%
Vol Thru, %	74%	53%	7%	90%
Vol Right, %	26%	5%	22%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	591	59	227	326
LT Vol	2	25	162	25
Through Vol	435	31	15	294
RT Vol	154	3	50	7
Lane Flow Rate	629	63	241	347
Geometry Grp	1	1	1	1
Degree of Util (X)	0.972	0.131	0.457	0.589
Departure Headway (Hd)	5.563	7.514	6.819	6.11
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	654	475	526	590
Service Time	3.563	5.598	4.88	4.163
HCM Lane V/C Ratio	0.962	0.133	0.458	0.588
HCM Control Delay	52	11.7	15.5	17.6
HCM Lane LOS	F	B	C	C
HCM 95th-tile Q	14.3	0.4	2.4	3.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	25	294	7
Future Vol, veh/h	0	25	294	7
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	27	313	7
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	17.6
HCM LOS	C

Intersection	
Intersection Delay, s/veh	83
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	200	131	10	0	43	212	27	0	4	364	24	0	19	303	137
Future Vol, veh/h	0	200	131	10	0	43	212	27	0	4	364	24	0	19	303	137
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	213	139	11	0	46	226	29	0	4	387	26	0	20	322	146
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	58.1	39.5	68.7	140.5
HCM LOS	F	E	F	F

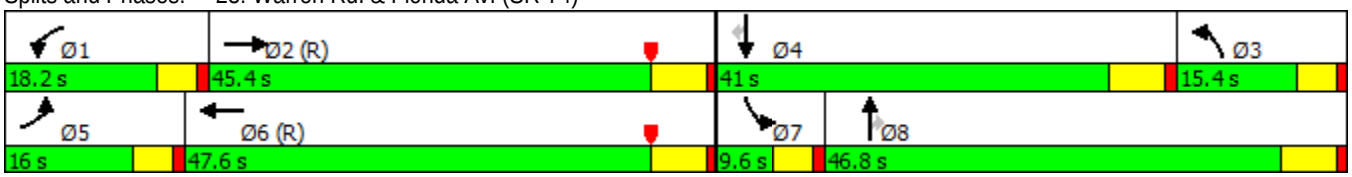
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	0%	59%	15%	4%
Vol Thru, %	99%	0%	38%	75%	66%
Vol Right, %	0%	100%	3%	10%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	368	24	341	282	459
LT Vol	4	0	200	43	19
Through Vol	364	0	131	212	303
RT Vol	0	24	10	27	137
Lane Flow Rate	391	26	363	300	488
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.977	0.059	0.906	0.768	1.203
Departure Headway (Hd)	9.623	8.885	9.75	10.021	8.872
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	380	405	374	363	415
Service Time	7.323	6.585	7.75	8.021	6.872
HCM Lane V/C Ratio	1.029	0.064	0.971	0.826	1.176
HCM Control Delay	72.4	12.1	58.1	39.5	140.5
HCM Lane LOS	F	B	F	E	F
HCM 95th-tile Q	11.2	0.2	9.2	6.2	19.6

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	102	565	192	472	141	285	115	15	267	92
Future Volume (vph)	102	565	192	472	141	285	115	15	267	92
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	16.0	45.4	18.2	47.6	15.4	46.8	46.8	9.6	41.0	41.0
Total Split (%)	13.3%	37.8%	15.2%	39.7%	12.8%	39.0%	39.0%	8.0%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	10.1	39.4	13.6	42.9	10.8	46.6	46.6	5.0	35.0	35.0
Actuated g/C Ratio	0.08	0.33	0.11	0.36	0.09	0.39	0.39	0.04	0.29	0.29
v/c Ratio	0.70	0.65	0.98	0.39	0.91	0.21	0.17	0.21	0.26	0.17
Control Delay	77.5	35.9	112.1	30.2	104.6	26.0	5.6	62.3	33.5	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.5	35.9	112.1	30.2	104.6	26.0	5.6	62.3	33.5	3.2
LOS	E	D	F	C	F	C	A	E	C	A
Approach Delay		41.1		53.4		42.1			27.1	
Approach LOS		D		D		D			C	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 18.2 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 42.6 — Intersection LOS: D
Intersection Capacity Utilization 92.8% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	565	161	192	472	13	141	285	115	15	267	92
Future Volume (veh/h)	102	565	161	192	472	13	141	285	115	15	267	92
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	104	577	101	196	482	9	144	291	72	15	272	30
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	2150	375	201	2681	50	160	1334	596	29	1032	460
Arrive On Green	0.07	0.71	0.71	0.11	0.75	0.75	0.09	0.38	0.38	0.02	0.29	0.29
Sat Flow, veh/h	1774	3013	526	1774	3554	66	1774	3539	1581	1774	3539	1578
Grp Volume(v), veh/h	104	338	340	196	240	251	144	291	72	15	272	30
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1774	1770	1851	1774	1770	1581	1774	1770	1578
Q Serve(g_s), s	6.9	8.1	8.2	13.2	4.6	4.6	9.6	6.7	3.6	1.0	7.1	2.2
Cycle Q Clear(g_c), s	6.9	8.1	8.2	13.2	4.6	4.6	9.6	6.7	3.6	1.0	7.1	2.2
Prop In Lane	1.00		0.30	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	1262	1263	201	1335	1396	160	1334	596	29	1032	460
V/C Ratio(X)	0.81	0.27	0.27	0.97	0.18	0.18	0.90	0.22	0.12	0.52	0.26	0.07
Avail Cap(c_a), veh/h	169	1262	1263	201	1335	1396	160	1334	596	74	1032	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	6.1	6.1	53.0	4.2	4.2	54.1	25.4	24.4	58.5	32.6	54.5
Incr Delay (d2), s/veh	15.1	0.5	0.5	55.8	0.3	0.3	43.0	0.4	0.4	5.2	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	4.1	4.1	9.6	2.3	2.4	6.6	3.3	1.6	0.5	3.5	1.0
LnGrp Delay(d),s/veh	70.0	6.6	6.6	108.8	4.5	4.5	97.1	25.8	24.8	63.7	33.2	54.8
LnGrp LOS	E	A	A	F	A	A	F	C	C	E	C	D
Approach Vol, veh/h		782			687			507			317	
Approach Delay, s/veh		15.0			34.2			45.9			36.7	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.2	93.0	16.8	41.0	13.3	97.9	6.6	51.2
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	13.6	39.4	10.8	* 35	11.4	41.6	5.0	40.8
Max Q Clear Time (g_c+I1), s	15.2	10.2	11.6	9.1	8.9	6.6	3.0	8.7
Green Ext Time (p_c), s	0.0	4.0	0.0	0.9	0.0	4.1	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	30.6
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	37	502	70	191	389
Future Vol, veh/h	6	37	502	70	191	389
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	39	534	74	203	414

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1355	535	0	0	535	0
Stage 1	535	-	-	-	-	-
Stage 2	820	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	165	545	-	-	1033	-
Stage 1	587	-	-	-	-	-
Stage 2	433	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	132	544	-	-	1033	-
Mov Cap-2 Maneuver	303	-	-	-	-	-
Stage 1	586	-	-	-	-	-
Stage 2	348	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	3.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	490	1033	-
HCM Lane V/C Ratio	-	-	0.093	0.197	-
HCM Control Delay (s)	-	-	13.1	9.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.7	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	41	585	3	17	397
Future Vol, veh/h	0	41	585	3	17	397
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	42	603	3	18	409

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1049	605	0	0	606	0
Stage 1	605	-	-	-	-	-
Stage 2	444	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	252	498	-	-	972	-
Stage 1	545	-	-	-	-	-
Stage 2	646	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	247	498	-	-	972	-
Mov Cap-2 Maneuver	446	-	-	-	-	-
Stage 1	545	-	-	-	-	-
Stage 2	634	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.9	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	498	972	-
HCM Lane V/C Ratio	-	-	0.085	0.018	-
HCM Control Delay (s)	-	-	12.9	8.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Intersection Delay, s/veh	26.5
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	27	56	5	0	79	67	205	0	3	359	67
Future Vol, veh/h	0	27	56	5	0	79	67	205	0	3	359	67
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	28	58	5	0	82	70	214	0	3	374	70
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	2
HCM Control Delay	14.2	17.2	25.1
HCM LOS	B	C	D

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	1%	0%	31%	100%	0%	32%
Vol Thru, %	99%	0%	64%	0%	25%	63%
Vol Right, %	0%	100%	6%	0%	75%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	362	67	88	79	272	410
LT Vol	3	0	27	79	0	130
Through Vol	359	0	56	0	67	259
RT Vol	0	67	5	0	205	21
Lane Flow Rate	377	70	92	82	283	427
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	0.744	0.124	0.222	0.186	0.558	0.848
Departure Headway (Hd)	7.105	6.383	8.722	8.146	7.089	7.149
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	509	559	414	439	507	504
Service Time	4.878	4.155	6.722	5.918	4.86	5.22
HCM Lane V/C Ratio	0.741	0.125	0.222	0.187	0.558	0.847
HCM Control Delay	27.9	10.1	14.2	12.8	18.5	38.7
HCM Lane LOS	D	B	B	B	C	E
HCM 95th-tile Q	6.3	0.4	0.8	0.7	3.4	8.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

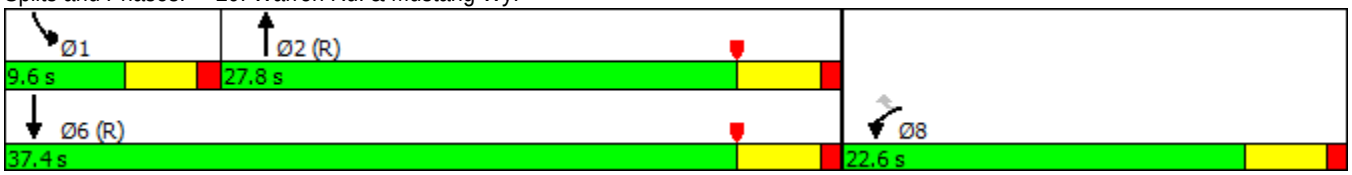
Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	130	259	21
Future Vol, veh/h	0	130	259	21
Peak Hour Factor	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	135	270	22
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	38.7
HCM LOS	E

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	199	63	366	35	308
Future Volume (vph)	199	63	366	35	308
Turn Type	Prot	Perm	NA	Prot	NA
Protected Phases	8		2	1	6
Permitted Phases		8			
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	22.6	22.6	27.8	9.6	37.4
Total Split (%)	37.7%	37.7%	46.3%	16.0%	62.3%
Yellow Time (s)	3.6	3.6	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.7	4.2	4.7
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.1	13.1	33.4	5.6	37.6
Actuated g/C Ratio	0.22	0.22	0.56	0.09	0.63
v/c Ratio	0.57	0.16	0.51	0.23	0.29
Control Delay	26.6	2.8	12.9	28.6	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.6	2.8	12.9	28.6	6.6
LOS	C	A	B	C	A
Approach Delay			12.9		8.8
Approach LOS			B		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 47.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	199	0	63	0	366	101	35	308	0
Future Volume (veh/h)	0	0	0	199	0	63	0	366	101	35	308	0
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h				221	0	23	0	407	98	39	342	0
Adj No. of Lanes				1	0	1	0	1	0	1	1	0
Peak Hour Factor				0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %				2	0	2	0	2	2	2	2	0
Cap, veh/h				291	0	259	0	829	200	71	1269	0
Arrive On Green				0.16	0.00	0.16	0.00	0.57	0.57	0.04	0.68	0.00
Sat Flow, veh/h				1774	0	1583	0	1452	350	1774	1863	0
Grp Volume(v), veh/h				221	0	23	0	0	505	39	342	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	0	1801	1774	1863	0
Q Serve(g_s), s				7.1	0.0	0.7	0.0	0.0	10.0	1.3	4.3	0.0
Cycle Q Clear(g_c), s				7.1	0.0	0.7	0.0	0.0	10.0	1.3	4.3	0.0
Prop In Lane				1.00		1.00	0.00		0.19	1.00		0.00
Lane Grp Cap(c), veh/h				291	0	259	0	0	1029	71	1269	0
V/C Ratio(X)				0.76	0.00	0.09	0.00	0.00	0.49	0.55	0.27	0.00
Avail Cap(c_a), veh/h				532	0	475	0	0	1029	160	1269	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				24.0	0.0	21.3	0.0	0.0	7.7	28.3	3.7	0.0
Incr Delay (d2), s/veh				4.1	0.0	0.1	0.0	0.0	1.7	2.5	0.5	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.8	0.0	0.3	0.0	0.0	5.4	0.7	2.4	0.0
LnGrp Delay(d),s/veh				28.1	0.0	21.4	0.0	0.0	9.3	30.8	4.3	0.0
LnGrp LOS				C		C			A	C	A	
Approach Vol, veh/h					244			505			381	
Approach Delay, s/veh					27.4			9.3			7.0	
Approach LOS					C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.6	39.0				45.6		14.4
Change Period (Y+Rc), s	* 4.2	* 4.7				* 4.7		4.6
Max Green Setting (Gmax), s	* 5.4	* 23				* 33		18.0
Max Q Clear Time (g_c+I1), s	3.3	12.0				6.3		9.1
Green Ext Time (p_c), s	0.0	5.3				8.6		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	12.4
HCM 2010 LOS	B

Notes

Intersection	
Intersection Delay, s/veh	18.2
Intersection LOS	C

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	128	28	0	346	155	0	38	321
Future Vol, veh/h	0	128	28	0	346	155	0	38	321
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	147	32	0	398	178	0	44	369
Number of Lanes	0	1	0	0	1	1	0	1	1

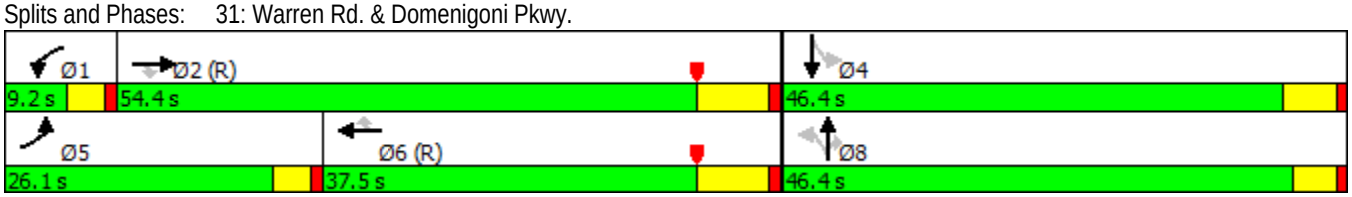
Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	12.3	21	16.8
HCM LOS	B	C	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	82%	0%	100%
Vol Right, %	0%	100%	18%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	321	156	346	155
LT Vol	38	0	0	346	0
Through Vol	0	0	128	0	155
RT Vol	0	321	28	0	0
Lane Flow Rate	44	369	179	398	178
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.087	0.607	0.316	0.73	0.302
Departure Headway (Hd)	7.139	5.922	6.34	6.604	6.097
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	501	609	565	549	588
Service Time	4.897	3.679	4.397	4.351	3.844
HCM Lane V/C Ratio	0.088	0.606	0.317	0.725	0.303
HCM Control Delay	10.6	17.5	12.3	25.3	11.5
HCM Lane LOS	B	C	B	D	B
HCM 95th-tile Q	0.3	4.1	1.3	6.1	1.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	322	1031	2	2	1207	42	3	4	1	42	2
Future Volume (vph)	322	1031	2	2	1207	42	3	4	1	42	2
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	27.5	78.8	78.8	5.0	48.9	48.9		17.9	17.9		17.1
Actuated g/C Ratio	0.25	0.72	0.72	0.05	0.44	0.44		0.16	0.16		0.16
v/c Ratio	0.80	0.45	0.00	0.03	0.84	0.06		0.03	0.00		0.74
Control Delay	54.1	10.4	0.0	51.0	34.7	0.2		31.3	0.0		14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	54.1	10.4	0.0	51.0	34.7	0.2		31.3	0.0		14.9
LOS	D	B	A	D	C	A		C	A		B
Approach Delay		20.8			33.6			27.4			14.9
Approach LOS		C			C			C			B

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 25.4	Intersection LOS: C
Intersection Capacity Utilization 94.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	322	1031	2	2	1207	42	3	4	1	42	2	328
Future Volume (veh/h)	322	1031	2	2	1207	42	3	4	1	42	2	328
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	354	1133	2	2	1326	36	3	4	0	46	2	215
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	2327	1020	5	1632	715	121	144	300	77	16	244
Arrive On Green	0.20	0.66	0.66	0.00	0.46	0.46	0.19	0.19	0.00	0.19	0.19	0.19
Sat Flow, veh/h	1774	3539	1551	1774	3539	1550	391	759	1583	204	83	1284
Grp Volume(v), veh/h	354	1133	2	2	1326	36	7	0	0	263	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1551	1774	1770	1550	1151	0	1583	1570	0	0
Q Serve(g_s), s	21.9	17.7	0.0	0.1	35.5	1.4	0.0	0.0	0.0	12.7	0.0	0.0
Cycle Q Clear(g_c), s	21.9	17.7	0.0	0.1	35.5	1.4	0.3	0.0	0.0	17.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.43		1.00	0.17		0.82
Lane Grp Cap(c), veh/h	353	2327	1020	5	1632	715	265	0	300	336	0	0
V/C Ratio(X)	1.00	0.49	0.00	0.42	0.81	0.05	0.03	0.00	0.00	0.78	0.00	0.00
Avail Cap(c_a), veh/h	353	2327	1020	81	1632	715	546	0	602	620	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	9.5	6.5	54.8	25.5	16.3	36.2	0.0	0.0	43.3	0.0	0.0
Incr Delay (d2), s/veh	48.5	0.7	0.0	20.2	4.5	0.1	0.0	0.0	0.0	1.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.4	8.7	0.0	0.1	18.3	0.6	0.2	0.0	0.0	7.9	0.0	0.0
LnGrp Delay(d),s/veh	92.5	10.2	6.5	74.9	30.1	16.5	36.3	0.0	0.0	44.8	0.0	0.0
LnGrp LOS	F	B	A	E	C	B	D			D		
Approach Vol, veh/h		1489			1364			7			263	
Approach Delay, s/veh		29.8			29.8			36.3			44.8	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	79.2		26.3	26.1	57.6		26.3
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.1	19.7		19.9	23.9	37.5		2.3
Green Ext Time (p_c), s	0.0	13.2		1.0	0.0	0.0		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.1
HCM 2010 LOS	C

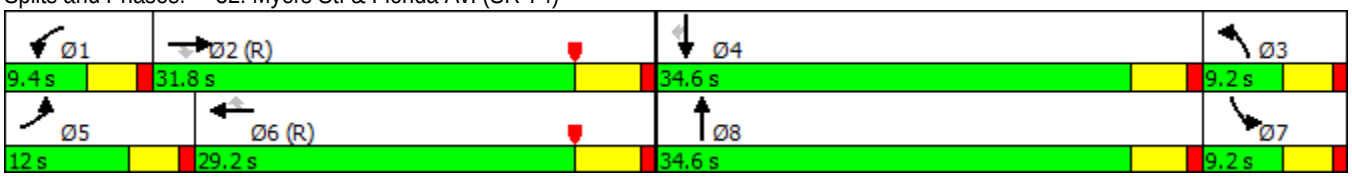
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	62	661	4	15	548	7	21	16	1	10	68
Future Volume (vph)	62	661	4	15	548	7	21	16	1	10	68
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.0	31.8	31.8	9.4	29.2	29.2	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.1%	37.4%	37.4%	11.1%	34.4%	34.4%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	6.8	39.7	39.7	5.1	32.4	32.4	5.0	31.8	5.0	30.0	30.0
Actuated g/C Ratio	0.08	0.47	0.47	0.06	0.38	0.38	0.06	0.37	0.06	0.35	0.35
v/c Ratio	0.44	0.41	0.01	0.14	0.41	0.01	0.20	0.08	0.01	0.02	0.11
Control Delay	47.0	17.5	0.0	52.1	7.2	0.0	42.9	8.5	38.0	18.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.0	17.5	0.0	52.1	7.2	0.0	42.9	8.5	38.0	18.1	0.5
LOS	D	B	A	D	A	A	D	A	D	B	A
Approach Delay		19.9			8.2			18.2		3.2	
Approach LOS		B			A			B		A	

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.44
Intersection Signal Delay: 14.3 — Intersection LOS: B
Intersection Capacity Utilization 44.1% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	661	4	15	548	7	21	16	36	1	10	68
Future Volume (veh/h)	62	661	4	15	548	7	21	16	36	1	10	68
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	63	674	4	15	559	7	21	16	13	1	10	14
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	1393	610	31	1294	576	41	336	273	41	657	559
Arrive On Green	0.05	0.39	0.39	0.04	0.73	0.73	0.02	0.35	0.35	0.02	0.35	0.35
Sat Flow, veh/h	1774	3539	1550	1774	3539	1577	1774	952	774	1774	1863	1583
Grp Volume(v), veh/h	63	674	4	15	559	7	21	0	29	1	10	14
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1577	1774	0	1726	1774	1863	1583
Q Serve(g_s), s	3.0	12.1	0.1	0.7	5.3	0.1	1.0	0.0	0.9	0.0	0.3	0.4
Cycle Q Clear(g_c), s	3.0	12.1	0.1	0.7	5.3	0.1	1.0	0.0	0.9	0.0	0.3	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	81	1393	610	31	1294	576	41	0	609	41	657	559
V/C Ratio(X)	0.78	0.48	0.01	0.48	0.43	0.01	0.51	0.00	0.05	0.02	0.02	0.03
Avail Cap(c_a), veh/h	163	1393	610	109	1294	576	104	0	609	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	19.3	9.6	40.6	8.0	4.5	41.1	0.0	18.1	40.6	17.9	10.6
Incr Delay (d2), s/veh	6.0	1.2	0.0	4.2	1.1	0.0	3.7	0.0	0.1	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.1	0.0	0.4	2.6	0.0	0.5	0.0	0.5	0.0	0.2	0.2
LnGrp Delay(d),s/veh	46.1	20.5	9.6	44.9	9.0	4.6	44.7	0.0	18.2	40.7	17.9	10.7
LnGrp LOS	D	C	A	D	A	A	D		B	D	B	B
Approach Vol, veh/h		741			581			50			25	
Approach Delay, s/veh		22.6			9.9			29.4			14.8	
Approach LOS		C			A			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	38.6	6.2	34.6	8.1	36.2	6.2	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.2	26.7	5.0	* 30	* 7.8	24.1	5.0	* 30
Max Q Clear Time (g_c+I1), s	2.7	14.1	3.0	2.4	5.0	7.3	2.0	2.9
Green Ext Time (p_c), s	0.0	7.9	0.0	0.1	0.0	9.8	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	662	113	0	647	0	0
Future Vol, veh/h	662	113	0	647	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	704	120	0	688	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	704	0	-	352
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*1227	-	0	*821
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*1227	-	-	*821
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	* 1227	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

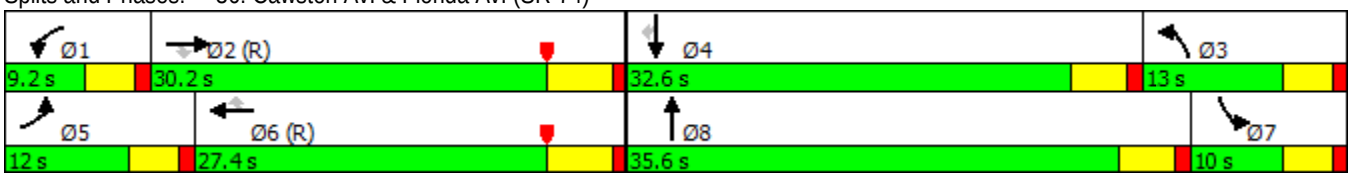
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	89	565	8	4	465	47	90	51	79	59	92
Future Volume (vph)	89	565	8	4	465	47	90	51	79	59	92
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	12.0	30.2	30.2	9.2	27.4	27.4	13.0	35.6	10.0	32.6	32.6
Total Split (%)	14.1%	35.5%	35.5%	10.8%	32.2%	32.2%	15.3%	41.9%	11.8%	38.4%	38.4%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.2	34.5	34.5	5.0	26.8	26.8	8.1	31.0	5.7	28.6	28.6
Actuated g/C Ratio	0.08	0.41	0.41	0.06	0.32	0.32	0.10	0.36	0.07	0.34	0.34
v/c Ratio	0.62	0.41	0.01	0.04	0.43	0.08	0.55	0.05	0.69	0.10	0.15
Control Delay	70.1	15.4	0.0	49.5	16.1	0.6	49.5	16.2	69.1	20.4	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.1	15.4	0.0	49.5	16.1	0.6	49.5	16.2	69.1	20.4	2.2
LOS	E	B	A	D	B	A	D	B	E	C	A
Approach Delay		22.6			15.0			36.6		29.8	
Approach LOS		C			B			D		C	

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 38 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 22.5 — Intersection LOS: C
Intersection Capacity Utilization 57.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	565	8	4	465	47	90	51	6	79	59	92
Future Volume (veh/h)	89	565	8	4	465	47	90	51	6	79	59	92
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	92	582	7	4	479	32	93	53	3	81	61	27
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	1269	568	9	1056	472	166	1243	70	104	614	522
Arrive On Green	0.13	0.72	0.72	0.01	0.30	0.30	0.09	0.36	0.36	0.06	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3407	191	1774	1863	1583
Grp Volume(v), veh/h	92	582	7	4	479	32	93	27	29	81	61	27
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1829	1774	1863	1583
Q Serve(g_s), s	4.3	5.9	0.1	0.2	9.3	0.9	4.3	0.8	0.9	3.8	1.9	0.7
Cycle Q Clear(g_c), s	4.3	5.9	0.1	0.2	9.3	0.9	4.3	0.8	0.9	3.8	1.9	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	116	1269	568	9	1056	472	166	645	667	104	614	522
V/C Ratio(X)	0.79	0.46	0.01	0.43	0.45	0.07	0.56	0.04	0.04	0.78	0.10	0.05
Avail Cap(c_a), veh/h	163	1269	568	104	1056	472	184	645	667	121	614	522
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	8.5	3.6	42.1	24.2	12.4	36.8	17.4	17.4	39.5	19.8	10.9
Incr Delay (d2), s/veh	10.6	1.2	0.0	10.9	1.4	0.3	1.3	0.1	0.1	20.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	3.0	0.0	0.1	4.7	0.4	2.2	0.4	0.5	2.4	1.0	0.3
LnGrp Delay(d),s/veh	46.9	9.7	3.6	53.1	25.6	12.6	38.1	17.5	17.5	59.6	20.1	11.1
LnGrp LOS	D	A	A	D	C	B	D	B	B	E	C	B
Approach Vol, veh/h		681			515			149			169	
Approach Delay, s/veh		14.7			25.0			30.4			37.6	
Approach LOS		B			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	35.6	12.2	32.6	9.8	30.5	9.2	35.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5	25.1	8.8	* 28	* 7.8	22.3	5.8	* 31
Max Q Clear Time (g_c+I1), s	2.2	7.9	6.3	3.9	6.3	11.3	5.8	2.9
Green Ext Time (p_c), s	0.0	8.7	0.1	0.4	0.0	6.4	0.0	0.2

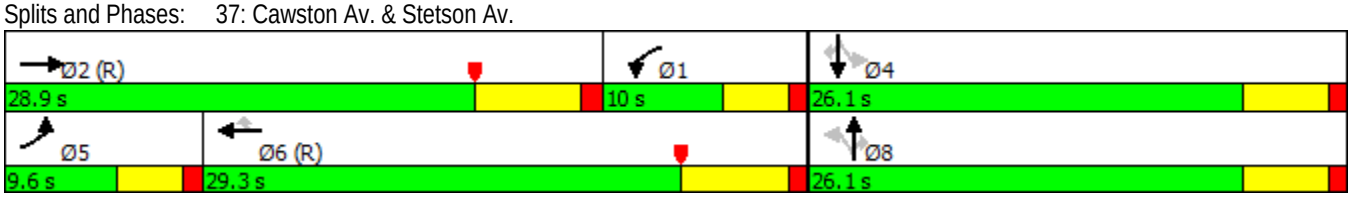
Intersection Summary	
HCM 2010 Ctrl Delay	22.3
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	35	178	157	247	20	58	145	219	17	104	19
Future Volume (vph)	35	178	157	247	20	58	145	219	17	104	19
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.6	28.9	10.0	29.3	29.3	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.8%	44.5%	15.4%	45.1%	45.1%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.3	22.7	5.8	26.9	26.9	21.0	21.0	21.0	21.0	21.0	21.0
Actuated g/C Ratio	0.08	0.35	0.09	0.41	0.41	0.32	0.32	0.32	0.32	0.32	0.32
v/c Ratio	0.30	0.19	1.22	0.39	0.03	0.17	0.29	0.39	0.05	0.21	0.03
Control Delay	33.9	14.1	173.4	16.6	0.1	17.3	18.1	4.3	15.8	17.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	14.1	173.4	16.6	0.1	17.3	18.1	4.3	15.8	17.2	0.1
LOS	C	B	F	B	A	B	B	A	B	B	A
Approach Delay		17.1		73.9			10.9			14.7	
Approach LOS		B		E			B			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.22	
Intersection Signal Delay: 34.4	Intersection LOS: C
Intersection Capacity Utilization 44.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	178	18	157	247	20	58	145	219	17	104	19
Future Volume (veh/h)	35	178	18	157	247	20	58	145	219	17	104	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	43	217	20	191	301	17	71	177	128	21	127	6
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	1145	105	1453	2156	1833	453	602	512	380	602	505
Arrive On Green	0.04	0.35	0.35	0.82	1.00	1.00	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	3280	300	1774	1863	1583	1252	1863	1583	1070	1863	1563
Grp Volume(v), veh/h	43	116	121	191	301	17	71	177	128	21	127	6
Grp Sat Flow(s),veh/h/ln	1774	1770	1810	1774	1863	1583	1252	1863	1583	1070	1863	1563
Q Serve(g_s), s	1.5	3.0	3.0	1.4	0.0	0.0	2.8	4.6	3.9	1.0	3.2	0.2
Cycle Q Clear(g_c), s	1.5	3.0	3.0	1.4	0.0	0.0	6.1	4.6	3.9	5.6	3.2	0.2
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	618	632	1453	2156	1833	453	602	512	380	602	505
V/C Ratio(X)	0.58	0.19	0.19	0.13	0.14	0.01	0.16	0.29	0.25	0.06	0.21	0.01
Avail Cap(c_a), veh/h	147	618	632	1453	2156	1833	453	602	512	380	602	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	14.7	14.7	1.2	0.0	0.0	18.2	16.5	16.2	18.5	16.0	14.9
Incr Delay (d2), s/veh	2.6	0.6	0.6	0.0	0.1	0.0	0.7	1.2	1.2	0.3	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.6	1.6	0.7	0.1	0.0	1.1	2.6	1.8	0.3	1.8	0.1
LnGrp Delay(d),s/veh	33.2	15.4	15.4	1.2	0.1	0.0	18.9	17.7	17.4	18.8	16.8	15.0
LnGrp LOS	C	B	B	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		280			509			376			154	
Approach Delay, s/veh		18.1			0.5			17.8			17.0	
Approach LOS		B			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	60.3	28.9		26.1	6.9	82.3		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.8	* 23		21.0	* 5.4	23.1		21.0
Max Q Clear Time (g_c+I1), s	3.4	5.0		7.6	3.5	2.0		8.1
Green Ext Time (p_c), s	0.1	0.6		1.3	0.0	1.1		1.2

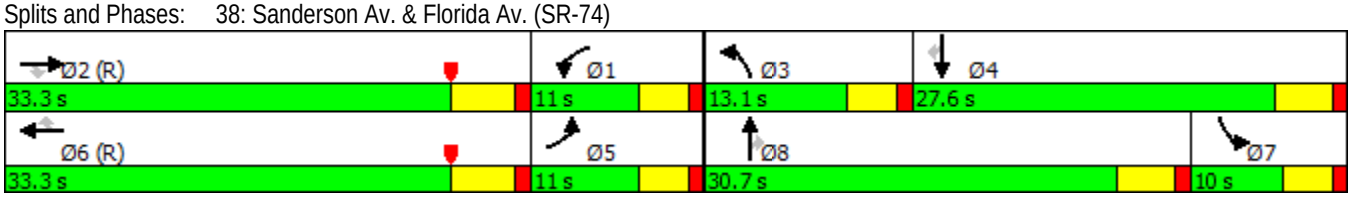
Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	144	443	34	138	381	96	117	679	138	127	539	99
Future Volume (vph)	144	443	34	138	381	96	117	679	138	127	539	99
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	11.0	33.3	33.3	11.0	33.3	33.3	13.1	30.7	30.7	10.0	27.6	27.6
Total Split (%)	12.9%	39.2%	39.2%	12.9%	39.2%	39.2%	15.4%	36.1%	36.1%	11.8%	32.5%	32.5%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	6.8	28.2	28.2	6.8	28.2	28.2	8.4	26.0	26.0	5.8	23.4	23.4
Actuated g/C Ratio	0.08	0.33	0.33	0.08	0.33	0.33	0.10	0.31	0.31	0.07	0.28	0.28
v/c Ratio	1.12	0.41	0.06	1.08	0.36	0.16	0.74	0.69	0.26	1.17	0.61	0.20
Control Delay	136.0	13.9	0.5	138.7	22.6	0.6	62.6	29.9	5.3	172.6	30.2	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	136.0	13.9	0.5	138.7	22.6	0.6	62.6	29.9	5.3	172.6	30.2	3.9
LOS	F	B	A	F	C	A	E	C	A	F	C	A
Approach Delay		41.5			45.3			30.4			50.5	
Approach LOS		D			D			C			D	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 81 (95%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay: 41.1	Intersection LOS: D
Intersection Capacity Utilization 74.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	443	34	138	381	96	117	679	138	127	539	99
Future Volume (veh/h)	144	443	34	138	381	96	117	679	138	127	539	99
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	158	487	8	152	419	46	129	746	42	140	592	57
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	486	1174	516	486	1174	516	161	1083	469	121	1025	458
Arrive On Green	0.27	0.33	0.33	0.27	0.33	0.33	0.09	0.31	0.31	0.07	0.29	0.29
Sat Flow, veh/h	1774	3539	1556	1774	3539	1555	1774	3539	1535	1774	3539	1583
Grp Volume(v), veh/h	158	487	8	152	419	46	129	746	42	140	592	57
Grp Sat Flow(s),veh/h/ln	1774	1770	1556	1774	1770	1555	1774	1770	1535	1774	1770	1583
Q Serve(g_s), s	6.0	9.1	0.3	5.8	7.6	1.7	6.1	15.8	1.7	5.8	12.1	1.7
Cycle Q Clear(g_c), s	6.0	9.1	0.3	5.8	7.6	1.7	6.1	15.8	1.7	5.8	12.1	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	486	1174	516	486	1174	516	161	1083	469	121	1025	458
V/C Ratio(X)	0.32	0.41	0.02	0.31	0.36	0.09	0.80	0.69	0.09	1.16	0.58	0.12
Avail Cap(c_a), veh/h	486	1174	516	486	1174	516	186	1083	469	121	1025	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	22.0	19.1	24.5	21.5	19.6	37.9	25.9	21.1	39.6	25.8	12.5
Incr Delay (d2), s/veh	0.1	1.1	0.1	0.1	0.8	0.3	16.9	3.6	0.4	130.0	2.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	4.6	0.1	2.8	3.9	0.8	3.7	8.2	0.7	7.2	6.3	0.8
LnGrp Delay(d),s/veh	24.7	23.1	19.1	24.6	22.4	19.9	54.8	29.5	21.4	169.6	28.1	13.0
LnGrp LOS	C	C	B	C	C	B	D	C	C	F	C	B
Approach Vol, veh/h		653			617			917			789	
Approach Delay, s/veh		23.4			22.7			32.7			52.1	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	33.3	11.9	29.3	28.0	33.3	10.5	30.7
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.7	* 4.7
Max Green Setting (Gmax), s	6.8	* 28	* 8.9	* 23	6.8	* 28	* 5.8	* 26
Max Q Clear Time (g_c+I1), s	7.8	11.1	8.1	14.1	8.0	9.6	7.8	17.8
Green Ext Time (p_c), s	0.0	3.9	0.0	2.9	0.0	3.7	0.0	3.3

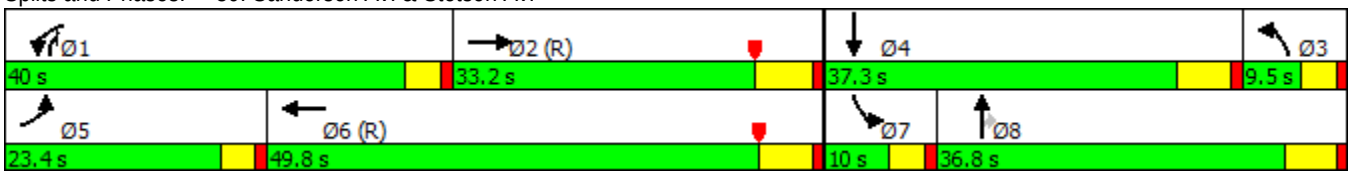
Intersection Summary	
HCM 2010 Ctrl Delay	33.8
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	81	321	446	543	25	661	583	69	684
Future Volume (vph)	81	321	446	543	25	661	583	69	684
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	23.4	33.2	40.0	49.8	9.5	36.8	40.0	10.0	37.3
Total Split (%)	19.5%	27.7%	33.3%	41.5%	7.9%	30.7%	33.3%	8.3%	31.1%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	10.7	27.0	35.8	52.5	5.2	31.0	68.4	5.8	35.3
Actuated g/C Ratio	0.09	0.22	0.30	0.44	0.04	0.26	0.57	0.05	0.29
v/c Ratio	0.59	0.49	0.98	0.51	0.38	0.84	0.73	0.94	0.86
Control Delay	67.2	42.6	77.5	25.6	69.8	51.8	20.0	139.8	50.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.2	42.6	77.5	25.6	69.8	51.8	20.0	139.8	50.4
LOS	E	D	E	C	E	D	C	F	D
Approach Delay		47.4		46.4		37.6			57.8
Approach LOS		D		D		D			E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 77.8 (65%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 46.0	Intersection LOS: D
Intersection Capacity Utilization 89.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	321	11	446	543	124	25	661	583	69	684	82
Future Volume (veh/h)	81	321	11	446	543	124	25	661	583	69	684	82
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	94	373	12	519	631	127	29	769	298	80	795	89
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	118	786	25	529	1342	270	55	914	865	86	842	94
Arrive On Green	0.07	0.22	0.22	0.30	0.46	0.46	0.03	0.26	0.26	0.05	0.26	0.26
Sat Flow, veh/h	1774	3494	112	1774	2938	590	1774	3539	1521	1774	3209	359
Grp Volume(v), veh/h	94	188	197	519	380	378	29	769	298	80	438	446
Grp Sat Flow(s),veh/h/ln	1774	1770	1837	1774	1770	1759	1774	1770	1521	1774	1770	1799
Q Serve(g_s), s	6.3	11.1	11.1	34.8	17.8	17.9	1.9	24.7	13.0	5.4	29.1	29.1
Cycle Q Clear(g_c), s	6.3	11.1	11.1	34.8	17.8	17.9	1.9	24.7	13.0	5.4	29.1	29.1
Prop In Lane	1.00		0.06	1.00		0.34	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	118	398	413	529	809	804	55	914	865	86	465	472
V/C Ratio(X)	0.80	0.47	0.48	0.98	0.47	0.47	0.53	0.84	0.34	0.93	0.94	0.94
Avail Cap(c_a), veh/h	284	398	413	529	809	804	78	914	865	86	465	472
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.2	40.3	40.4	41.8	22.5	22.5	57.3	42.2	14.7	56.9	43.4	43.4
Incr Delay (d2), s/veh	4.5	3.9	3.8	33.9	2.0	2.0	2.9	9.2	1.1	74.1	29.8	29.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	5.8	6.1	22.0	9.1	9.1	1.0	13.2	5.7	4.4	18.1	18.4
LnGrp Delay(d),s/veh	59.7	44.2	44.1	75.7	24.5	24.5	60.2	51.4	15.8	131.0	73.2	72.9
LnGrp LOS	E	D	D	E	C	C	E	D	B	F	E	E
Approach Vol, veh/h		479			1277			1096			964	
Approach Delay, s/veh		47.2			45.3			41.9			77.9	
Approach LOS		D			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.0	33.2	9.5	37.3	12.2	61.0	10.0	36.8
Change Period (Y+Rc), s	* 4.2	6.2	5.8	* 5.8	* 4.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 36	27.0	5.3	* 32	* 19	* 44	* 5.8	31.0
Max Q Clear Time (g_c+I1), s	36.8	13.1	3.9	31.1	8.3	19.9	7.4	26.7
Green Ext Time (p_c), s	0.0	5.4	1.0	0.2	0.1	6.8	0.0	2.8

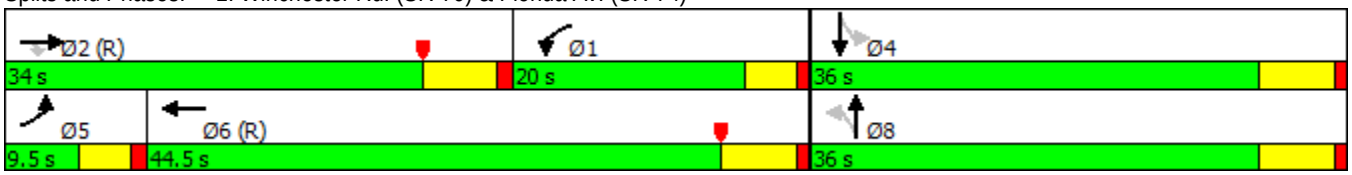
Intersection Summary	
HCM 2010 Ctrl Delay	52.8
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	13	931	93	345	773	118	6	14	16
Future Volume (vph)	13	931	93	345	773	118	6	14	16
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	28.0	28.0	15.5	46.1	30.0	30.0	30.0	30.0
Actuated g/C Ratio	0.06	0.31	0.31	0.17	0.51	0.33	0.33	0.33	0.33
v/c Ratio	0.15	0.96	0.19	1.29	0.51	0.29	0.59	0.11	0.04
Control Delay	44.2	50.8	5.4	186.1	16.2	24.3	7.4	23.2	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	50.8	5.4	186.1	16.2	24.3	7.4	23.2	17.4
LOS	D	D	A	F	B	C	A	C	B
Approach Delay		46.6			67.1		11.1		19.8
Approach LOS		D			E		B		B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.29	
Intersection Signal Delay: 48.0	Intersection LOS: D
Intersection Capacity Utilization 84.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	931	93	345	773	35	118	6	410	14	16	4
Future Volume (veh/h)	13	931	93	345	773	35	118	6	410	14	16	4
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	15	1058	59	392	878	34	134	7	258	16	18	0
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	31	1101	493	956	2950	114	532	14	516	302	621	0
Arrive On Green	0.02	0.31	0.31	0.54	0.85	0.85	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3474	135	1383	42	1548	1110	1863	0
Grp Volume(v), veh/h	15	1058	59	392	447	465	134	0	265	16	18	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1839	1383	0	1590	1110	1863	0
Q Serve(g_s), s	0.8	26.4	2.4	11.8	4.6	4.6	6.5	0.0	12.0	1.1	0.6	0.0
Cycle Q Clear(g_c), s	0.8	26.4	2.4	11.8	4.6	4.6	7.1	0.0	12.0	13.1	0.6	0.0
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	31	1101	493	956	1503	1562	532	0	530	302	621	0
V/C Ratio(X)	0.49	0.96	0.12	0.41	0.30	0.30	0.25	0.00	0.50	0.05	0.03	0.00
Avail Cap(c_a), veh/h	99	1101	493	956	1503	1562	532	0	530	302	621	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.8	30.5	22.2	12.3	1.4	1.4	22.6	0.0	24.0	29.2	20.2	0.0
Incr Delay (d2), s/veh	4.4	19.2	0.5	0.1	0.5	0.5	1.1	0.0	3.3	0.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	15.9	1.1	5.8	2.3	2.4	2.6	0.0	5.7	0.4	0.3	0.0
LnGrp Delay(d),s/veh	48.2	49.7	22.7	12.4	1.9	1.9	23.7	0.0	27.3	29.6	20.3	0.0
LnGrp LOS	D	D	C	B	A	A	C		C	C	C	
Approach Vol, veh/h		1132			1304			399			34	
Approach Delay, s/veh		48.2			5.0			26.1			24.6	
Approach LOS		D			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	54.5	34.0		36.0	6.1	82.4		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	13.8	28.4		15.1	2.8	6.6		14.0
Green Ext Time (p_c), s	0.2	0.0		1.0	0.0	3.7		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	25.2
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	1	30	2	1	2	28	577	1	2	463	28
Future Vol, veh/h	33	1	30	2	1	2	28	577	1	2	463	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	1	32	2	1	2	30	614	1	2	493	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1189	1187	508	1186	1202	614	523	0	0	615	0	0
Stage 1	513	513	-	674	674	-	-	-	-	-	-	-
Stage 2	676	674	-	512	528	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	136	147	565	137	142	*608	1043	-	-	*910	-	-
Stage 1	544	536	-	555	490	-	-	-	-	-	-	-
Stage 2	553	490	-	545	528	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	131	143	564	125	138	*608	1043	-	-	*910	-	-
Mov Cap-2 Maneuver	131	143	-	125	138	-	-	-	-	-	-	-
Stage 1	528	534	-	539	476	-	-	-	-	-	-	-
Stage 2	534	476	-	512	526	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28.2	24.7	0.4	0
HCM LOS	D	C		

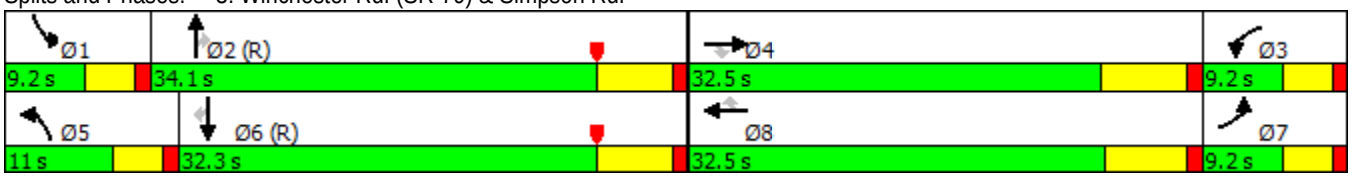
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1043	-	-	131	564	188	* 910	-	-
HCM Lane V/C Ratio	0.029	-	-	0.276	0.057	0.028	0.002	-	-
HCM Control Delay (s)	8.6	-	-	42.6	11.8	24.7	9	-	-
HCM Lane LOS	A	-	-	E	B	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.1	0.2	0.1	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	114	49	53	93	31	54	554	113	18	376	82
Future Volume (vph)	49	114	49	53	93	31	54	554	113	18	376	82
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	9.2	32.5	32.5	9.2	32.5	32.5	11.0	34.1	34.1	9.2	32.3	32.3
Total Split (%)	10.8%	38.2%	38.2%	10.8%	38.2%	38.2%	12.9%	40.1%	40.1%	10.8%	38.0%	38.0%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	6.9	13.9	13.9	6.3	15.6	15.6	6.6	50.7	50.7	5.3	47.6	47.6
Actuated g/C Ratio	0.08	0.16	0.16	0.07	0.18	0.18	0.08	0.60	0.60	0.06	0.56	0.56
v/c Ratio	0.37	0.40	0.14	0.42	0.29	0.08	0.42	0.28	0.12	0.17	0.20	0.09
Control Delay	44.5	34.1	0.8	48.7	31.0	0.4	46.5	13.5	2.2	41.6	14.9	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.5	34.1	0.8	48.7	31.0	0.4	46.5	13.5	2.2	41.6	14.9	0.7
LOS	D	C	A	D	C	A	D	B	A	D	B	A
Approach Delay		28.8			30.9			14.2			13.5	
Approach LOS		C			C			B			B	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.42	
Intersection Signal Delay: 17.8	Intersection LOS: B
Intersection Capacity Utilization 49.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	114	49	53	93	31	54	554	113	18	376	82
Future Volume (veh/h)	49	114	49	53	93	31	54	554	113	18	376	82
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	52	120	31	56	98	19	57	583	66	19	396	59
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	83	223	187	77	223	189	77	2025	906	38	1946	870
Arrive On Green	0.05	0.12	0.12	0.04	0.12	0.12	0.04	0.57	0.57	0.02	0.55	0.55
Sat Flow, veh/h	1774	1863	1561	1774	1863	1577	1774	3539	1583	1774	3539	1582
Grp Volume(v), veh/h	52	120	31	56	98	19	57	583	66	19	396	59
Grp Sat Flow(s),veh/h/ln	1774	1863	1561	1774	1863	1577	1774	1770	1583	1774	1770	1582
Q Serve(g_s), s	2.4	5.2	1.2	2.7	4.2	0.8	2.7	7.2	1.0	0.9	4.8	0.9
Cycle Q Clear(g_c), s	2.4	5.2	1.2	2.7	4.2	0.8	2.7	7.2	1.0	0.9	4.8	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	223	187	77	223	189	77	2025	906	38	1946	870
V/C Ratio(X)	0.63	0.54	0.17	0.73	0.44	0.10	0.74	0.29	0.07	0.50	0.20	0.07
Avail Cap(c_a), veh/h	104	570	478	104	576	488	142	2025	906	104	1946	870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	35.2	21.9	40.2	34.8	23.3	40.2	9.3	3.2	41.2	9.7	3.6
Incr Delay (d2), s/veh	2.9	2.0	0.4	8.8	1.4	0.2	4.8	0.3	0.1	3.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.8	0.6	1.5	2.2	0.3	1.4	3.6	0.5	0.5	2.4	0.4
LnGrp Delay(d),s/veh	42.7	37.2	22.3	49.0	36.1	23.6	45.0	9.6	3.3	45.0	9.9	3.8
LnGrp LOS	D	D	C	D	D	C	D	A	A	D	A	A
Approach Vol, veh/h		203			173			706			474	
Approach Delay, s/veh		36.3			38.9			11.9			10.6	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	54.4	7.9	16.7	7.9	52.5	8.2	16.4
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 5	28.3	5.0	* 26	* 6.8	26.5	5.0	* 26
Max Q Clear Time (g_c+I1), s	2.9	9.2	4.7	7.2	4.7	6.8	4.4	6.2
Green Ext Time (p_c), s	0.0	8.6	0.0	0.5	0.0	8.7	0.0	0.4

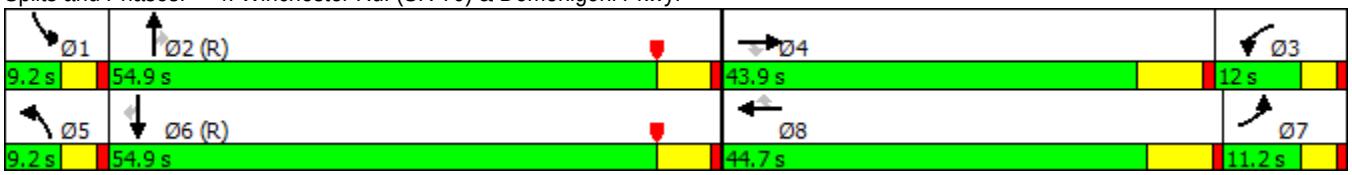
Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	187	756	58	606	807	18	68	524	911	12	289	142
Future Volume (vph)	187	756	58	606	807	18	68	524	911	12	289	142
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	11.2	43.9	43.9	12.0	44.7	44.7	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.3%	36.6%	36.6%	10.0%	37.3%	37.3%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	16.8	32.9	32.9	11.9	28.0	28.0	5.0	54.6	54.6	5.0	49.1	49.1
Actuated g/C Ratio	0.14	0.27	0.27	0.10	0.23	0.23	0.04	0.46	0.46	0.04	0.41	0.41
v/c Ratio	0.41	0.83	0.12	1.90	0.72	0.04	0.99	0.35	1.13	0.18	0.21	0.21
Control Delay	51.7	48.8	1.9	444.4	45.8	0.2	159.4	22.6	96.5	61.2	23.4	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	48.8	1.9	444.4	45.8	0.2	159.4	22.6	96.5	61.2	23.4	4.2
LOS	D	D	A	F	D	A	F	C	F	E	C	A
Approach Delay		46.6			214.0			73.6			18.3	
Approach LOS		D			F			E			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.90	
Intersection Signal Delay: 107.8	Intersection LOS: F
Intersection Capacity Utilization 95.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	756	58	606	807	18	68	524	911	12	289	142
Future Volume (veh/h)	187	756	58	606	807	18	68	524	911	12	289	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	199	804	31	645	859	9	72	557	554	13	307	42
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	379	923	413	224	1097	342	74	1712	766	26	1616	723
Arrive On Green	0.11	0.26	0.26	0.07	0.22	0.22	0.04	0.48	0.48	0.01	0.46	0.46
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	199	804	31	645	859	9	72	557	554	13	307	42
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.6	26.1	1.4	7.8	19.1	0.5	4.9	11.6	23.8	0.9	6.2	1.1
Cycle Q Clear(g_c), s	6.6	26.1	1.4	7.8	19.1	0.5	4.9	11.6	23.8	0.9	6.2	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	379	923	413	224	1097	342	74	1712	766	26	1616	723
V/C Ratio(X)	0.53	0.87	0.08	2.88	0.78	0.03	0.97	0.33	0.72	0.50	0.19	0.06
Avail Cap(c_a), veh/h	379	1091	488	224	1602	499	74	1712	766	74	1616	723
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	50.4	42.4	22.4	56.1	44.4	27.7	57.4	19.0	12.5	58.7	19.4	7.5
Incr Delay (d2), s/veh	0.7	6.9	0.1	859.6	1.6	0.0	95.1	0.5	5.9	5.3	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	13.6	0.6	30.4	9.1	0.2	4.3	5.8	11.6	0.5	3.1	0.5
LnGrp Delay(d),s/veh	51.1	49.3	22.5	915.7	46.0	27.7	152.6	19.5	18.4	64.0	19.7	7.7
LnGrp LOS	D	D	C	F	D	C	F	B	B	E	B	A
Approach Vol, veh/h		1034			1513			1183			362	
Approach Delay, s/veh		48.9			416.6			27.1			19.9	
Approach LOS		D			F			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	63.8	12.0	38.2	9.2	60.6	17.4	32.8
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.9	* 4.2	5.8	4.2	* 6.9
Max Green Setting (Gmax), s	* 5	49.1	7.8	* 37	* 5	49.1	7.0	* 38
Max Q Clear Time (g_c+I1), s	2.9	25.8	9.8	28.1	6.9	8.2	8.6	21.1
Green Ext Time (p_c), s	0.0	11.7	0.0	3.2	0.0	15.0	0.0	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	176.0
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1675	3	0	1431	0	0	0	0	0	0	0
Future Vol, veh/h	0	1675	3	0	1431	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1692	3	0	1445	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	847	-	-	723
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*414	0	0	369
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*414	-	-	369
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	-	0
HCM Lane LOS	A	-	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	119	5	2	9	9	90
Future Vol, veh/h	119	5	2	9	9	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	142	6	2	11	11	107

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	26	11	11	0	-	0
Stage 1	11	-	-	-	-	-
Stage 2	15	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	989	1070	1608	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	988	1070	1608	-	-	-
Mov Cap-2 Maneuver	988	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	1007	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	1.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	991	-	-
HCM Lane V/C Ratio	0.001	-	0.149	-	-
HCM Control Delay (s)	7.2	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	204	2	2	147	0	1	1	2	1	2	2
Future Vol, veh/h	2	204	2	2	147	0	1	1	2	1	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	232	2	2	167	0	1	1	2	1	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	167	0	0	234	0	0	411	409	233	411	411	167
Stage 1	-	-	-	-	-	-	237	237	-	172	172	-
Stage 2	-	-	-	-	-	-	174	172	-	239	239	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1411	-	-	1333	-	-	551	532	806	551	531	877
Stage 1	-	-	-	-	-	-	766	709	-	830	756	-
Stage 2	-	-	-	-	-	-	828	756	-	764	708	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1411	-	-	1333	-	-	546	530	806	547	529	877
Mov Cap-2 Maneuver	-	-	-	-	-	-	546	530	-	547	529	-
Stage 1	-	-	-	-	-	-	764	708	-	828	754	-
Stage 2	-	-	-	-	-	-	822	754	-	759	707	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	10.6	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	645	1411	-	-	1333	-	-	634
HCM Lane V/C Ratio	0.007	0.002	-	-	0.002	-	-	0.009
HCM Control Delay (s)	10.6	7.6	0	-	7.7	0	-	10.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Intersection Delay, s/veh	27
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	14	25	1	0	98	39	36	0	0	413	167
Future Vol, veh/h	0	14	25	1	0	98	39	36	0	0	413	167
Peak Hour Factor	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	25	1	0	99	39	36	0	0	417	169
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	11.2	13.3	32.6
HCM LOS	B	B	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	35%	57%	15%
Vol Thru, %	71%	62%	23%	77%
Vol Right, %	29%	3%	21%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	580	40	173	510
LT Vol	0	14	98	77
Through Vol	413	25	39	392
RT Vol	167	1	36	41
Lane Flow Rate	586	40	175	515
Geometry Grp	1	1	1	1
Degree of Util (X)	0.862	0.084	0.334	0.79
Departure Headway (Hd)	5.295	7.485	6.876	5.524
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	680	481	526	649
Service Time	3.382	5.496	4.876	3.614
HCM Lane V/C Ratio	0.862	0.083	0.333	0.794
HCM Control Delay	32.6	11.2	13.3	26.4
HCM Lane LOS	D	B	B	D
HCM 95th-tile Q	10	0.3	1.5	7.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	77	392	41
Future Vol, veh/h	0	77	392	41
Peak Hour Factor	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	78	396	41
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	26.4
HCM LOS	D

Intersection	
Intersection Delay, s/veh	98.2
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	191	165	10	0	36	228	20	0	16	369	45	0	30	336	125
Future Vol, veh/h	0	191	165	10	0	36	228	20	0	16	369	45	0	30	336	125
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	199	172	10	0	38	238	21	0	17	384	47	0	31	350	130
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0

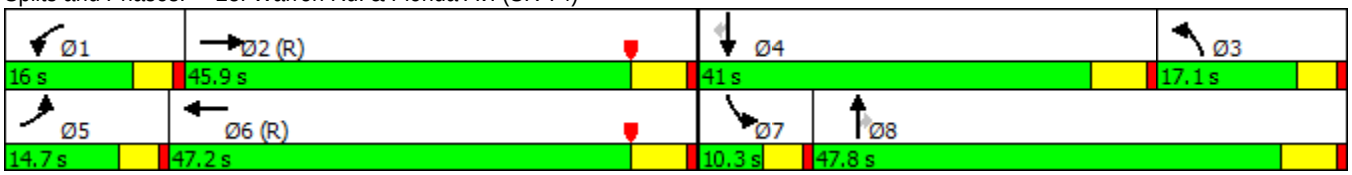
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	71.6	42.2	77.6	168.6
HCM LOS	F	E	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	0%	52%	13%	6%
Vol Thru, %	96%	0%	45%	80%	68%
Vol Right, %	0%	100%	3%	7%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	385	45	366	284	491
LT Vol	16	0	191	36	30
Through Vol	369	0	165	228	336
RT Vol	0	45	10	20	125
Lane Flow Rate	401	47	381	296	511
Geometry Grp	7	7	2	2	5
Degree of Util (X)	1.021	0.11	0.965	0.779	1.273
Departure Headway (Hd)	9.947	9.192	10.033	10.497	9.18
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	369	392	366	346	399
Service Time	7.647	6.892	8.033	8.497	7.18
HCM Lane V/C Ratio	1.087	0.12	1.041	0.855	1.281
HCM Control Delay	85.1	13	71.6	42.2	168.6
HCM Lane LOS	F	B	F	E	F
HCM 95th-tile Q	12.3	0.4	10.6	6.3	21.9

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	118	846	137	737	179	305	251	25	228	114
Future Volume (vph)	118	846	137	737	179	305	251	25	228	114
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	14.7	45.9	16.0	47.2	17.1	47.8	47.8	10.3	41.0	41.0
Total Split (%)	12.3%	38.3%	13.3%	39.3%	14.3%	39.8%	39.8%	8.6%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	9.9	40.2	11.1	41.4	12.5	45.9	45.9	5.5	35.0	35.0
Actuated g/C Ratio	0.08	0.34	0.09	0.34	0.10	0.38	0.38	0.05	0.29	0.29
v/c Ratio	0.86	0.88	0.88	0.65	1.02	0.24	0.34	0.33	0.23	0.22
Control Delay	99.1	47.2	98.1	36.3	125.2	26.7	4.6	66.3	33.0	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.1	47.2	98.1	36.3	125.2	26.7	4.6	66.3	33.0	6.1
LOS	F	D	F	D	F	C	A	E	C	A
Approach Delay		52.8		45.7		43.1			26.9	
Approach LOS		D		D		D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 45.4	Intersection LOS: D
Intersection Capacity Utilization 69.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	846	133	137	737	19	179	305	251	25	228	114
Future Volume (veh/h)	118	846	133	137	737	19	179	305	251	25	228	114
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	124	891	75	144	776	14	188	321	148	26	240	52
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	2371	200	169	2591	47	185	1357	607	43	1032	462
Arrive On Green	0.08	0.72	0.72	0.09	0.73	0.73	0.10	0.38	0.38	0.02	0.29	0.29
Sat Flow, veh/h	1774	3305	278	1774	3557	64	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	124	477	489	144	386	404	188	321	148	26	240	52
Grp Sat Flow(s),veh/h/ln	1774	1770	1814	1774	1770	1851	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	8.3	12.5	12.5	9.6	9.1	9.1	12.5	7.4	7.6	1.7	6.2	3.8
Cycle Q Clear(g_c), s	8.3	12.5	12.5	9.6	9.1	9.1	12.5	7.4	7.6	1.7	6.2	3.8
Prop In Lane	1.00		0.15	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	1270	1301	169	1289	1349	185	1357	607	43	1032	462
V/C Ratio(X)	0.83	0.38	0.38	0.85	0.30	0.30	1.02	0.24	0.24	0.61	0.23	0.11
Avail Cap(c_a), veh/h	149	1270	1301	169	1289	1349	185	1357	607	84	1032	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.1	6.6	6.6	53.5	5.7	5.7	53.8	25.1	25.2	58.0	32.3	53.9
Incr Delay (d2), s/veh	29.4	0.9	0.8	31.1	0.6	0.6	70.8	0.4	1.0	5.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	6.4	6.5	6.2	4.6	4.8	9.7	3.7	3.5	0.9	3.1	1.7
LnGrp Delay(d),s/veh	83.5	7.4	7.4	84.6	6.3	6.2	124.7	25.5	26.1	63.0	32.8	54.4
LnGrp LOS	F	A	A	F	A	A	F	C	C	E	C	D
Approach Vol, veh/h		1090			934			657			318	
Approach Delay, s/veh		16.1			18.3			54.0			38.8	
Approach LOS		B			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	93.5	18.5	41.0	14.7	94.8	7.5	52.0
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	11.4	39.9	12.5	* 35	10.1	41.2	5.7	41.8
Max Q Clear Time (g_c+I1), s	11.6	14.5	14.5	8.2	10.3	11.1	3.7	9.6
Green Ext Time (p_c), s	0.0	6.8	0.0	0.9	0.0	7.0	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	27.5
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	5.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	47	196	559	41	86	425
Future Vol, veh/h	47	196	559	41	86	425
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	55	228	650	48	100	494

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1344	650	0	0	650	0
Stage 1	650	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Critical Hdwy	7.12	6.22	-	-	4.12	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	129	469	-	-	936	-
Stage 1	458	-	-	-	-	-
Stage 2	433	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	118	469	-	-	936	-
Mov Cap-2 Maneuver	301	-	-	-	-	-
Stage 1	458	-	-	-	-	-
Stage 2	387	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	29	0	1.6
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	423	936	-
HCM Lane V/C Ratio	-	-	0.668	0.107	-
HCM Control Delay (s)	-	-	29	9.3	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	4.8	0.4	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	12	574	3	0	538
Future Vol, veh/h	3	12	574	3	0	538
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	13	624	3	0	585

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1211	626	0	0	627	0
Stage 1	626	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	201	484	-	-	955	-
Stage 1	533	-	-	-	-	-
Stage 2	557	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	201	484	-	-	955	-
Mov Cap-2 Maneuver	408	-	-	-	-	-
Stage 1	533	-	-	-	-	-
Stage 2	557	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	467	955	-
HCM Lane V/C Ratio	-	-	0.035	-	-
HCM Control Delay (s)	-	-	13	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Intersection Delay, s/veh	58.7
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	40	82	5	0	67	75	204	0	0	323	54
Future Vol, veh/h	0	40	82	5	0	67	75	204	0	0	323	54
Peak Hour Factor	0.92	0.98	0.98	0.98	0.92	0.98	0.98	0.98	0.92	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	41	84	5	0	68	77	208	0	0	330	55
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	2
HCM Control Delay	16.5	19	23.3
HCM LOS	C	C	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	31%	100%	0%	38%
Vol Thru, %	100%	0%	65%	0%	27%	56%
Vol Right, %	0%	100%	4%	0%	73%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	323	54	127	67	279	557
LT Vol	0	0	40	67	0	210
Through Vol	323	0	82	0	75	313
RT Vol	0	54	5	0	204	34
Lane Flow Rate	330	55	130	68	285	568
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	0.68	0.103	0.313	0.157	0.574	1.157
Departure Headway (Hd)	7.761	7.038	9.284	8.81	7.762	7.33
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	468	512	390	410	467	500
Service Time	5.461	4.738	7.284	6.51	5.462	5.352
HCM Lane V/C Ratio	0.705	0.107	0.333	0.166	0.61	1.136
HCM Control Delay	25.4	10.5	16.5	13.1	20.4	116.9
HCM Lane LOS	D	B	C	B	C	F
HCM 95th-tile Q	5	0.3	1.3	0.6	3.5	20.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

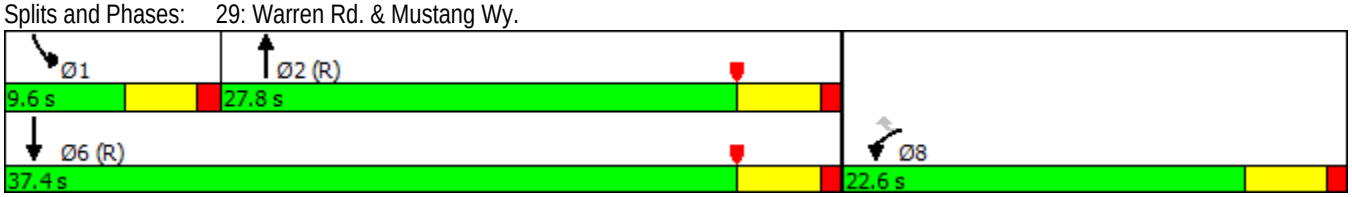
Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	210	313	34
Future Vol, veh/h	0	210	313	34
Peak Hour Factor	0.92	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	214	319	35
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	116.9
HCM LOS	F

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	102	34	343	51	334
Future Volume (vph)	102	34	343	51	334
Turn Type	Prot	Perm	NA	Prot	NA
Protected Phases	8		2	1	6
Permitted Phases		8			
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	22.6	22.6	27.8	9.6	37.4
Total Split (%)	37.7%	37.7%	46.3%	16.0%	62.3%
Yellow Time (s)	3.6	3.6	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.7	4.2	4.7
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.4	11.4	36.7	6.0	43.1
Actuated g/C Ratio	0.19	0.19	0.61	0.10	0.72
v/c Ratio	0.31	0.09	0.50	0.30	0.25
Control Delay	22.7	0.5	12.7	29.4	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	0.5	12.7	29.4	5.2
LOS	C	A	B	C	A
Approach Delay			12.7		8.4
Approach LOS			B		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 11.7	Intersection LOS: B
Intersection Capacity Utilization 50.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	102	0	34	0	343	197	51	334	0
Future Volume (veh/h)	0	0	0	102	0	34	0	343	197	51	334	0
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h				104	0	8	0	350	177	52	341	0
Adj No. of Lanes				1	0	1	0	1	0	1	1	0
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				2	0	2	0	2	2	2	2	0
Cap, veh/h				250	0	223	0	684	346	86	1312	0
Arrive On Green				0.14	0.00	0.14	0.00	0.59	0.59	0.05	0.70	0.00
Sat Flow, veh/h				1774	0	1583	0	1168	590	1774	1863	0
Grp Volume(v), veh/h				104	0	8	0	0	527	52	341	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	0	1758	1774	1863	0
Q Serve(g_s), s				3.2	0.0	0.3	0.0	0.0	10.6	1.7	4.0	0.0
Cycle Q Clear(g_c), s				3.2	0.0	0.3	0.0	0.0	10.6	1.7	4.0	0.0
Prop In Lane				1.00		1.00	0.00		0.34	1.00		0.00
Lane Grp Cap(c), veh/h				250	0	223	0	0	1030	86	1312	0
V/C Ratio(X)				0.42	0.00	0.04	0.00	0.00	0.51	0.61	0.26	0.00
Avail Cap(c_a), veh/h				532	0	475	0	0	1030	160	1312	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				23.5	0.0	22.3	0.0	0.0	7.4	28.0	3.2	0.0
Incr Delay (d2), s/veh				1.1	0.0	0.1	0.0	0.0	1.8	2.6	0.5	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.6	0.0	0.1	0.0	0.0	5.6	0.9	2.2	0.0
LnGrp Delay(d),s/veh				24.6	0.0	22.3	0.0	0.0	9.2	30.6	3.7	0.0
LnGrp LOS				C		C			A	C	A	
Approach Vol, veh/h					112			527			393	
Approach Delay, s/veh					24.5			9.2			7.3	
Approach LOS					C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.1	39.8				46.9		13.1
Change Period (Y+Rc), s	* 4.2	* 4.7				* 4.7		4.6
Max Green Setting (Gmax), s	* 5.4	* 23				* 33		18.0
Max Q Clear Time (g_c+I1), s	3.7	12.6				6.0		5.2
Green Ext Time (p_c), s	0.0	5.3				9.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	10.1
HCM 2010 LOS	B

Notes

Intersection	
Intersection Delay, s/veh	15.7
Intersection LOS	C

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	179	32	0	319	131	0	23	347
Future Vol, veh/h	0	179	32	0	319	131	0	23	347
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	188	34	0	336	138	0	24	365
Number of Lanes	0	1	0	0	1	1	0	1	1

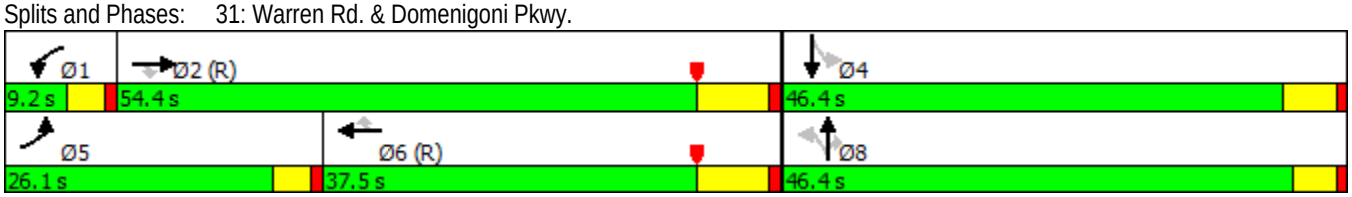
Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	13	16.7	16.1
HCM LOS	B	C	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	85%	0%	100%
Vol Right, %	0%	100%	15%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	23	347	211	319	131
LT Vol	23	0	0	319	0
Through Vol	0	0	179	0	131
RT Vol	0	347	32	0	0
Lane Flow Rate	24	365	222	336	138
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.047	0.587	0.38	0.613	0.232
Departure Headway (Hd)	6.999	5.782	6.158	6.574	6.067
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	511	621	582	547	590
Service Time	4.75	3.533	4.212	4.323	3.815
HCM Lane V/C Ratio	0.047	0.588	0.381	0.614	0.234
HCM Control Delay	10.1	16.5	13	19.2	10.7
HCM Lane LOS	B	C	B	C	B
HCM 95th-tile Q	0.1	3.8	1.8	4.1	0.9

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	341	1313	6	3	1087	25	3	3	1	34	2
Future Volume (vph)	341	1313	6	3	1087	25	3	3	1	34	2
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	28.6	79.0	79.0	5.0	48.1	48.1		17.6	17.6		16.8
Actuated g/C Ratio	0.26	0.72	0.72	0.05	0.44	0.44		0.16	0.16		0.15
v/c Ratio	0.79	0.55	0.01	0.04	0.75	0.04		0.03	0.00		0.72
Control Delay	52.3	12.0	0.0	51.3	31.3	0.1		31.2	0.0		13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	52.3	12.0	0.0	51.3	31.3	0.1		31.2	0.0		13.7
LOS	D	B	A	D	C	A		C	A		B
Approach Delay		20.2			30.6			26.7			13.7
Approach LOS		C			C			C			B

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 23.2	Intersection LOS: C
Intersection Capacity Utilization 91.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	341	1313	6	3	1087	25	3	3	1	34	2	327
Future Volume (veh/h)	341	1313	6	3	1087	25	3	3	1	34	2	327
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	363	1397	4	3	1156	20	3	3	1	36	2	134
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	2534	1134	7	1843	825	117	102	206	71	14	159
Arrive On Green	0.20	0.72	0.72	0.00	0.52	0.52	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	525	784	1583	239	108	1223
Grp Volume(v), veh/h	363	1397	4	3	1156	20	6	0	1	172	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1309	0	1583	1570	0	0
Q Serve(g_s), s	21.9	20.4	0.1	0.2	25.6	0.7	0.0	0.0	0.1	8.0	0.0	0.0
Cycle Q Clear(g_c), s	21.9	20.4	0.1	0.2	25.6	0.7	0.3	0.0	0.1	11.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.50		1.00	0.21		0.78
Lane Grp Cap(c), veh/h	353	2534	1134	7	1843	825	219	0	206	244	0	0
V/C Ratio(X)	1.03	0.55	0.00	0.42	0.63	0.02	0.03	0.00	0.00	0.71	0.00	0.00
Avail Cap(c_a), veh/h	353	2534	1134	81	1843	825	593	0	602	619	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	7.3	4.4	54.7	18.8	12.8	41.8	0.0	41.6	46.7	0.0	0.0
Incr Delay (d2), s/veh	55.2	0.9	0.0	14.3	1.6	0.1	0.0	0.0	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.1	10.2	0.0	0.1	12.8	0.3	0.2	0.0	0.0	5.2	0.0	0.0
LnGrp Delay(d),s/veh	99.2	8.2	4.5	69.0	20.4	12.8	41.8	0.0	41.6	48.1	0.0	0.0
LnGrp LOS	F	A	A	E	C	B	D		D	D		
Approach Vol, veh/h		1764			1179			7			172	
Approach Delay, s/veh		26.9			20.4			41.8			48.1	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.6	85.7		19.7	26.1	64.2		19.7
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.2	22.4		13.7	23.9	27.6		2.3
Green Ext Time (p_c), s	0.0	13.3		0.6	0.0	2.6		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	25.7
HCM 2010 LOS	C

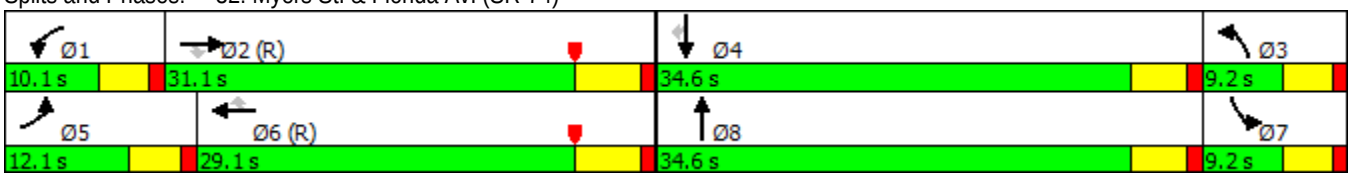
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	145	942	19	48	826	12	5	28	10	16	58
Future Volume (vph)	145	942	19	48	826	12	5	28	10	16	58
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.1	31.1	31.1	10.1	29.1	29.1	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.2%	36.6%	36.6%	11.9%	34.2%	34.2%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	11.9	36.8	36.8	6.3	27.4	27.4	5.0	30.0	5.0	30.0	30.0
Actuated g/C Ratio	0.14	0.43	0.43	0.07	0.32	0.32	0.06	0.35	0.06	0.35	0.35
v/c Ratio	0.63	0.66	0.03	0.40	0.78	0.02	0.05	0.11	0.11	0.03	0.10
Control Delay	49.0	24.3	0.1	53.0	18.6	0.1	38.8	10.7	40.3	18.2	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	24.3	0.1	53.0	18.6	0.1	38.8	10.7	40.3	18.2	0.3
LOS	D	C	A	D	B	A	D	B	D	B	A
Approach Delay		27.1			20.3			12.6		8.6	
Approach LOS		C			C			B		A	

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 80.1 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 23.1 — Intersection LOS: C
Intersection Capacity Utilization 50.8% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	942	19	48	826	12	5	28	35	10	16	58
Future Volume (veh/h)	145	942	19	48	826	12	5	28	35	10	16	58
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	156	1013	10	52	888	7	5	30	15	11	17	10
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1342	600	74	1160	519	24	414	207	24	657	559
Arrive On Green	0.09	0.38	0.38	0.04	0.33	0.33	0.01	0.35	0.35	0.01	0.35	0.35
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	1173	586	1774	1863	1583
Grp Volume(v), veh/h	156	1013	10	52	888	7	5	0	45	11	17	10
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	0	1759	1774	1863	1583
Q Serve(g_s), s	7.4	21.2	0.3	2.5	19.1	0.2	0.2	0.0	1.4	0.5	0.5	0.2
Cycle Q Clear(g_c), s	7.4	21.2	0.3	2.5	19.1	0.2	0.2	0.0	1.4	0.5	0.5	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	165	1342	600	74	1160	519	24	0	621	24	657	559
V/C Ratio(X)	0.95	0.76	0.02	0.70	0.77	0.01	0.21	0.00	0.07	0.46	0.03	0.02
Avail Cap(c_a), veh/h	165	1342	600	123	1160	519	104	0	621	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	23.0	10.6	40.2	25.6	12.9	41.5	0.0	18.3	41.6	18.0	8.7
Incr Delay (d2), s/veh	53.7	4.0	0.1	4.5	4.8	0.0	1.6	0.0	0.2	5.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	11.0	0.1	1.3	10.2	0.1	0.1	0.0	0.7	0.3	0.3	0.1
LnGrp Delay(d),s/veh	92.1	26.9	10.7	44.7	30.5	12.9	43.1	0.0	18.5	46.7	18.0	8.7
LnGrp LOS	F	C	B	D	C	B	D		B	D	B	A
Approach Vol, veh/h		1179			947			50			38	
Approach Delay, s/veh		35.4			31.1			20.9			23.9	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	37.3	5.3	34.6	12.1	33.0	5.3	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.9	26.0	5.0	* 30	* 7.9	24.0	5.0	* 30
Max Q Clear Time (g_c+I1), s	4.5	23.2	2.2	2.5	9.4	21.1	2.5	3.4
Green Ext Time (p_c), s	0.0	2.6	0.0	0.1	0.0	2.6	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	33.1
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	897	201	1	953	0	2
Future Vol, veh/h	897	201	1	953	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	954	214	1	1014	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	954	0	-	477
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*1065	-	0	*712
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*1065	-	-	*712
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

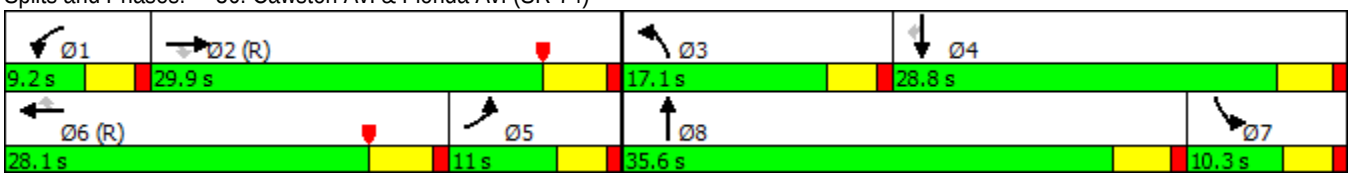
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	712	-	-	* 1065	-
HCM Lane V/C Ratio	0.003	-	-	0.001	-
HCM Control Delay (s)	10.1	-	-	8.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	142	746	11	12	691	113	152	83	118	98	111
Future Volume (vph)	142	746	11	12	691	113	152	83	118	98	111
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	11.0	29.9	29.9	9.2	28.1	28.1	17.1	35.6	10.3	28.8	28.8
Total Split (%)	12.9%	35.2%	35.2%	10.8%	33.1%	33.1%	20.1%	41.9%	12.1%	33.9%	33.9%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	6.8	32.2	32.2	5.0	23.0	23.0	10.9	31.0	6.1	26.2	26.2
Actuated g/C Ratio	0.08	0.38	0.38	0.06	0.27	0.27	0.13	0.36	0.07	0.31	0.31
v/c Ratio	1.05	0.58	0.02	0.12	0.75	0.21	0.70	0.08	0.97	0.18	0.19
Control Delay	111.2	8.6	0.0	40.8	34.2	1.2	51.7	16.0	115.1	23.5	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	111.2	8.6	0.0	40.8	34.2	1.2	51.7	16.0	115.1	23.5	0.9
LOS	F	A	A	D	C	A	D	B	F	C	A
Approach Delay		24.7			29.8			38.2		48.9	
Approach LOS		C			C			D		D	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 35 (41%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 31.4	Intersection LOS: C
Intersection Capacity Utilization 64.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	746	11	12	691	113	152	83	10	118	98	111
Future Volume (veh/h)	142	746	11	12	691	113	152	83	10	118	98	111
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	148	777	9	12	720	74	158	86	4	123	102	52
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	514	1968	881	26	958	426	193	1255	58	127	619	526
Arrive On Green	0.58	1.00	1.00	0.01	0.27	0.27	0.11	0.36	0.36	0.07	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3539	1575	1774	3442	159	1774	1863	1583
Grp Volume(v), veh/h	148	777	9	12	720	74	158	44	46	123	102	52
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1575	1774	1770	1831	1774	1863	1583
Q Serve(g_s), s	3.6	0.0	0.0	0.6	15.8	3.1	7.4	1.4	1.4	5.9	3.3	1.4
Cycle Q Clear(g_c), s	3.6	0.0	0.0	0.6	15.8	3.1	7.4	1.4	1.4	5.9	3.3	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	514	1968	881	26	958	426	193	645	668	127	619	526
V/C Ratio(X)	0.29	0.39	0.01	0.47	0.75	0.17	0.82	0.07	0.07	0.97	0.16	0.10
Avail Cap(c_a), veh/h	514	1968	881	104	958	426	269	645	668	127	619	526
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.5	0.0	0.0	41.6	28.4	23.7	37.1	17.6	17.6	39.3	20.0	10.5
Incr Delay (d2), s/veh	0.1	0.6	0.0	4.8	5.4	0.9	9.1	0.2	0.2	68.7	0.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.2	0.0	0.3	8.4	1.4	4.1	0.7	0.7	5.3	1.8	0.7
LnGrp Delay(d),s/veh	13.6	0.6	0.0	46.4	33.8	24.6	46.1	17.8	17.8	108.0	20.6	10.9
LnGrp LOS	B	A	A	D	C	C	D	B	B	F	C	B
Approach Vol, veh/h		934			806			248			277	
Approach Delay, s/veh		2.6			33.2			35.9			57.6	
Approach LOS		A			C			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	52.4	13.4	32.9	29.7	28.1	10.7	35.6
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	5.1	* 5.1	4.6	* 4.6
Max Green Setting (Gmax), s	* 5	24.8	* 13	24.2	6.8	* 23	6.1	* 31
Max Q Clear Time (g_c+I1), s	2.6	2.0	9.4	5.3	5.6	17.8	7.9	3.4
Green Ext Time (p_c), s	0.0	7.6	0.1	0.8	0.1	2.7	0.0	0.5

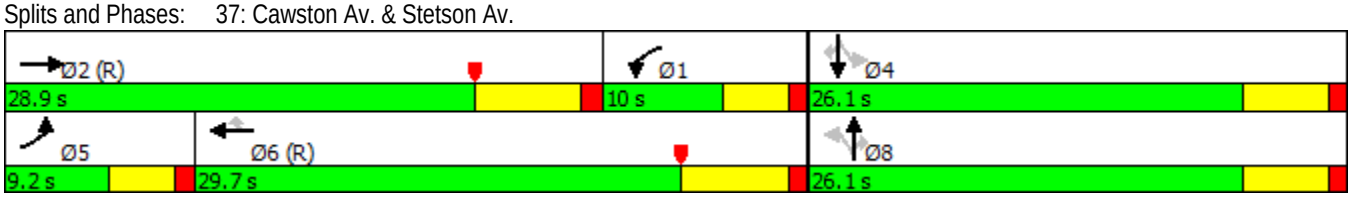
Intersection Summary	
HCM 2010 Ctrl Delay	23.9
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	22	296	145	245	18	41	94	146	16	135	50
Future Volume (vph)	22	296	145	245	18	41	94	146	16	135	50
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.2	28.9	10.0	29.7	29.7	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.2%	44.5%	15.4%	45.7%	45.7%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	22.7	5.8	29.0	29.0	21.0	21.0	21.0	21.0	21.0	21.0
Actuated g/C Ratio	0.08	0.35	0.09	0.45	0.45	0.32	0.32	0.32	0.32	0.32	0.32
v/c Ratio	0.17	0.30	0.97	0.31	0.02	0.11	0.16	0.23	0.04	0.24	0.08
Control Delay	31.2	14.7	101.0	14.3	0.1	16.4	16.7	1.7	15.6	17.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	14.7	101.0	14.3	0.1	16.4	16.7	1.7	15.6	17.5	0.2
LOS	C	B	F	B	A	B	B	A	B	B	A
Approach Delay		15.7		44.5			8.9			13.0	
Approach LOS		B		D			A			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 23.1	Intersection LOS: C
Intersection Capacity Utilization 51.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	296	49	145	245	18	41	94	146	16	135	50
Future Volume (veh/h)	22	296	49	145	245	18	41	94	146	16	135	50
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	23	312	38	153	258	16	43	99	65	17	142	26
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	1111	134	1260	1982	1685	435	602	512	458	602	512
Arrive On Green	0.03	0.35	0.35	0.71	1.00	1.00	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	3180	384	1774	1863	1583	1212	1863	1583	1217	1863	1583
Grp Volume(v), veh/h	23	172	178	153	258	16	43	99	65	17	142	26
Grp Sat Flow(s),veh/h/ln	1774	1770	1795	1774	1863	1583	1212	1863	1583	1217	1863	1583
Q Serve(g_s), s	0.8	4.6	4.6	1.8	0.0	0.0	1.8	2.5	1.9	0.7	3.6	0.7
Cycle Q Clear(g_c), s	0.8	4.6	4.6	1.8	0.0	0.0	5.4	2.5	1.9	3.1	3.6	0.7
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	46	618	627	1260	1982	1685	435	602	512	458	602	512
V/C Ratio(X)	0.50	0.28	0.28	0.12	0.13	0.01	0.10	0.16	0.13	0.04	0.24	0.05
Avail Cap(c_a), veh/h	136	618	627	1260	1982	1685	435	602	512	458	602	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	15.2	15.3	3.0	0.0	0.0	18.1	15.7	15.5	16.8	16.1	15.1
Incr Delay (d2), s/veh	2.6	1.0	1.0	0.0	0.1	0.0	0.5	0.6	0.5	0.2	0.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.4	2.4	0.9	0.1	0.0	0.6	1.4	0.9	0.2	2.0	0.3
LnGrp Delay(d),s/veh	33.9	16.2	16.3	3.0	0.1	0.0	18.5	16.3	16.0	17.0	17.0	15.3
LnGrp LOS	C	B	B	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		373			427			207			185	
Approach Delay, s/veh		17.3			1.2			16.7			16.8	
Approach LOS		B			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	53.1	28.9		26.1	5.9	76.1		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.8	* 23		21.0	* 5	23.5		21.0
Max Q Clear Time (g_c+I1), s	3.8	6.6		5.6	2.8	2.0		7.4
Green Ext Time (p_c), s	0.1	0.9		1.0	0.0	0.9		0.9

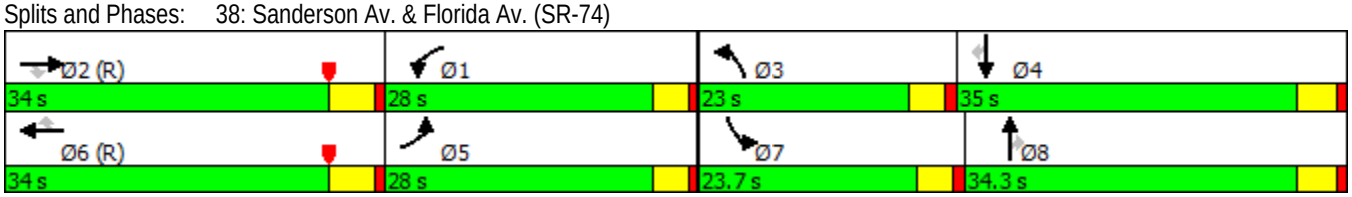
Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	220	700	77	213	546	144	211	672	200	178	695	132
Future Volume (vph)	220	700	77	213	546	144	211	672	200	178	695	132
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	28.0	34.0	34.0	28.0	34.0	34.0	23.0	34.3	34.3	23.7	35.0	35.0
Total Split (%)	23.3%	28.3%	28.3%	23.3%	28.3%	28.3%	19.2%	28.6%	28.6%	19.8%	29.2%	29.2%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	18.8	28.9	28.9	18.8	28.9	28.9	17.5	38.2	38.2	15.8	36.6	36.6
Actuated g/C Ratio	0.16	0.24	0.24	0.16	0.24	0.24	0.15	0.32	0.32	0.13	0.30	0.30
v/c Ratio	0.80	0.83	0.18	0.77	0.65	0.30	0.83	0.60	0.32	0.77	0.65	0.23
Control Delay	69.2	52.8	6.2	66.8	45.1	7.6	74.9	38.9	6.3	71.5	41.0	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.2	52.8	6.2	66.8	45.1	7.6	74.9	38.9	6.3	71.5	41.0	7.0
LOS	E	D	A	E	D	A	E	D	A	E	D	A
Approach Delay		52.8			44.3			39.9			42.0	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 44.6	Intersection LOS: D
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	700	77	213	546	144	211	672	200	178	695	132
Future Volume (veh/h)	220	700	77	213	546	144	211	672	200	178	695	132
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	222	707	38	215	552	88	213	679	116	180	702	75
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	390	852	374	390	852	375	240	958	420	208	894	394
Arrive On Green	0.22	0.24	0.24	0.22	0.24	0.24	0.14	0.27	0.27	0.12	0.25	0.25
Sat Flow, veh/h	1774	3539	1554	1774	3539	1555	1774	3539	1551	1774	3539	1559
Grp Volume(v), veh/h	222	707	38	215	552	88	213	679	116	180	702	75
Grp Sat Flow(s),veh/h/ln	1774	1770	1554	1774	1770	1555	1774	1770	1551	1774	1770	1559
Q Serve(g_s), s	13.4	22.7	1.6	12.9	16.8	4.1	14.2	20.8	4.2	12.0	22.2	2.8
Cycle Q Clear(g_c), s	13.4	22.7	1.6	12.9	16.8	4.1	14.2	20.8	4.2	12.0	22.2	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	390	852	374	390	852	375	240	958	420	208	894	394
V/C Ratio(X)	0.57	0.83	0.10	0.55	0.65	0.23	0.89	0.71	0.28	0.87	0.79	0.19
Avail Cap(c_a), veh/h	390	852	374	390	852	375	278	958	420	288	894	394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	43.2	18.4	41.6	41.0	20.3	51.0	39.5	12.3	52.1	41.8	13.0
Incr Delay (d2), s/veh	1.3	9.2	0.5	1.0	3.8	1.5	23.2	4.4	1.6	14.1	6.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	12.2	0.8	6.4	8.7	1.9	8.5	10.8	2.0	6.7	11.7	1.3
LnGrp Delay(d),s/veh	43.0	52.4	18.9	42.6	44.8	21.7	74.2	43.9	13.9	66.2	48.7	14.0
LnGrp LOS	D	D	B	D	D	C	E	D	B	E	D	B
Approach Vol, veh/h		967			855			1008			957	
Approach Delay, s/veh		48.9			41.8			46.9			49.3	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.6	34.0	20.4	35.0	30.6	34.0	18.2	37.2
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	23.8	* 29	* 19	* 30	23.8	* 29	* 20	* 30
Max Q Clear Time (g_c+I1), s	14.9	24.7	16.2	24.2	15.4	18.8	14.0	22.8
Green Ext Time (p_c), s	0.5	2.2	0.1	4.4	0.5	3.6	0.1	4.8

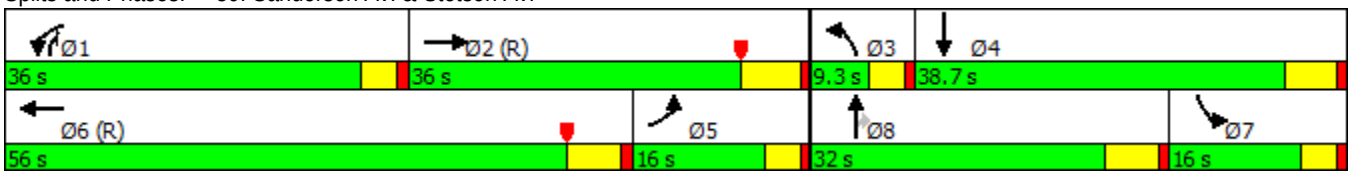
Intersection Summary	
HCM 2010 Ctrl Delay	46.9
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	182	466	429	414	14	601	442	176	730
Future Volume (vph)	182	466	429	414	14	601	442	176	730
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	16.0	36.0	36.0	56.0	9.3	32.0	36.0	16.0	38.7
Total Split (%)	13.3%	30.0%	30.0%	46.7%	7.8%	26.7%	30.0%	13.3%	32.3%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	11.8	30.5	31.1	50.2	5.1	26.2	58.9	11.8	38.5
Actuated g/C Ratio	0.10	0.25	0.26	0.42	0.04	0.22	0.49	0.10	0.32
v/c Ratio	1.08	0.56	0.96	0.40	0.19	0.80	0.54	1.04	0.78
Control Delay	142.0	41.7	77.9	23.0	61.5	53.5	10.6	131.8	42.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	142.0	41.7	77.9	23.0	61.5	53.5	10.6	131.8	42.8
LOS	F	D	E	C	E	D	B	F	D
Approach Delay		69.0		46.6		35.7			58.1
Approach LOS		E		D		D			E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 21.4 (18%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 50.7	Intersection LOS: D
Intersection Capacity Utilization 92.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	466	21	429	414	153	14	601	442	176	730	115
Future Volume (veh/h)	182	466	21	429	414	153	14	601	442	176	730	115
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	188	480	20	442	427	137	14	620	87	181	753	108
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1182	2892	120	465	1106	351	28	773	753	174	977	140
Arrive On Green	0.67	0.84	0.84	0.26	0.42	0.42	0.02	0.22	0.22	0.10	0.31	0.31
Sat Flow, veh/h	1774	3460	144	1774	2643	840	1774	3539	1548	1774	3108	446
Grp Volume(v), veh/h	188	245	255	442	285	279	14	620	87	181	429	432
Grp Sat Flow(s),veh/h/ln	1774	1770	1834	1774	1770	1714	1774	1770	1548	1774	1770	1784
Q Serve(g_s), s	4.8	3.2	3.2	29.4	13.4	13.6	0.9	19.9	6.3	11.8	26.3	26.3
Cycle Q Clear(g_c), s	4.8	3.2	3.2	29.4	13.4	13.6	0.9	19.9	6.3	11.8	26.3	26.3
Prop In Lane	1.00		0.08	1.00		0.49	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	1182	1479	1533	465	740	717	28	773	753	174	556	561
V/C Ratio(X)	0.16	0.17	0.17	0.95	0.38	0.39	0.51	0.80	0.12	1.04	0.77	0.77
Avail Cap(c_a), veh/h	1182	1479	1533	470	740	717	75	773	753	174	556	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.5	1.9	1.9	43.5	24.2	24.3	58.6	44.4	51.4	54.1	37.2	37.2
Incr Delay (d2), s/veh	0.0	0.2	0.2	29.0	1.5	1.6	5.3	8.6	0.3	78.4	9.9	9.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	1.6	1.7	18.1	6.8	6.8	0.5	10.7	2.8	9.6	14.4	14.5
LnGrp Delay(d),s/veh	7.5	2.1	2.1	72.5	25.7	25.9	63.9	53.1	51.7	132.6	47.1	47.1
LnGrp LOS	A	A	A	E	C	C	E	D	D	F	D	D
Approach Vol, veh/h		688			1006			721			1042	
Approach Delay, s/veh		3.6			46.3			53.1			61.9	
Approach LOS		A			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.6	107.7	6.1	43.5	87.4	56.0	17.6	32.0
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	6.2	* 5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 32	29.8	* 5.1	32.9	11.8	* 50	11.8	* 26
Max Q Clear Time (g_c+I1), s	31.4	5.2	2.9	28.3	6.8	15.6	13.8	21.9
Green Ext Time (p_c), s	0.0	2.7	0.0	2.6	1.3	3.3	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	43.9
HCM 2010 LOS	D

Notes

APPENDIX 3.3:

EXISTING (2017) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

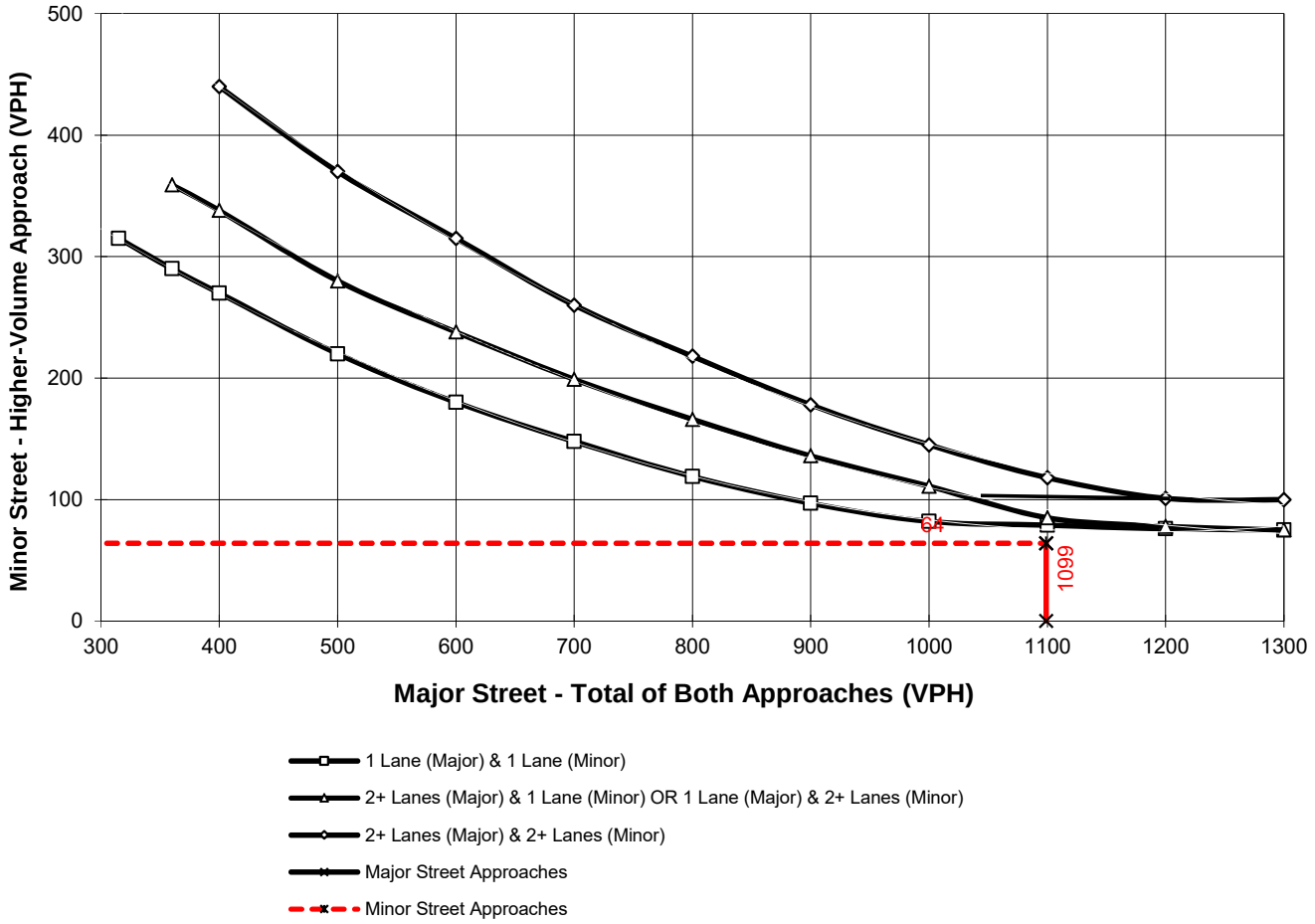
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2017) Conditions - Weekday PM Peak Hour**

Major Street Name = **Winchester Road (SR-79)** Total of Both Approaches (VPH) = **1099**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **9th Street** High Volume Approach (VPH) = **64**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

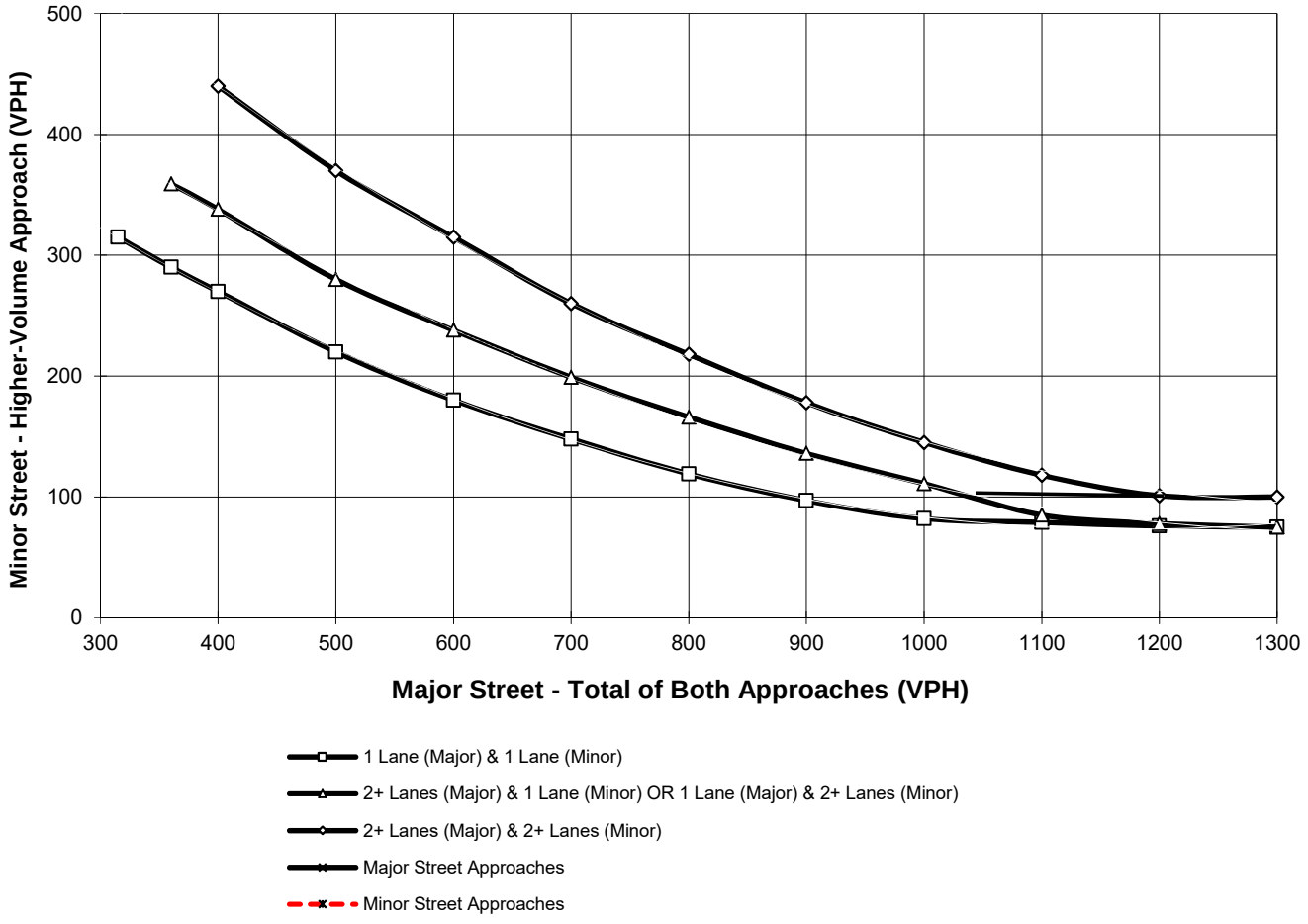
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2017) Conditions - Weekday PM Peak Hour**

Major Street Name = **California Avenue** Total of Both Approaches (VPH) = **110**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Stowe Road** High Volume Approach (VPH) = **124**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

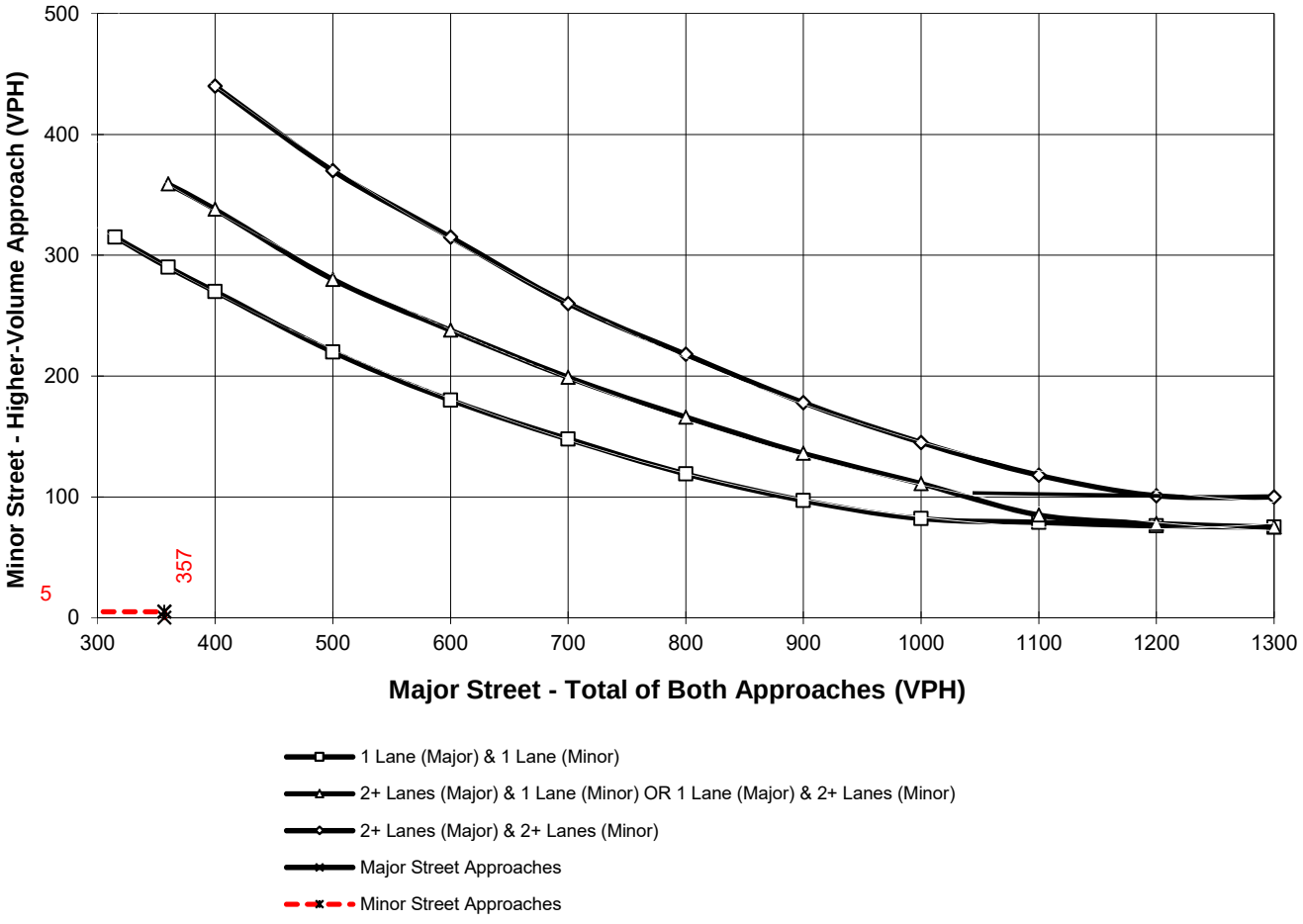
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2017) Conditions - Weekday PM Peak Hour**

Major Street Name = **Simpson Road** Total of Both Approaches (VPH) = **357**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **California Avenue** High Volume Approach (VPH) = **5**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

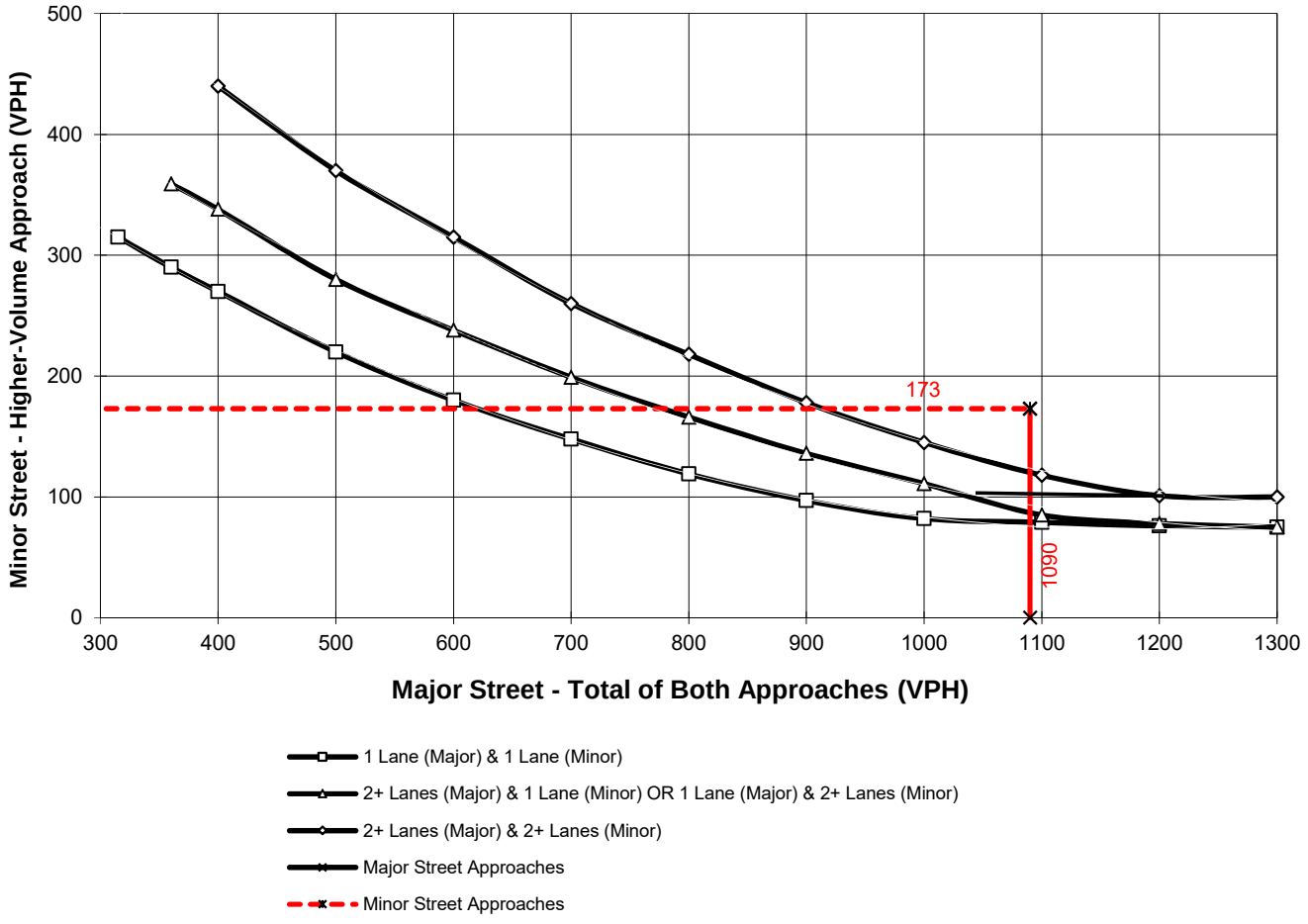
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2017) Conditions - Weekday PM Peak Hour**

Major Street Name = **Warren Road** — Total of Both Approaches (VPH) = **1090**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Esplanade Avenue** — High Volume Approach (VPH) = **173**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

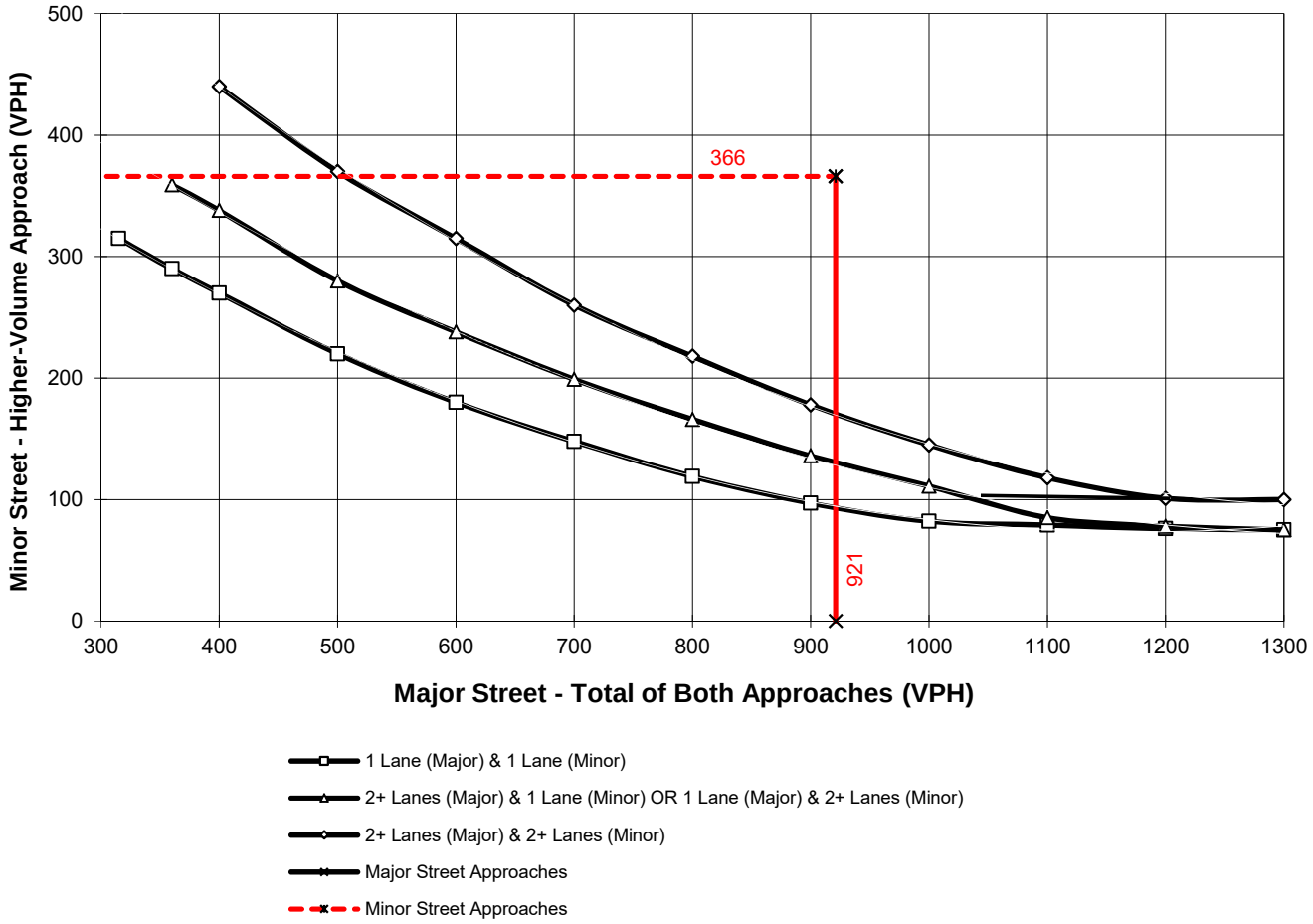
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2017) Conditions - Weekday PM Peak Hour**

Major Street Name = **Warren Road** Total of Both Approaches (VPH) = **921**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Devonshire Avenue** High Volume Approach (VPH) = **366**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

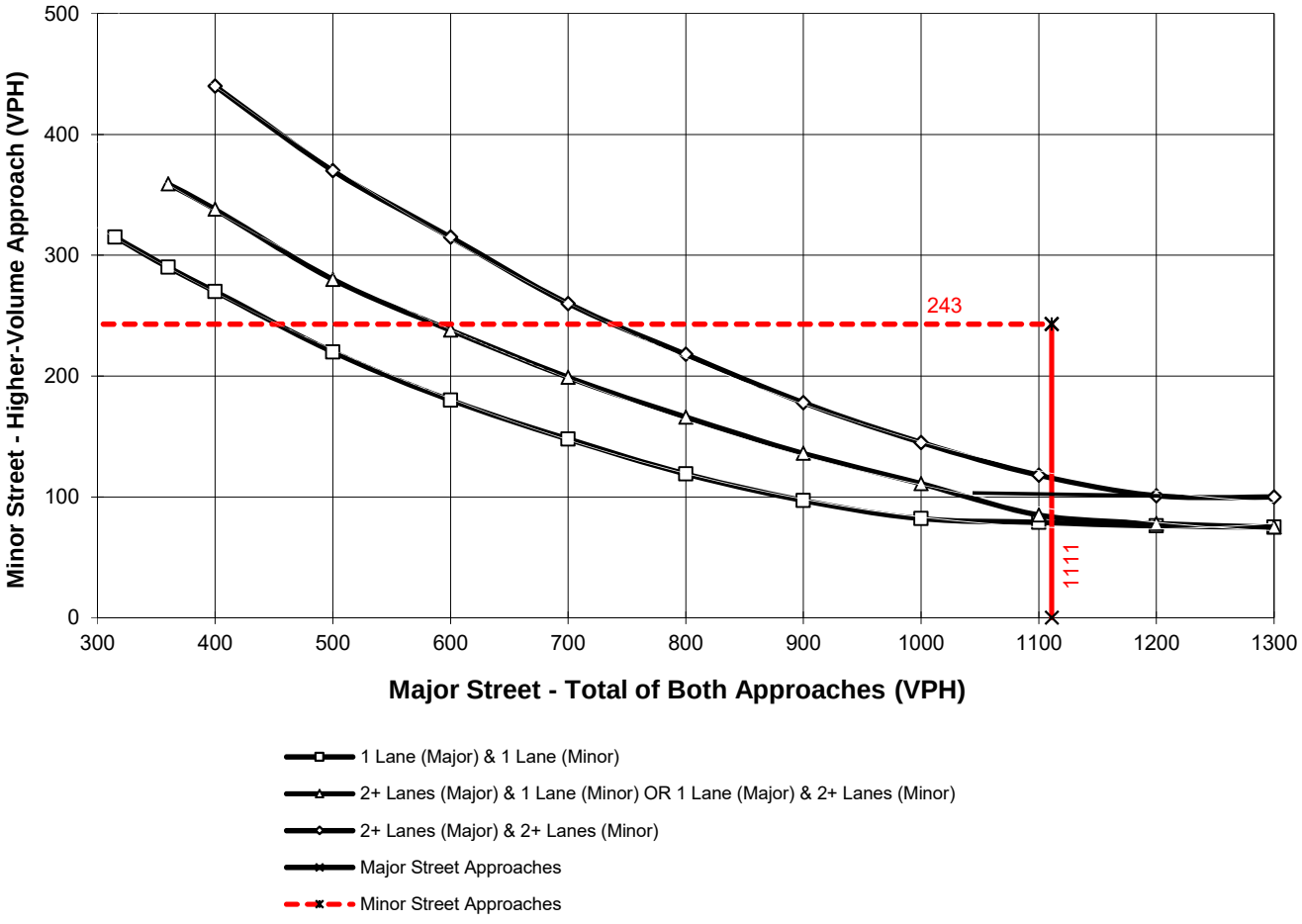
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2017) Conditions - Weekday PM Peak Hour**

Major Street Name = **Warren Road**
Total of Both Approaches (VPH) = **1111**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Auto Boulevard**
High Volume Approach (VPH) = **243**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

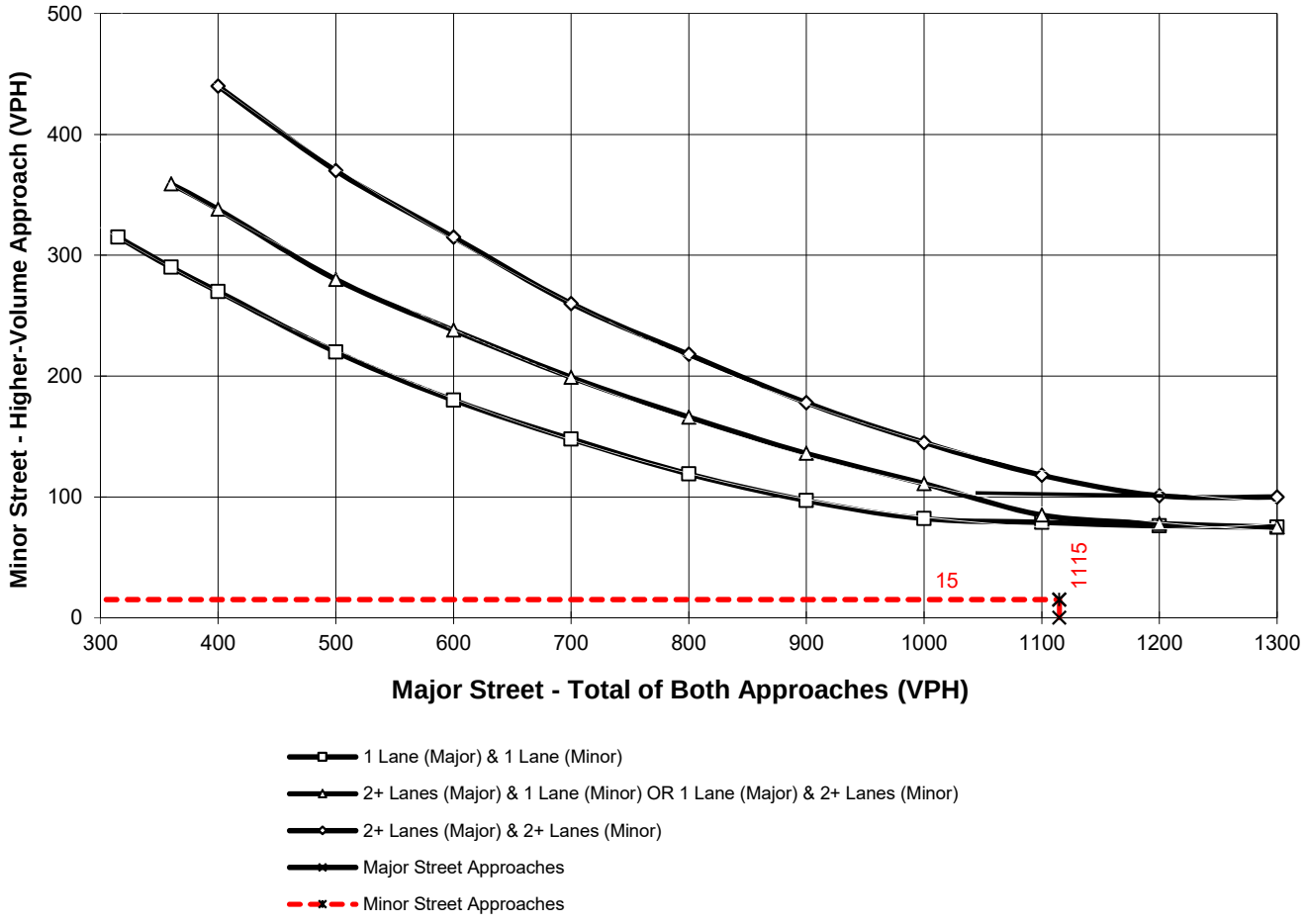
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2017) Conditions - Weekday PM Peak Hour**

Major Street Name = **Warren Road** — Total of Both Approaches (VPH) = **1115**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Whittier Avenue** — High Volume Approach (VPH) = **15**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

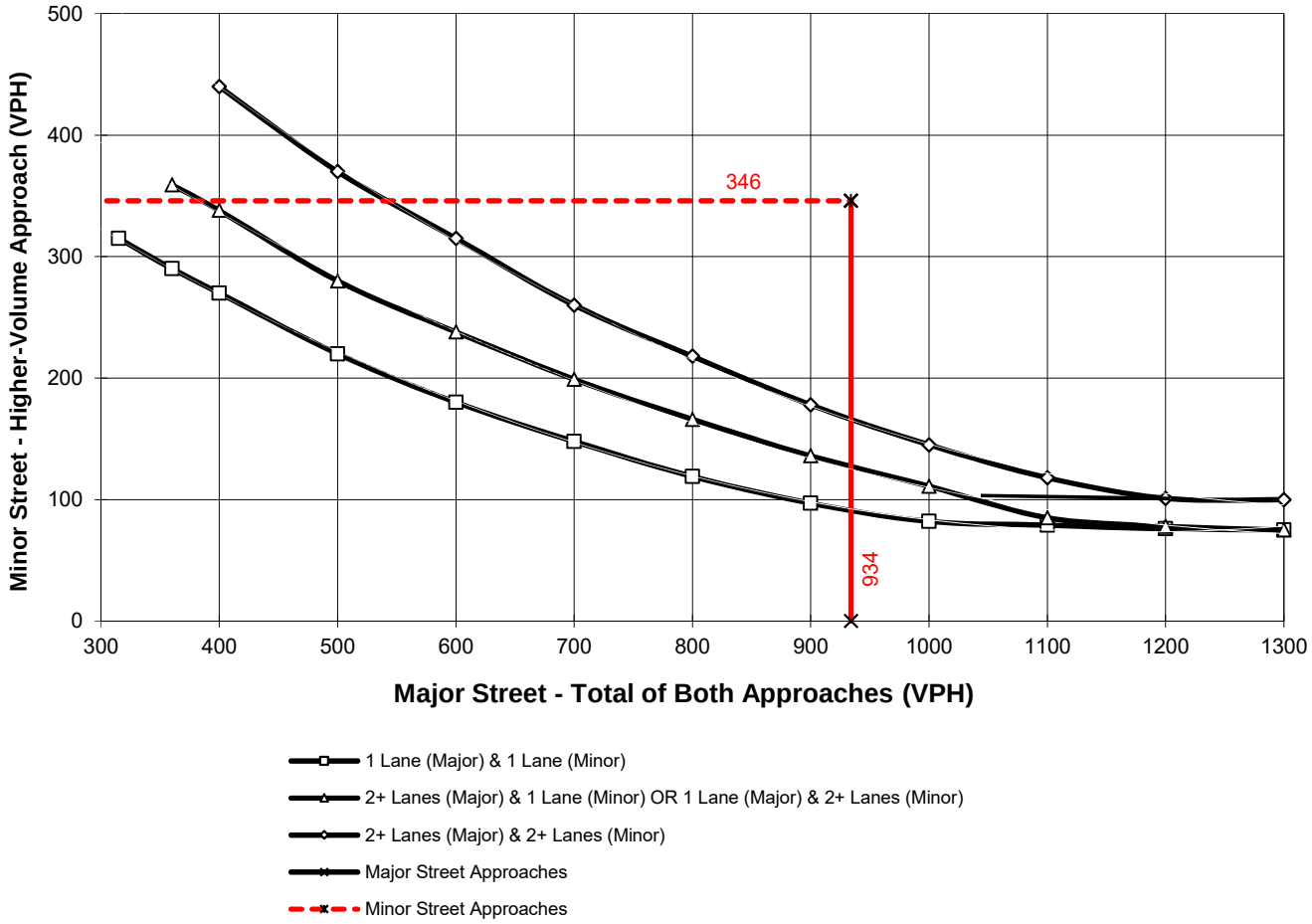
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2017) Conditions - Weekday PM Peak Hour**

Major Street Name = **Warren Road** — Total of Both Approaches (VPH) = **934**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Stetson Avenue** — High Volume Approach (VPH) = **346**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

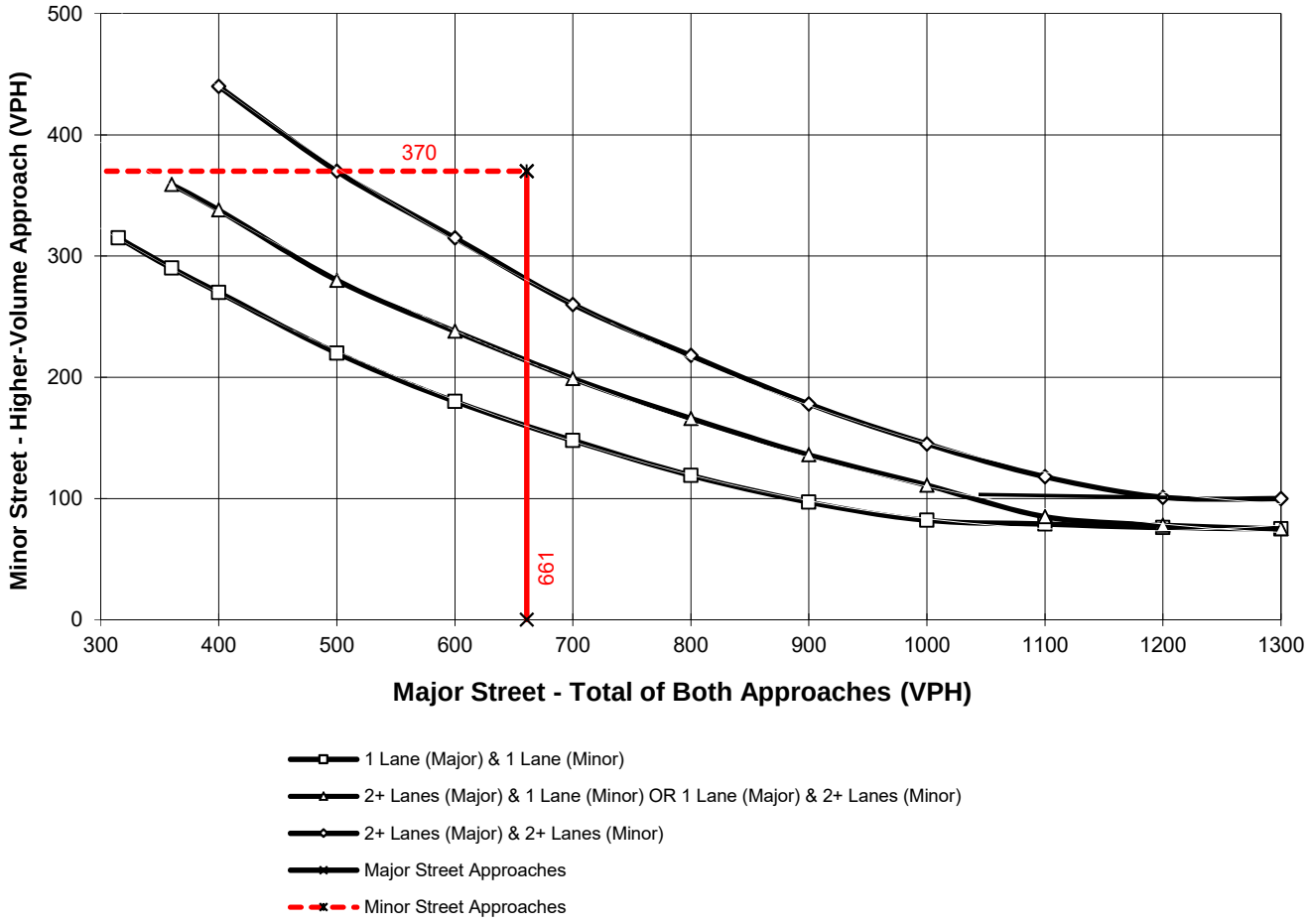
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2017) Conditions - Weekday AM Peak Hour**

Major Street Name = **Simpson Road** — Total of Both Approaches (VPH) = **661**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Warren Road** — High Volume Approach (VPH) = **370**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 3.4:

EXISTING (2017) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	26	1	0	19	350	2	570
Future Volume (vph)	26	1	0	19	350	2	570
Turn Type	Perm	NA	NA	Prot	NA	Prot	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4						
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	9.6	28.2	9.6	28.2
Total Split (s)	31.6	31.6	31.6	9.6	38.8	9.6	38.8
Total Split (%)	39.5%	39.5%	39.5%	12.0%	48.5%	12.0%	48.5%
Yellow Time (s)	3.6	3.6	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	4.6	4.6	6.2	4.6	6.2
Lead/Lag				Lead	Lag	Lead	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	Min
Act Effct Green (s)		13.5	13.5	5.7	37.3	5.7	37.3
Actuated g/C Ratio		0.26	0.26	0.11	0.73	0.11	0.73
v/c Ratio		0.13	0.00	0.10	0.28	0.01	0.47
Control Delay		13.7	0.0	30.8	8.8	30.5	11.7
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		13.7	0.0	30.8	8.8	30.5	11.7
LOS		B	A	C	A	C	B
Approach Delay		13.7			9.9		11.8
Approach LOS		B			A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 51	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 11.2	Intersection LOS: B
Intersection Capacity Utilization 49.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	1	20	0	0	2	19	350	1	2	570	25
Future Volume (veh/h)	26	1	20	0	0	2	19	350	1	2	570	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	28	1	22	0	0	2	20	376	1	2	613	27
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	26	74	0	0	176	44	928	2	5	846	37
Arrive On Green	0.11	0.11	0.11	0.00	0.00	0.11	0.02	0.50	0.50	0.00	0.48	0.48
Sat Flow, veh/h	643	232	664	0	0	1583	1774	1857	5	1774	1771	78
Grp Volume(v), veh/h	51	0	0	0	0	2	20	0	377	2	0	640
Grp Sat Flow(s),veh/h/ln	1539	0	0	0	0	1583	1774	0	1862	1774	0	1849
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.4	0.0	5.1	0.0	0.0	11.0
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.0	0.0	0.0	0.4	0.0	5.1	0.0	0.0	11.0
Prop In Lane	0.55		0.43	0.00		1.00	1.00		0.00	1.00		0.04
Lane Grp Cap(c), veh/h	311	0	0	0	0	176	44	0	931	5	0	883
V/C Ratio(X)	0.16	0.00	0.00	0.00	0.00	0.01	0.45	0.00	0.41	0.41	0.00	0.72
Avail Cap(c_a), veh/h	1152	0	0	0	0	1072	222	0	1521	222	0	1511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.2	0.0	0.0	0.0	0.0	15.8	19.2	0.0	6.3	19.9	0.0	8.3
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.3	19.2	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.0	2.6	0.0	0.0	5.8
LnGrp Delay(d),s/veh	16.5	0.0	0.0	0.0	0.0	15.8	21.9	0.0	6.5	39.1	0.0	9.5
LnGrp LOS	B					B	C		A	D		A
Approach Vol, veh/h		51			2			397			642	
Approach Delay, s/veh		16.5			15.8			7.3			9.6	
Approach LOS		B			B			A			A	

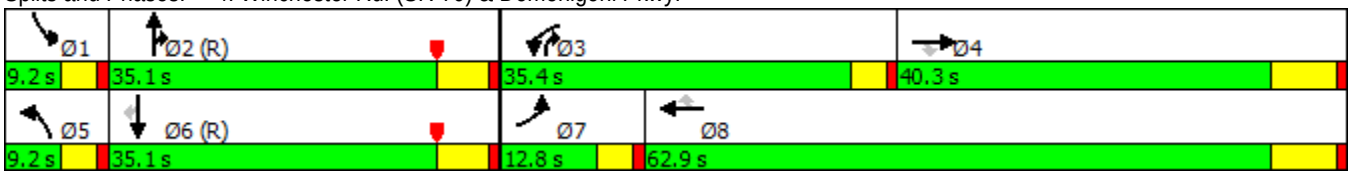
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.7	26.1		9.0	5.6	25.3		9.0
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6
Max Green Setting (Gmax), s	5.0	32.6		27.0	5.0	32.6		27.0
Max Q Clear Time (g_c+I1), s	2.0	7.1		3.1	2.4	13.0		2.0
Green Ext Time (p_c), s	0.0	6.6		0.2	0.0	6.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	789	62	710	779	18	36	221	568	13	419	158
Future Volume (vph)	112	789	62	710	779	18	36	221	568	13	419	158
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	2 3	1	6	
Permitted Phases			4			8						6
Detector Phase	7	4	4	3	8	8	5	2	2 3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8		9.2	33.8	33.8
Total Split (s)	12.8	40.3	40.3	35.4	62.9	62.9	9.2	35.1		9.2	35.1	35.1
Total Split (%)	10.7%	33.6%	33.6%	29.5%	52.4%	52.4%	7.7%	29.3%		7.7%	29.3%	29.3%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8		3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8		4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	7.9	32.4	32.4	29.7	54.3	54.3	5.2	37.3	71.2	5.0	33.4	33.4
Actuated g/C Ratio	0.07	0.27	0.27	0.25	0.45	0.45	0.04	0.31	0.59	0.04	0.28	0.28
v/c Ratio	0.54	0.90	0.13	0.91	0.37	0.03	0.51	0.22	0.63	0.19	0.46	0.30
Control Delay	63.4	55.2	0.5	59.2	21.9	0.1	79.6	33.2	17.3	61.8	39.2	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	55.2	0.5	59.2	21.9	0.1	79.6	33.2	17.3	61.8	39.2	6.9
LOS	E	E	A	E	C	A	E	C	B	E	D	A
Approach Delay		52.6			39.2			24.3			31.0	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 38.1	Intersection LOS: D
Intersection Capacity Utilization 75.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	789	62	710	779	18	36	221	568	13	419	158
Future Volume (veh/h)	112	789	62	710	779	18	36	221	568	13	419	158
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	122	858	30	772	847	8	39	240	355	14	455	73
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	963	431	829	2350	732	54	1046	850	28	994	445
Arrive On Green	0.05	0.27	0.27	0.24	0.46	0.46	0.03	0.30	0.30	0.02	0.28	0.28
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	122	858	30	772	847	8	39	240	355	14	455	73
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.2	28.0	1.7	26.3	12.9	0.3	2.6	6.1	16.1	0.9	12.7	4.2
Cycle Q Clear(g_c), s	4.2	28.0	1.7	26.3	12.9	0.3	2.6	6.1	16.1	0.9	12.7	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	963	431	829	2350	732	54	1046	850	28	994	445
V/C Ratio(X)	0.70	0.89	0.07	0.93	0.36	0.01	0.73	0.23	0.42	0.51	0.46	0.16
Avail Cap(c_a), veh/h	247	985	441	895	2373	739	74	1046	850	74	994	445
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	56.0	42.0	32.4	44.6	20.8	17.5	57.7	31.9	16.6	58.6	35.6	32.5
Incr Delay (d2), s/veh	1.9	10.1	0.1	14.8	0.1	0.0	10.7	0.5	1.5	5.1	1.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	15.1	0.7	14.2	6.1	0.1	1.4	3.1	7.3	0.5	6.4	1.9
LnGrp Delay(d),s/veh	57.9	52.1	32.5	59.3	20.9	17.5	68.3	32.4	18.1	63.7	37.1	33.3
LnGrp LOS	E	D	C	E	C	B	E	C	B	E	D	C
Approach Vol, veh/h		1010			1627			634			542	
Approach Delay, s/veh		52.2			39.1			26.6			37.3	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	41.3	33.1	39.5	7.8	39.5	10.3	62.3
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	6.9	* 4.2	5.8	* 4.2	6.9
Max Green Setting (Gmax), s	* 5	29.3	* 31	33.4	* 5	29.3	* 8.6	56.0
Max Q Clear Time (g_c+I1), s	2.9	18.1	28.3	30.0	4.6	14.7	6.2	14.9
Green Ext Time (p_c), s	0.0	5.8	0.6	2.7	0.0	6.8	0.0	14.5

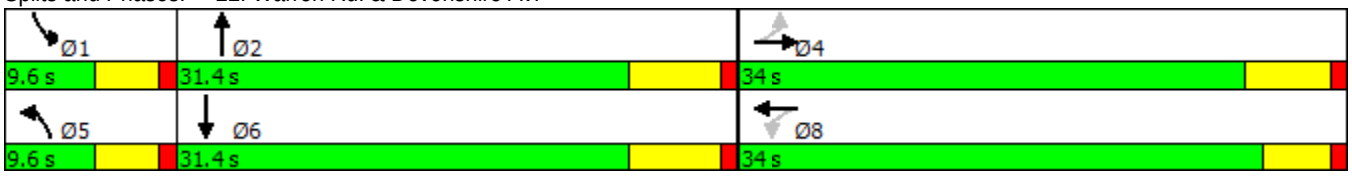
Intersection Summary	
HCM 2010 Ctrl Delay	40.3
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	200	131	43	212	4	364	19	303
Future Volume (vph)	200	131	43	212	4	364	19	303
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	31.8	31.8	9.6	28.2	9.6	28.2
Total Split (s)	34.0	34.0	34.0	34.0	9.6	31.4	9.6	31.4
Total Split (%)	45.3%	45.3%	45.3%	45.3%	12.8%	41.9%	12.8%	41.9%
Yellow Time (s)	4.8	4.8	3.8	3.8	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.8		4.8	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		23.6		24.7	5.3	19.3	5.3	20.8
Actuated g/C Ratio		0.40		0.42	0.09	0.33	0.09	0.35
v/c Ratio		0.76		0.43	0.02	0.68	0.12	0.72
Control Delay		30.5		15.9	32.2	25.0	33.5	23.9
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		30.5		15.9	32.2	25.0	33.5	23.9
LOS		C		B	C	C	C	C
Approach Delay		30.5		15.9		25.1		24.3
Approach LOS		C		B		C		C

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 58.8	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 24.3	Intersection LOS: C
Intersection Capacity Utilization 72.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	131	10	43	212	27	4	364	24	19	303	137
Future Volume (veh/h)	200	131	10	43	212	27	4	364	24	19	303	137
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	213	139	11	46	226	29	4	387	26	20	322	146
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	361	200	14	133	485	57	10	561	38	43	418	189
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.01	0.32	0.32	0.02	0.34	0.34
Sat Flow, veh/h	753	598	42	161	1450	172	1774	1726	116	1774	1215	551
Grp Volume(v), veh/h	363	0	0	301	0	0	4	0	413	20	0	468
Grp Sat Flow(s),veh/h/ln	1392	0	0	1783	0	0	1774	0	1842	1774	0	1766
Q Serve(g_s), s	5.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	10.2	0.6	0.0	12.4
Cycle Q Clear(g_c), s	12.0	0.0	0.0	6.9	0.0	0.0	0.1	0.0	10.2	0.6	0.0	12.4
Prop In Lane	0.59		0.03	0.15		0.10	1.00		0.06	1.00		0.31
Lane Grp Cap(c), veh/h	575	0	0	675	0	0	10	0	599	43	0	607
V/C Ratio(X)	0.63	0.00	0.00	0.45	0.00	0.00	0.42	0.00	0.69	0.47	0.00	0.77
Avail Cap(c_a), veh/h	846	0	0	1054	0	0	169	0	885	169	0	848
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.4	0.0	0.0	13.9	0.0	0.0	26.0	0.0	15.4	25.3	0.0	15.4
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.5	0.0	0.0	10.4	0.0	1.4	2.9	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	0.0	3.5	0.0	0.0	0.1	0.0	5.4	0.3	0.0	6.5
LnGrp Delay(d),s/veh	16.6	0.0	0.0	14.4	0.0	0.0	36.4	0.0	16.8	28.2	0.0	18.3
LnGrp LOS	B			B			D		B	C		B
Approach Vol, veh/h		363			301			417			488	
Approach Delay, s/veh		16.6			14.4			17.0			18.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.9	23.2		23.3	4.9	24.2		23.3
Change Period (Y+Rc), s	4.6	6.2		5.8	4.6	6.2		* 5.8
Max Green Setting (Gmax), s	5.0	25.2		28.2	5.0	25.2		* 29
Max Q Clear Time (g_c+I1), s	2.6	12.2		14.0	2.1	14.4		8.9
Green Ext Time (p_c), s	0.0	4.0		3.5	0.0	3.6		4.1

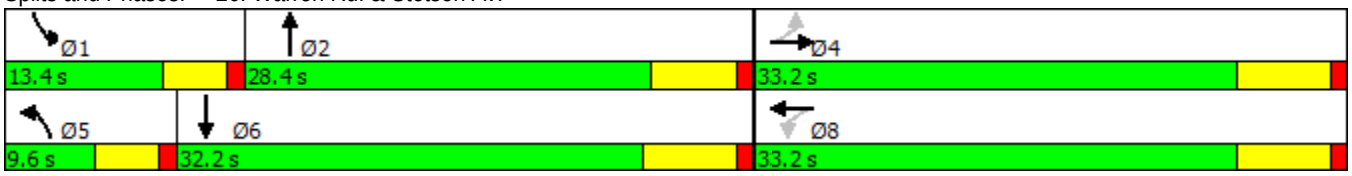
Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	27	56	79	67	3	359	130	259
Future Volume (vph)	27	56	79	67	3	359	130	259
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	33.2	33.2	33.2	33.2	9.6	27.8	9.6	28.2
Total Split (s)	33.2	33.2	33.2	33.2	9.6	28.4	13.4	32.2
Total Split (%)	44.3%	44.3%	44.3%	44.3%	12.8%	37.9%	17.9%	42.9%
Yellow Time (s)	5.2	5.2	5.2	5.2	3.6	4.8	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	6.2	6.2	4.6	5.8	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	13.2	13.2	13.2	13.2	5.3	18.2	8.1	26.1
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.10	0.34	0.15	0.48
v/c Ratio	0.12	0.14	0.25	0.50	0.02	0.72	0.51	0.33
Control Delay	19.2	17.4	20.6	9.2	29.3	25.5	33.8	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.2	17.4	20.6	9.2	29.3	25.5	33.8	11.4
LOS	B	B	C	A	C	C	C	B
Approach Delay		18.0		11.8		25.5		18.5
Approach LOS		B		B		C		B

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 54	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 19.0	Intersection LOS: B
Intersection Capacity Utilization 66.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	56	5	79	67	205	3	359	67	130	259	21
Future Volume (veh/h)	27	56	5	79	67	205	3	359	67	130	259	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	28	58	5	82	70	214	3	374	70	135	270	22
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	250	433	37	447	104	317	7	481	90	173	695	57
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.00	0.32	0.32	0.10	0.41	0.41
Sat Flow, veh/h	1091	1691	146	1334	405	1239	1774	1527	286	1774	1700	139
Grp Volume(v), veh/h	28	0	63	82	0	284	3	0	444	135	0	292
Grp Sat Flow(s),veh/h/ln	1091	0	1837	1334	0	1644	1774	0	1812	1774	0	1838
Q Serve(g_s), s	1.2	0.0	1.4	2.6	0.0	8.0	0.1	0.0	11.4	3.8	0.0	5.7
Cycle Q Clear(g_c), s	9.2	0.0	1.4	3.9	0.0	8.0	0.1	0.0	11.4	3.8	0.0	5.7
Prop In Lane	1.00		0.08	1.00		0.75	1.00		0.16	1.00		0.08
Lane Grp Cap(c), veh/h	250	0	471	447	0	421	7	0	571	173	0	751
V/C Ratio(X)	0.11	0.00	0.13	0.18	0.00	0.67	0.41	0.00	0.78	0.78	0.00	0.39
Avail Cap(c_a), veh/h	544	0	966	806	0	865	173	0	798	304	0	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.3	0.0	14.7	16.2	0.0	17.2	25.5	0.0	15.9	22.6	0.0	10.7
Incr Delay (d2), s/veh	0.2	0.0	0.1	0.2	0.0	1.9	13.4	0.0	3.2	2.9	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.7	1.0	0.0	3.8	0.1	0.0	6.2	2.0	0.0	2.9
LnGrp Delay(d),s/veh	21.5	0.0	14.8	16.4	0.0	19.1	39.0	0.0	19.2	25.5	0.0	11.0
LnGrp LOS	C		B	B		B	D		B	C		B
Approach Vol, veh/h		91			366			447			427	
Approach Delay, s/veh		16.9			18.5			19.3			15.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.6	22.4		19.4	4.8	27.2		19.4
Change Period (Y+Rc), s	4.6	* 6.2		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s	8.8	* 23		27.0	5.0	26.0		27.0
Max Q Clear Time (g_c+I1), s	5.8	13.4		11.2	2.1	7.7		10.0
Green Ext Time (p_c), s	0.0	2.8		2.0	0.0	3.9		2.0

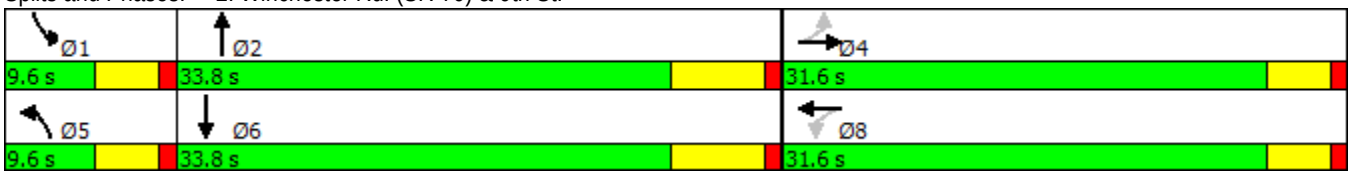
Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	33	1	2	1	28	577	2	463
Future Volume (vph)	33	1	2	1	28	577	2	463
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	28.2	9.6	28.2
Total Split (s)	31.6	31.6	31.6	31.6	9.6	33.8	9.6	33.8
Total Split (%)	42.1%	42.1%	42.1%	42.1%	12.8%	45.1%	12.8%	45.1%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		13.3		13.3	5.5	35.0	5.5	33.2
Actuated g/C Ratio		0.27		0.27	0.11	0.71	0.11	0.68
v/c Ratio		0.16		0.01	0.15	0.46	0.01	0.42
Control Delay		11.9		14.2	29.2	12.6	28.5	12.8
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		11.9		14.2	29.2	12.6	28.5	12.8
LOS		B		B	C	B	C	B
Approach Delay		11.9		14.2		13.3		12.9
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 49	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.46	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 47.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	1	30	2	1	2	28	577	1	2	463	28
Future Volume (veh/h)	33	1	30	2	1	2	28	577	1	2	463	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	35	1	32	2	1	2	30	614	1	2	493	30
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	217	35	102	178	85	90	63	871	1	5	758	46
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.04	0.47	0.47	0.00	0.44	0.44
Sat Flow, veh/h	567	254	730	361	610	647	1774	1859	3	1774	1738	106
Grp Volume(v), veh/h	68	0	0	5	0	0	30	0	615	2	0	523
Grp Sat Flow(s),veh/h/ln	1551	0	0	1619	0	0	1774	0	1862	1774	0	1844
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	10.4	0.0	0.0	8.8
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.1	0.0	0.0	0.7	0.0	10.4	0.0	0.0	8.8
Prop In Lane	0.51		0.47	0.40		0.40	1.00		0.00	1.00		0.06
Lane Grp Cap(c), veh/h	354	0	0	353	0	0	63	0	873	5	0	804
V/C Ratio(X)	0.19	0.00	0.00	0.01	0.00	0.00	0.48	0.00	0.70	0.41	0.00	0.65
Avail Cap(c_a), veh/h	1163	0	0	1186	0	0	224	0	1299	224	0	1286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.3	0.0	0.0	14.7	0.0	0.0	18.7	0.0	8.3	19.7	0.0	8.8
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.0	0.0	0.0	2.1	0.0	1.1	19.2	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.0	0.0	0.0	0.4	0.0	5.6	0.0	0.0	4.6
LnGrp Delay(d),s/veh	15.5	0.0	0.0	14.7	0.0	0.0	20.8	0.0	9.4	38.9	0.0	9.7
LnGrp LOS	B			B			C		A	D		A
Approach Vol, veh/h		68			5			645			525	
Approach Delay, s/veh		15.5			14.7			9.9			9.8	
Approach LOS		B			B			A			A	

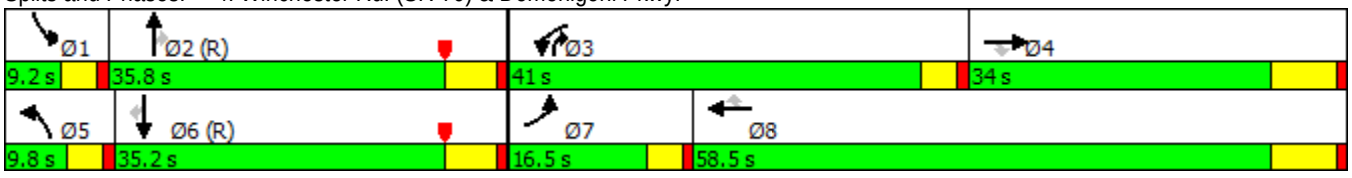
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.7	24.8		10.1	6.0	23.5		10.1
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6
Max Green Setting (Gmax), s	5.0	27.6		27.0	5.0	27.6		27.0
Max Q Clear Time (g_c+I1), s	2.0	12.4		3.4	2.7	10.8		2.1
Green Ext Time (p_c), s	0.0	6.1		0.3	0.0	6.4		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	10.2
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	187	756	58	606	807	18	68	524	911	12	289	142
Future Volume (vph)	187	756	58	606	807	18	68	524	911	12	289	142
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8	9.2	9.2	33.8	33.8
Total Split (s)	16.5	34.0	34.0	41.0	58.5	58.5	9.8	35.8	41.0	9.2	35.2	35.2
Total Split (%)	13.8%	28.3%	28.3%	34.2%	48.8%	48.8%	8.2%	29.8%	34.2%	7.7%	29.3%	29.3%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	3.2	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	4.2	4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	C-Max
Act Effct Green (s)	10.7	27.5	27.5	36.4	53.2	53.2	5.6	35.5	77.7	5.0	29.4	29.4
Actuated g/C Ratio	0.09	0.23	0.23	0.30	0.44	0.44	0.05	0.30	0.65	0.04	0.24	0.24
v/c Ratio	0.65	0.99	0.13	0.62	0.38	0.03	0.88	0.53	0.91	0.18	0.35	0.30
Control Delay	62.8	76.3	0.6	38.9	23.2	0.1	127.0	38.4	30.3	61.2	38.9	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.8	76.3	0.6	38.9	23.2	0.1	127.0	38.4	30.3	61.2	38.9	7.3
LOS	E	E	A	D	C	A	F	D	C	E	D	A
Approach Delay		69.4			29.6			37.5			29.4	
Approach LOS		E			C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 41.4	Intersection LOS: D
Intersection Capacity Utilization 94.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	756	58	606	807	18	68	524	911	12	289	142
Future Volume (veh/h)	187	756	58	606	807	18	68	524	911	12	289	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	199	804	31	645	859	9	72	557	554	13	307	42
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	799	358	716	1828	569	83	1330	924	26	1217	544
Arrive On Green	0.07	0.23	0.23	0.21	0.36	0.36	0.05	0.38	0.38	0.01	0.34	0.34
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	199	804	31	645	859	9	72	557	554	13	307	42
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.8	27.1	1.9	21.9	15.6	0.4	4.8	14.0	26.9	0.9	7.5	2.1
Cycle Q Clear(g_c), s	6.8	27.1	1.9	21.9	15.6	0.4	4.8	14.0	26.9	0.9	7.5	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	256	799	358	716	1828	569	83	1330	924	26	1217	544
V/C Ratio(X)	0.78	1.01	0.09	0.90	0.47	0.02	0.87	0.42	0.60	0.50	0.25	0.08
Avail Cap(c_a), veh/h	353	799	358	1055	2187	681	83	1330	924	74	1217	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	54.6	46.5	36.7	46.3	29.6	24.8	56.8	27.7	16.0	58.7	28.3	26.5
Incr Delay (d2), s/veh	4.7	33.3	0.1	5.8	0.2	0.0	56.3	1.0	2.9	5.3	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	16.9	0.8	11.0	7.3	0.2	3.7	7.0	12.4	0.5	3.7	1.0
LnGrp Delay(d),s/veh	59.3	79.7	36.8	52.1	29.8	24.8	113.1	28.7	18.9	64.0	28.8	26.8
LnGrp LOS	E	F	D	D	C	C	F	C	B	E	C	C
Approach Vol, veh/h		1034			1513			1183			362	
Approach Delay, s/veh		74.5			39.3			29.2			29.8	
Approach LOS		E			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	50.9	29.2	34.0	9.8	47.0	13.1	50.0
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	6.9	* 4.2	5.8	* 4.2	6.9
Max Green Setting (Gmax), s	* 5	30.0	* 37	27.1	* 5.6	29.4	* 12	51.6
Max Q Clear Time (g_c+I1), s	2.9	28.9	23.9	29.1	6.8	9.5	8.8	17.6
Green Ext Time (p_c), s	0.0	0.9	1.0	0.0	0.0	10.7	0.1	13.2

Intersection Summary	
HCM 2010 Ctrl Delay	44.4
HCM 2010 LOS	D

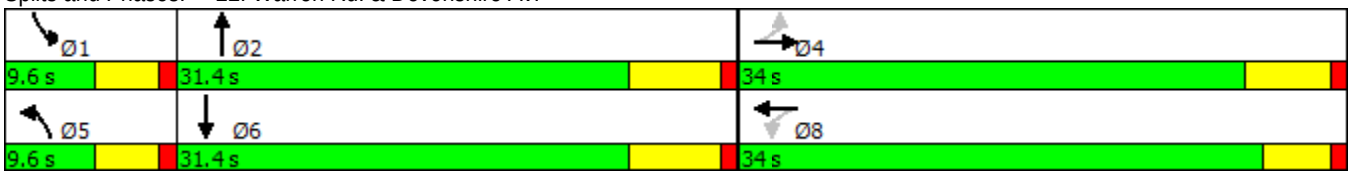
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	191	165	36	228	16	369	30	336
Future Volume (vph)	191	165	36	228	16	369	30	336
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	31.8	31.8	9.6	28.2	9.6	28.2
Total Split (s)	34.0	34.0	34.0	34.0	9.6	31.4	9.6	31.4
Total Split (%)	45.3%	45.3%	45.3%	45.3%	12.8%	41.9%	12.8%	41.9%
Yellow Time (s)	4.8	4.8	3.8	3.8	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.8		4.8	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		23.9		25.0	5.3	20.0	5.3	21.5
Actuated g/C Ratio		0.40		0.42	0.09	0.34	0.09	0.36
v/c Ratio		0.77		0.42	0.11	0.70	0.20	0.73
Control Delay		31.0		16.1	33.6	25.4	34.7	24.6
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		31.0		16.1	33.6	25.4	34.7	24.6
LOS		C		B	C	C	C	C
Approach Delay		31.0		16.1		25.7		25.2
Approach LOS		C		B		C		C

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 59.7
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 25.0 — Intersection LOS: C
Intersection Capacity Utilization 74.4% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	165	10	36	228	20	16	369	45	30	336	125
Future Volume (veh/h)	191	165	10	36	228	20	16	369	45	30	336	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	199	172	10	38	238	21	17	384	47	31	350	130
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	328	239	13	116	516	43	37	537	66	61	445	165
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.02	0.33	0.33	0.03	0.34	0.34
Sat Flow, veh/h	681	712	38	128	1541	127	1774	1628	199	1774	1296	481
Grp Volume(v), veh/h	381	0	0	297	0	0	17	0	431	31	0	480
Grp Sat Flow(s),veh/h/ln	1431	0	0	1796	0	0	1774	0	1828	1774	0	1778
Q Serve(g_s), s	6.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	11.4	0.9	0.0	13.4
Cycle Q Clear(g_c), s	13.0	0.0	0.0	7.1	0.0	0.0	0.5	0.0	11.4	0.9	0.0	13.4
Prop In Lane	0.52		0.03	0.13		0.07	1.00		0.11	1.00		0.27
Lane Grp Cap(c), veh/h	579	0	0	675	0	0	37	0	603	61	0	610
V/C Ratio(X)	0.66	0.00	0.00	0.44	0.00	0.00	0.46	0.00	0.71	0.51	0.00	0.79
Avail Cap(c_a), veh/h	821	0	0	1009	0	0	161	0	835	161	0	812
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.3	0.0	0.0	14.5	0.0	0.0	26.7	0.0	16.2	26.2	0.0	16.3
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.5	0.0	0.0	3.3	0.0	1.8	2.4	0.0	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	0.0	3.6	0.0	0.0	0.3	0.0	6.0	0.5	0.0	7.2
LnGrp Delay(d),s/veh	17.6	0.0	0.0	15.0	0.0	0.0	30.0	0.0	18.0	28.6	0.0	20.1
LnGrp LOS	B			B			C		B	C		C
Approach Vol, veh/h		381			297			448			511	
Approach Delay, s/veh		17.6			15.0			18.5			20.6	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.5	24.4		24.3	5.7	25.1		24.3
Change Period (Y+Rc), s	4.6	6.2		5.8	4.6	6.2		* 5.8
Max Green Setting (Gmax), s	5.0	25.2		28.2	5.0	25.2		* 29
Max Q Clear Time (g_c+I1), s	2.9	13.4		15.0	2.5	15.4		9.1
Green Ext Time (p_c), s	0.0	3.9		3.5	0.0	3.5		4.1

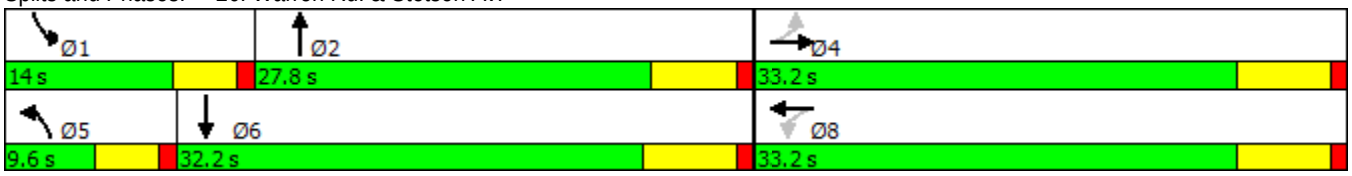
Intersection Summary	
HCM 2010 Ctrl Delay	18.3
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	Ø5
Lane Configurations								
Traffic Volume (vph)	40	82	67	75	323	210	313	
Future Volume (vph)	40	82	67	75	323	210	313	
Turn Type	Perm	NA	Perm	NA	NA	Prot	NA	
Protected Phases		4		8	2	1	6	5
Permitted Phases	4		8					
Detector Phase	4	4	8	8	2	1	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	33.2	33.2	33.2	33.2	27.8	9.6	28.2	9.6
Total Split (s)	33.2	33.2	33.2	33.2	27.8	14.0	32.2	9.6
Total Split (%)	44.3%	44.3%	44.3%	44.3%	37.1%	18.7%	42.9%	13%
Yellow Time (s)	5.2	5.2	5.2	5.2	4.8	3.6	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.2	6.2	6.2	6.2	5.8	4.6	6.2	
Lead/Lag					Lag	Lead	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	Min	None
Act Effct Green (s)	13.0	13.0	13.0	13.0	15.9	9.7	29.9	
Actuated g/C Ratio	0.23	0.23	0.23	0.23	0.29	0.17	0.54	
v/c Ratio	0.19	0.21	0.22	0.52	0.73	0.70	0.36	
Control Delay	19.6	18.0	19.6	10.0	27.4	39.9	9.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.6	18.0	19.6	10.0	27.4	39.9	9.4	
LOS	B	B	B	B	C	D	A	
Approach Delay		18.6		11.9	27.4		20.9	
Approach LOS		B		B	C		C	

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 55.6	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 75.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	82	5	67	75	204	0	323	54	210	313	34
Future Volume (veh/h)	40	82	5	67	75	204	0	323	54	210	313	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	41	84	5	68	77	208	0	330	55	214	319	35
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	255	460	27	430	118	318	3	420	70	263	832	91
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.00	0.27	0.27	0.15	0.50	0.50
Sat Flow, veh/h	1090	1741	104	1303	446	1204	1774	1557	260	1774	1650	181
Grp Volume(v), veh/h	41	0	89	68	0	285	0	0	385	214	0	354
Grp Sat Flow(s),veh/h/ln	1090	0	1844	1303	0	1650	1774	0	1817	1774	0	1831
Q Serve(g_s), s	1.9	0.0	2.0	2.3	0.0	8.2	0.0	0.0	10.5	6.3	0.0	6.4
Cycle Q Clear(g_c), s	10.1	0.0	2.0	4.3	0.0	8.2	0.0	0.0	10.5	6.3	0.0	6.4
Prop In Lane	1.00		0.06	1.00		0.73	1.00		0.14	1.00		0.10
Lane Grp Cap(c), veh/h	255	0	488	430	0	436	3	0	490	263	0	923
V/C Ratio(X)	0.16	0.00	0.18	0.16	0.00	0.65	0.00	0.00	0.79	0.81	0.00	0.38
Avail Cap(c_a), veh/h	517	0	930	743	0	832	166	0	747	312	0	923
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	15.2	16.9	0.0	17.5	0.0	0.0	18.1	22.1	0.0	8.2
Incr Delay (d2), s/veh	0.3	0.0	0.2	0.2	0.0	1.7	0.0	0.0	3.1	11.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.0	0.8	0.0	3.9	0.0	0.0	5.7	3.8	0.0	3.2
LnGrp Delay(d),s/veh	22.3	0.0	15.4	17.0	0.0	19.2	0.0	0.0	21.3	33.2	0.0	8.4
LnGrp LOS	C		B	B		B			C	C		A
Approach Vol, veh/h		130			353			385			568	
Approach Delay, s/veh		17.6			18.8			21.3			17.8	
Approach LOS		B			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.5	20.6		20.3	0.0	33.2		20.3
Change Period (Y+Rc), s	4.6	* 6.2		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s	9.4	* 22		27.0	5.0	26.0		27.0
Max Q Clear Time (g_c+I1), s	8.3	12.5		12.1	0.0	8.4		10.2
Green Ext Time (p_c), s	0.0	1.9		2.1	0.0	3.8		2.2

Intersection Summary	
HCM 2010 Ctrl Delay	18.9
HCM 2010 LOS	B

Notes

APPENDIX 4.1:

CUMULATIVE DEVELOPMENT PROJECT RESEARCH

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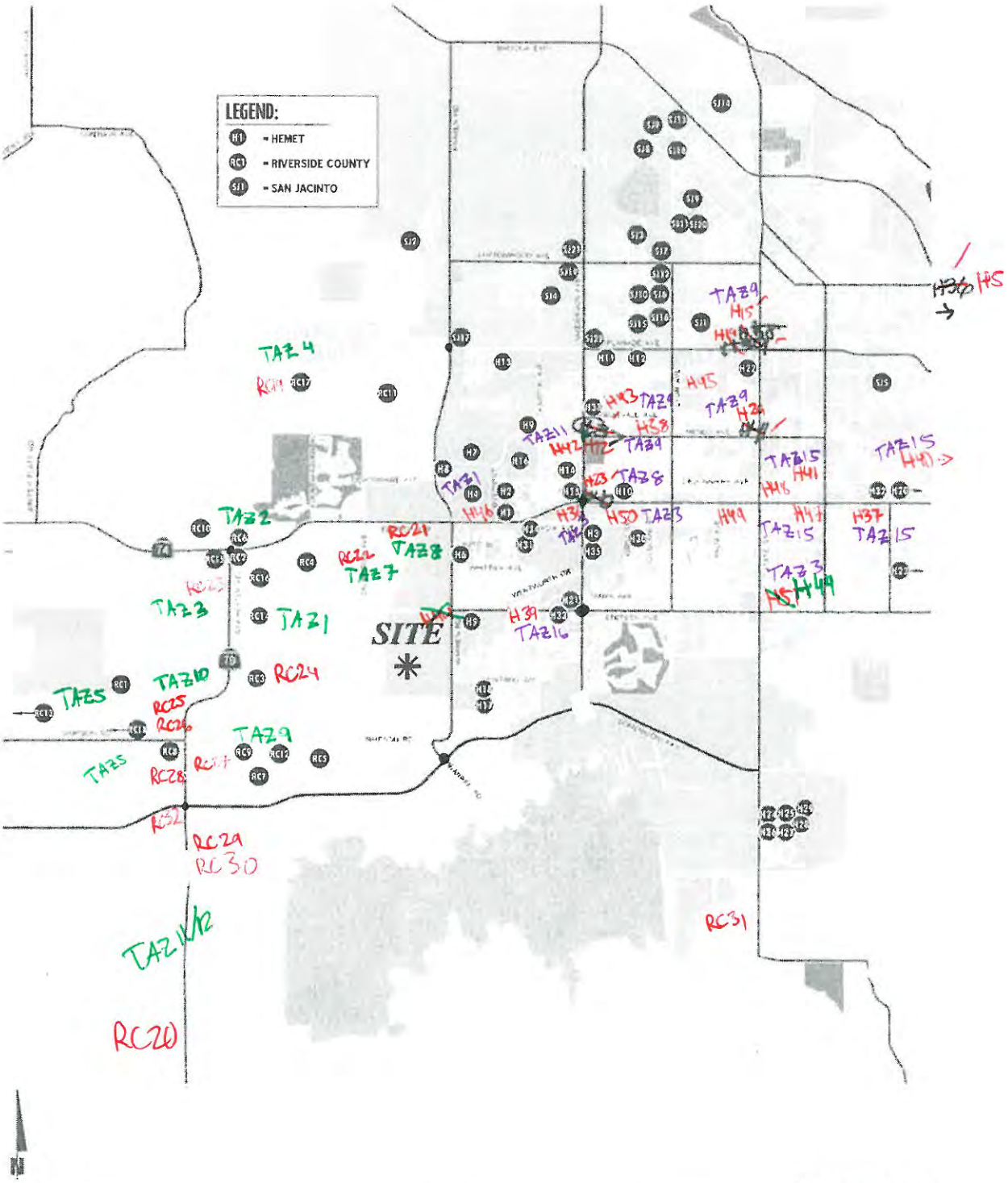
TAZ# = Added to 9702-07
TAZ# = Added to 820842

EXHIBIT 4-9: CUMULATIVE DEVELOPMENT LOCATION MAP



09702 - cd.dwg

URBAN CROSSROADS

= New (09/06/17)

Cumulative Development Project List

#	Name	Land Use	Quantity	Units[1]
		City of Hemet		
H1	Florida Promenade (SP 06-04)	Commercial	200.00 (100.00 Built)	TSF
H2	Florida Promenade Residential	Senior Residential (attached)	440	DU
		Single Family Residential	145	DU
H3	Sanderson Square (SP 05-03)	Commercial	243.000	TSF
		Office/Industrial	186.700	TSF
H4	Ramona Creek Specific Plan	Single Family Residential	1077	DU
		Mixed-Use	145.645	TSF
		Shopping Center	535.788	TSF
		Open Space Corridor	23.8	AC
		Recreation Spine	12.2	AC
H5	TTM 35990 Corwin Ranch	Single Family Residential	12	DU
H6	Hemet Auto Mall Retail Expansion (CUP 07-21)	Commercial	108.000	TSF
H7	Tres Cerritos West (VTTM 31513)	Single Family Residential	178	DU
H8	Montero (VTTM 31146)	Single Family Residential	86 (70 Built)	DU
		Neighborhood Park	0.76	AC
H9	Peppertree Ranch (SP 01-3 and VTTM 29843)	Senior Residential (detached)	465 (16 Built)	DU
		Parks/Open Space	40.20	AC
H10	The Boardwalk (CUP 06-4)	Commercial	94.00 (20.00 Built)	TSF
H11	TTM 29581 (Covenant)	Single Family Residential	71	DU
H12	Zanderson Plaza (CUP 16-006 + TPM 37196)	Commercial	68.000	TSF
H13	Stoney Mountain Ranch (TTM 29129)	Single Family Residential	395 (303 Built)	DU
H14	TTM 33707 (Devonshire Partners) CUP 03-16A	Single Family Residential	98 (25 Built)	DU
H15	TTM 24147-1 Hideaway	Single Family Residential	71	DU
H16	Tres Cerritos East (SPA 06-1)	Single Family Residential	775	DU
H17	Page Ranch Elementary School	Elementary School	750	STU
H18	Freedom Middle School	Middle School	1500	STU
H19	TM 31976 Hideaway	Single Family Residential	121	DU
H20	St. Deminia Center (CUP 07-16)	Commercial	33.480	TSF
H21	Stetson Crossing (SP 07-4)	Commercial	189.000	TSF
H22	Nelson (SDR 06-28)	Industrial	16.200	TSF
H23	CUP 17-002 Crossroads	Commercial	1.000	TSF
H24	McSweeny TTM 33824 (Map 05-10)	Single Family Residential	238	DU
H25	McSweeny TTM 33825 (Map 05-11)	Single Family Residential	259	DU
H26	McSweeny TTM 34660	Single Family Residential	396	DU
H27	McSweeny TTM 34661	Single Family Residential	427	DU
H28	McSweeny TTM 34662	Single Family Residential	11	DU
H29	Santa Fe Pointe SDR 15-001	Multi-Family Residential	241	DU
H30	Acacia Gardens Expansion (CUP 06-5)	Multi-Family Residential	50	DU
H31	Cawston Plaza (CUP 07-26)	Commercial	21.000	TSF
H32	Scripps West (CUP 08-14)	Commercial	5.300	TSF
H33	Hemet Medical (CUP 07-24)(TPM 35701)	Medical Office	126.00 (50.00 Built)	TSF
H34	Hemet 63 (ZC 05-04)	Commercial	260.000	TSF
H35	JAKS LLC (ZC 04-13)	Commercial	170.000	TSF
H36	Les Schwab Tire Store	Automotive Retail	11.970	TSF
H37	Taco Bell (CUP 16-004)	Fast-Food Restaurant	2.090	TSF
H38	TTM 33858	Single Family Residential	37	DU

Not in Study area
Add to TAZ 9
Add to TAZ 9
Add to TAZ 9
Add to TAZ 8
Add to TAZ 9
Add to TAZ 3
Add to TAZ 15
Add to TAZ 9

Cumulative Development Project List

Add to TAZ 16
Add to TAZ 15
Add to TAZ 15
Add to TAZ 11
Add to TAZ 9
Add to TAZ 9
Add to TAZ 1
Add to TAZ 15
Add to TAZ 15
Add to TAZ 15
Add to TAZ 3
Add to TAZ 3

#	Name	Land Use	Quantity	Units[1]
H39	TTM 34712	Multi-Family Residential	40	DU
H40	7 Days Market (CUP 13-005)	Service Station	6	Pumps
H41	Downtown Hemet Specific Plan	Various	Various	
H42	TM 25225 (Copenhagen)	Multi-Family Residential	40	DU
H43	TTM 36929	Single Family Residential	21	DU
~~H44~~	~~TTM 36841~~	~~Single Family Residential~~	~~588~~	~~DU~~
H45	TTM 37087	Single Family Residential	20	DU
H46	Cirkle K (CUP 16-005)	Gas Station w/ Convenience Store & Car Wash	20	Pumps
H47	Clinca de Salud (SDR 16-003)	Medical Office	13.000	TSF
H48	Al For Show (CUP 16-002)	Retail	3.020	TSF
H49	Gas Mart Remodel	Gas Station w/ Convenience Store	6	Pumps
H50	KPC Towne Center (SDR 15-004)	Shopping Center	124.880	TSF
~~H51~~	TTM 36924	Single Family Residential	58	DU
		City of San Jacinto		
SJ1	TR22665 (50% Occupied)	Single Family Residential	75	DU
SJ2	TR30034 (SP 1-01)	Single Family Residential	50	DU
	TR30035 (SP 1-01)	Single Family Residential	74	DU
	TR30036 (SP 1-01)	Single Family Residential	104	DU
	TR30084 (SP 1-01)- Under Construction	Single Family Residential	111	DU
	TR30090 (SP 1-01)	Single Family Residential	5	DU
SJ3	TR30481	Single Family Residential	30	DU
SJ4	TR30597	Single Family Residential	116	DU
SJ5	TR30659	Single Family Residential	64	DU
SJ6	TR30878	Single Family Residential	18	DU
SJ7	TR30944	Single Family Residential	14	DU
SJ8	TR31037	Single Family Residential	263	DU
SJ9	TR31154	Single Family Residential	88	DU
SJ10	TR31294	Single Family Residential	37	DU
SJ11	VTR31384	Single Family Residential	91	DU
SJ12	TR33546	Single Family Residential	5	DU
SJ13	TR31886 - Under Construction	Single Family Residential	321	DU
SJ14	TR30598 (SP 1-03)	Single Family Residential	580	DU
SJ15	TR31929	Single Family Residential	78	DU
SJ16	TR32247	Single Family Residential	150	DU
SJ17	TR32955 (SP1-02)	Single Family Residential	613	DU
SJ18	TR32555	Single Family Residential	12	DU
SJ19	TR33420A1	Single Family Residential	108	DU
SJ20	Future Schools (Middle / Elementary)	School	1200	STU
SJ21	PM35626	Shopping Center	195.740	TSF
		Apartments	150	DU
SJ22	PM33196 San Jacinto Retail Center	Drive-In Bank	4.700	TSF
		Fast-Food w/ Drive Thru	3.450	TSF
SJ23	TR32352	Single Family Residential	153	DU

Cumulative Development Project List

#	Name	Land Use	Quantity	Units[1]
County of Riverside				
RC1	K-1 Speed Outdoor Kart Track	Outdoor Kart Track	86.882	TSF
RC2	CUP03479	Gas Station	8	VFP
		Fast-Food w/ Drive Thru	1.500	TSF
RC3	PM33564	SFDR	4	DU
RC4	Emerald Acres Specific Plan SP00381	Single Family Residential	432	DU
RC5	TR35017	SFDR	44	DU
RC6	PP22849 (Jack-In-The-Box)	Fast-Food w/ Drive Thru	2.783	TSF
RC7	TR34129	SFDR	197	DU
RC8	TR31537	SFDR	726	DU
RC9	TR32237	SFDR	98	DU
RC10	TR32248	SFDR	86	DU
RC11	TR31076	SFDR	16	DU
RC12	TR34130	SFDR	384	DU
RC13	TR34677	SFDR	422	DU
	TR31100	SFDR	243	DU
	TR32391	SFDR	127	DU
	TR33448	SFDR	31	DU
	TR31101	SFDR	160	DU
	TR31099	SFDR	207	DU
	TR32282	SFDR	625	DU
RC14	TR36478	Condos	150	DU
	TR36480	Condos	138	DU
	PP25219	Apartments	180	DU
RC15	CUP03579	Restaurant	5.606	TSF
		Retail	8.764	TSF
		Gas Station w/ Convenience Store	3.031	TSF
RC16	TR36504	SFDR	562	DU
RC17	CUP01190	Mobile Home Park	60	SPACES
RC18	TR36711	Condos	102	DU
	TR36365	SFDR	224	DU
	TR33450	SFDR	57	DU
	TR33225	SFDR	14	DU
	TR31857	SFDR	140	DU
	TR31858	SFDR	185	DU
	TR36430	SFDR	340	DU
		Elementary School	600	STU
RC19	TR26973	Single Family Residential	43	DU
RC20	Domenigoni - Barton Properties (SP 310)	SFDR	4186	DU
		Golf Course	18	HOLES
		School	~~44.00~~ 12.00	AC
RC21	PP14248	Automotive Retail	8.200	TSF
RC22	TR23551	Single Family Residential	38	DU
RC23	TR30351	Single Family Residential	273	DU
RC24	PP25623	Animal Hospital	--	TSF
RC25	RVP00110 (Revision to PP11686)	Fast-Food w/o Drive Thru	2.475	TSF
RC26	PP15735	Fast-Food w/o Drive Thru	1.200	TSF
RC27	TR31538	Single Family Residential	257	DU
RC28	TR37079	Single Family Residential	53	AC
		Commercial		
RC29	BSA Properties (SP 322)	Commercial	202	AC
		Single Family Residential	421	DU
RC30	PP13023	Commercial	7.360	TSF
RC31	PM29141	Single Family Residential	--	TSF
RC32	The Crossroads in Winchester (SP 288 Amendment 2)	Single Family Residential	771	DU
		Condos/Townhomes	154	DU
		Commercial	32.50	AC

[1] DU = Dwelling Units; STU = Students; TSF = Thousand Square Feet; BEDS = Occupied Beds

EXHIBIT 4-9: CUMULATIVE DEVELOPMENT LOCATION MAP

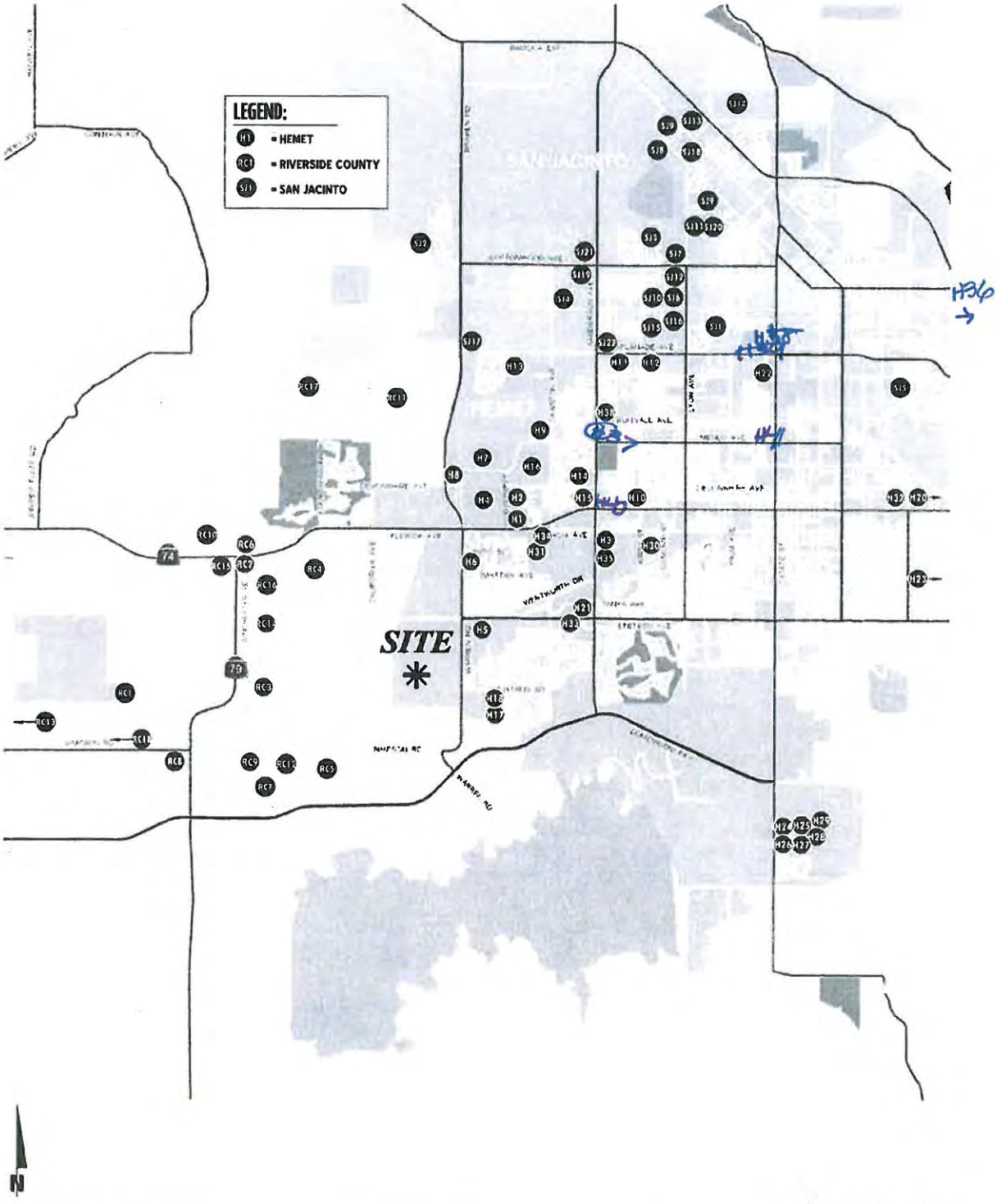


Table 4-2
Page 1 of 3

Cumulative Development Project List

#	Name	Land Use	Quantity	Units[1]	
		City of Hemet			
H1	Florida Promenade (SP 06-04)	Commercial	200.00 (100.00 Built)	TSF	
	~~Marriot Towneplace Suites (SDR 09-03)~~	~~Hotel~~	~~105~~	~~Rooms~~	EXPIRED
H2	Florida Promenade Residential	Senior Residential (attached)	440	DU	
		Single Family Residential	145	DU	
H3	Sanderson Square (SP 05-03)	Commercial	243.00	TSF	
		Office/Industrial	186.70	TSF	
H4	Ramona Creek Specific Plan (SP12-001)	Single Family Residential	1077	DU	
		Mixed-Use	145.645	TSF	
		Shopping Center	535.788	TSF	
		Open Space Corridor	23.8	AC	
		Recreation Spine	12.2	AC	
~~H5~~	~~Pulte Del Web (TTM 31807 and 31808)~~	~~Senior Residential~~	~~599 (205 Built)~~	~~DU~~	COMPLETED
H6	Hemet Auto Mall Retail Expansion (CUP 07-21)	Commercial	108	TSF	
H7	Tres Cerritos West (VTTM 31513)	Single Family Residential	178	DU	
H8	Montero (VTTM 31146)	Single Family Residential	86 (70 Built)	DU	
		Neighborhood Park	0.76	AC	
H9	Peppertree Ranch (SP 01-3 and VTTM 29843)	Senior Residential (detached)	465 (16 Built)	DU	
		Parks/Open Space	40.20	AC	
H10	The Boardwalk (CUP 06-4)	Commercial	94.00 (20.00 Built)	TSF	
H11	TM 29581 (Covenant)	Single Family Residential	71	DU	
~~H12~~	~~TTM 31064 (Kolby)~~	~~Single Family Residential~~	~~150~~	~~DU~~	EXPIRED
H13	Stoney Mountain Ranch (TTM 29129)	Single Family Residential	395 (303 Built)	DU	
H14	TTM 33707 (Devonshire Partners) CUP 03-16A	Single Family Residential	98 (25 Built)	DU	
~~H15~~	~~CUP 05-02 (Terra West)~~	~~Senior Residential (attached)~~	~~240~~	~~DU~~	EXPIRED
H16	Tres Cerritos East (SPA 06-1)	Single Family Residential	775	DU	
H17	Page Ranch Elementary School	Elementary School	750	STU	
H18	Freedom Middle School	Middle School	1500	STU	
H19	TR32352 > CITY OF SAN JACINTO	Single Family Residential	153	DU	
H20	St. Deminia Center (CUP ~~07-16~~) 05-01	Commercial	33.48	TSF	
H21	Stetson Crossing (SP 07-4)	Commercial	189.00	TSF	
H22	Nelson (SDR 06-28)	Industrial	16.20	TSF	
~~H23~~	~~VTTM 31165 Young Homes~~	~~Single Family Residential~~	~~213~~	~~DU~~	EXPIRED
H24	McSweeny TTM 33824 (Map 05-10)	Single Family Residential	238	DU	
H25	McSweeny TTM 33825 (Map 05-11)	Single Family Residential	259	DU	
H26	McSweeny TTM 34660	Single Family Residential	396	DU	
H27	McSweeny TTM 34661	Single Family Residential	427	DU	
H28	McSweeny TTM 34662	Single Family Residential	11	DU	
~~H29~~	~~McSweeny TTM 32717~~	~~Single Family Residential~~	~~310~~	~~DU~~	COMPLETED
H30	Acacia Gardens Expansion (CUP 06-5)	Multi-Family Residential	50	DU	
H31	Cawston Plaza (CUP 07-26)	Commercial	21.00	TSF	
H32	Scripps West (CUP 08-14)	Commercial	5.30	TSF	
H33	Hemet Medical (CUP 07-24)(TPM 35701)	Medical Office	126.00 (50.00 Built)	TSF	
H34	Hemet 63 (ZC 05-04)	Commercial	260.00	TSF	
H35	JAKS LLC (ZC 04-13)	Commercial	170.00	TSF	

H5 ~~H36~~ TTM35990 CORWIN RANCH SFR 12 DU
H12 ~~H37~~ Zanderson Plaza (CUP16-006 + TPM37196) COMM 68 TSF
H15 ~~H38~~ TM 24147-1 Hideaway SFR 71 DU
H19 ~~H39~~ TM31976 Hideaway SFR 121 DU
H22 ~~H40~~ CUP17-002 Crossroads comm 1 TSF
H29 ~~H41~~ Santa Re Pointe SDR15-001 MFR 241 DU

URBAN CROSSROADS

Cumulative Development Project List

#	Name	Land Use	Quantity	Units[1]
City of San Jacinto				
SJ1	TR22665 (50% Occupied)	Single Family Residential	75	DU
SJ2	TR30034 (SP 1-01)	Single Family Residential	50	DU
	TR30035 (SP 1-01)	Single Family Residential	74	DU
	TR30036 (SP 1-01)	Single Family Residential	104	DU
	TR30084 (SP 1-01)- Under Construction	Single Family Residential	111	DU
	TR30090 (SP 1-01)	Single Family Residential	5	DU
SJ3	TR30481	Single Family Residential	30	DU
SJ4	TR30597	Single Family Residential	116	DU
SJ5	TR30659	Single Family Residential	64	DU
SJ6	TR30878	Single Family Residential	18	DU
SJ7	TR30944	Single Family Residential	14	DU
SJ8	TR31037	Single Family Residential	263	DU
SJ9	TR31154	Single Family Residential	88	DU
SJ10	TR31294	Single Family Residential	37	DU
SJ11	VTR31384	Single Family Residential	91	DU
SJ12	TR33546	Single Family Residential	5	DU
SJ13	TR31886 - Under Construction	Single Family Residential	321	DU
SJ14	TR30598 (SP 1-03)	Single Family Residential	580	DU
SJ15	TR31929	Single Family Residential	78	DU
SJ16	TR32247	Single Family Residential	150	DU
SJ17	TR32955 (SP1-02)	Single Family Residential	613	DU
SJ18	TR32555	Single Family Residential	12	DU
SJ19	TR33420A1	Single Family Residential	108	DU
SJ20	Future Schools (Middle / Elementary)	School	1200	STU
SJ21	PM35626	Shopping Center	195.74	TSF
		Apartments	150	DU
SJ22	PM33196 San Jacinto Retail Center	Drive-In Bank	4.7	TSF
		Fast-Food w/ Drive Thru	3.45	TSF
County of Riverside				
RC1	K-1 Speed Outdoor Kart Track	Outdoor Kart Track	86.882	TSF
RC2	CUP03479	Gas Station	8	VFP
		Fast-Food w/ Drive Thru	1.500	TSF
RC3	PM33564	SFDR	4	DU
RC4	Emerald Acres Specific Plan SP00381	Single Family Residential	432	DU
RC5	TR35017	SFDR	44	DU
RC6	PP22849 (Jack-In-The-Box)	Fast-Food w/ Drive Thru	2.783	TSF
RC7	TR34129	SFDR	197	DU
RC8	TR31537	SFDR	726	DU
RC9	TR32237	SFDR	98	DU
RC10	TR32248	SFDR	86	DU
RC11	TR31076	SFDR	16	DU
RC12	TR34130	SFDR	384	DU
RC13	TR34677	SFDR	422	DU
	TR31100	SFDR	243	DU
	TR32391	SFDR	127	DU
	TR33448	SFDR	31	DU
	TR31101	SFDR	160	DU
	TR31099	SFDR	207	DU
	TR32282	SFDR	625	DU

Cumulative Development Project List

#	Name	Land Use	Quantity	Units[1]
RC14	TR36478	Condos	150	DU
	TR36480	Condos	138	DU
	PP25219	Apartments	180	DU
RC15	CUP03579	Restaurant	5.606	TSF
		Retail	8.764	TSF
		Gas Station w/ Convenience Store	3.031	TSF
RC16	TR36504	SFDR	562	DU
RC17	CUP01190	Mobile Home Park	60	SPACES
RC18	TR36711	Condos	102	DU
	TR36365	SFDR	224	DU
	TR33450	SFDR	57	DU
	TR33225	SFDR	14	DU
	TR31857	SFDR	140	DU
	TR31858	SFDR	185	DU
	TR36430	SFDR	340	DU
		Elementary School	600	STU

[1] DU = Dwelling Units; STU = Students; TSF = Thousand Square Feet; BEDS = Occupied Beds

Legend:

- Approximate Cumulative Project Location
- Project Location

Exhibit 8:
Cumulative Project Map

BAW-16-004 River Oaks Ranch Traffic Analysis

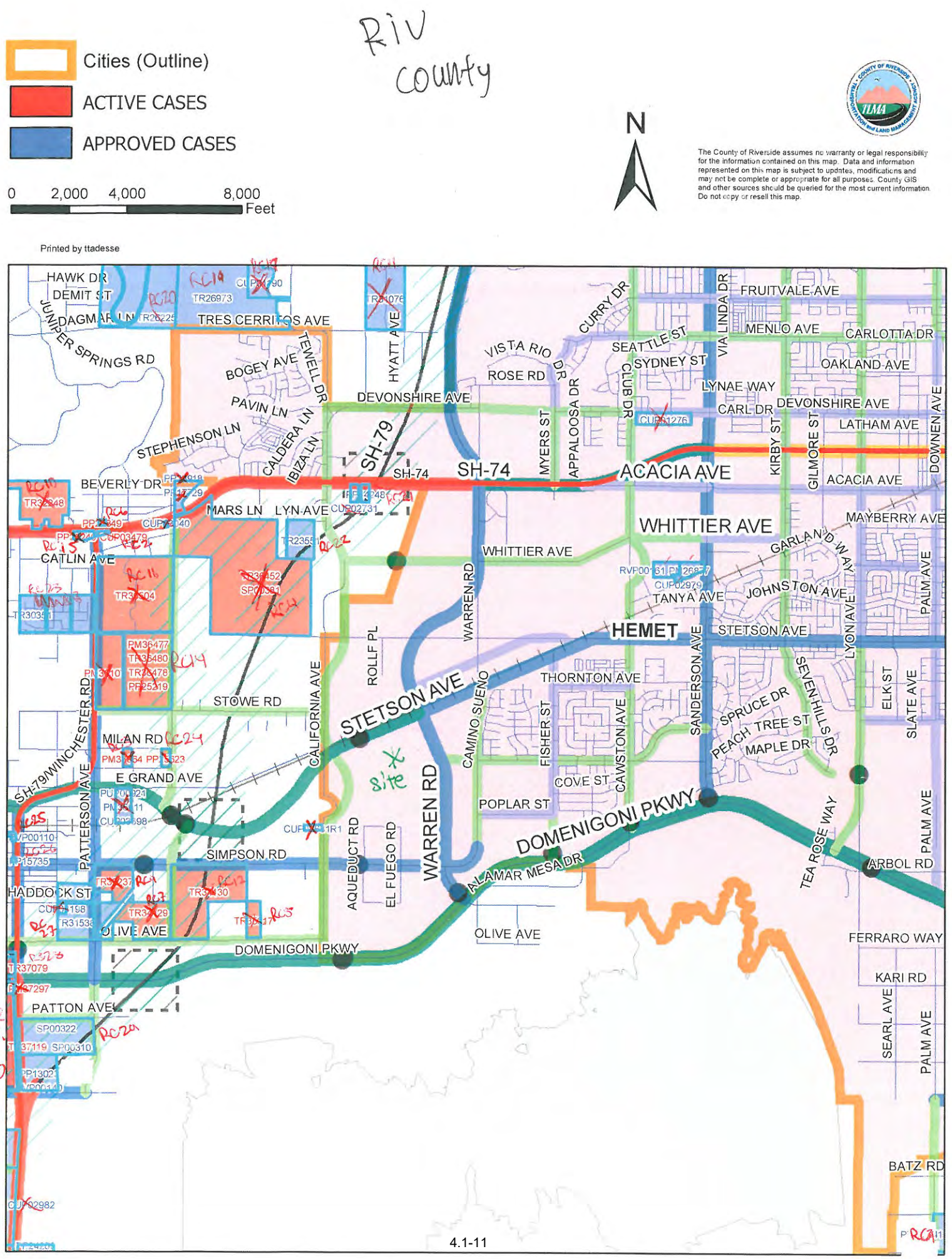
Not to Scale

Traffic Engineering & Transportation Planning Consultants - 6 Venture, Suite 265 - Irvine, CA 92618 - P: (949) 878-3589 - F: (949) 878-3593 - www.tjwengineering.com

Table 9
Summary of Cumulative Projects

#	Project Name/Description	Land Use	Quantity
~~1~~	Les Schwab Tire Store	Automotive Retail	11.97 TSF
~~2~~	Taco Bell (CUP16-004)	Fast Food Restaurant	2.09 TSF
~~3~~	TTM 33858	Single-Family Detached	37 DU
~~4~~	TTM 34712	Multi-Family Residential	40 DU
~~5~~	Gas Station NWC Stanford/Florida (CUP15-005) 10 pumps added	Service Station	6 pumps
~~6~~	Downtown Hemet Specific Plan	Various	Various
~~7~~	TM25225 (Copenhagen	~~Residential~~ MFR	~~Not Specified~~ 3 FOURPLEXES BUILT. CONVERSION TO ACREAGE ON REMAINER W/ 40 APTS
~~8~~	TTM36929	Single-Family Detached	21 DU
~~9~~	~~TTM 36841~~	~~Single-Family Detached~~	~~585~~ 635 DU
~~10~~	TTM 37087	Single-Family Detached	20 DU
~~11~~	Circle K (CUP16-005)	Gas Stn w/ Conv. Store & Car Wash	~~Not Specified~~ 5.8 TSF + 20 pumps
~~12~~	~~Skilled Nursing Facility~~ Project	~~Skilled Nursing Facility~~ Assisted Living Facility (Application Phase)	43.75 TSF 64.38 TSF
~~13~~	~~SandFruit Shopping Center~~	~~Shopping Center~~	~~92.0 TSF~~
~~14~~	~~Hemet Metals & Alloys, LLC~~	~~Industrial~~	~~29.36 TSF~~
~~15~~	~~Hallmark Apartments~~	~~Multi-Family Residential~~	~~33 DU~~
~~16~~	Clinica de Salud (SDR16-003)	Medical office	13.0 TSF
~~17~~	All For Show (CUP16-002)	Retail	3.02 TSF
~~18~~	~~CVS Pharmacy~~	~~Pharmacy~~	~~Not Specified~~
19	Gas Station Expansions Mart remodel	Gas Station Convenience Store	6 pumps 3.2 TSF
20	KPC Towne Center (SDR15-004)	Shopping Center	124.88 TSF
~~21~~	~~Stoney Mountain – Sundance III~~	~~Single-Family Detached~~	~~92 DU~~ — included on your list already
22	TTM 36924	Single-Family Detached	58 DU

Note: TSF = thousand square feet, DU = Dwelling Unit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county
Cities (Outline)
ACTIVE CASES
APPROVED CASES
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Feet
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JUNIPER SPRINGS RD
TRES CERRITOS AVE
BOGEY AVE
TEWELL DR
HYATT AVE
PAVIN LN
DEVONSHIRE AVE
STEPHENSON LN
CALDERA LN
IBIZA LN
SH-79
SH-74
BEVERLY DR
MARS LN
LYN AVE
CATLIN AVE
WARREN RD
WHITTIER AVE
ROLLF PL
CALIFORNIA AVE
STOWE RD
MILAN RD
E GRAND AVE
SH-79/WINCHESTER RD
PATTERSON AVE
SIMPSON RD
HADDOCK ST
OLIVE AVE
DOMENIGONI PKWY
PATTON AVE
AQUEDUCT RD
EL FUEGO RD
STETSON AVE
CAMINO SUENO
FISHER ST
CAWSTON AVE
COVE ST
POPLAR ST
ALAMAR MESA DR
OLIVE AVE
SANDERSON AVE
THORNTON AVE
SPRUCE DR
PEACH TREE ST
MAPLE DR
SEVEN HILLS DR
HEMET
STETSON AVE
TANYA AVE
JOHNSTON AVE
GARLAND WAY
MAYBERRY AVE
LYON AVE
PALM AVE
ELK ST
SLATE AVE
TEA ROSE WAY
ARBOL RD
FERRARO WAY
KARI RD
SEARL AVE
BATZ RD
ACACIA AVE
KIRBY ST
GILMORE ST
DOWNEN AVE
LATHAM AVE
DEVONSHIRE AVE
CARL DR
LYNAE WAY
OAKLAND AVE
CARLOTTA DR
MENLO AVE
FRUITVALE AVE
VIA LINDA DR
SEATTLE ST
SYDNEY ST
CURRY DR
VISTA RIO DR
ROSE RD
CLUB DR
APPALOOSA DR
MYERS ST
site
CUP01276
CUP02731
CUP02979
CUP03479
CUP02982
TR26973
TR26225
TR31076
TR32648
TR23552
TR31504
TR30351
TR36452
SP00381
PM36477
TR36480
TR36478
PP25319
PM37410
PM36464
PP25323
PM36511
TR37079
TR37297
SP00322
SP00310
TR37119
PP13021
TR31237
TR31430
TR31529
TR31536
TR30417
TR31536
PP15735
VP00110
RC1
RC2
RC3
RC4
RC5
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RC7
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RC10
RC11
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RC38
RC39
RC40
RC41

Approved Cases as of 09/06/2017

CASE NAME	STATUS	APPLIED DATE	APPROVAL DATE	EXPIRED DATE
CASE DESCRIPTION				
CUP01190	APPROVED	02/14/2008	0	NA
PROPOSAL FOR 60 SPACE MOBILE HOME PARK				
CUP01276	APPROVED	02/11/2008	0	NA
CUP01782	APPROVED	01/30/2008	0	12/22/1975
PROPOSAL FOR A PRODUCE MARKET				
CUP02130R1	APPROVED	10/16/2003	0	NA
CONV EX HARDWARE STORE TO GARDEN FOUNTAIN STORE				
CUP02631R1	APPROVED	07/22/2003	20041102	09/22/2024
RECREATIONAL FISH POND				
CUP02731	APPROVED	12/22/2000	19840925	08/27/2010
MOBILE HOME SALES AREA				
CUP02979	APPROVED	12/08/2000	0	NA
2.39AC OPEN STORAGE AREA DELETE SERVICE BLDG				
CUP02982	APPROVED	12/08/2000	0	09/28/2008
DAIRY FARM				
CUP03040	APPROVED	12/26/2000	0	NA
CUP03198	APPROVED	05/03/1994	19941213	12/12/1996
VFW POST				
CUP03294	APPROVED	07/26/1999	20010227	02/27/2004
CONV STORE/BEER & WINE/GAS STA/CANOPY/CAR W/RRAUNT				
CUP03421	APPROVED	01/14/2004	20040914	NA
SWAP MEET				
CUP03579	APPROVED	01/03/2008	20100602	06/02/2015
DEV 2 RESTUARANTS/RETAIL/GAS STATION W/CONV STORE				
CUP03662	APPROVED	01/18/2011	20110216	02/16/2013
EXTEND THE LIFE OF CUP03421 FOR 10 YRS TO 2/16/21				
CUP03698	APPROVED	11/19/2013	20141021	12/01/2044
1.25 MW AC SOLAR PV ELECTRIC GENERATING FACILITY				
PM20877	APPROVED	03/07/1991	19920922	09/22/1998
SUBDIVIDE 9.42 ACRES INTO 16 LOTS				
PM28605	APPROVED	08/19/1997	19980127	01/26/2002
DIVISION OF 222 AC INTO 7 PARCELS AND REMAINDER				
PM29141	APPROVED	01/27/1999	20000711	NA
SUBDIVIDE 20 ACRES INTO 2 RES. LOTS W/ 10 AC. MIN.				
PM36611	APPROVED	11/19/2013	20140609	06/09/2017
SCHEDULE H TO SUBDIVIDE ONE (1) PARCEL INTO FOUR				
PP13023	APPROVED	11/01/1991	19940110	01/10/1996
7,360 S.F. BLDG/ARTS,CURIO,CRAFTS SHOP				
PP14248	APPROVED	03/29/1995	19951113	11/13/1997
DEVELOP AN AUTO PARTS AND SUPPLY STORE				
PP15735	APPROVED	11/05/1998	19990329	NA
REMODEL EXISTING HOUSE INTO TAKE-OUT RESTAURANT				

CASE NAME	STATUS	APPLIED DATE	APPROVAL DATE	EXPIRED DATE
CASE DESCRIPTION				
PP17729	APPROVED	03/13/2002	20030714	NA
62' MONO-PALM & UNMANNED SHELTER (VERIZON)				
PP24289	APPROVED	10/28/2009	20110425	04/25/2013
70'MONOPINE 18 PANEL ANTENNAS,EQUIP SHELTER				
PP24918	APPROVED	04/07/2011	20120326	03/26/2014
70 FT MONOPALM/4 ANTS/1 MICRO/4 RADIO CABINETS				
PUP00921	APPROVED	11/19/2013	20141021	NA
FOR PURPOSES OF CONNECTING TO EXISTING TRANSMISS				
RVP00110	APPROVED	05/20/1993	19940727	07/26/1996
RVP TO PP 11686 - ADD A SINGLE STORY, 2,475 SF EAT				
RVP00140	APPROVED	06/01/1994	19950925	09/25/1997
RVP TO PP 13023 - CHANGE ONE STRUCTURE INTO THREE				
RVP00161	APPROVED	04/27/1995	19950905	09/05/1997
RVP TO CUP 2979 - ADDN OF AREA, DEL. SERVICE BLDG				
SP00288	APPROVED	11/20/1990	19970429	10/15/2011
SPECIFIC PLAN ON 230 ACRES IN WINCHESTER AREA				
SP00288A2	TENTAPPR	11/23/2011	20131210	NA
REVISED BOUNDARIES AND LAND USES FROM SP00288				
SP00310	APPROVED	05/05/1998	20041214	NA
SPECIFIC PLAN OF LAND USE				
SP00322	APPROVED	04/07/2000	20020625	NA
MIXED COMML/MIXED DENSITY RES/PARK/OPEN SPACE				
TR23551	APPROVED	12/09/1988	19900116	01/16/1996
DIVIDE 24 ACRES INTO 38 LOTS				
TR26225	APPROVED	06/01/1990	19911126	11/26/1997
DIVIDE APPROX 311 ACRES INTO 46 PARCELS				
TR26973	APPROVED	12/30/1991	19950801	08/01/2004
SUBDIVIDE 182.13 ACRES INTO 43 LOTS				
TR30351	APPROVED	08/28/2001	20030128	01/28/2007
SUBDIVIDE 80 ACRES INTO 273 SINGLE FAMILY RESIDENC				
TR31076	APPROVED	02/18/2003	20040203	NA
SCH "D" SUBDIVISION OF 78.33 AC INTO (16) 5AC LOTS				
TR31538	APPROVED	07/02/2003	20050215	02/15/2008
SUBDIVIDE 74.64 ACRES INTO 257 SFR LOTS-7200 MIN				

Active Cases as of 9/6/2017

CASE NAME	STATUS	APPLIED DATE	APPROVAL DATE	EXPIRED DATE
CASE DESCRIPTION				
CUP03479	DRT	20051118	0	20000000
PROPOSED CONVENIENCE STORE/FAST FOOD/DR THRU/GAS				
CUP03769	APPLIED	20170306	0	0
CUP FOR 2 FAST FOOD DRIVE THRU RESTAURANTS				
CUP03770	APPLIED	20170313	0	0
24 HOUR SERVICE STATION W/CAR WASH AND RETAIL SALE				
PM33564	APPLIED	20051128	0	0
SUBDIVIDE 4.27 ACRES INTO 4 (FOUR) PARCELS				
PM36107	DRT	20100721	0	20000000
1 LOT PM W/REMAINDER LOT - SCH I				
PM36477	DRT	20120913	0	0
SCHED H SUBD OF 99 AC INTO 3 PARCELS, 1 REMAINDER				
PM36545	DRT	20151026	0	20000000
SCH E PARCEL MAP WITH 13 COM LT/2 RES LT/REMAINDER				
PM37297	APPLIED	20170419	0	0
COMMERCIAL PM-SUBDIVIDE INTO 4 COMMERCIAL LOTS				
PP22849	DRT	20070611	0	20000000
JACK-IN-THE-BOX RESTAURANT W/ DRIVE THRU				
PP25219	DRT	20120913	0	0
PROPOSAL FOR 180 APT UNITS WITHIN 10 BLDGS				
PP25623	DRT	20140702	0	0
CLASS III DOG KENNEL (26-40 DOGS) WITH A PRIVATE T				
PP26240	APPLIED	20170404	0	0
PLOT PLAN FOR 2 FAST FOOD DRIVE THRU RESTAURANTS				
SP00381	DRT	20120402	0	0
334.2 AC SPECIFIC PLAN FOR EMERALD ACRES				
TR32237	DRT	20040331	0	20000000
SUBDIVIDE 32.21 ACRES INTO 98 SFR LOTS, ONE DETENT				
TR32248	DRT	20050119	0	0
SUBDIVIDE 60.6 AC INTO 86 SFR AND OPEN SPACE				
TR34129	DRT	20060314	0	20000000
SCHED A DIVISION OF 61.9 AC INTO 197 LOTS				
TR34130	DRT	20060315	0	20000000
SCHED. "A" DIVISION OF 120.6 AC. INTO 384 SFR LOTS				
TR35017	DRT	20080229	0	20000000
DIVIDE 15 ACRES INTO 44 RES. LOTS				
TR36452	DRT	20120418	0	20000000
SCHD A,334.2 AC INTO 432 RES LOTS,31 OS,2 PUBL UTL				
TR36478	DRT	20120913	0	0
PROPOSAL FOR 150 UNIT CONDOMINIUMS - SCHEDULE A				
TR36480	DRT	20120913	0	0
PROPOSAL FOR 138 CONDOMINIUM UNITS - SCHEDULE A				
TR36504	DRT	20120917	0	20000000
SCHED A SUBDIVISION OF 162 ACRES INTO 562 SFR LOTS				

CASE NAME	STATUS	APPLIED DATE	APPROVAL DATE	EXPIRED DATE
CASE DESCRIPTION				
RC28 TR37079	DRT	20160210	0	0
SCHED A-2 RES LOTS, 13 COMML LOTS, 2 WATER BASINS				
RC24 TR37119	DRT	20160525	0	0
SCHED. A SUBDIVISION OF 159 AC. INTO 443 RES LOTS.				

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APPENDIX 4.2:

POST PROCESSING WORKSHEETS

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Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: Winchester Road (SR-79) / Florida Avenue (SR-74)
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	81	212	131	162%	118	580	462	392%
	Through	9	18	9	100%	6	108	102	1700%
	Right	286	185	-101	-35%	410	471	61	15%
	NB Total	376	415	39	10%	534	1,159	625	117%
SOUTH BOUND	Left	16	89	73	456%	14	18	4	29%
	Through	25	333	308	1232%	16	40	24	150%
	Right	0	0	0	#DIV/0!	4	22	18	450%
	SB Total	41	422	381	929%	34	80	46	135%
EAST BOUND	Left	11	75	64	582%	13	260	247	1900%
	Through	692	1,536	844	122%	931	1,184	253	27%
	Right	87	464	377	433%	93	235	142	153%
	EB Total	790	2,075	1,285	163%	1,037	1,679	642	62%
WEST BOUND	Left	325	263	-62	-19%	345	315	-30	-9%
	Through	673	918	245	36%	773	1,522	749	97%
	Right	26	27	1	4%	35	253	218	623%
	WB Total	1,024	1,208	184	18%	1,153	2,090	937	81%
TOTAL ENTERING VOLUME		2,231	4,120	1889	85%	2,758	5,008	2250	82%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	422	80			
North Leg	Outbound	120	621			
North Leg	**TOTAL**	**542**	**701**	**3%**	**4%**	**16,820**
South Leg	Inbound	415	1,159			
South Leg	Outbound	1,060	590			
South Leg	**TOTAL**	**1,475**	**1,749**	**6%**	**7%**	**23,712**
East Leg	Inbound	1,208	2,090			
East Leg	Outbound	1,810	1,673			
East Leg	**TOTAL**	**3,018**	**3,763**	**5%**	**6%**	**65,122**
West Leg	Inbound	2,075	1,679			
West Leg	Outbound	1,130	2,124			
West Leg	**TOTAL**	**3,205**	**3,803**	**5%**	**6%**	**67,091**
OVERALL TOTAL		***8,240***	***10,016***	**5%**	***6%***	***172,745***

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Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: Winchester Road (SR-79) / 9th Street
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	306	305	30500%	1	801	800	80000%
	Through	2	162	160	8000%	2	140	138	6900%
	Right	1	342	341	34100%	1	201	200	20000%
	NB Total	4	810	806	20150%	4	1,142	1,138	28450%
SOUTH BOUND	Left	1	112	111	11100%	1	77	76	7600%
	Through	2	128	126	6300%	2	186	184	9200%
	Right	1	100	99	9900%	1	308	307	30700%
	SB Total	4	340	336	8400%	4	571	567	14175%
EAST BOUND	Left	1	299	298	29800%	1	144	143	14300%
	Through	1	1,256	1,255	125500%	1	412	411	41100%
	Right	1	715	714	71400%	1	496	495	49500%
	EB Total	3	2,270	2,267	75567%	3	1,052	1,049	34967%
WEST BOUND	Left	1	117	116	11600%	1	398	397	39700%
	Through	1	184	183	18300%	1	1,320	1,319	131900%
	Right	1	49	48	4800%	1	116	115	11500%
	WB Total	3	350	347	11567%	3	1,834	1,831	61033%
TOTAL ENTERING VOLUME		14	3,770	3756	26829%	14	4,599	4585	32750%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	340	571			
North Leg	Outbound	510	400			
North Leg	**TOTAL**	**850**	**971**	**3%**	**3%**	**28,849**
South Leg	Inbound	810	1,142			
South Leg	Outbound	960	1,080			
South Leg	**TOTAL**	**1,770**	**2,222**	**7%**	**9%**	**23,879**
East Leg	Inbound	350	1,834			
East Leg	Outbound	1,710	690			
East Leg	**TOTAL**	**2,060**	**2,524**	**9%**	**11%**	**22,206**
West Leg	Inbound	2,270	1,052			
West Leg	Outbound	590	2,429			
West Leg	**TOTAL**	**2,860**	**3,481**	**8%**	**10%**	**35,845**
OVERALL TOTAL		***7,540***	***9,198***	***7%***	***8%***	***110,779***

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Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: Winchester Road (SR-79) / Simpson Road
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	24	3	-21	-88%	54	22	-32	-59%
	Through	262	175	-87	-33%	554	714	160	29%
	Right	36	46	10	28%	113	91	-22	-19%
	NB Total	322	224	-98	-30%	721	827	106	15%
SOUTH BOUND	Left	17	316	299	1759%	18	181	163	906%
	Through	458	551	93	20%	376	294	-82	-22%
	Right	100	154	54	54%	82	416	334	407%
	SB Total	575	1,021	446	78%	476	891	415	87%
EAST BOUND	Left	87	236	149	171%	49	115	66	135%
	Through	117	603	486	415%	114	167	53	46%
	Right	51	17	-34	-67%	49	6	-43	-88%
	EB Total	255	856	601	236%	212	288	76	36%
WEST BOUND	Left	82	50	-32	-39%	53	30	-23	-43%
	Through	120	95	-25	-21%	93	342	249	268%
	Right	29	145	116	400%	31	361	330	1065%
	WB Total	231	290	59	26%	177	733	556	314%
TOTAL ENTERING VOLUME		1,383	2,391	1008	73%	1,586	2,739	1153	73%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,021	891			
North Leg	Outbound	556	1,190			
North Leg	**TOTAL**	**1,577**	**2,081**	**6%**	**8%**	**24,560**
South Leg	Inbound	224	827			
South Leg	Outbound	618	330			
South Leg	**TOTAL**	**842**	**1,157**	**10%**	**13%**	**8,643**
East Leg	Inbound	290	733			
East Leg	Outbound	965	439			
East Leg	**TOTAL**	**1,255**	**1,172**	**7%**	**6%**	**18,832**
West Leg	Inbound	856	288			
West Leg	Outbound	252	780			
West Leg	**TOTAL**	**1,108**	**1,068**	**8%**	**8%**	**13,261**
OVERALL TOTAL		***4,782***	***5,478***	***7%***	***8%***	***65,296***

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Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: Winchester Road (SR-79) / Domenigoni Parkway
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	36	25	-11	-31%	68	43	-25	-37%
	Through	221	124	-97	-44%	524	552	28	5%
	Right	568	541	-27	-5%	911	819	-92	-10%
	NB Total	825	690	-135	-16%	1,503	1,414	-89	-6%
SOUTH BOUND	Left	13	22	9	69%	12	18	6	50%
	Through	419	390	-29	-7%	289	137	-152	-53%
	Right	158	192	34	22%	142	146	4	3%
	SB Total	590	604	14	2%	443	301	-142	-32%
EAST BOUND	Left	112	114	2	2%	187	210	23	12%
	Through	789	1,367	578	73%	756	723	-33	-4%
	Right	62	60	-2	-3%	58	18	-40	-69%
	EB Total	963	1,541	578	60%	1,001	951	-50	-5%
WEST BOUND	Left	710	470	-240	-34%	606	506	-100	-17%
	Through	779	673	-106	-14%	807	1,464	657	81%
	Right	18	13	-5	-28%	18	55	37	206%
	WB Total	1,507	1,156	-351	-23%	1,431	2,025	594	42%
TOTAL ENTERING VOLUME		3,885	3,991	106	3%	4,378	4,691	313	7%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	604	301			
North Leg	Outbound	251	817			
North Leg	**TOTAL**	**855**	**1,118**	**10%**	**12%**	**8,958**
South Leg	Inbound	690	1,414			
South Leg	Outbound	920	661			
South Leg	**TOTAL**	**1,610**	**2,075**	**21%**	**27%**	**7,774**
East Leg	Inbound	1,156	2,025			
East Leg	Outbound	1,930	1,560			
East Leg	**TOTAL**	**3,086**	**3,585**	**12%**	**14%**	**25,148**
West Leg	Inbound	1,541	951			
West Leg	Outbound	890	1,653			
West Leg	**TOTAL**	**2,431**	**2,604**	**10%**	**11%**	**23,291**
OVERALL TOTAL		***7,982***	***9,382***	**12%**	***14%***	***65,171***

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Project: Rancho Diamante
Scenario: Horizon Year WP

Job #: 09702
Analyst: RV
Date: 09/27/17

LOCATION: Patterson Avenue / Grand Avenue
FORECAST YEAR: 2040

APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA EXISTING COUNT	AM FUTURE VOLUME	AM DIFF-ERENCE	AM % CHANGE	PM PEAK HOUR INPUT DATA EXISTING COUNT	PM FUTURE VOLUME	PM DIFF-ERENCE	PM % CHANGE
NORTH BOUND	Left	1	19	18	1800%	1	98	97	9700%
	Through	2	84	82	4100%	2	222	220	11000%
	Right	1	208	207	20700%	1	297	296	29600%
	NB Total	4	311	307	7675%	4	617	613	15325%
SOUTH BOUND	Left	1	446	445	44500%	1	256	255	25500%
	Through	2	206	204	10200%	2	136	134	6700%
	Right	1	40	39	3900%	1	84	83	8300%
	SB Total	4	692	688	17200%	4	476	472	11800%
EAST BOUND	Left	1	71	70	7000%	1	51	50	5000%
	Through	2	1,566	1,564	78200%	2	617	615	30750%
	Right	1	80	79	7900%	1	37	36	3600%
	EB Total	4	1,717	1,713	42825%	4	705	701	17525%
WEST BOUND	Left	1	164	163	16300%	1	297	296	29600%
	Through	2	291	289	14450%	2	1,648	1,646	82300%
	Right	1	145	144	14400%	1	416	415	41500%
	WB Total	4	600	596	14900%	4	2,361	2,357	58925%
TOTAL ENTERING VOLUME		16	3,320	3304	20650%	16	4,159	4143	25894%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES AM	VOLUMES PM	PERCENT OF ADT AM	PERCENT OF ADT PM	ADT
North Leg	Inbound	692	476			
North Leg	Outbound	300	689			
North Leg	**TOTAL**	**992**	**1,165**	**6%**	**8%**	**15,354**
South Leg	Inbound	311	617			
South Leg	Outbound	450	470			
South Leg	**TOTAL**	**761**	**1,087**	**6%**	**9%**	**12,774**
East Leg	Inbound	600	2,361			
East Leg	Outbound	2,220	1,170			
East Leg	**TOTAL**	**2,820**	**3,531**	**8%**	**11%**	**33,431**
West Leg	Inbound	1,717	705			
West Leg	Outbound	350	1,830			
West Leg	**TOTAL**	**2,067**	**2,535**	**9%**	**11%**	**22,206**
OVERALL TOTAL		***6,640***	***8,318***	**8%**	***10%***	***83,765***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[5 Patterson_Grand.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year WP	Analyst:	RV
		Date:	09/27/17

LOCATION: Patterson Avenue / Domenigoni Parkway
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	27	26	2600%	1	253	252	25200%
	Through	1	78	77	7700%	1	280	279	27900%
	Right	1	396	395	39500%	1	756	755	75500%
	NB Total	3	501	498	16600%	3	1,289	1,286	42867%
SOUTH BOUND	Left	1	124	123	12300%	1	163	162	16200%
	Through	1	117	116	11600%	1	184	183	18300%
	Right	1	8	7	700%	1	54	53	5300%
	SB Total	3	249	246	8200%	3	401	398	13267%
EAST BOUND	Left	1	39	38	3800%	1	31	30	3000%
	Through	2	1,799	1,797	89850%	2	762	760	38000%
	Right	1	187	186	18600%	1	96	95	9500%
	EB Total	4	2,025	2,021	50525%	4	889	885	22125%
WEST BOUND	Left	1	496	495	49500%	1	700	699	69900%
	Through	2	324	322	16100%	2	1,863	1,861	93050%
	Right	1	103	102	10200%	1	229	228	22800%
	WB Total	4	923	919	22975%	4	2,792	2,788	69700%
TOTAL ENTERING VOLUME		14	3,698	3684	26314%	14	5,371	5357	38264%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	249	401			
North Leg	Outbound	220	540			
North Leg	**TOTAL**	**469**	**941**	**5%**	**10%**	**9,284**
South Leg	Inbound	501	1,289			
South Leg	Outbound	800	980			
South Leg	**TOTAL**	**1,301**	**2,269**	**5%**	**9%**	**24,704**
East Leg	Inbound	923	2,792			
East Leg	Outbound	2,319	1,681			
East Leg	**TOTAL**	**3,242**	**4,473**	**8%**	**11%**	**41,410**
West Leg	Inbound	2,025	889			
West Leg	Outbound	359	2,170			
West Leg	**TOTAL**	**2,384**	**3,059**	**9%**	**12%**	**25,148**
OVERALL TOTAL		***7,396***	***10,742***	**7%**	***11%***	***100,546***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[6 Patterson_Domenigoni.xls]Output (3)

Project: Rancho Diamante
Scenario: Horizon Year With Project

Job #: 09702
Analyst: RV
Date: 09/27/17

LOCATION: Calvert Avenue / Grand Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	170	169	16900%	1	470	469	46900%
	Through	1	22	21	2100%	1	103	102	10200%
	Right	1	80	79	7900%	1	94	93	9300%
	NB Total	3	272	269	8967%	3	667	664	22133%
SOUTH BOUND	Left	1	35	34	3400%	1	17	16	1600%
	Through	1	110	109	10900%	1	40	39	3900%
	Right	1	75	74	7400%	1	83	82	8200%
	SB Total	3	220	217	7233%	3	140	137	4567%
EAST BOUND	Left	1	38	37	3700%	1	132	131	13100%
	Through	2	1,244	1,242	62100%	2	1,089	1,087	54350%
	Right	1	429	428	42800%	1	293	292	29200%
	EB Total	4	1,711	1,707	42675%	4	1,514	1,510	37750%
WEST BOUND	Left	1	121	120	12000%	1	77	76	7600%
	Through	2	744	742	37100%	2	1,427	1,425	71250%
	Right	1	11	10	1000%	1	35	34	3400%
	WB Total	4	876	872	21800%	4	1,539	1,535	38375%
TOTAL ENTERING VOLUME		14	3,079	3065	21893%	14	3,860	3846	27471%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	220	140			
North Leg	Outbound	71	270			
North Leg	**TOTAL**	**291**	**410**	**6%**	**8%**	**4,949**
South Leg	Inbound	272	667			
South Leg	Outbound	660	410			
South Leg	**TOTAL**	**932**	**1,077**	**7%**	**8%**	**12,700**
East Leg	Inbound	876	1,539			
East Leg	Outbound	1,359	1,200			
East Leg	**TOTAL**	**2,235**	**2,739**	**22%**	**27%**	**10,000**
West Leg	Inbound	1,711	1,514			
West Leg	Outbound	989	1,980			
West Leg	**TOTAL**	**2,700**	**3,494**	**8%**	**10%**	**34,807**
OVERALL TOTAL		***6,158***	***7,720***	**10%**	***12%***	***62,456***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[7 Calvert_Grand.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: SR-79 Southbound Ramps / Tres Cerritos Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	1	568	567	56700%	1	523	522	52200%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	12	11	1100%	1	9	8	800%
	SB Total	2	580	578	28900%	2	532	530	26500%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	22	20	1000%	2	7	5	250%
	Right	1	9	8	800%	1	3	2	200%
	EB Total	3	31	28	933%	3	10	7	233%
WEST BOUND	Left	1	351	350	35000%	1	427	426	42600%
	Through	2	18	16	800%	2	21	19	950%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	369	366	12200%	3	448	445	14833%
TOTAL ENTERING VOLUME		8	980	972	12150%	8	990	982	12275%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	580	532			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**580**	**532**	**11%**	**10%**	**5,413**
South Leg	Inbound	0	0			
South Leg	Outbound	360	430			
South Leg	**TOTAL**	**360**	**430**	**4%**	**5%**	**8,057**
East Leg	Inbound	369	448			
East Leg	Outbound	590	530			
East Leg	**TOTAL**	**959**	**978**	**9%**	**9%**	**10,321**
West Leg	Inbound	31	10			
West Leg	Outbound	30	30			
West Leg	**TOTAL**	**61**	**40**	**16%**	**10%**	**387**
OVERALL TOTAL		***1,960***	***1,980***	***8%***	***8%***	***24,177***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[8 SR-79 SB Ramps_Tres Cerritos.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	CHS
		Date:	03/27/18

LOCATION: SR-79 Southbound Ramps / Florida Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	1	424	423	42300%	1	368	367	36700%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	217	216	21600%	1	243	242	24200%
	SB Total	2	641	639	31950%	2	611	609	30450%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	2,101	2,099	104950%	2	1,912	1,910	95500%
	Right	1	309	308	30800%	1	328	327	32700%
	EB Total	3	2,410	2,407	80233%	3	2,240	2,237	74567%
WEST BOUND	Left	1	392	391	39100%	1	602	601	60100%
	Through	2	1,366	1,364	68200%	2	2,317	2,315	115750%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	1,758	1,755	58500%	3	2,919	2,916	97200%
TOTAL ENTERING VOLUME		8	4,809	4801	60013%	8	5,770	5762	72025%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	641	611			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**641**	**611**	**8%**	**7%**	**8,187**
South Leg	Inbound	0	0			
South Leg	Outbound	701	930			
South Leg	**TOTAL**	**701**	**930**	**6%**	**9%**	**10,884**
East Leg	Inbound	1,758	2,919			
East Leg	Outbound	2,525	2,280			
East Leg	**TOTAL**	**4,283**	**5,199**	**6%**	**8%**	**66,437**
West Leg	Inbound	2,410	2,240			
West Leg	Outbound	1,583	2,560			
West Leg	**TOTAL**	**3,993**	**4,800**	**6%**	**8%**	**61,905**
OVERALL TOTAL		***9,618***	***11,540***	***7%***	***8%***	***147,413***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[9 SR-79 SB Ramps_Florida.xls]Output (3)

Project: Rancho Diamante
Scenario: Horizon Year With Project

Job #: 09702
Analyst: RV
Date: 09/27/17

LOCATION: SR-79 Southbound Ramps / Stetson Avenue - South
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	1	459	458	45800%	1	414	413	41300%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	251	250	25000%	1	218	217	21700%
	SB Total	2	710	708	35400%	2	632	630	31500%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	1,081	1,079	53950%	2	926	924	46200%
	Right	1	281	280	28000%	1	279	278	27800%
	EB Total	3	1,362	1,359	45300%	3	1,205	1,202	40067%
WEST BOUND	Left	1	289	288	28800%	1	741	740	74000%
	Through	2	609	607	30350%	2	1,292	1,290	64500%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	898	895	29833%	3	2,033	2,030	67667%
TOTAL ENTERING VOLUME		8	2,970	2962	37025%	8	3,870	3862	48275%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	710	632			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**710**	**632**	**8%**	**7%**	**8,813**
South Leg	Inbound	0	0			
South Leg	Outbound	570	1,020			
South Leg	**TOTAL**	**570**	**1,020**	**6%**	**10%**	**9,918**
East Leg	Inbound	898	2,033			
East Leg	Outbound	1,540	1,340			
East Leg	**TOTAL**	**2,438**	**3,373**	**8%**	**11%**	**30,990**
West Leg	Inbound	1,362	1,205			
West Leg	Outbound	860	1,510			
West Leg	**TOTAL**	**2,222**	**2,715**	**7%**	**9%**	**30,426**
OVERALL TOTAL		***5,940***	***7,740***	***7%***	***10%***	***80,147***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[9 SR-79 SB Ramps_Stetson.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: SR-79 Southbound Ramps / Domenigoni Parkway
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	1	438	437	43700%	1	274	273	27300%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	182	181	18100%	1	326	325	32500%
	SB Total	2	620	618	30900%	2	600	598	29900%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	2,082	2,080	104000%	2	1,426	1,424	71200%
	Right	1	253	252	25200%	1	247	246	24600%
	EB Total	3	2,335	2,332	77733%	3	1,673	1,670	55667%
WEST BOUND	Left	1	217	216	21600%	1	363	362	36200%
	Through	2	748	746	37300%	2	2,484	2,482	124100%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	965	962	32067%	3	2,847	2,844	94800%
TOTAL ENTERING VOLUME		8	3,920	3912	48900%	8	5,120	5112	63900%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	620	600			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**620**	**600**	**8%**	**8%**	**7,807**
South Leg	Inbound	0	0			
South Leg	Outbound	470	610			
South Leg	**TOTAL**	**470**	**610**	**6%**	**8%**	**7,898**
East Leg	Inbound	965	2,847			
East Leg	Outbound	2,520	1,700			
East Leg	**TOTAL**	**3,485**	**4,547**	**8%**	**11%**	**42,820**
West Leg	Inbound	2,335	1,673			
West Leg	Outbound	930	2,810			
West Leg	**TOTAL**	**3,265**	**4,483**	**8%**	**11%**	**41,410**
OVERALL TOTAL		***7,840***	***10,240***	**8%**	***10%***	***99,935***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[10 SR-79 SB Ramps_Domenigoni.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: SR-79 Northbound Ramps / Tres Cerritos Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	93	92	9200%	1	137	136	13600%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	207	206	20600%	1	153	152	15200%
	NB Total	2	300	298	14900%	2	290	288	14400%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	1	55	54	5400%	1	213	212	21200%
	Through	2	539	537	26850%	2	317	315	15750%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	3	594	591	19700%	3	530	527	17567%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	290	288	14400%	2	333	331	16550%
	Right	1	66	65	6500%	1	247	246	24600%
	WB Total	3	356	353	11767%	3	580	577	19233%
TOTAL ENTERING VOLUME		8	1,250	1242	15525%	8	1,400	1392	17400%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	121	460			
North Leg	**TOTAL**	**121**	**460**	**3%**	**11%**	**4,015**
South Leg	Inbound	300	290			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**300**	**290**	**8%**	**7%**	**3,939**
East Leg	Inbound	356	580			
East Leg	Outbound	746	470			
East Leg	**TOTAL**	**1,102**	**1,050**	**12%**	**12%**	**8,821**
West Leg	Inbound	594	530			
West Leg	Outbound	383	470			
West Leg	**TOTAL**	**977**	**1,000**	**9%**	**10%**	**10,321**
OVERALL TOTAL		***2,500***	***2,800***	**9%**	***10%***	***27,096***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[11 SR-79 NB Ramps_Tres Cerritos.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	CHS
		Date:	03/27/18

LOCATION: SR-79 Northbound Ramps / Florida Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	260	259	25900%	1	335	334	33400%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	410	409	40900%	1	306	305	30500%
	NB Total	2	670	668	33400%	2	641	639	31950%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	1	212	211	21100%	1	366	365	36500%
	Through	2	2,330	2,328	116400%	2	1,914	1,912	95600%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	3	2,542	2,539	84633%	3	2,280	2,277	75900%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	1,520	1,518	75900%	2	2,605	2,603	130150%
	Right	1	218	217	21700%	1	454	453	45300%
	WB Total	3	1,738	1,735	57833%	3	3,059	3,056	101867%
TOTAL ENTERING VOLUME		8	4,950	4942	61775%	8	5,980	5972	74650%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	430	820			
North Leg	**TOTAL**	**430**	**820**	**5%**	**10%**	**8,122**
South Leg	Inbound	670	641			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**670**	**641**	**7%**	**7%**	**9,438**
East Leg	Inbound	1,738	3,059			
East Leg	Outbound	2,740	2,220			
East Leg	**TOTAL**	**4,478**	**5,279**	**7%**	**8%**	**68,133**
West Leg	Inbound	2,542	2,280			
West Leg	Outbound	1,780	2,940			
West Leg	**TOTAL**	**4,322**	**5,220**	**7%**	**8%**	**66,437**
OVERALL TOTAL		***9,900***	***11,960***	**7%**	***8%***	***152,130***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[13 SR-79 NB Ramps_Florida.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: SR-79 Northbound Ramps / Stetson Avenue - South
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	284	283	28300%	1	380	379	37900%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	435	434	43400%	1	270	269	26900%
	NB Total	2	719	717	35850%	2	650	648	32400%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	1	238	237	23700%	1	274	273	27300%
	Through	2	1,305	1,303	65150%	2	1,060	1,058	52900%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	3	1,543	1,540	51333%	3	1,334	1,331	44367%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	616	614	30700%	2	1,660	1,658	82900%
	Right	1	172	171	17100%	1	306	305	30500%
	WB Total	3	788	785	26167%	3	1,966	1,963	65433%
TOTAL ENTERING VOLUME		8	3,050	3042	38025%	8	3,950	3942	49275%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	410	580			
North Leg	**TOTAL**	**410**	**580**	**5%**	**7%**	**7,816**
South Leg	Inbound	719	650			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**719**	**650**	**8%**	**7%**	**9,190**
East Leg	Inbound	788	1,966			
East Leg	Outbound	1,740	1,330			
East Leg	**TOTAL**	**2,528**	**3,296**	**8%**	**10%**	**31,577**
West Leg	Inbound	1,543	1,334			
West Leg	Outbound	900	2,040			
West Leg	**TOTAL**	**2,443**	**3,374**	**8%**	**11%**	**30,990**
OVERALL TOTAL		***6,100***	***7,900***	**8%**	***10%***	***79,573***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[12 SR-79 NB Ramps_Stetson.xls]Output (3)

Project: Rancho Diamante
Scenario: Horizon Year With Project

Job #: 09702
Analyst: RV
Date: 09/27/17

LOCATION: SR-79 Northbound Ramps / Domenigoni Parkway
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	776	775	77500%	1	349	348	34800%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	89	88	8800%	1	211	210	21000%
	NB Total	2	865	863	43150%	2	560	558	27900%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	1	486	485	48500%	1	531	530	53000%
	Through	2	2,541	2,539	126950%	2	1,159	1,157	57850%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	3	3,027	3,024	100800%	3	1,690	1,687	56233%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	204	202	10100%	2	2,491	2,489	124450%
	Right	1	4	3	300%	1	689	688	68800%
	WB Total	3	208	205	6833%	3	3,180	3,177	105900%
TOTAL ENTERING VOLUME		8	4,100	4092	51150%	8	5,430	5422	67775%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	490	1,220			
North Leg	**TOTAL**	**490**	**1,220**	**5%**	**12%**	**10,360**
South Leg	Inbound	865	560			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**865**	**560**	**10%**	**7%**	**8,401**
East Leg	Inbound	208	3,180			
East Leg	Outbound	2,630	1,370			
East Leg	**TOTAL**	**2,838**	**4,550**	**7%**	**10%**	**43,387**
West Leg	Inbound	3,027	1,690			
West Leg	Outbound	980	2,840			
West Leg	**TOTAL**	**4,007**	**4,530**	**9%**	**11%**	**42,820**
OVERALL TOTAL		***8,200***	***10,860***	***8%***	***10%***	***104,968***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[13 SR-79 NB Ramps_Domenigoni.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: California Avenue / Stowe Road
FORECAST YEAR: 2040

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	94	93	9300%	1	596	595	59500%
	Through	2	365	363	18150%	2	601	599	29950%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	3	459	456	15200%	3	1,197	1,194	39800%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	360	358	17900%	2	456	454	22700%
	Right	1	16	15	1500%	1	114	113	11300%
	SB Total	3	376	373	12433%	3	570	567	18900%
EAST BOUND	Left	1	75	74	7400%	1	39	38	3800%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	430	429	42900%	1	154	153	15300%
	EB Total	2	505	503	25150%	2	193	191	9550%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
TOTAL ENTERING VOLUME		8	1,340	1332	16650%	8	1,960	1952	24400%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	376	570			
North Leg	Outbound	440	640			
North Leg	**TOTAL**	**816**	**1,210**	**7%**	**10%**	**12,191**
South Leg	Inbound	459	1,197			
South Leg	Outbound	790	610			
South Leg	**TOTAL**	**1,249**	**1,807**	**7%**	**11%**	**17,190**
East Leg	Inbound	0	0			
East Leg	Outbound	0	0			
East Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
West Leg	Inbound	505	193			
West Leg	Outbound	110	710			
West Leg	**TOTAL**	**615**	**903**	**9%**	**14%**	**6,504**
OVERALL TOTAL		***2,680***	***3,920***	**7%**	***11%***	***35,885***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[14 California_Stowe.xls]Output (3)

Project: Rancho Diamante
Scenario: Horizon Year With Project

Job #: 09702
Analyst: RV
Date: 09/27/17

LOCATION: California Avenue / New Stetson Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	25	24	2400%	1	226	225	22500%
	Through	2	84	82	4100%	2	586	584	29200%
	Right	1	101	100	10000%	1	419	418	41800%
	NB Total	4	210	206	5150%	4	1,231	1,227	30675%
SOUTH BOUND	Left	1	288	287	28700%	1	272	271	27100%
	Through	2	430	428	21400%	2	193	191	9550%
	Right	1	72	71	7100%	1	146	145	14500%
	SB Total	4	790	786	19650%	4	611	607	15175%
EAST BOUND	Left	1	128	127	12700%	1	168	167	16700%
	Through	2	1,385	1,383	69150%	2	1,082	1,080	54000%
	Right	1	230	229	22900%	1	85	84	8400%
	EB Total	4	1,743	1,739	43475%	4	1,335	1,331	33275%
WEST BOUND	Left	1	463	462	46200%	1	233	232	23200%
	Through	2	695	693	34650%	2	1,592	1,590	79500%
	Right	1	259	258	25800%	1	459	458	45800%
	WB Total	4	1,417	1,413	35325%	4	2,284	2,280	57000%
TOTAL ENTERING VOLUME		16	4,160	4144	25900%	16	5,461	5445	34031%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	790	611			
North Leg	Outbound	471	1,213			
North Leg	**TOTAL**	**1,261**	**1,824**	**7%**	**11%**	**17,190**
South Leg	Inbound	210	1,231			
South Leg	Outbound	1,123	511			
South Leg	**TOTAL**	**1,333**	**1,742**	**7%**	**9%**	**18,616**
East Leg	Inbound	1,417	2,284			
East Leg	Outbound	1,774	1,773			
East Leg	**TOTAL**	**3,191**	**4,057**	**8%**	**10%**	**41,087**
West Leg	Inbound	1,743	1,335			
West Leg	Outbound	792	1,964			
West Leg	**TOTAL**	**2,535**	**3,299**	**8%**	**10%**	**31,577**
OVERALL TOTAL		***8,320***	***10,922***	**8%**	***10%***	***108,470***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[15 California_New Stetson.xls]Output (3)

Project:	Rancho Diamante	Job #:	9702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: California Avenue / Simpson Road
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	252	251	25100%	1	19	18	1800%
	Through	2	47	45	2250%	2	30	28	1400%
	Right	1	12	11	1100%	1	1	0	0%
	NB Total	4	311	307	7675%	4	50	46	1150%
SOUTH BOUND	Left	1	49	48	4800%	1	29	28	2800%
	Through	2	59	57	2850%	2	126	124	6200%
	Right	1	1,023	1,022	102200%	1	366	365	36500%
	SB Total	4	1,131	1,127	28175%	4	521	517	12925%
EAST BOUND	Left	1	155	154	15400%	1	1,120	1,119	111900%
	Through	2	359	357	17850%	2	499	497	24850%
	Right	1	48	47	4700%	1	237	236	23600%
	EB Total	4	562	558	13950%	4	1,856	1,852	46300%
WEST BOUND	Left	1	2	1	100%	1	17	16	1600%
	Through	2	385	383	19150%	2	445	443	22150%
	Right	1	8	7	700%	1	80	79	7900%
	WB Total	4	395	391	9775%	4	542	538	13450%
TOTAL ENTERING VOLUME		16	2,399	2383	14894%	16	2,969	2953	18456%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,131	521			
North Leg	Outbound	210	1,230			
North Leg	**TOTAL**	**1,341**	**1,751**	**7%**	**9%**	**18,616**
South Leg	Inbound	311	50			
South Leg	Outbound	109	380			
South Leg	**TOTAL**	**420**	**430**	**8%**	**8%**	**5,425**
East Leg	Inbound	395	542			
East Leg	Outbound	420	529			
East Leg	**TOTAL**	**815**	**1,071**	**7%**	**9%**	**11,643**
West Leg	Inbound	562	1,856			
West Leg	Outbound	1,660	830			
West Leg	**TOTAL**	**2,222**	**2,686**	**7%**	**8%**	**32,386**
OVERALL TOTAL		***4,798***	***5,938***	**7%**	***9%***	***68,070***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[16 California_Simpson.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: Mustang Way / Stetson Avenue
FORECAST YEAR: 2040

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	271	270	27000%	1	620	619	61900%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	132	131	13100%	1	233	232	23200%
	NB Total	2	403	401	20050%	2	853	851	42550%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	1,308	1,306	65300%	2	1,360	1,358	67900%
	Right	1	441	440	44000%	1	391	390	39000%
	EB Total	3	1,749	1,746	58200%	3	1,751	1,748	58267%
WEST BOUND	Left	1	189	188	18800%	1	181	180	18000%
	Through	2	1,149	1,147	57350%	2	1,675	1,673	83650%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	1,338	1,335	44500%	3	1,856	1,853	61767%
TOTAL ENTERING VOLUME		8	3,490	3482	43525%	8	4,460	4452	55650%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	403	853			
South Leg	Outbound	630	572			
South Leg	**TOTAL**	**1,033**	**1,425**	**7%**	**10%**	**14,207**
East Leg	Inbound	1,338	1,856			
East Leg	Outbound	1,440	1,593			
East Leg	**TOTAL**	**2,778**	**3,449**	**8%**	**10%**	**35,336**
West Leg	Inbound	1,749	1,751			
West Leg	Outbound	1,420	2,295			
West Leg	**TOTAL**	**3,169**	**4,046**	**8%**	**10%**	**41,087**
OVERALL TOTAL		***6,980***	***8,920***	**8%**	***10%***	***90,630***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[18 Mustang_Stetson.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: Warren Road / Esplanade Avenue
FORECAST YEAR: 2040

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	2	114	112	5600%	0	0	0	#DIV/0!
	Through	435	519	84	19%	413	1,128	715	173%
	Right	154	255	101	66%	167	423	256	153%
	NB Total	591	888	297	50%	580	1,551	971	167%
SOUTH BOUND	Left	25	17	-8	-32%	77	34	-43	-56%
	Through	294	1,020	726	247%	392	607	215	55%
	Right	7	160	153	2186%	41	267	226	551%
	SB Total	326	1,197	871	267%	510	908	398	78%
EAST BOUND	Left	25	226	201	804%	14	252	238	1700%
	Through	31	390	359	1158%	25	417	392	1568%
	Right	3	197	194	6467%	1	59	58	5800%
	EB Total	59	813	754	1278%	40	728	688	1720%
WEST BOUND	Left	162	407	245	151%	98	249	151	154%
	Through	15	248	233	1553%	39	416	377	967%
	Right	50	17	-33	-66%	36	28	-8	-22%
	WB Total	227	672	445	196%	173	693	520	301%
TOTAL ENTERING VOLUME		1,203	3,570	2367	197%	1,303	3,880	2577	198%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,197	908			
North Leg	Outbound	762	1,408			
North Leg	**TOTAL**	**1,959**	**2,316**	**7%**	**9%**	**27,093**
South Leg	Inbound	888	1,551			
South Leg	Outbound	1,624	915			
South Leg	**TOTAL**	**2,512**	**2,466**	**7%**	**7%**	**33,537**
East Leg	Inbound	672	693			
East Leg	Outbound	662	874			
East Leg	**TOTAL**	**1,334**	**1,567**	**8%**	**9%**	**16,858**
West Leg	Inbound	813	728			
West Leg	Outbound	522	683			
West Leg	**TOTAL**	**1,335**	**1,411**	**7%**	**7%**	**19,868**
OVERALL TOTAL		***7,140***	***7,760***	***7%***	***8%***	***97,356***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[20 Warren Road_Esplanade Avenue.xls]Output (3)

Project: Rancho Diamante
Scenario: Horizon Year With Project

Job #: 09702
Analyst: RV
Date: 09/27/17

LOCATION: Warren Road / Tres Cerritos Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	0	-1	-100%	1	16	15	1500%
	Through	2	655	653	32650%	2	2,134	2,132	106600%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	3	655	652	21733%	3	2,150	2,147	71567%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	1,935	1,933	96650%	2	1,226	1,224	61200%
	Right	1	0	-1	-100%	1	14	13	1300%
	SB Total	3	1,935	1,932	64400%	3	1,240	1,237	41233%
EAST BOUND	Left	1	7	6	600%	1	6	5	500%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	23	22	2200%	1	4	3	300%
	EB Total	2	30	28	1400%	2	10	8	400%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
TOTAL ENTERING VOLUME		8	2,620	2612	32650%	8	3,400	3392	42400%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,935	1,240			
North Leg	Outbound	662	2,140			
North Leg	**TOTAL**	**2,597**	**3,380**	**8%**	**10%**	**33,499**
South Leg	Inbound	655	2,150			
South Leg	Outbound	1,958	1,230			
South Leg	**TOTAL**	**2,613**	**3,380**	**8%**	**10%**	**33,885**
East Leg	Inbound	0	0			
East Leg	Outbound	0	0			
East Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
West Leg	Inbound	30	10			
West Leg	Outbound	0	30			
West Leg	**TOTAL**	**30**	**40**	**8%**	**10%**	**381**
OVERALL TOTAL		***5,240***	***6,800***	**8%**	***10%***	***67,765***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[21 Warren_Tres Cerritos.xls]Output (3)

Project: Rancho Diamante
Scenario: Horizon Year With Project

Job #: 09702
Analyst: RV
Date: 09/27/17

LOCATION: Warren Road / Devonshire Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	4	2	-2	-50%	16	15	-1	-6%
	Through	364	354	-10	-3%	369	1,186	817	221%
	Right	24	44	20	83%	45	108	63	140%
	NB Total	392	400	8	2%	430	1,309	879	204%
SOUTH BOUND	Left	19	196	177	932%	30	179	149	497%
	Through	303	1,147	844	279%	336	433	97	29%
	Right	137	339	202	147%	125	282	157	126%
	SB Total	459	1,682	1,223	266%	491	894	403	82%
EAST BOUND	Left	200	297	97	49%	191	500	309	162%
	Through	131	364	233	178%	165	323	158	96%
	Right	10	10	0	0%	10	4	-6	-60%
	EB Total	341	671	330	97%	366	827	461	126%
WEST BOUND	Left	43	91	48	112%	36	62	26	72%
	Through	212	293	81	38%	228	693	465	204%
	Right	27	83	56	207%	20	214	194	970%
	WB Total	282	467	185	66%	284	969	685	241%
TOTAL ENTERING VOLUME		1,474	3,220	1746	118%	1,571	3,999	2428	155%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,682	894			
North Leg	Outbound	734	1,900			
North Leg	**TOTAL**	**2,416**	**2,794**	**7%**	**8%**	**33,885**
South Leg	Inbound	400	1,309			
South Leg	Outbound	1,248	499			
South Leg	**TOTAL**	**1,648**	**1,808**	**6%**	**7%**	**25,824**
East Leg	Inbound	467	969			
East Leg	Outbound	604	610			
East Leg	**TOTAL**	**1,071**	**1,579**	**8%**	**12%**	**12,781**
West Leg	Inbound	671	827			
West Leg	Outbound	634	990			
West Leg	**TOTAL**	**1,305**	**1,817**	**8%**	**11%**	**16,913**
OVERALL TOTAL		***6,440***	***7,998***	***7%***	***9%***	***89,403***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[22 Warren_Devonshire.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: Warren Road / Florida Avenue (SR-74)
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	141	62	-79	-56%	179	82	-97	-54%
	Through	285	265	-20	-7%	305	789	484	159%
	Right	115	223	108	94%	251	472	221	88%
	NB Total	541	550	9	2%	735	1,343	608	83%
SOUTH BOUND	Left	15	178	163	1087%	25	124	99	396%
	Through	267	808	541	203%	228	241	13	6%
	Right	92	247	155	168%	114	139	25	22%
	SB Total	374	1,233	859	230%	367	504	137	37%
EAST BOUND	Left	102	111	9	9%	118	275	157	133%
	Through	565	1,280	715	127%	846	1,433	587	69%
	Right	161	93	-68	-42%	133	48	-85	-64%
	EB Total	828	1,484	656	79%	1,097	1,756	659	60%
WEST BOUND	Left	192	367	175	91%	137	251	114	83%
	Through	472	800	328	69%	737	1,559	822	112%
	Right	13	47	34	262%	19	226	207	1089%
	WB Total	677	1,214	537	79%	893	2,036	1,143	128%
TOTAL ENTERING VOLUME		2,420	4,481	2061	85%	3,092	5,639	2547	82%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,233	504			
North Leg	Outbound	423	1,290			
North Leg	**TOTAL**	**1,656**	**1,794**	**6%**	**7%**	**25,824**
South Leg	Inbound	550	1,343			
South Leg	Outbound	1,268	540			
South Leg	**TOTAL**	**1,818**	**1,883**	**8%**	**8%**	**22,762**
East Leg	Inbound	1,214	2,036			
East Leg	Outbound	1,681	2,029			
East Leg	**TOTAL**	**2,895**	**4,065**	**3%**	**5%**	**82,724**
West Leg	Inbound	1,484	1,756			
West Leg	Outbound	1,109	1,780			
West Leg	**TOTAL**	**2,593**	**3,536**	**4%**	**5%**	**66,570**
OVERALL TOTAL		***8,962***	***11,278***	**5%**	***6%***	***197,880***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[23 Warren_Florida.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year WP	Analyst:	RV
		Date:	09/27/17

LOCATION: Warren Road / Whittier Avenue
FORECAST YEAR: 2040

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	180	179	17900%	1	137	136	13600%
	Through	2	712	710	35500%	2	1,136	1,134	56700%
	Right	1	10	9	900%	1	51	50	5000%
	NB Total	4	902	898	22450%	4	1,324	1,320	33000%
SOUTH BOUND	Left	1	24	23	2300%	1	77	76	7600%
	Through	2	991	989	49450%	2	1,042	1,040	52000%
	Right	1	420	419	41900%	1	207	206	20600%
	SB Total	4	1,435	1,431	35775%	4	1,326	1,322	33050%
EAST BOUND	Left	1	123	122	12200%	1	403	402	40200%
	Through	1	16	15	1500%	1	162	161	16100%
	Right	1	73	72	7200%	1	245	244	24400%
	EB Total	3	212	209	6967%	3	810	807	26900%
WEST BOUND	Left	1	15	14	1400%	1	43	42	4200%
	Through	1	59	58	5800%	1	77	76	7600%
	Right	1	26	25	2500%	1	71	70	7000%
	WB Total	3	100	97	3233%	3	191	188	6267%
TOTAL ENTERING VOLUME		14	2,649	2635	18821%	14	3,651	3637	25979%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,435	1,326			
North Leg	Outbound	861	1,610			
North Leg	**TOTAL**	**2,296**	**2,936**	**7%**	**10%**	**30,901**
South Leg	Inbound	902	1,324			
South Leg	Outbound	1,079	1,330			
South Leg	**TOTAL**	**1,981**	**2,654**	**8%**	**10%**	**26,144**
East Leg	Inbound	100	191			
East Leg	Outbound	50	290			
East Leg	**TOTAL**	**150**	**481**	**5%**	**16%**	**2,967**
West Leg	Inbound	212	810			
West Leg	Outbound	659	421			
West Leg	**TOTAL**	**871**	**1,231**	**7%**	**9%**	**13,152**
OVERALL TOTAL		***5,298***	***7,302***	**7%**	***10%***	***73,164***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[25 Warren_Whittier.xls]Output (3)

Project: Rancho Diamante
Scenario: Horizon Year WP

Job #: 09702
Analyst: RV
Date: 09/27/17

LOCATION: Warren Road / Stetson Avenue - North
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	102	101	10100%	1	52	51	5100%
	Through	2	789	787	39350%	2	1,091	1,089	54450%
	Right	1	6	5	500%	1	28	27	2700%
	NB Total	4	897	893	22325%	4	1,171	1,167	29175%
SOUTH BOUND	Left	1	8	7	700%	1	67	66	6600%
	Through	2	925	923	46150%	2	1,113	1,111	55550%
	Right	1	140	139	13900%	1	125	124	12400%
	SB Total	4	1,073	1,069	26725%	4	1,305	1,301	32525%
EAST BOUND	Left	1	88	87	8700%	1	153	152	15200%
	Through	1	6	5	500%	1	35	34	3400%
	Right	1	76	75	7500%	1	65	64	6400%
	EB Total	3	170	167	5567%	3	253	250	8333%
WEST BOUND	Left	1	14	13	1300%	1	32	31	3100%
	Through	1	19	18	1800%	1	33	32	3200%
	Right	1	17	16	1600%	1	76	75	7500%
	WB Total	3	50	47	1567%	3	141	138	4600%
TOTAL ENTERING VOLUME		14	2,190	2176	15543%	14	2,870	2856	20400%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,073	1,305			
North Leg	Outbound	894	1,320			
North Leg	**TOTAL**	**1,967**	**2,625**	**8%**	**10%**	**26,144**
South Leg	Inbound	897	1,171			
South Leg	Outbound	1,015	1,210			
South Leg	**TOTAL**	**1,912**	**2,381**	**8%**	**10%**	**23,432**
East Leg	Inbound	50	141			
East Leg	Outbound	20	130			
East Leg	**TOTAL**	**70**	**271**	**4%**	**14%**	**1,968**
West Leg	Inbound	170	253			
West Leg	Outbound	261	210			
West Leg	**TOTAL**	**431**	**463**	**7%**	**7%**	**6,437**
OVERALL TOTAL		***4,380***	***5,740***	**8%**	***10%***	***57,981***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[26 Warren_Stetson.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: Warren Road / New Stetson Avenue
FORECAST YEAR: 2040

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	108	107	10700%	1	333	332	33200%
	Through	2	278	276	13800%	2	613	611	30550%
	Right	1	76	75	7500%	1	246	245	24500%
	NB Total	4	462	458	11450%	4	1,192	1,188	29700%
SOUTH BOUND	Left	1	211	210	21000%	1	313	312	31200%
	Through	2	502	500	25000%	2	477	475	23750%
	Right	1	300	299	29900%	1	422	421	42100%
	SB Total	4	1,013	1,009	25225%	4	1,212	1,208	30200%
EAST BOUND	Left	1	351	350	35000%	1	305	304	30400%
	Through	2	863	861	43050%	2	1,101	1,099	54950%
	Right	1	228	227	22700%	1	187	186	18600%
	EB Total	4	1,442	1,438	35950%	4	1,593	1,589	39725%
WEST BOUND	Left	1	170	169	16900%	1	136	135	13500%
	Through	2	913	911	45550%	2	1,085	1,083	54150%
	Right	1	261	260	26000%	1	222	221	22100%
	WB Total	4	1,344	1,340	33500%	4	1,443	1,439	35975%
TOTAL ENTERING VOLUME		16	4,261	4245	26531%	16	5,440	5424	33900%

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,013	1,212			
North Leg	Outbound	890	1,140			
North Leg	**TOTAL**	**1,903**	**2,352**	**8%**	**10%**	**23,432**
South Leg	Inbound	462	1,192			
South Leg	Outbound	900	800			
South Leg	**TOTAL**	**1,362**	**1,992**	**8%**	**11%**	**17,433**
East Leg	Inbound	1,344	1,443			
East Leg	Outbound	1,150	1,660			
East Leg	**TOTAL**	**2,494**	**3,103**	**8%**	**10%**	**31,240**
West Leg	Inbound	1,442	1,593			
West Leg	Outbound	1,321	1,840			
West Leg	**TOTAL**	**2,763**	**3,433**	**8%**	**10%**	**35,336**
OVERALL TOTAL		***8,522***	***10,880***	**8%**	***10%***	***107,441***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[27 Warren_New Stetson.xls]Output (3)

Project: Rancho Diamante
Scenario: Horizon Year With Project

Job #: 09702
Analyst: RV
Date: 09/27/17

LOCATION: Warren Road / Mustang Way
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	31	30	3000%	1	91	90	9000%
	Through	2	334	332	16600%	2	950	948	47400%
	Right	1	98	97	9700%	1	178	177	17700%
	NB Total	4	463	459	11475%	4	1,219	1,215	30375%
SOUTH BOUND	Left	1	136	135	13500%	1	129	128	12800%
	Through	2	724	722	36100%	2	608	606	30300%
	Right	1	44	43	4300%	1	66	65	6500%
	SB Total	4	904	900	22500%	4	803	799	19975%
EAST BOUND	Left	1	37	36	3600%	1	62	61	6100%
	Through	1	97	96	9600%	1	104	103	10300%
	Right	1	57	56	5600%	1	55	54	5400%
	EB Total	3	191	188	6267%	3	221	218	7267%
WEST BOUND	Left	1	138	137	13700%	1	158	157	15700%
	Through	1	75	74	7400%	1	154	153	15300%
	Right	1	89	88	8800%	1	179	178	17800%
	WB Total	3	302	299	9967%	3	491	488	16267%
TOTAL ENTERING VOLUME		14	1,860	1846	13186%	14	2,734	2720	19429%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	904	803			
North Leg	Outbound	460	1,191			
North Leg	**TOTAL**	**1,364**	**1,994**	**8%**	**11%**	**17,433**
South Leg	Inbound	463	1,219			
South Leg	Outbound	919	821			
South Leg	**TOTAL**	**1,382**	**2,040**	**8%**	**12%**	**17,418**
East Leg	Inbound	302	491			
East Leg	Outbound	331	411			
East Leg	**TOTAL**	**633**	**902**	**7%**	**10%**	**9,313**
West Leg	Inbound	191	221			
West Leg	Outbound	150	311			
West Leg	**TOTAL**	**341**	**532**	**7%**	**12%**	**4,555**
OVERALL TOTAL		***3,720***	***5,468***	**8%**	***11%***	***48,719***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[29 Warren_Mustang.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: Warren Road / Simpson Road
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	571	570	57000%	1	468	467	46700%
	Through	2	85	83	4150%	2	212	210	10500%
	Right	1	1	0	0%	1	34	33	3300%
	NB Total	4	657	653	16325%	4	714	710	17750%
SOUTH BOUND	Left	1	2	1	100%	1	33	32	3200%
	Through	2	94	92	4600%	2	208	206	10300%
	Right	1	836	835	83500%	1	453	452	45200%
	SB Total	4	932	928	23200%	4	694	690	17250%
EAST BOUND	Left	1	376	375	37500%	1	443	442	44200%
	Through	1	47	46	4600%	1	635	634	63400%
	Right	1	287	286	28600%	1	448	447	44700%
	EB Total	3	710	707	23567%	3	1,526	1,523	50767%
WEST BOUND	Left	1	1	0	0%	1	27	26	2600%
	Through	1	49	48	4800%	1	523	522	52200%
	Right	1	1	0	0%	1	26	25	2500%
	WB Total	3	51	48	1600%	3	576	573	19100%
TOTAL ENTERING VOLUME		14	2,350	2336	16686%	14	3,510	3496	24971%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	932	694			
North Leg	Outbound	462	681			
North Leg	**TOTAL**	**1,394**	**1,375**	**8%**	**8%**	**17,418**
South Leg	Inbound	657	714			
South Leg	Outbound	382	683			
South Leg	**TOTAL**	**1,039**	**1,397**	**8%**	**10%**	**13,358**
East Leg	Inbound	51	576			
East Leg	Outbound	50	702			
East Leg	**TOTAL**	**101**	**1,278**	**#DIV/0!**	**#DIV/0!**	**-**
West Leg	Inbound	710	1,526			
West Leg	Outbound	1,456	1,444			
West Leg	**TOTAL**	**2,166**	**2,970**	**8%**	**11%**	**27,899**
OVERALL TOTAL		***4,700***	***7,020***	**8%**	***12%***	***58,675***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[30 Warren_Simpson.xls]Output (3)

Project:	Rancho Diamante	Job #:	9702
Scenario:	Horizon Year WP	Analyst:	RV
		Date:	09/27/17

LOCATION: Warren Road / Domenigoni Parkway
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	3	3	0	0%	3	0	-3	-100%
	Through	4	20	16	400%	3	0	-3	-100%
	Right	1	7	6	600%	1	0	-1	-100%
	NB Total	8	30	22	275%	7	0	-7	-100%
SOUTH BOUND	Left	42	155	113	269%	34	326	292	859%
	Through	2	13	11	550%	2	0	-2	-100%
	Right	328	209	-119	-36%	327	191	-136	-42%
	SB Total	372	377	5	1%	363	517	154	42%
EAST BOUND	Left	322	274	-48	-15%	341	199	-142	-42%
	Through	1,031	1,148	117	11%	1,313	1,614	301	23%
	Right	2	4	2	100%	6	0	-6	-100%
	EB Total	1,355	1,426	71	5%	1,660	1,813	153	9%
WEST BOUND	Left	2	23	21	1050%	3	0	-3	-100%
	Through	1,207	1,328	121	10%	1,087	1,229	142	13%
	Right	42	205	163	388%	25	221	196	784%
	WB Total	1,251	1,556	305	24%	1,115	1,450	335	30%
TOTAL ENTERING VOLUME		2,986	3,389	403	13%	3,145	3,780	635	20%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	377	517			
North Leg	Outbound	499	420			
North Leg	**TOTAL**	**876**	**937**	**7%**	**7%**	**13,358**
South Leg	Inbound	30	0			
South Leg	Outbound	40	0			
South Leg	**TOTAL**	**70**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
East Leg	Inbound	1,556	1,450			
East Leg	Outbound	1,310	1,940			
East Leg	**TOTAL**	**2,866**	**3,390**	**9%**	**11%**	**32,165**
West Leg	Inbound	1,426	1,813			
West Leg	Outbound	1,540	1,420			
West Leg	**TOTAL**	**2,966**	**3,233**	**7%**	**7%**	**43,387**
OVERALL TOTAL		***6,778***	***7,560***	**8%**	***9%***	***88,910***

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Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: Myers Street / Florida Avenue (SR-74)
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	21	317	296	1410%	5	741	736	14720%
	Through	16	141	125	781%	28	628	600	2143%
	Right	36	120	84	233%	35	769	734	2097%
	NB Total	73	578	505	692%	68	2,138	2,070	3044%
SOUTH BOUND	Left	1	0	-1	-100%	10	6	-4	-40%
	Through	10	397	387	3870%	16	261	245	1531%
	Right	68	91	23	34%	58	235	177	305%
	SB Total	79	488	409	518%	84	502	418	498%
EAST BOUND	Left	62	213	151	244%	145	173	28	19%
	Through	661	859	198	30%	942	1,098	156	17%
	Right	4	695	691	17275%	19	600	581	3058%
	EB Total	727	1,767	1,040	143%	1,106	1,871	765	69%
WEST BOUND	Left	15	568	553	3687%	48	242	194	404%
	Through	548	702	154	28%	826	1,036	210	25%
	Right	7	5	-2	-29%	12	2	-10	-83%
	WB Total	570	1,275	705	124%	886	1,280	394	44%
TOTAL ENTERING VOLUME		1,449	4,108	2659	184%	2,144	5,791	3647	170%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	488	502			
North Leg	Outbound	359	803			
North Leg	**TOTAL**	**847**	**1,305**	**6%**	**9%**	**14,881**
South Leg	Inbound	578	2,138			
South Leg	Outbound	1,660	1,103			
South Leg	**TOTAL**	**2,238**	**3,241**	**5%**	**7%**	**45,643**
East Leg	Inbound	1,275	1,280			
East Leg	Outbound	979	1,873			
East Leg	**TOTAL**	**2,254**	**3,153**	**4%**	**5%**	**62,490**
West Leg	Inbound	1,767	1,871			
West Leg	Outbound	1,110	2,012			
West Leg	**TOTAL**	**2,877**	**3,883**	**4%**	**5%**	**78,293**
OVERALL TOTAL		***8,216***	***11,582***	**4%**	***6%***	***201,307***

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Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: Fisher Street / New Stetson Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	32	31	3100%	1	42	41	4100%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	71	70	7000%	1	143	142	14200%
	NB Total	2	103	101	5050%	2	185	183	9150%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	1,179	1,177	58850%	2	1,697	1,695	84750%
	Right	1	34	33	3300%	1	42	41	4100%
	EB Total	3	1,213	1,210	40333%	3	1,739	1,736	57867%
WEST BOUND	Left	1	86	85	8500%	1	118	117	11700%
	Through	2	1,308	1,306	65300%	2	1,398	1,396	69800%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	1,394	1,391	46367%	3	1,516	1,513	50433%
TOTAL ENTERING VOLUME		8	2,710	2702	33775%	8	3,440	3432	42900%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	103	185			
South Leg	Outbound	120	160			
South Leg	**TOTAL**	**223**	**345**	**6%**	**10%**	**3,559**
East Leg	Inbound	1,394	1,516			
East Leg	Outbound	1,250	1,840			
East Leg	**TOTAL**	**2,644**	**3,356**	**8%**	**11%**	**31,240**
West Leg	Inbound	1,213	1,739			
West Leg	Outbound	1,340	1,440			
West Leg	**TOTAL**	**2,553**	**3,179**	**8%**	**10%**	**31,240**
OVERALL TOTAL		***5,420***	***6,880***	**8%**	***10%***	***66,039***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[33 Fisher_New Stetson.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: Acacia Avenue / Florida Avenue (SR-74)
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	17	23	6	35%	2	10	8	400%
	NB Total	17	23	6	35%	2	10	8	400%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	662	1,117	455	69%	897	930	33	4%
	Right	113	110	-3	-3%	201	319	118	59%
	EB Total	775	1,227	452	58%	1,098	1,249	151	14%
WEST BOUND	Left	0	0	0	#DIV/0!	1	1	0	0%
	Through	647	1,280	633	98%	953	1,940	987	104%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	647	1,280	633	98%	954	1,941	987	103%
TOTAL ENTERING VOLUME		1,439	2,530	1091	76%	2,054	3,200	1146	56%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	23	10			
South Leg	Outbound	110	320			
South Leg	**TOTAL**	**133**	**330**	**3%**	**7%**	**4,662**
East Leg	Inbound	1,280	1,941			
East Leg	Outbound	1,140	940			
East Leg	**TOTAL**	**2,420**	**2,881**	**4%**	**5%**	**57,827**
West Leg	Inbound	1,227	1,249			
West Leg	Outbound	1,280	1,940			
West Leg	**TOTAL**	**2,507**	**3,189**	**4%**	**5%**	**62,490**
OVERALL TOTAL		***5,060***	***6,400***	**4%**	***5%***	***124,979***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[34 Acacia_Florida.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: New Stetson Avenue / Stetson Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	7	6	600%	1	26	25	2500%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	1,251	1,250	125000%	1	1,864	1,863	186300%
	NB Total	2	1,258	1,256	62800%	2	1,890	1,888	94400%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	19	17	850%	2	111	109	5450%
	Right	1	2	1	100%	1	21	20	2000%
	EB Total	3	21	18	600%	3	132	129	4300%
WEST BOUND	Left	1	1,338	1,337	133700%	1	1,583	1,582	158200%
	Through	2	63	61	3050%	2	115	113	5650%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	1,401	1,398	46600%	3	1,698	1,695	56500%
TOTAL ENTERING VOLUME		8	2,680	2672	33400%	8	3,720	3712	46400%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	1,258	1,890			
South Leg	Outbound	1,340	1,604			
South Leg	**TOTAL**	**2,598**	**3,494**	**7%**	**10%**	**34,839**
East Leg	Inbound	1,401	1,698			
East Leg	Outbound	1,270	1,975			
East Leg	**TOTAL**	**2,671**	**3,673**	**7%**	**10%**	**36,803**
West Leg	Inbound	21	132			
West Leg	Outbound	70	141			
West Leg	**TOTAL**	**91**	**273**	**5%**	**14%**	**1,968**
OVERALL TOTAL		***5,360***	***7,440***	**7%**	***10%***	***73,610***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[35 New Stetson_Stetson.xls]Output (3)

Project:	Rancho Diamante	Job #:	09702
Scenario:	Horizon Year With Project	Analyst:	RV
		Date:	09/27/17

LOCATION: Cawston Avenue / Florida Avenue (SR-74)
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	90	380	290	322%	152	540	388	255%
	Through	51	70	19	37%	83	303	220	265%
	Right	6	7	1	17%	10	18	8	80%
	NB Total	147	457	310	211%	245	861	616	251%
SOUTH BOUND	Left	79	42	-37	-47%	118	46	-72	-61%
	Through	59	367	308	522%	98	372	274	280%
	Right	92	183	91	99%	111	84	-27	-24%
	SB Total	230	592	362	157%	327	502	175	54%
EAST BOUND	Left	89	154	65	73%	142	443	301	212%
	Through	565	801	236	42%	746	1,166	420	56%
	Right	8	132	124	1550%	11	168	157	1427%
	EB Total	662	1,087	425	64%	899	1,777	878	98%
WEST BOUND	Left	4	21	17	425%	12	80	68	567%
	Through	465	797	332	71%	691	916	225	33%
	Right	47	26	-21	-45%	113	154	41	36%
	WB Total	516	844	328	64%	816	1,150	334	41%
TOTAL ENTERING VOLUME		1,555	2,980	1425	92%	2,287	4,290	2003	88%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	592	502			
North Leg	Outbound	250	900			
North Leg	**TOTAL**	**842**	**1,402**	**9%**	**14%**	**9,732**
South Leg	Inbound	457	861			
South Leg	Outbound	520	620			
South Leg	**TOTAL**	**977**	**1,481**	**7%**	**11%**	**13,887**
East Leg	Inbound	844	1,150			
East Leg	Outbound	850	1,230			
East Leg	**TOTAL**	**1,694**	**2,380**	**4%**	**6%**	**42,410**
West Leg	Inbound	1,087	1,777			
West Leg	Outbound	1,360	1,540			
West Leg	**TOTAL**	**2,447**	**3,317**	**4%**	**6%**	**57,827**
OVERALL TOTAL		***5,960***	***8,580***	**5%**	***7%***	***123,856***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[36 Cawston_Florida.xls]Output (3)

Project: Rancho Diamante
Scenario: Horizon Year WP

Job #: 9702
Analyst: RV
Date: 09/27/17

LOCATION: Cawston Avenue / Stetson Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	58	71	13	22%	41	118	77	188%
	Through	145	123	-22	-15%	94	90	-4	-4%
	Right	219	173	-46	-21%	146	53	-93	-64%
	NB Total	422	367	-55	-13%	281	261	-20	-7%
SOUTH BOUND	Left	17	60	43	253%	16	12	-4	-25%
	Through	104	121	17	16%	135	73	-62	-46%
	Right	19	105	86	453%	50	290	240	480%
	SB Total	140	286	146	104%	201	375	174	87%
EAST BOUND	Left	35	156	121	346%	22	225	203	923%
	Through	178	737	559	314%	296	1,155	859	290%
	Right	18	25	7	39%	49	141	92	188%
	EB Total	231	918	687	297%	367	1,521	1,154	314%
WEST BOUND	Left	157	144	-13	-8%	145	56	-89	-61%
	Through	247	1,074	827	335%	245	1,013	768	313%
	Right	20	60	40	200%	18	25	7	39%
	WB Total	424	1,278	854	201%	408	1,094	686	168%
TOTAL ENTERING VOLUME		1,217	2,849	1632	134%	1,257	3,251	1994	159%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	286	375			
North Leg	Outbound	339	340			
North Leg	**TOTAL**	**625**	**715**	**6%**	**7%**	**10,141**
South Leg	Inbound	367	261			
South Leg	Outbound	290	270			
South Leg	**TOTAL**	**657**	**531**	**13%**	**11%**	**4,930**
East Leg	Inbound	1,278	1,094			
East Leg	Outbound	970	1,220			
East Leg	**TOTAL**	**2,248**	**2,314**	**7%**	**7%**	**33,589**
West Leg	Inbound	918	1,521			
West Leg	Outbound	1,250	1,421			
West Leg	**TOTAL**	**2,168**	**2,942**	**6%**	**8%**	**36,803**
OVERALL TOTAL		***5,698***	***6,502***	***7%***	***8%***	***85,463***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[37 Cawston_Stetson1.xls]Output (3)

Project:	Rancho Diamante	Job #:	9702
Scenario:	Horizon Year WP	Analyst:	RV
		Date:	09/27/17

LOCATION: Sanderson Avenue / Florida Avenue (SR-74)
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	117	134	17	15%	211	276	65	31%
	Through	679	899	220	32%	672	1,126	454	68%
	Right	138	237	99	72%	200	369	169	85%
	NB Total	934	1,270	336	36%	1,083	1,771	688	64%
SOUTH BOUND	Left	127	266	139	109%	178	307	129	72%
	Through	539	1,025	486	90%	695	962	267	38%
	Right	99	139	40	40%	132	161	29	22%
	SB Total	765	1,430	665	87%	1,005	1,430	425	42%
EAST BOUND	Left	144	154	10	7%	220	289	69	31%
	Through	443	614	171	39%	700	1,013	313	45%
	Right	34	43	9	26%	77	89	12	16%
	EB Total	621	811	190	31%	997	1,391	394	40%
WEST BOUND	Left	138	331	193	140%	213	346	133	62%
	Through	381	673	292	77%	546	780	234	43%
	Right	96	196	100	104%	144	264	120	83%
	WB Total	615	1,200	585	95%	903	1,390	487	54%
TOTAL ENTERING VOLUME		2,935	4,711	1776	61%	3,988	5,982	1994	50%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,430	1,430			
North Leg	Outbound	1,249	1,679			
North Leg	**TOTAL**	**2,679**	**3,109**	**6%**	**7%**	**43,051**
South Leg	Inbound	1,270	1,771			
South Leg	Outbound	1,399	1,397			
South Leg	**TOTAL**	**2,669**	**3,168**	**8%**	**9%**	**33,545**
East Leg	Inbound	1,200	1,390			
East Leg	Outbound	1,117	1,689			
East Leg	**TOTAL**	**2,317**	**3,079**	**7%**	**9%**	**35,541**
West Leg	Inbound	811	1,391			
West Leg	Outbound	946	1,217			
West Leg	**TOTAL**	**1,757**	**2,608**	**4%**	**6%**	**42,410**
OVERALL TOTAL		***9,422***	***11,964***	**6%**	***8%***	***154,547***

U:\UcJobs_09600-10000_09700\09702\Post Processing\Post Processing\[38 Sanderson_Florida1.xls]Output (3)

Project:	Rancho Diamante	Job #:	9702
Scenario:	Horizon Year WP	Analyst:	RV
		Date:	09/27/17

LOCATION: Sanderson Avenue / Stetson Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	25	38	13	52%	14	34	20	143%
	Through	661	1,024	363	55%	601	967	366	61%
	Right	283	156	-127	-45%	442	408	-34	-8%
	NB Total	969	1,218	249	26%	1,057	1,409	352	33%
SOUTH BOUND	Left	69	117	48	70%	176	277	101	57%
	Through	684	1,055	371	54%	730	1,028	298	41%
	Right	82	389	307	374%	115	476	361	314%
	SB Total	835	1,561	726	87%	1,021	1,781	760	74%
EAST BOUND	Left	81	398	317	391%	182	613	431	237%
	Through	321	560	239	74%	466	900	434	93%
	Right	11	17	6	55%	21	36	15	71%
	EB Total	413	975	562	136%	669	1,549	880	132%
WEST BOUND	Left	446	282	-164	-37%	429	280	-149	-35%
	Through	543	1,058	515	95%	414	795	381	92%
	Right	124	244	120	97%	153	195	42	27%
	WB Total	1,113	1,584	471	42%	996	1,270	274	28%
TOTAL ENTERING VOLUME		3,330	5,338	2008	60%	3,743	6,009	2266	61%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,561	1,781			
North Leg	Outbound	1,666	1,775			
North Leg	**TOTAL**	**3,227**	**3,556**	**8%**	**9%**	**38,770**
South Leg	Inbound	1,218	1,409			
South Leg	Outbound	1,354	1,344			
South Leg	**TOTAL**	**2,572**	**2,753**	**11%**	**11%**	**24,340**
East Leg	Inbound	1,584	1,270			
East Leg	Outbound	833	1,585			
East Leg	**TOTAL**	**2,417**	**2,855**	**8%**	**10%**	**29,523**
West Leg	Inbound	975	1,549			
West Leg	Outbound	1,485	1,305			
West Leg	**TOTAL**	**2,460**	**2,854**	**7%**	**8%**	**33,589**
OVERALL TOTAL		***10,676***	***12,018***	**8%**	***10%***	***126,222***

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APPENDIX 5.1:

E+P (PHASE 1) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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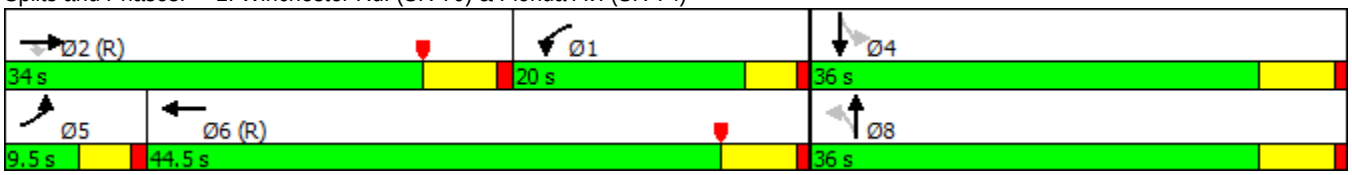
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	11	696	90	325	686	91	9	16	25
Future Volume (vph)	11	696	90	325	686	91	9	16	25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	28.0	28.0	15.5	46.1	30.0	30.0	30.0	30.0
Actuated g/C Ratio	0.06	0.31	0.31	0.17	0.51	0.33	0.33	0.33	0.33
v/c Ratio	0.11	0.65	0.16	1.10	0.41	0.20	0.42	0.06	0.04
Control Delay	43.1	30.2	4.3	118.9	14.9	23.0	5.1	21.2	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	30.2	4.3	118.9	14.9	23.0	5.1	21.2	20.6
LOS	D	C	A	F	B	C	A	C	C
Approach Delay		27.4			47.5		9.3		20.9
Approach LOS		C			D		A		C

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.10
Intersection Signal Delay: 33.4 — Intersection LOS: C
Intersection Capacity Utilization 80.1% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	696	90	325	686	26	91	9	286	16	25	0
Future Volume (veh/h)	11	696	90	325	686	26	91	9	286	16	25	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	718	54	335	707	25	94	9	115	16	26	0
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	24	1101	493	775	2619	93	526	39	494	430	621	0
Arrive On Green	0.01	0.31	0.31	0.44	0.75	0.75	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3487	123	1378	116	1483	1261	1863	0
Grp Volume(v), veh/h	11	718	54	335	359	373	94	0	124	16	26	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1841	1378	0	1599	1261	1863	0
Q Serve(g_s), s	0.6	15.8	2.2	11.8	5.7	5.7	4.5	0.0	5.0	0.8	0.8	0.0
Cycle Q Clear(g_c), s	0.6	15.8	2.2	11.8	5.7	5.7	5.3	0.0	5.0	5.9	0.8	0.0
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.93	1.00		0.00
Lane Grp Cap(c), veh/h	24	1101	493	775	1329	1383	526	0	533	430	621	0
V/C Ratio(X)	0.46	0.65	0.11	0.43	0.27	0.27	0.18	0.00	0.23	0.04	0.04	0.00
Avail Cap(c_a), veh/h	99	1101	493	775	1329	1383	526	0	533	430	621	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.1	26.8	22.1	17.6	3.5	3.5	22.1	0.0	21.7	23.8	20.3	0.0
Incr Delay (d2), s/veh	5.2	3.0	0.4	0.1	0.5	0.5	0.7	0.0	1.0	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	8.1	1.0	5.8	2.9	3.0	1.8	0.0	2.4	0.3	0.5	0.0
LnGrp Delay(d),s/veh	49.2	29.8	22.6	17.8	4.0	4.0	22.8	0.0	22.7	24.0	20.4	0.0
LnGrp LOS	D	C	C	B	A	A	C		C	C	C	
Approach Vol, veh/h		783			1067			218			42	
Approach Delay, s/veh		29.6			8.3			22.8			21.8	
Approach LOS		C			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	45.3	34.0		36.0	5.7	73.6		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	13.8	17.8		7.9	2.6	7.7		7.3
Green Ext Time (p_c), s	0.2	2.2		0.6	0.0	2.8		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	1	20	0	0	2	19	360	1	2	573	25
Future Vol, veh/h	26	1	20	0	0	2	19	360	1	2	573	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	1	22	0	0	2	20	387	1	2	616	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1064	1063	630	1062	1075	388	643	0	0	388	0	0
Stage 1	634	634	-	428	428	-	-	-	-	-	-	-
Stage 2	430	429	-	634	647	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	188	203	482	189	198	*788	942	-	-	*1180	-	-
Stage 1	467	473	-	721	636	-	-	-	-	-	-	-
Stage 2	718	634	-	467	467	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	185	198	482	177	193	*788	942	-	-	*1180	-	-
Mov Cap-2 Maneuver	185	198	-	177	193	-	-	-	-	-	-	-
Stage 1	457	472	-	706	622	-	-	-	-	-	-	-
Stage 2	701	621	-	444	466	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.5	9.6	0.4	0
HCM LOS	C	A		

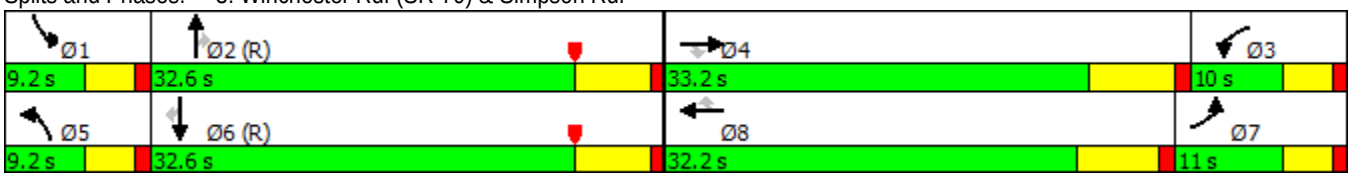
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	942	-	-	185	482	788	* 1180	-	-
HCM Lane V/C Ratio	0.022	-	-	0.157	0.045	0.003	0.002	-	-
HCM Control Delay (s)	8.9	-	-	28	12.8	9.6	8.1	-	-
HCM Lane LOS	A	-	-	D	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.1	0	0	-	-

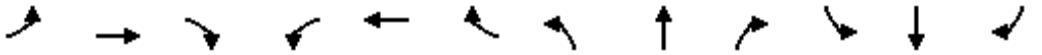
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	125	51	82	143	39	24	262	36	20	458	100
Future Volume (vph)	87	125	51	82	143	39	24	262	36	20	458	100
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	11.0	33.2	33.2	10.0	32.2	32.2	9.2	32.6	32.6	9.2	32.6	32.6
Total Split (%)	12.9%	39.1%	39.1%	11.8%	37.9%	37.9%	10.8%	38.4%	38.4%	10.8%	38.4%	38.4%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	8.1	14.2	14.2	8.3	14.7	14.7	5.4	44.1	44.1	5.3	44.0	44.0
Actuated g/C Ratio	0.10	0.17	0.17	0.10	0.17	0.17	0.06	0.52	0.52	0.06	0.52	0.52
v/c Ratio	0.57	0.44	0.15	0.51	0.48	0.11	0.23	0.16	0.05	0.20	0.27	0.13
Control Delay	51.6	34.8	0.8	48.6	35.5	0.6	42.9	14.5	0.1	42.1	15.2	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.6	34.8	0.8	48.6	35.5	0.6	42.9	14.5	0.1	42.1	15.2	2.1
LOS	D	C	A	D	D	A	D	B	A	D	B	A
Approach Delay		33.9			34.4			15.0			13.9	
Approach LOS		C			C			B			B	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection Capacity Utilization 50.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	125	51	82	143	39	24	262	36	20	458	100
Future Volume (veh/h)	87	125	51	82	143	39	24	262	36	20	458	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	95	136	30	89	155	25	26	285	27	22	498	64
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	255	212	115	255	214	48	1879	829	42	1868	829
Arrive On Green	0.07	0.14	0.14	0.06	0.14	0.14	0.03	0.53	0.53	0.02	0.53	0.53
Sat Flow, veh/h	1774	1863	1545	1774	1863	1560	1774	3539	1561	1774	3539	1570
Grp Volume(v), veh/h	95	136	30	89	155	25	26	285	27	22	498	64
Grp Sat Flow(s),veh/h/ln	1774	1863	1545	1774	1863	1560	1774	1770	1561	1774	1770	1570
Q Serve(g_s), s	4.5	5.8	1.2	4.2	6.7	1.0	1.2	3.5	0.4	1.0	6.6	1.0
Cycle Q Clear(g_c), s	4.5	5.8	1.2	4.2	6.7	1.0	1.2	3.5	0.4	1.0	6.6	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	121	255	212	115	255	214	48	1879	829	42	1868	829
V/C Ratio(X)	0.78	0.53	0.14	0.78	0.61	0.12	0.54	0.15	0.03	0.52	0.27	0.08
Avail Cap(c_a), veh/h	142	585	485	121	570	477	104	1879	829	104	1868	829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	34.1	21.9	39.1	34.5	22.2	40.8	10.2	3.6	41.0	11.0	3.6
Incr Delay (d2), s/veh	17.9	1.7	0.3	22.7	2.3	0.2	3.4	0.2	0.1	3.6	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	3.1	0.5	2.8	3.6	0.4	0.7	1.7	0.2	0.6	3.3	0.5
LnGrp Delay(d),s/veh	56.9	35.9	22.2	61.8	36.9	22.4	44.2	10.3	3.6	44.7	11.4	3.8
LnGrp LOS	E	D	C	E	D	C	D	B	A	D	B	A
Approach Vol, veh/h		261			269			338			584	
Approach Delay, s/veh		42.0			43.8			12.4			11.8	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	50.9	9.7	18.1	6.5	50.7	10.0	17.8
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 5	26.8	5.8	* 27	* 5	26.8	6.8	* 26
Max Q Clear Time (g_c+I1), s	3.0	5.5	6.2	7.8	3.2	8.6	6.5	8.7
Green Ext Time (p_c), s	0.0	7.1	0.0	0.6	0.0	6.6	0.0	0.7

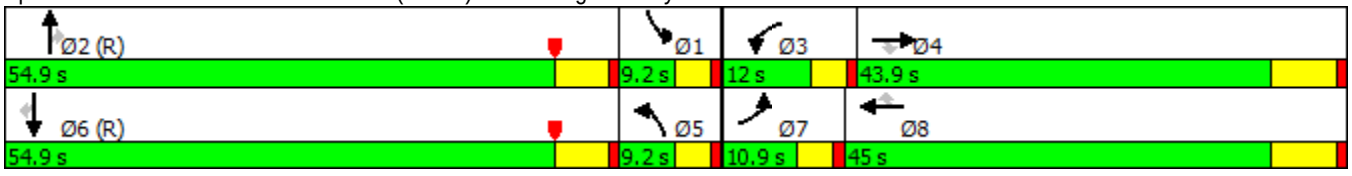
Intersection Summary	
HCM 2010 Ctrl Delay	23.3
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	797	62	733	802	18	36	221	576	13	419	158
Future Volume (vph)	112	797	62	733	802	18	36	221	576	13	419	158
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	10.9	43.9	43.9	12.0	45.0	45.0	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.1%	36.6%	36.6%	10.0%	37.5%	37.5%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	6.6	34.3	34.3	9.6	37.4	37.4	5.0	55.5	55.5	5.0	51.8	51.8
Actuated g/C Ratio	0.06	0.29	0.29	0.08	0.31	0.31	0.04	0.46	0.46	0.04	0.43	0.43
v/c Ratio	0.65	0.86	0.13	2.89	0.55	0.04	0.53	0.15	0.73	0.19	0.30	0.22
Control Delay	72.2	49.8	2.4	881.3	35.9	0.1	82.3	19.8	22.1	61.8	23.4	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.2	49.8	2.4	881.3	35.9	0.1	82.3	19.8	22.1	61.8	23.4	4.0
LOS	E	D	A	F	D	A	F	B	C	E	C	A
Approach Delay		49.4			434.4			24.1			19.1	
Approach LOS		D			F			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.89	
Intersection Signal Delay: 191.1	Intersection LOS: F
Intersection Capacity Utilization 76.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	797	62	733	802	18	36	221	576	13	419	158
Future Volume (veh/h)	112	797	62	733	802	18	36	221	576	13	419	158
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	122	866	30	797	872	8	39	240	364	14	455	73
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	1029	460	224	1551	483	105	1448	648	105	1448	648
Arrive On Green	0.05	0.29	0.29	0.07	0.31	0.31	0.06	0.41	0.41	0.06	0.41	0.41
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	122	866	30	797	872	8	39	240	364	14	455	73
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.2	27.6	1.3	7.8	17.3	0.3	2.5	5.2	15.9	0.9	10.5	2.6
Cycle Q Clear(g_c), s	4.2	27.6	1.3	7.8	17.3	0.3	2.5	5.2	15.9	0.9	10.5	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	1029	460	224	1551	483	105	1448	648	105	1448	648
V/C Ratio(X)	0.70	0.84	0.07	3.56	0.56	0.02	0.37	0.17	0.56	0.13	0.31	0.11
Avail Cap(c_a), veh/h	192	1091	488	224	1615	503	105	1448	648	105	1448	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	56.1	40.0	19.0	56.1	35.0	17.8	54.3	22.5	15.3	53.5	24.0	13.1
Incr Delay (d2), s/veh	7.4	5.8	0.1	1164.3	0.4	0.0	0.8	0.2	3.5	0.2	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	14.3	0.6	39.9	8.1	0.1	1.3	2.5	7.5	0.4	5.2	1.2
LnGrp Delay(d),s/veh	63.5	45.8	19.1	1220.4	35.4	17.8	55.1	22.7	18.8	53.7	24.6	13.5
LnGrp LOS	E	D	B	F	D	B	E	C	B	D	C	B
Approach Vol, veh/h		1018			1677			643			542	
Approach Delay, s/veh		47.1			598.5			22.4			23.8	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	54.9	12.0	41.8	11.3	54.9	10.3	43.5
Change Period (Y+Rc), s	4.2	* 5.8	* 4.2	6.9	4.2	* 5.8	* 4.2	6.9
Max Green Setting (Gmax), s	5.0	* 49	* 7.8	37.0	5.0	* 49	* 6.7	38.1
Max Q Clear Time (g_c+I1), s	2.9	17.9	9.8	29.6	4.5	12.5	6.2	19.3
Green Ext Time (p_c), s	0.0	4.3	0.0	5.3	0.0	4.7	0.0	10.5

Intersection Summary		
HCM 2010 Ctrl Delay		278.1
HCM 2010 LOS		F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1386	0	0	0	1552	0	0	0	0	0	1
Future Vol, veh/h	0	1386	0	0	0	1552	0	0	0	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1540	0	0	0	1724	0	0	0	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	770	-	-	862
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*537	0	0	298
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*537	-	-	298
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	17.1
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	298
HCM Lane V/C Ratio	-	-	-	-	-	0.004
HCM Control Delay (s)	0	-	-	-	-	17.1
HCM Lane LOS	A	-	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	83	0	3	3	4	97
Future Vol, veh/h	83	0	3	3	4	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	101	0	4	4	5	118

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	16	5	5	0	-	0
Stage 1	5	-	-	-	-	-
Stage 2	11	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1002	1078	1616	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1012	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1000	1078	1616	-	-	-
Mov Cap-2 Maneuver	1000	-	-	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1010	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	3.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1616	-	1000	-	-
HCM Lane V/C Ratio	0.002	-	0.101	-	-
HCM Control Delay (s)	7.2	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	170	0	0	224	1	2	1	0	2	1	4
Future Vol, veh/h	2	170	0	0	224	1	2	1	0	2	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	187	0	0	246	1	2	1	0	2	1	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	247	0	0	187	0	0	440	438	187	439	438	247
Stage 1	-	-	-	-	-	-	191	191	-	247	247	-
Stage 2	-	-	-	-	-	-	249	247	-	192	191	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1319	-	-	1387	-	-	527	512	855	528	512	792
Stage 1	-	-	-	-	-	-	811	742	-	757	702	-
Stage 2	-	-	-	-	-	-	755	702	-	810	742	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1319	-	-	1387	-	-	522	511	855	526	511	792
Mov Cap-2 Maneuver	-	-	-	-	-	-	522	511	-	526	511	-
Stage 1	-	-	-	-	-	-	809	741	-	755	702	-
Stage 2	-	-	-	-	-	-	750	702	-	807	741	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	12	10.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	518	1319	-	-	1387	-	-	648
HCM Lane V/C Ratio	0.006	0.002	-	-	-	-	-	0.012
HCM Control Delay (s)	12	7.7	0	-	0	-	-	10.6
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	7.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	11	0	0	33
Future Vol, veh/h	0	0	11	0	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	12	0	0	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1	0	25	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	24	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1622	-	991	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	999	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1622	-	984	1084
Mov Cap-2 Maneuver	-	-	-	-	984	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	992	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.2	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1084	-	-	1622	-
HCM Lane V/C Ratio	0.033	-	-	0.007	-
HCM Control Delay (s)	8.4	-	-	7.2	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	5.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	33	0	22	11	0	66
Future Vol, veh/h	33	0	22	11	0	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	0	24	12	0	72

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	36	0	96	36
Stage 1	-	-	-	-	36	-
Stage 2	-	-	-	-	60	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1575	-	903	1037
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	963	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1575	-	889	1037
Mov Cap-2 Maneuver	-	-	-	-	889	-
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	948	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.9	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1037	-	-	1575	-
HCM Lane V/C Ratio	0.069	-	-	0.015	-
HCM Control Delay (s)	8.7	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	99	0	11	34	0	33
Future Vol, veh/h	99	0	11	34	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	108	0	12	37	0	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	108	0	169	108
Stage 1	-	-	-	-	108	-
Stage 2	-	-	-	-	61	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1483	-	821	946
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	962	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1483	-	814	946
Mov Cap-2 Maneuver	-	-	-	-	814	-
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	954	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	946	-	-	1483	-
HCM Lane V/C Ratio	0.038	-	-	0.008	-
HCM Control Delay (s)	9	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	46.4
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	25	31	3	0	170	15	50	0	2	458	177
Future Vol, veh/h	0	25	31	3	0	170	15	50	0	2	458	177
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	27	33	3	0	181	16	53	0	2	487	188
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	12.1	16.4	75.3
HCM LOS	B	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	42%	72%	7%
Vol Thru, %	72%	53%	6%	90%
Vol Right, %	28%	5%	21%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	637	59	235	334
LT Vol	2	25	170	25
Through Vol	458	31	15	302
RT Vol	177	3	50	7
Lane Flow Rate	678	63	250	355
Geometry Grp	1	1	1	1
Degree of Util (X)	1.059	0.133	0.478	0.608
Departure Headway (Hd)	5.625	7.855	7.065	6.32
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	651	459	513	576
Service Time	3.625	5.855	5.065	4.32
HCM Lane V/C Ratio	1.041	0.137	0.487	0.616
HCM Control Delay	75.3	12.1	16.4	18.6
HCM Lane LOS	F	B	C	C
HCM 95th-tile Q	18.5	0.5	2.6	4.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	25	302	7
Future Vol, veh/h	0	25	302	7
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	27	321	7
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	18.6
HCM LOS	C

Intersection	
Intersection Delay, s/veh	100.7
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	200	131	11	0	43	212	27	0	7	410	24	0	19	319	137
Future Vol, veh/h	0	200	131	11	0	43	212	27	0	7	410	24	0	19	319	137
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	213	139	12	0	46	226	29	0	7	436	26	0	20	339	146
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	62.2	42	109.6	154.9
HCM LOS	F	E	F	F

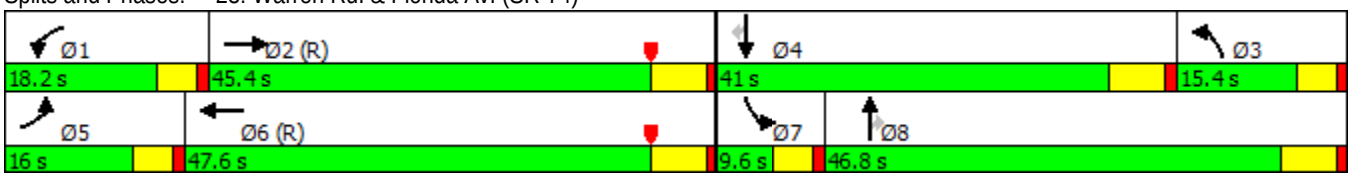
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	0%	58%	15%	4%
Vol Thru, %	98%	0%	38%	75%	67%
Vol Right, %	0%	100%	3%	10%	29%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	417	24	342	282	475
LT Vol	7	0	200	43	19
Through Vol	410	0	131	212	319
RT Vol	0	24	11	27	137
Lane Flow Rate	444	26	364	300	505
Geometry Grp	7	7	2	2	5
Degree of Util (X)	1.122	0.06	0.918	0.777	1.237
Departure Headway (Hd)	9.742	9.001	10.181	10.499	9.242
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	377	400	360	348	399
Service Time	7.442	6.701	8.181	8.499	7.242
HCM Lane V/C Ratio	1.178	0.065	1.011	0.862	1.266
HCM Control Delay	115.2	12.3	62.2	42	154.9
HCM Lane LOS	F	B	F	E	F
HCM 95th-tile Q	15.6	0.2	9.4	6.3	20.4

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	102	565	216	472	154	334	184	15	284	92
Future Volume (vph)	102	565	216	472	154	334	184	15	284	92
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	16.0	45.4	18.2	47.6	15.4	46.8	46.8	9.6	41.0	41.0
Total Split (%)	13.3%	37.8%	15.2%	39.7%	12.8%	39.0%	39.0%	8.0%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	10.1	39.4	13.6	42.9	10.8	46.6	46.6	5.0	35.0	35.0
Actuated g/C Ratio	0.08	0.33	0.11	0.36	0.09	0.39	0.39	0.04	0.29	0.29
v/c Ratio	0.70	0.65	1.10	0.39	0.99	0.25	0.26	0.21	0.28	0.17
Control Delay	77.5	36.0	142.1	30.2	123.1	26.4	4.9	62.3	33.7	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.5	36.0	142.1	30.2	123.1	26.4	4.9	62.3	33.7	3.2
LOS	E	D	F	C	F	C	A	E	C	A
Approach Delay		41.1		64.6		42.6			27.6	
Approach LOS		D		E		D			C	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 18.2 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.10
Intersection Signal Delay: 45.8 — Intersection LOS: D
Intersection Capacity Utilization 93.5% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	565	165	216	472	13	154	334	184	15	284	92
Future Volume (veh/h)	102	565	165	216	472	13	154	334	184	15	284	92
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	104	577	105	220	482	9	157	341	143	15	290	30
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	2135	387	201	2681	50	160	1334	596	29	1032	460
Arrive On Green	0.07	0.71	0.71	0.11	0.75	0.75	0.09	0.38	0.38	0.02	0.29	0.29
Sat Flow, veh/h	1774	2993	543	1774	3554	66	1774	3539	1581	1774	3539	1578
Grp Volume(v), veh/h	104	340	342	220	240	251	157	341	143	15	290	30
Grp Sat Flow(s),veh/h/ln	1774	1770	1767	1774	1770	1851	1774	1770	1581	1774	1770	1578
Q Serve(g_s), s	6.9	8.2	8.2	13.6	4.6	4.6	10.6	8.0	7.4	1.0	7.6	2.2
Cycle Q Clear(g_c), s	6.9	8.2	8.2	13.6	4.6	4.6	10.6	8.0	7.4	1.0	7.6	2.2
Prop In Lane	1.00		0.31	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	1262	1260	201	1335	1396	160	1334	596	29	1032	460
V/C Ratio(X)	0.81	0.27	0.27	1.09	0.18	0.18	0.98	0.26	0.24	0.52	0.28	0.07
Avail Cap(c_a), veh/h	169	1262	1260	201	1335	1396	160	1334	596	74	1032	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	6.1	6.1	53.2	4.2	4.2	54.5	25.8	25.6	58.5	32.8	54.5
Incr Delay (d2), s/veh	15.1	0.5	0.5	90.9	0.3	0.3	65.9	0.5	1.0	5.2	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	4.2	4.2	11.7	2.3	2.4	8.1	4.0	3.4	0.5	3.8	1.0
LnGrp Delay(d),s/veh	70.0	6.6	6.6	144.1	4.5	4.5	120.4	26.2	26.6	63.7	33.5	54.8
LnGrp LOS	E	A	A	F	A	A	F	C	C	E	C	D
Approach Vol, veh/h		786			711			641			335	
Approach Delay, s/veh		15.0			47.7			49.4			36.7	
Approach LOS		B			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.2	93.0	16.8	41.0	13.3	97.9	6.6	51.2
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	13.6	39.4	10.8	* 35	11.4	41.6	5.0	40.8
Max Q Clear Time (g_c+I1), s	15.6	10.2	12.6	9.6	8.9	6.6	3.0	10.0
Green Ext Time (p_c), s	0.0	4.0	0.0	1.0	0.0	4.1	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

Notes

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	37	634	77	191	434
Future Vol, veh/h	8	37	634	77	191	434
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	39	674	82	203	462

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1543	675	0	0	675	0
Stage 1	675	-	-	-	-	-
Stage 2	868	-	-	-	-	-
Critical Hdwy	7.12	6.22	-	-	4.12	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	94	454	-	-	916	-
Stage 1	444	-	-	-	-	-
Stage 2	347	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	78	454	-	-	916	-
Mov Cap-2 Maneuver	228	-	-	-	-	-
Stage 1	444	-	-	-	-	-
Stage 2	270	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.6	0	3.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	386	916	-
HCM Lane V/C Ratio	-	-	0.124	0.222	-
HCM Control Delay (s)	-	-	15.6	10	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.4	0.8	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	41	723	3	17	444
Future Vol, veh/h	0	41	723	3	17	444
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	42	745	3	18	458

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1240	747	0	0	748	0
Stage 1	747	-	-	-	-	-
Stage 2	493	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	193	413	-	-	861	-
Stage 1	468	-	-	-	-	-
Stage 2	614	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	189	413	-	-	861	-
Mov Cap-2 Maneuver	387	-	-	-	-	-
Stage 1	468	-	-	-	-	-
Stage 2	601	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.7	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	413	861	-
HCM Lane V/C Ratio	-	-	0.102	0.02	-
HCM Control Delay (s)	-	-	14.7	9.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Intersection Delay, s/veh	54.6
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	27	56	5	0	103	67	205	0	3	497	136
Future Vol, veh/h	0	27	56	5	0	103	67	205	0	3	497	136
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	28	58	5	0	107	70	214	0	3	518	142
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	2
HCM Control Delay	15.6	19.5	69.6
HCM LOS	C	C	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	1%	0%	31%	100%	0%	28%
Vol Thru, %	99%	0%	64%	0%	25%	67%
Vol Right, %	0%	100%	6%	0%	75%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	500	136	88	103	272	457
LT Vol	3	0	27	103	0	130
Through Vol	497	0	56	0	67	306
RT Vol	0	136	5	0	205	21
Lane Flow Rate	521	142	92	107	283	476
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	1.062	0.265	0.241	0.259	0.601	1
Departure Headway (Hd)	7.338	6.732	9.578	8.704	7.64	7.798
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	490	537	378	413	470	467
Service Time	5.136	4.432	7.578	6.442	5.415	5.798
HCM Lane V/C Ratio	1.063	0.264	0.243	0.259	0.602	1.019
HCM Control Delay	85.3	11.8	15.6	14.5	21.4	70
HCM Lane LOS	F	B	C	B	C	F
HCM 95th-tile Q	15.9	1.1	0.9	1	3.9	13.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	130	306	21
Future Vol, veh/h	0	130	306	21
Peak Hour Factor	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	135	319	22
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	70
HCM LOS	F

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	99	33	11	531	375
Future Volume (vph)	99	33	11	531	375
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	34.8	34.8	9.2	15.8	34.8
Total Split (s)	35.0	35.0	9.2	49.1	39.9
Total Split (%)	41.6%	41.6%	10.9%	58.4%	47.4%
Yellow Time (s)	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	14.0	14.0	5.2	62.8	60.9
Actuated g/C Ratio	0.17	0.17	0.06	0.75	0.72
v/c Ratio	0.37	0.13	0.11	0.42	0.33
Control Delay	32.7	9.2	39.6	8.0	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	9.2	39.6	8.0	9.1
LOS	C	A	D	A	A
Approach Delay	26.8			8.6	9.1
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 84.1	
Actuated Cycle Length: 84.1	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.42	
Intersection Signal Delay: 11.0	Intersection LOS: B
Intersection Capacity Utilization 47.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 27: Warren Rd. & New Stetson Av.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	99	33	11	531	375	34
Future Volume (veh/h)	99	33	11	531	375	34
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	108	36	12	577	408	37
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	204	182	26	1391	1149	104
Arrive On Green	0.11	0.11	0.01	0.75	0.68	0.68
Sat Flow, veh/h	1774	1583	1774	1863	1683	153
Grp Volume(v), veh/h	108	36	12	577	0	445
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	0	1836
Q Serve(g_s), s	4.8	1.7	0.6	9.5	0.0	8.5
Cycle Q Clear(g_c), s	4.8	1.7	0.6	9.5	0.0	8.5
Prop In Lane	1.00	1.00	1.00			0.08
Lane Grp Cap(c), veh/h	204	182	26	1391	0	1253
V/C Ratio(X)	0.53	0.20	0.47	0.41	0.00	0.36
Avail Cap(c_a), veh/h	617	550	106	1391	0	1253
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	33.7	41.1	3.9	0.0	5.6
Incr Delay (d2), s/veh	0.8	0.2	4.8	0.9	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.6	0.3	5.2	0.0	4.5
LnGrp Delay(d),s/veh	35.8	33.9	45.8	4.8	0.0	6.4
LnGrp LOS	D	C	D	A		A
Approach Vol, veh/h	144			589	445	
Approach Delay, s/veh	35.3			5.6	6.4	
Approach LOS	D			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		68.5		15.5	5.4	63.1		
Change Period (Y+Rc), s		5.8		5.8	* 4.2	5.8		
Max Green Setting (Gmax), s		43.3		29.2	* 5	34.1		
Max Q Clear Time (g_c+I1), s		11.5		6.8	2.6	10.5		
Green Ext Time (p_c), s		4.0		0.2	0.0	3.8		

Intersection Summary	
HCM 2010 Ctrl Delay	9.6
HCM 2010 LOS	A

Notes

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	16	6	509	397	11
Future Vol, veh/h	33	16	6	509	397	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	17	7	553	432	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1003	437	443	0	-	0
Stage 1	437	-	-	-	-	-
Stage 2	566	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	268	620	1117	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	568	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	266	620	1117	-	-	-
Mov Cap-2 Maneuver	266	-	-	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	563	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.1	0.1	0
HCM LOS	C		

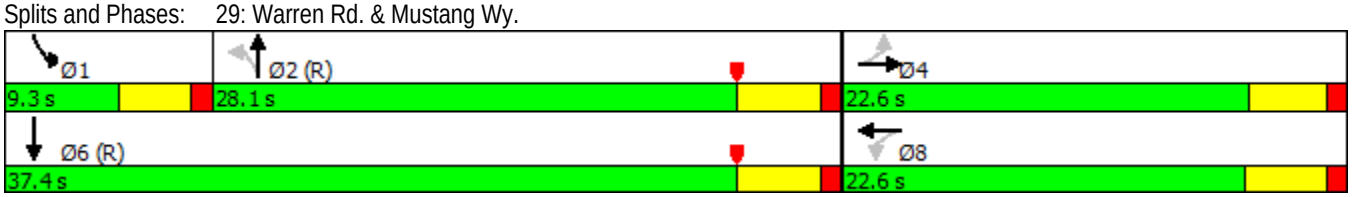
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1117	-	327	-	-
HCM Lane V/C Ratio	0.006	-	0.163	-	-
HCM Control Delay (s)	8.2	0	18.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	76	20	199	7	18	383	35	357
Future Volume (vph)	76	20	199	7	18	383	35	357
Turn Type	Perm	NA	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2			
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.5	22.5	21.6	21.6	21.7	21.7	9.2	14.7
Total Split (s)	22.6	22.6	22.6	22.6	28.1	28.1	9.3	37.4
Total Split (%)	37.7%	37.7%	37.7%	37.7%	46.8%	46.8%	15.5%	62.3%
Yellow Time (s)	3.5	3.5	3.6	3.6	3.7	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.6	4.6	4.7	4.7	4.2	4.7
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	14.8	14.8	14.7	14.7	32.2	32.2	5.2	36.0
Actuated g/C Ratio	0.25	0.25	0.24	0.24	0.54	0.54	0.09	0.60
v/c Ratio	0.26	0.18	0.69	0.17	0.04	0.55	0.25	0.38
Control Delay	19.1	8.2	31.7	6.6	10.8	14.4	29.9	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.1	8.2	31.7	6.6	10.8	14.4	29.9	8.1
LOS	B	A	C	A	B	B	C	A
Approach Delay		13.7		25.2		14.2		9.9
Approach LOS		B		C		B		A

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 15.0 — Intersection LOS: B
Intersection Capacity Utilization 54.5% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	20	53	199	7	63	18	383	101	35	357	26
Future Volume (veh/h)	76	20	53	199	7	63	18	383	101	35	357	26
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	84	22	59	221	8	23	20	426	98	39	397	29
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	435	109	293	389	104	298	580	720	166	71	1031	75
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.49	0.49	0.49	0.04	0.60	0.60
Sat Flow, veh/h	1373	448	1202	1312	425	1222	958	1466	337	1774	1715	125
Grp Volume(v), veh/h	84	0	81	221	0	31	20	0	524	39	0	426
Grp Sat Flow(s),veh/h/ln	1373	0	1651	1312	0	1647	958	0	1803	1774	0	1841
Q Serve(g_s), s	3.0	0.0	2.3	9.7	0.0	0.9	0.7	0.0	12.5	1.3	0.0	7.2
Cycle Q Clear(g_c), s	3.9	0.0	2.3	12.0	0.0	0.9	1.3	0.0	12.5	1.3	0.0	7.2
Prop In Lane	1.00		0.73	1.00		0.74	1.00		0.19	1.00		0.07
Lane Grp Cap(c), veh/h	435	0	403	389	0	402	580	0	886	71	0	1106
V/C Ratio(X)	0.19	0.00	0.20	0.57	0.00	0.08	0.03	0.00	0.59	0.55	0.00	0.39
Avail Cap(c_a), veh/h	514	0	498	462	0	494	580	0	886	151	0	1106
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	18.0	22.8	0.0	17.5	8.3	0.0	10.9	28.3	0.0	6.2
Incr Delay (d2), s/veh	0.2	0.0	0.2	1.3	0.0	0.1	0.1	0.0	2.9	2.5	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.1	3.6	0.0	0.4	0.2	0.0	6.8	0.7	0.0	3.9
LnGrp Delay(d),s/veh	19.2	0.0	18.3	24.1	0.0	17.6	8.4	0.0	13.8	30.8	0.0	7.2
LnGrp LOS	B		B	C		B	A		B	C		A
Approach Vol, veh/h		165			252			544			465	
Approach Delay, s/veh		18.7			23.3			13.6			9.2	
Approach LOS		B			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	6.6	34.2		19.2		40.8		19.2
Change Period (Y+Rc), s	* 4.2	* 4.7		* 4.6		* 4.7		4.6
Max Green Setting (Gmax), s	* 5.1	* 23		* 18		* 33		18.0
Max Q Clear Time (g_c+I1), s	3.3	14.5		5.9		9.2		14.0
Green Ext Time (p_c), s	0.0	5.1		1.3		9.5		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B

Notes

Intersection	
Intersection Delay, s/veh	27
Intersection LOS	D

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	139	28	0	415	188	0	38	345
Future Vol, veh/h	0	139	28	0	415	188	0	38	345
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	160	32	0	477	216	0	44	397
Number of Lanes	0	1	0	0	1	1	0	1	1

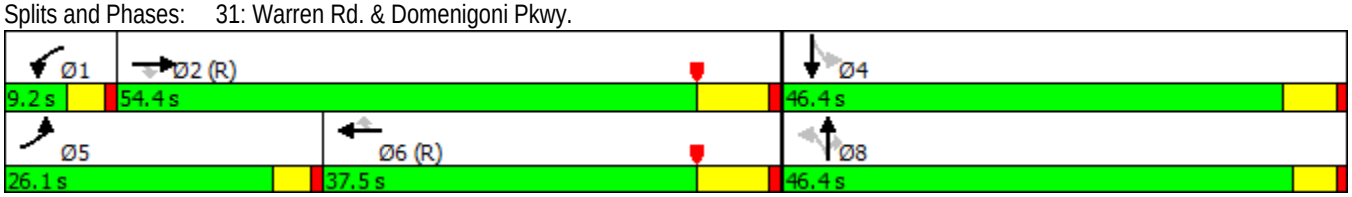
Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	13.4	34.7	20.7
HCM LOS	B	D	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	83%	0%	100%
Vol Right, %	0%	100%	17%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	345	167	415	188
LT Vol	38	0	0	415	0
Through Vol	0	0	139	0	188
RT Vol	0	345	28	0	0
Lane Flow Rate	44	397	192	477	216
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.091	0.688	0.355	0.901	0.378
Departure Headway (Hd)	7.463	6.243	6.651	6.799	6.292
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	478	575	537	529	570
Service Time	5.237	4.016	4.728	4.564	4.056
HCM Lane V/C Ratio	0.092	0.69	0.358	0.902	0.379
HCM Control Delay	11	21.8	13.4	44.6	12.9
HCM Lane LOS	B	C	B	E	B
HCM 95th-tile Q	0.3	5.3	1.6	10.5	1.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	338	1031	22	2	1207	52	3	4	1	65	2
Future Volume (vph)	338	1031	22	2	1207	52	3	4	1	65	2
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	29.6	73.0	73.0	5.0	41.0	41.0		23.7	23.7		22.9
Actuated g/C Ratio	0.27	0.66	0.66	0.05	0.37	0.37		0.22	0.22		0.21
v/c Ratio	0.78	0.48	0.02	0.03	1.01	0.09		0.02	0.00		0.87
Control Delay	50.8	13.0	0.0	51.0	61.9	0.8		26.7	0.0		31.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	50.8	13.0	0.0	51.0	61.9	0.8		26.7	0.0		31.3
LOS	D	B	A	D	E	A		C	A		C
Approach Delay		22.0			59.4			23.3			31.3
Approach LOS		C			E			C			C

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 38.5	Intersection LOS: D
Intersection Capacity Utilization 99.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	338	1031	22	2	1207	52	3	4	1	65	2	374
Future Volume (veh/h)	338	1031	22	2	1207	52	3	4	1	65	2	374
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	371	1133	24	2	1326	47	3	4	0	71	2	266
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	2150	942	5	1455	637	136	164	380	104	16	294
Arrive On Green	0.20	0.61	0.61	0.00	0.41	0.41	0.24	0.24	0.00	0.24	0.24	0.24
Sat Flow, veh/h	1774	3539	1551	1774	3539	1550	373	686	1583	268	68	1224
Grp Volume(v), veh/h	371	1133	24	2	1326	47	7	0	0	339	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1551	1774	1770	1550	1059	0	1583	1560	0	0
Q Serve(g_s), s	21.9	20.3	0.7	0.1	38.8	2.0	0.0	0.0	0.0	18.7	0.0	0.0
Cycle Q Clear(g_c), s	21.9	20.3	0.7	0.1	38.8	2.0	0.3	0.0	0.0	23.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.43		1.00	0.21		0.78
Lane Grp Cap(c), veh/h	353	2150	942	5	1455	637	301	0	380	414	0	0
V/C Ratio(X)	1.05	0.53	0.03	0.42	0.91	0.07	0.02	0.00	0.00	0.82	0.00	0.00
Avail Cap(c_a), veh/h	353	2150	942	81	1455	637	503	0	602	619	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	12.5	8.6	54.8	30.5	19.7	31.9	0.0	0.0	40.5	0.0	0.0
Incr Delay (d2), s/veh	61.7	0.9	0.0	20.2	10.2	0.2	0.0	0.0	0.0	3.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.7	10.2	0.3	0.1	21.0	0.9	0.2	0.0	0.0	10.3	0.0	0.0
LnGrp Delay(d),s/veh	105.8	13.4	8.7	74.9	40.7	19.9	31.9	0.0	0.0	43.7	0.0	0.0
LnGrp LOS	F	B	A	E	D	B	C			D		
Approach Vol, veh/h		1528			1375			7			339	
Approach Delay, s/veh		35.7			40.0			31.9			43.7	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	73.7		31.8	26.1	52.1		31.8
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.1	22.3		25.2	23.9	40.8		2.3
Green Ext Time (p_c), s	0.0	12.7		1.2	0.0	0.0		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	38.4
HCM 2010 LOS	D

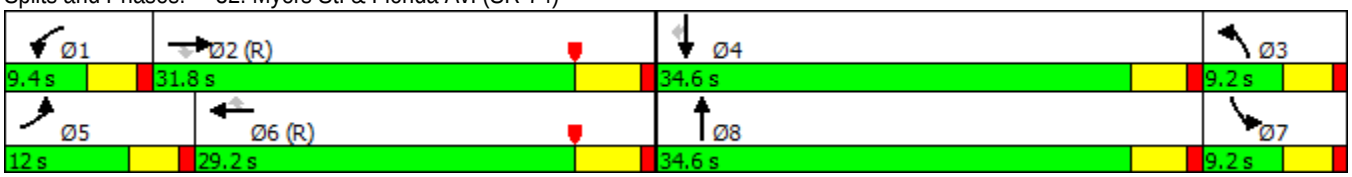
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	72	720	4	15	568	7	21	16	1	10	71
Future Volume (vph)	72	720	4	15	568	7	21	16	1	10	71
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.0	31.8	31.8	9.4	29.2	29.2	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.1%	37.4%	37.4%	11.1%	34.4%	34.4%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.0	39.7	39.7	5.1	32.3	32.3	5.0	31.8	5.0	30.0	30.0
Actuated g/C Ratio	0.08	0.47	0.47	0.06	0.38	0.38	0.06	0.37	0.06	0.35	0.35
v/c Ratio	0.50	0.44	0.01	0.14	0.43	0.01	0.20	0.08	0.01	0.02	0.11
Control Delay	49.3	18.0	0.0	52.1	7.2	0.0	42.9	8.5	38.0	18.1	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.3	18.0	0.0	52.1	7.2	0.0	42.9	8.5	38.0	18.1	0.7
LOS	D	B	A	D	A	A	D	A	D	B	A
Approach Delay		20.7			8.3			18.2		3.3	
Approach LOS		C			A			B		A	

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay: 14.9 — Intersection LOS: B
Intersection Capacity Utilization 44.1% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	720	4	15	568	7	21	16	36	1	10	71
Future Volume (veh/h)	72	720	4	15	568	7	21	16	36	1	10	71
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	73	735	4	15	580	7	21	16	13	1	10	17
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	1393	610	31	1268	565	41	336	273	41	657	559
Arrive On Green	0.05	0.39	0.39	0.04	0.72	0.72	0.02	0.35	0.35	0.02	0.35	0.35
Sat Flow, veh/h	1774	3539	1550	1774	3539	1577	1774	952	774	1774	1863	1583
Grp Volume(v), veh/h	73	735	4	15	580	7	21	0	29	1	10	17
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1577	1774	0	1726	1774	1863	1583
Q Serve(g_s), s	3.5	13.5	0.1	0.7	5.9	0.1	1.0	0.0	0.9	0.0	0.3	0.5
Cycle Q Clear(g_c), s	3.5	13.5	0.1	0.7	5.9	0.1	1.0	0.0	0.9	0.0	0.3	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	94	1393	610	31	1268	565	41	0	609	41	657	559
V/C Ratio(X)	0.78	0.53	0.01	0.48	0.46	0.01	0.51	0.00	0.05	0.02	0.02	0.03
Avail Cap(c_a), veh/h	163	1393	610	109	1268	565	104	0	609	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	19.7	9.6	40.6	8.6	4.9	41.1	0.0	18.1	40.6	17.9	10.3
Incr Delay (d2), s/veh	5.1	1.4	0.0	4.2	1.2	0.0	3.7	0.0	0.1	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	6.8	0.0	0.4	2.9	0.0	0.5	0.0	0.5	0.0	0.2	0.2
LnGrp Delay(d),s/veh	44.9	21.2	9.6	44.9	9.8	4.9	44.7	0.0	18.2	40.7	17.9	10.4
LnGrp LOS	D	C	A	D	A	A	D		B	D	B	B
Approach Vol, veh/h		812			602			50			28	
Approach Delay, s/veh		23.2			10.6			29.4			14.2	
Approach LOS		C			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	38.6	6.2	34.6	8.7	35.6	6.2	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.2	26.7	5.0	* 30	* 7.8	24.1	5.0	* 30
Max Q Clear Time (g_c+I1), s	2.7	15.5	3.0	2.5	5.5	7.9	2.0	2.9
Green Ext Time (p_c), s	0.0	7.6	0.0	0.1	0.0	10.1	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	18.2
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	711	123	0	667	0	0
Future Vol, veh/h	711	123	0	667	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	756	131	0	710	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	756	0	-	378
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	1189	-	0	*821
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	1189	-	-	*821
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

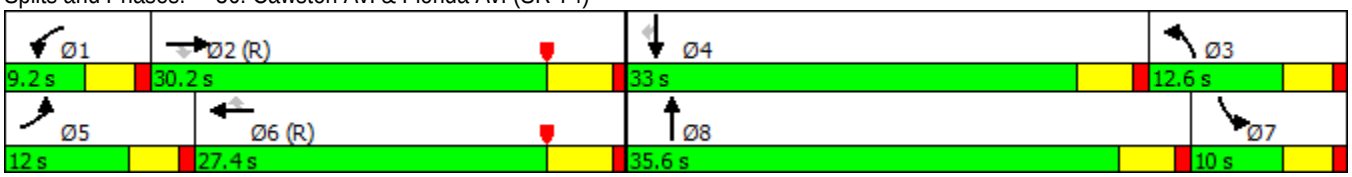
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1189	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	89	611	11	4	481	47	94	51	79	59	92
Future Volume (vph)	89	611	11	4	481	47	94	51	79	59	92
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	12.0	30.2	30.2	9.2	27.4	27.4	12.6	35.6	10.0	33.0	33.0
Total Split (%)	14.1%	35.5%	35.5%	10.8%	32.2%	32.2%	14.8%	41.9%	11.8%	38.8%	38.8%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.2	34.5	34.5	5.0	26.8	26.8	7.8	31.0	5.7	28.9	28.9
Actuated g/C Ratio	0.08	0.41	0.41	0.06	0.32	0.32	0.09	0.36	0.07	0.34	0.34
v/c Ratio	0.62	0.44	0.02	0.04	0.44	0.08	0.60	0.05	0.69	0.10	0.15
Control Delay	70.1	15.9	0.0	49.5	16.2	0.6	53.2	16.2	69.1	20.1	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.1	15.9	0.0	49.5	16.2	0.6	53.2	16.2	69.1	20.1	2.2
LOS	E	B	A	D	B	A	D	B	E	C	A
Approach Delay		22.5			15.1			39.2		29.7	
Approach LOS		C			B			D		C	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 38 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 22.6	Intersection LOS: C
Intersection Capacity Utilization 58.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	611	11	4	481	47	94	51	6	79	59	92
Future Volume (veh/h)	89	611	11	4	481	47	94	51	6	79	59	92
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	92	630	10	4	496	32	97	53	3	81	61	27
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	1269	568	9	1056	472	158	1243	70	104	622	529
Arrive On Green	0.13	0.72	0.72	0.01	0.30	0.30	0.09	0.36	0.36	0.06	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3407	191	1774	1863	1583
Grp Volume(v), veh/h	92	630	10	4	496	32	97	27	29	81	61	27
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1829	1774	1863	1583
Q Serve(g_s), s	4.3	6.6	0.1	0.2	9.7	0.9	4.5	0.8	0.9	3.8	1.9	0.7
Cycle Q Clear(g_c), s	4.3	6.6	0.1	0.2	9.7	0.9	4.5	0.8	0.9	3.8	1.9	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	116	1269	568	9	1056	472	158	645	667	104	622	529
V/C Ratio(X)	0.79	0.50	0.02	0.43	0.47	0.07	0.61	0.04	0.04	0.78	0.10	0.05
Avail Cap(c_a), veh/h	163	1269	568	104	1056	472	175	645	667	121	622	529
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	8.6	3.7	42.1	24.3	12.4	37.3	17.4	17.4	39.5	19.5	10.7
Incr Delay (d2), s/veh	10.6	1.4	0.1	10.9	1.5	0.3	3.2	0.1	0.1	20.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	3.3	0.1	0.1	5.0	0.4	2.3	0.4	0.5	2.4	1.0	0.3
LnGrp Delay(d),s/veh	46.9	10.0	3.7	53.1	25.8	12.6	40.5	17.5	17.5	59.6	19.8	10.9
LnGrp LOS	D	B	A	D	C	B	D	B	B	E	B	B
Approach Vol, veh/h		732			532			153			169	
Approach Delay, s/veh		14.6			25.2			32.1			37.5	
Approach LOS		B			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	35.6	11.8	33.0	9.8	30.5	9.2	35.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5	25.1	8.4	* 28	* 7.8	22.3	5.8	* 31
Max Q Clear Time (g_c+I1), s	2.2	8.6	6.5	3.9	6.3	11.7	5.8	2.9
Green Ext Time (p_c), s	0.0	9.0	0.0	0.4	0.0	6.6	0.0	0.2

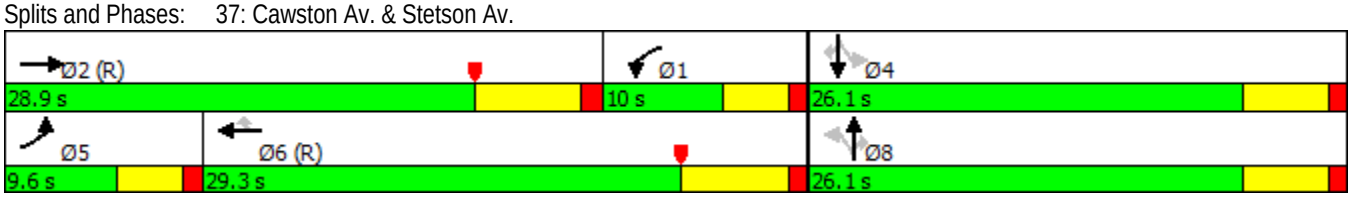
Intersection Summary	
HCM 2010 Ctrl Delay	22.3
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	35	240	157	268	20	60	145	219	17	104	19
Future Volume (vph)	35	240	157	268	20	60	145	219	17	104	19
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.6	28.9	10.0	29.3	29.3	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.8%	44.5%	15.4%	45.1%	45.1%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.3	22.7	5.8	26.9	26.9	21.0	21.0	21.0	21.0	21.0	21.0
Actuated g/C Ratio	0.08	0.35	0.09	0.41	0.41	0.32	0.32	0.32	0.32	0.32	0.32
v/c Ratio	0.30	0.26	1.22	0.42	0.03	0.18	0.29	0.39	0.05	0.21	0.03
Control Delay	33.9	15.0	173.4	17.1	0.1	17.3	18.1	4.3	15.8	17.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	15.0	173.4	17.1	0.1	17.3	18.1	4.3	15.8	17.2	0.1
LOS	C	B	F	B	A	B	B	A	B	B	A
Approach Delay		17.2		71.4			10.9			14.7	
Approach LOS		B		E			B			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.22	
Intersection Signal Delay: 33.3	Intersection LOS: C
Intersection Capacity Utilization 45.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	240	25	157	268	20	60	145	219	17	104	19
Future Volume (veh/h)	35	240	25	157	268	20	60	145	219	17	104	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	43	293	28	191	327	17	73	177	128	21	127	6
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	1141	108	1447	2150	1827	453	602	512	380	602	505
Arrive On Green	0.04	0.35	0.35	0.82	1.00	1.00	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	3268	310	1774	1863	1583	1252	1863	1583	1070	1863	1563
Grp Volume(v), veh/h	43	158	163	191	327	17	73	177	128	21	127	6
Grp Sat Flow(s),veh/h/ln	1774	1770	1808	1774	1863	1583	1252	1863	1583	1070	1863	1563
Q Serve(g_s), s	1.5	4.1	4.2	1.4	0.0	0.0	2.9	4.6	3.9	1.0	3.2	0.2
Cycle Q Clear(g_c), s	1.5	4.1	4.2	1.4	0.0	0.0	6.1	4.6	3.9	5.6	3.2	0.2
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	618	631	1447	2150	1827	453	602	512	380	602	505
V/C Ratio(X)	0.58	0.26	0.26	0.13	0.15	0.01	0.16	0.29	0.25	0.06	0.21	0.01
Avail Cap(c_a), veh/h	147	618	631	1447	2150	1827	453	602	512	380	602	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	15.1	15.1	1.2	0.0	0.0	18.2	16.5	16.2	18.5	16.0	14.9
Incr Delay (d2), s/veh	2.5	0.9	0.9	0.0	0.1	0.0	0.8	1.2	1.2	0.3	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.2	2.2	0.7	0.1	0.0	1.1	2.6	1.8	0.3	1.8	0.1
LnGrp Delay(d),s/veh	33.1	16.0	16.0	1.3	0.1	0.0	19.0	17.7	17.4	18.8	16.8	15.0
LnGrp LOS	C	B	B	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		364			535			378			154	
Approach Delay, s/veh		18.1			0.5			17.8			17.0	
Approach LOS		B			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	60.0	28.9		26.1	6.9	82.0		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.8	* 23		21.0	* 5.4	23.1		21.0
Max Q Clear Time (g_c+I1), s	3.4	6.2		7.6	3.5	2.0		8.1
Green Ext Time (p_c), s	0.1	0.9		1.3	0.0	1.2		1.2

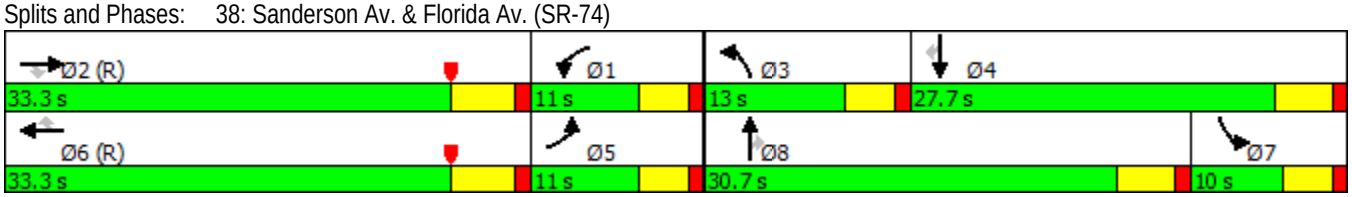
Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	154	466	34	138	389	96	117	692	138	127	543	102
Future Volume (vph)	154	466	34	138	389	96	117	692	138	127	543	102
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	11.0	33.3	33.3	11.0	33.3	33.3	13.0	30.7	30.7	10.0	27.7	27.7
Total Split (%)	12.9%	39.2%	39.2%	12.9%	39.2%	39.2%	15.3%	36.1%	36.1%	11.8%	32.6%	32.6%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	6.8	28.2	28.2	6.8	28.2	28.2	8.3	26.0	26.0	5.8	23.5	23.5
Actuated g/C Ratio	0.08	0.33	0.33	0.08	0.33	0.33	0.10	0.31	0.31	0.07	0.28	0.28
v/c Ratio	1.20	0.44	0.06	1.08	0.36	0.16	0.75	0.70	0.26	1.17	0.61	0.21
Control Delay	161.3	13.9	0.4	138.7	22.7	0.6	63.6	30.3	5.3	172.6	30.2	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	161.3	13.9	0.4	138.7	22.7	0.6	63.6	30.3	5.3	172.6	30.2	4.2
LOS	F	B	A	F	C	A	E	C	A	F	C	A
Approach Delay		47.9			45.1			30.7			50.2	
Approach LOS		D			D			C			D	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 81 (95%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay: 42.5	Intersection LOS: D
Intersection Capacity Utilization 74.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	466	34	138	389	96	117	692	138	127	543	102
Future Volume (veh/h)	154	466	34	138	389	96	117	692	138	127	543	102
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	169	512	8	152	427	46	129	760	42	140	597	60
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	486	1174	516	486	1174	516	161	1083	469	121	1025	458
Arrive On Green	0.27	0.33	0.33	0.27	0.33	0.33	0.09	0.31	0.31	0.07	0.29	0.29
Sat Flow, veh/h	1774	3539	1556	1774	3539	1555	1774	3539	1535	1774	3539	1583
Grp Volume(v), veh/h	169	512	8	152	427	46	129	760	42	140	597	60
Grp Sat Flow(s),veh/h/ln	1774	1770	1556	1774	1770	1555	1774	1770	1535	1774	1770	1583
Q Serve(g_s), s	6.5	9.6	0.3	5.8	7.8	1.7	6.1	16.1	1.7	5.8	12.3	1.8
Cycle Q Clear(g_c), s	6.5	9.6	0.3	5.8	7.8	1.7	6.1	16.1	1.7	5.8	12.3	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	486	1174	516	486	1174	516	161	1083	469	121	1025	458
V/C Ratio(X)	0.35	0.44	0.02	0.31	0.36	0.09	0.80	0.70	0.09	1.16	0.58	0.13
Avail Cap(c_a), veh/h	486	1174	516	486	1174	516	184	1083	469	121	1025	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	22.2	19.1	24.5	21.6	19.6	37.9	26.1	21.1	39.6	25.8	12.5
Incr Delay (d2), s/veh	0.2	1.2	0.1	0.1	0.9	0.3	17.4	3.8	0.4	130.0	2.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	4.9	0.1	2.8	3.9	0.8	3.7	8.4	0.7	7.2	6.3	0.8
LnGrp Delay(d),s/veh	24.9	23.4	19.1	24.6	22.5	19.9	55.3	29.9	21.4	169.6	28.2	13.1
LnGrp LOS	C	C	B	C	C	B	E	C	C	F	C	B
Approach Vol, veh/h		689			625			931			797	
Approach Delay, s/veh		23.7			22.8			33.0			51.9	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	33.3	11.9	29.3	28.0	33.3	10.5	30.7
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.7	* 4.7
Max Green Setting (Gmax), s	6.8	* 28	* 8.8	* 23	6.8	* 28	* 5.8	* 26
Max Q Clear Time (g_c+I1), s	7.8	11.6	8.1	14.3	8.5	9.8	7.8	18.1
Green Ext Time (p_c), s	0.0	4.1	0.0	2.9	0.0	3.7	0.0	3.2

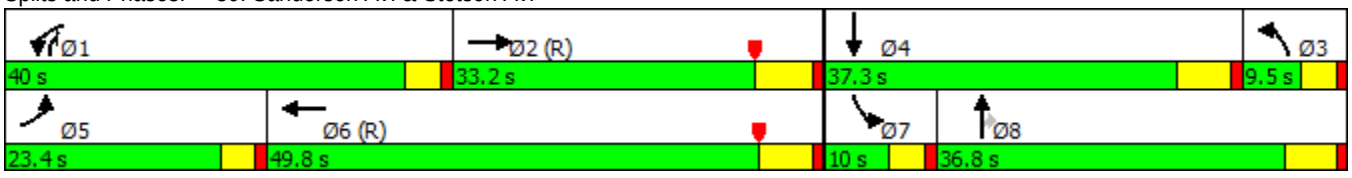
Intersection Summary	
HCM 2010 Ctrl Delay	33.8
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	104	344	446	551	31	661	583	69	684
Future Volume (vph)	104	344	446	551	31	661	583	69	684
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	23.4	33.2	40.0	49.8	9.5	36.8	40.0	10.0	37.3
Total Split (%)	19.5%	27.7%	33.3%	41.5%	7.9%	30.7%	33.3%	8.3%	31.1%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	12.6	27.0	35.8	50.6	5.2	31.0	68.4	5.8	35.3
Actuated g/C Ratio	0.10	0.22	0.30	0.42	0.04	0.26	0.57	0.05	0.29
v/c Ratio	0.65	0.55	0.98	0.54	0.47	0.84	0.74	0.94	0.87
Control Delay	67.5	43.5	77.5	27.3	75.6	51.8	20.6	139.8	51.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.5	43.5	77.5	27.3	75.6	51.8	20.6	139.8	51.2
LOS	E	D	E	C	E	D	C	F	D
Approach Delay		48.8		47.3		38.1			58.4
Approach LOS		D		D		D			E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 77.8 (65%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 46.9	Intersection LOS: D
Intersection Capacity Utilization 90.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	344	27	446	551	124	31	661	583	69	684	90
Future Volume (veh/h)	104	344	27	446	551	124	31	661	583	69	684	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	121	400	30	519	641	127	36	769	298	80	795	99
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	748	56	529	1298	257	55	914	865	86	832	104
Arrive On Green	0.08	0.22	0.22	0.30	0.44	0.44	0.03	0.26	0.26	0.05	0.26	0.26
Sat Flow, veh/h	1774	3326	248	1774	2947	583	1774	3539	1521	1774	3168	394
Grp Volume(v), veh/h	121	212	218	519	385	383	36	769	298	80	444	450
Grp Sat Flow(s),veh/h/ln	1774	1770	1805	1774	1770	1760	1774	1770	1521	1774	1770	1793
Q Serve(g_s), s	8.1	12.6	12.8	34.8	18.6	18.7	2.4	24.7	13.0	5.4	29.6	29.7
Cycle Q Clear(g_c), s	8.1	12.6	12.8	34.8	18.6	18.7	2.4	24.7	13.0	5.4	29.6	29.7
Prop In Lane	1.00		0.14	1.00		0.33	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	147	398	406	529	779	775	55	914	865	86	465	471
V/C Ratio(X)	0.82	0.53	0.54	0.98	0.49	0.49	0.66	0.84	0.34	0.93	0.96	0.96
Avail Cap(c_a), veh/h	284	398	406	529	779	775	78	914	865	86	465	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.1	40.9	41.0	41.8	24.0	24.0	57.5	42.2	14.7	56.9	43.6	43.6
Incr Delay (d2), s/veh	4.1	4.8	4.8	33.9	2.2	2.3	4.9	9.2	1.1	74.1	32.1	31.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	6.7	6.9	22.0	9.6	9.5	1.3	13.2	5.7	4.4	18.6	18.8
LnGrp Delay(d),s/veh	58.3	45.8	45.8	75.7	26.2	26.3	62.4	51.4	15.8	131.0	75.7	75.5
LnGrp LOS	E	D	D	E	C	C	E	D	B	F	E	E
Approach Vol, veh/h		551			1287			1103			974	
Approach Delay, s/veh		48.5			46.2			42.1			80.1	
Approach LOS		D			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.0	33.2	9.5	37.3	14.2	59.0	10.0	36.8
Change Period (Y+Rc), s	* 4.2	6.2	5.8	* 5.8	* 4.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 36	27.0	5.3	* 32	* 19	* 44	* 5.8	31.0
Max Q Clear Time (g_c+I1), s	36.8	14.8	4.4	31.7	10.1	20.7	7.4	26.7
Green Ext Time (p_c), s	0.0	5.3	0.6	0.0	0.1	7.1	0.0	2.8

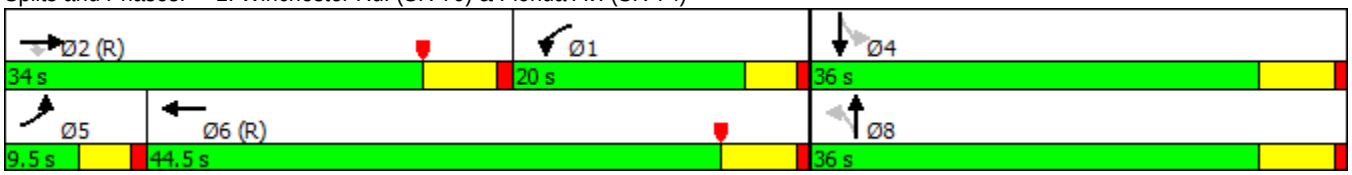
Intersection Summary	
HCM 2010 Ctrl Delay	53.8
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	13	946	104	345	782	125	6	14	16
Future Volume (vph)	13	946	104	345	782	125	6	14	16
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	28.0	28.0	15.5	46.1	30.0	30.0	30.0	30.0
Actuated g/C Ratio	0.06	0.31	0.31	0.17	0.51	0.33	0.33	0.33	0.33
v/c Ratio	0.15	0.98	0.21	1.29	0.51	0.31	0.59	0.11	0.04
Control Delay	44.2	53.9	5.5	186.1	16.3	24.6	7.4	23.2	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	53.9	5.5	186.1	16.3	24.6	7.4	23.2	17.4
LOS	D	D	A	F	B	C	A	C	B
Approach Delay		49.0			66.7		11.4		19.8
Approach LOS		D			E		B		B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.29	
Intersection Signal Delay: 48.7	Intersection LOS: D
Intersection Capacity Utilization 84.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	946	104	345	782	35	125	6	410	14	16	4
Future Volume (veh/h)	13	946	104	345	782	35	125	6	410	14	16	4
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	15	1075	71	392	889	34	142	7	258	16	18	0
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	31	1101	493	956	2952	113	532	14	516	302	621	0
Arrive On Green	0.02	0.31	0.31	0.54	0.85	0.85	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3476	133	1383	42	1548	1110	1863	0
Grp Volume(v), veh/h	15	1075	71	392	453	470	142	0	265	16	18	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1839	1383	0	1590	1110	1863	0
Q Serve(g_s), s	0.8	27.0	2.9	11.8	4.7	4.7	6.9	0.0	12.0	1.1	0.6	0.0
Cycle Q Clear(g_c), s	0.8	27.0	2.9	11.8	4.7	4.7	7.5	0.0	12.0	13.1	0.6	0.0
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	31	1101	493	956	1503	1562	532	0	530	302	621	0
V/C Ratio(X)	0.49	0.98	0.14	0.41	0.30	0.30	0.27	0.00	0.50	0.05	0.03	0.00
Avail Cap(c_a), veh/h	99	1101	493	956	1503	1562	532	0	530	302	621	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.8	30.7	22.4	12.3	1.4	1.4	22.7	0.0	24.0	29.2	20.2	0.0
Incr Delay (d2), s/veh	4.4	22.0	0.6	0.1	0.5	0.5	1.2	0.0	3.3	0.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	16.5	1.3	5.8	2.4	2.4	2.8	0.0	5.7	0.4	0.3	0.0
LnGrp Delay(d),s/veh	48.2	52.7	23.0	12.4	1.9	1.9	24.0	0.0	27.3	29.6	20.3	0.0
LnGrp LOS	D	D	C	B	A	A	C		C	C	C	
Approach Vol, veh/h		1161			1315			407			34	
Approach Delay, s/veh		50.8			5.0			26.2			24.6	
Approach LOS		D			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	54.5	34.0		36.0	6.1	82.4		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	13.8	29.0		15.1	2.8	6.7		14.0
Green Ext Time (p_c), s	0.2	0.0		1.0	0.0	3.8		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	1	30	2	1	2	28	584	1	2	474	28
Future Vol, veh/h	33	1	30	2	1	2	28	584	1	2	474	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	1	32	2	1	2	30	621	1	2	504	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1207	1206	520	1205	1220	622	535	0	0	622	0	0
Stage 1	524	524	-	681	681	-	-	-	-	-	-	-
Stage 2	683	682	-	524	539	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	129	141	556	130	136	*608	1033	-	-	*910	-	-
Stage 1	537	530	-	547	483	-	-	-	-	-	-	-
Stage 2	545	482	-	537	522	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	125	136	555	118	132	*608	1033	-	-	*910	-	-
Mov Cap-2 Maneuver	125	136	-	118	132	-	-	-	-	-	-	-
Stage 1	521	528	-	531	469	-	-	-	-	-	-	-
Stage 2	526	468	-	504	520	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29.5	25.6	0.4	0
HCM LOS	D	D		

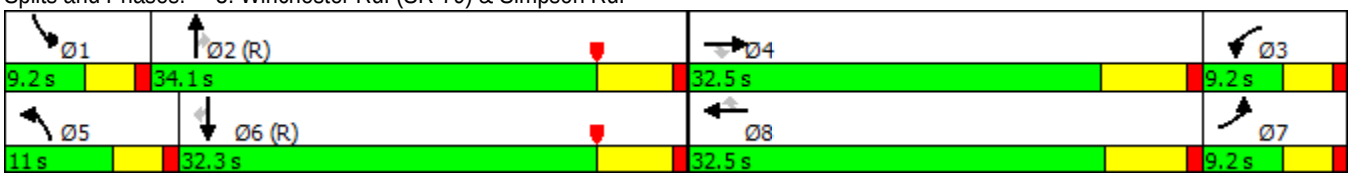
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1033	-	-	125	555	180	* 910	-	-
HCM Lane V/C Ratio	0.029	-	-	0.289	0.058	0.03	0.002	-	-
HCM Control Delay (s)	8.6	-	-	45.1	11.9	25.6	9	-	-
HCM Lane LOS	A	-	-	E	B	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.1	0.2	0.1	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	140	49	53	108	38	54	554	113	29	376	82
Future Volume (vph)	49	140	49	53	108	38	54	554	113	29	376	82
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	9.2	32.5	32.5	9.2	32.5	32.5	11.0	34.1	34.1	9.2	32.3	32.3
Total Split (%)	10.8%	38.2%	38.2%	10.8%	38.2%	38.2%	12.9%	40.1%	40.1%	10.8%	38.0%	38.0%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	7.1	14.4	14.4	6.3	15.9	15.9	6.6	45.6	45.6	5.5	42.6	42.6
Actuated g/C Ratio	0.08	0.17	0.17	0.07	0.19	0.19	0.08	0.54	0.54	0.06	0.50	0.50
v/c Ratio	0.35	0.47	0.14	0.42	0.33	0.10	0.42	0.31	0.13	0.27	0.22	0.10
Control Delay	43.6	35.3	0.7	48.7	31.5	0.5	46.5	14.5	2.2	43.9	15.7	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.6	35.3	0.7	48.7	31.5	0.5	46.5	14.5	2.2	43.9	15.7	0.7
LOS	D	D	A	D	C	A	D	B	A	D	B	A
Approach Delay		29.8			30.2			15.0			14.9	
Approach LOS		C			C			B			B	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 19.0	Intersection LOS: B
Intersection Capacity Utilization 55.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	140	49	53	108	38	54	554	113	29	376	82
Future Volume (veh/h)	49	140	49	53	108	38	54	554	113	29	376	82
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	52	147	31	56	114	26	57	583	66	31	396	59
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	83	223	187	77	223	189	77	1992	891	54	1946	870
Arrive On Green	0.05	0.12	0.12	0.04	0.12	0.12	0.04	0.56	0.56	0.03	0.55	0.55
Sat Flow, veh/h	1774	1863	1561	1774	1863	1577	1774	3539	1583	1774	3539	1582
Grp Volume(v), veh/h	52	147	31	56	114	26	57	583	66	31	396	59
Grp Sat Flow(s),veh/h/ln	1774	1863	1561	1774	1863	1577	1774	1770	1583	1774	1770	1582
Q Serve(g_s), s	2.4	6.4	1.2	2.7	4.9	1.0	2.7	7.3	1.0	1.5	4.8	0.9
Cycle Q Clear(g_c), s	2.4	6.4	1.2	2.7	4.9	1.0	2.7	7.3	1.0	1.5	4.8	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	223	187	77	223	189	77	1992	891	54	1946	870
V/C Ratio(X)	0.63	0.66	0.17	0.73	0.51	0.14	0.74	0.29	0.07	0.57	0.20	0.07
Avail Cap(c_a), veh/h	104	570	478	104	576	488	142	1992	891	104	1946	870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	35.7	21.9	40.2	35.1	22.9	40.2	9.7	3.4	40.7	9.7	3.6
Incr Delay (d2), s/veh	2.9	3.3	0.4	8.8	1.8	0.3	4.8	0.4	0.2	3.5	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.5	0.6	1.5	2.6	0.5	1.4	3.7	0.5	0.8	2.4	0.4
LnGrp Delay(d),s/veh	42.7	39.0	22.3	49.0	36.9	23.2	45.0	10.1	3.5	44.2	9.9	3.8
LnGrp LOS	D	D	C	D	D	C	D	B	A	D	A	A
Approach Vol, veh/h		230			196			706			486	
Approach Delay, s/veh		37.6			38.5			12.3			11.4	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	53.6	7.9	16.7	7.9	52.5	8.2	16.4
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 5	28.3	5.0	* 26	* 6.8	26.5	5.0	* 26
Max Q Clear Time (g_c+I1), s	3.5	9.3	4.7	8.4	4.7	6.8	4.4	6.9
Green Ext Time (p_c), s	0.0	8.6	0.0	0.6	0.0	8.7	0.0	0.5

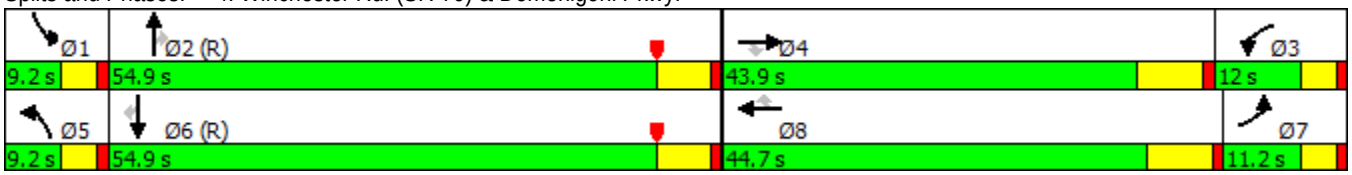
Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	187	782	58	621	822	18	68	524	937	12	289	142
Future Volume (vph)	187	782	58	621	822	18	68	524	937	12	289	142
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	11.2	43.9	43.9	12.0	44.7	44.7	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.3%	36.6%	36.6%	10.0%	37.3%	37.3%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	16.6	33.5	33.5	11.3	28.2	28.2	5.0	54.6	54.6	5.0	49.1	49.1
Actuated g/C Ratio	0.14	0.28	0.28	0.09	0.24	0.24	0.04	0.46	0.46	0.04	0.41	0.41
v/c Ratio	0.42	0.84	0.12	2.05	0.73	0.04	0.99	0.35	1.16	0.18	0.21	0.21
Control Delay	52.1	49.2	1.9	511.6	45.8	0.2	159.4	22.6	110.5	61.2	23.4	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	49.2	1.9	511.6	45.8	0.2	159.4	22.6	110.5	61.2	23.4	4.2
LOS	D	D	A	F	D	A	F	C	F	E	C	A
Approach Delay		47.0			243.4			82.6			18.3	
Approach LOS		D			F			F			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.05	
Intersection Signal Delay: 120.7	Intersection LOS: F
Intersection Capacity Utilization 97.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	782	58	621	822	18	68	524	937	12	289	142
Future Volume (veh/h)	187	782	58	621	822	18	68	524	937	12	289	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	199	832	31	661	874	9	72	557	582	13	307	42
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	392	947	424	224	1113	347	74	1688	755	26	1592	712
Arrive On Green	0.11	0.27	0.27	0.07	0.22	0.22	0.04	0.48	0.48	0.01	0.45	0.45
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	199	832	31	661	874	9	72	557	582	13	307	42
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.5	27.0	1.4	7.8	19.5	0.5	4.9	11.7	26.1	0.9	6.3	1.2
Cycle Q Clear(g_c), s	6.5	27.0	1.4	7.8	19.5	0.5	4.9	11.7	26.1	0.9	6.3	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	392	947	424	224	1113	347	74	1688	755	26	1592	712
V/C Ratio(X)	0.51	0.88	0.07	2.95	0.79	0.03	0.97	0.33	0.77	0.50	0.19	0.06
Avail Cap(c_a), veh/h	392	1091	488	224	1602	499	74	1688	755	74	1592	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	50.0	42.1	21.9	56.1	44.2	27.4	57.4	19.5	13.3	58.7	19.9	7.7
Incr Delay (d2), s/veh	0.5	7.6	0.1	891.6	1.7	0.0	95.1	0.5	7.5	5.3	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	14.2	0.6	31.4	9.3	0.2	4.3	5.8	12.9	0.5	3.1	0.5
LnGrp Delay(d),s/veh	50.5	49.6	22.0	947.7	45.9	27.4	152.6	20.0	20.8	64.0	20.2	7.8
LnGrp LOS	D	D	C	F	D	C	F	C	C	E	C	A
Approach Vol, veh/h		1062			1544			1211			362	
Approach Delay, s/veh		49.0			431.9			28.3			20.3	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	63.0	12.0	39.0	9.2	59.8	17.9	33.2
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.9	* 4.2	5.8	4.2	* 6.9
Max Green Setting (Gmax), s	* 5	49.1	7.8	* 37	* 5	49.1	7.0	* 38
Max Q Clear Time (g_c+I1), s	2.9	28.1	9.8	29.0	6.9	8.3	8.5	21.5
Green Ext Time (p_c), s	0.0	11.3	0.0	3.1	0.0	15.3	0.0	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	182.0
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↱				↱			↱
Traffic Vol, veh/h	0	1727	3	0	1462	0	0	0	0	0	0	0
Future Vol, veh/h	0	1727	3	0	1462	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1744	3	0	1477	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	874	-	-	738
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*389	0	0	360
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*389	-	-	360
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	-	0
HCM Lane LOS	A	-	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	119	5	2	9	9	90
Future Vol, veh/h	119	5	2	9	9	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	142	6	2	11	11	107

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	26	11	11	0	-	0
Stage 1	11	-	-	-	-	-
Stage 2	15	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	989	1070	1608	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	988	1070	1608	-	-	-
Mov Cap-2 Maneuver	988	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	1007	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	1.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	991	-	-
HCM Lane V/C Ratio	0.001	-	0.149	-	-
HCM Control Delay (s)	7.2	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	241	2	2	169	0	1	1	2	1	2	2
Future Vol, veh/h	2	241	2	2	169	0	1	1	2	1	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	274	2	2	192	0	1	1	2	1	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	192	0	0	276	0	0	479	477	275	478	478	192
Stage 1	-	-	-	-	-	-	280	280	-	197	197	-
Stage 2	-	-	-	-	-	-	199	197	-	281	281	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1381	-	-	1287	-	-	497	487	764	498	486	850
Stage 1	-	-	-	-	-	-	727	679	-	805	738	-
Stage 2	-	-	-	-	-	-	803	738	-	726	678	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1381	-	-	1287	-	-	492	485	764	494	484	850
Mov Cap-2 Maneuver	-	-	-	-	-	-	492	485	-	494	484	-
Stage 1	-	-	-	-	-	-	726	678	-	803	737	-
Stage 2	-	-	-	-	-	-	797	737	-	721	677	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	11.1	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	596	1381	-	-	1287	-	-	588
HCM Lane V/C Ratio	0.008	0.002	-	-	0.002	-	-	0.01
HCM Control Delay (s)	11.1	7.6	0	-	7.8	0	-	11.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	7.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	37	0	0	22
Future Vol, veh/h	0	0	37	0	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	40	0	0	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1	0	81	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	80	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1622	-	921	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	943	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1622	-	898	1084
Mov Cap-2 Maneuver	-	-	-	-	898	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	920	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.3	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1084	-	-	1622	-
HCM Lane V/C Ratio	0.022	-	-	0.025	-
HCM Control Delay (s)	8.4	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	22	0	74	37	0	44
Future Vol, veh/h	22	0	74	37	0	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	0	80	40	0	48

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	24	0	225	24
Stage 1	-	-	-	-	24	-
Stage 2	-	-	-	-	201	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1591	-	763	1052
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	833	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1591	-	725	1052
Mov Cap-2 Maneuver	-	-	-	-	725	-
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	791	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.9	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1052	-	-	1591	-
HCM Lane V/C Ratio	0.045	-	-	0.051	-
HCM Control Delay (s)	8.6	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-

Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	65	0	37	111	0	22
Future Vol, veh/h	65	0	37	111	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	0	40	121	0	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	71	0	272	71
Stage 1	-	-	-	-	71	-
Stage 2	-	-	-	-	201	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1529	-	717	991
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	833	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1529	-	698	991
Mov Cap-2 Maneuver	-	-	-	-	698	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	811	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.9	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	991	-	-	1529	-
HCM Lane V/C Ratio	0.024	-	-	0.026	-
HCM Control Delay (s)	8.7	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Intersection Delay, s/veh	39
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	14	25	1	0	124	39	36	0	0	428	182
Future Vol, veh/h	0	14	25	1	0	124	39	36	0	0	428	182
Peak Hour Factor	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	25	1	0	125	39	36	0	0	432	184
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	11.8	14.9	50.6
HCM LOS	B	B	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	35%	62%	14%
Vol Thru, %	70%	62%	20%	78%
Vol Right, %	30%	3%	18%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	610	40	199	536
LT Vol	0	14	124	77
Through Vol	428	25	39	418
RT Vol	182	1	36	41
Lane Flow Rate	616	40	201	541
Geometry Grp	1	1	1	1
Degree of Util (X)	0.964	0.089	0.398	0.878
Departure Headway (Hd)	5.63	7.905	7.136	5.841
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	647	451	503	617
Service Time	3.63	5.992	5.196	3.888
HCM Lane V/C Ratio	0.952	0.089	0.4	0.877
HCM Control Delay	50.6	11.8	14.9	36.9
HCM Lane LOS	F	B	B	E
HCM 95th-tile Q	13.8	0.3	1.9	10.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	77	418	41
Future Vol, veh/h	0	77	418	41
Peak Hour Factor	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	78	422	41
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	36.9
HCM LOS	E

Intersection	
Intersection Delay, s/veh	127.2
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	191	165	14	0	36	228	20	0	18	400	45	0	30	388	125
Future Vol, veh/h	0	191	165	14	0	36	228	20	0	18	400	45	0	30	388	125
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	199	172	15	0	38	238	21	0	19	417	47	0	31	404	130
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	74.7	43.8	105.7	224.9
HCM LOS	F	E	F	F

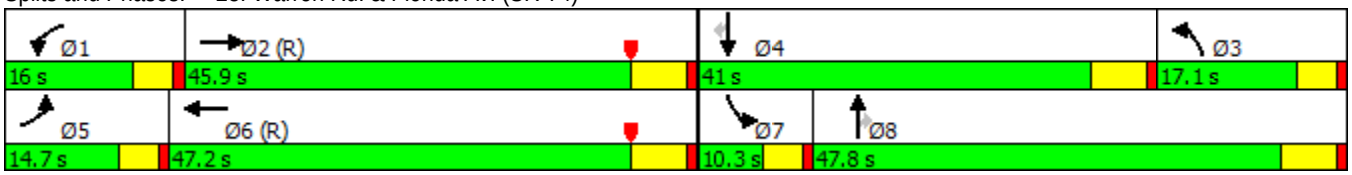
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	0%	52%	13%	6%
Vol Thru, %	96%	0%	45%	80%	71%
Vol Right, %	0%	100%	4%	7%	23%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	418	45	370	284	543
LT Vol	18	0	191	36	30
Through Vol	400	0	165	228	388
RT Vol	0	45	14	20	125
Lane Flow Rate	435	47	385	296	566
Geometry Grp	7	7	2	2	5
Degree of Util (X)	1.117	0.111	0.969	0.776	1.41
Departure Headway (Hd)	10.217	9.459	10.545	11.104	9.395
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	357	381	347	328	390
Service Time	7.917	7.159	8.545	9.104	7.395
HCM Lane V/C Ratio	1.218	0.123	1.11	0.902	1.451
HCM Control Delay	115.6	13.3	74.7	43.8	224.9
HCM Lane LOS	F	B	F	E	F
HCM 95th-tile Q	15	0.4	10.5	6.2	27.1

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	118	846	215	737	188	338	297	25	284	114
Future Volume (vph)	118	846	215	737	188	338	297	25	284	114
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	14.7	45.9	16.0	47.2	17.1	47.8	47.8	10.3	41.0	41.0
Total Split (%)	12.3%	38.3%	13.3%	39.3%	14.3%	39.8%	39.8%	8.6%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	9.9	39.9	11.4	41.4	12.5	45.9	45.9	5.5	35.0	35.0
Actuated g/C Ratio	0.08	0.33	0.10	0.34	0.10	0.38	0.38	0.05	0.29	0.29
v/c Ratio	0.86	0.90	1.35	0.65	1.08	0.26	0.40	0.33	0.29	0.22
Control Delay	99.1	49.2	231.1	36.3	138.6	27.0	6.8	66.3	33.8	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.1	49.2	231.1	36.3	138.6	27.0	6.8	66.3	33.8	6.1
LOS	F	D	F	D	F	C	A	E	C	A
Approach Delay		54.5		79.3		45.2			28.3	
Approach LOS		D		E		D			C	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.35
Intersection Signal Delay: 56.1 — Intersection LOS: E
Intersection Capacity Utilization 75.9% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	846	148	215	737	19	188	338	297	25	284	114
Future Volume (veh/h)	118	846	148	215	737	19	188	338	297	25	284	114
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	124	891	91	226	776	14	198	356	197	26	299	52
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	2327	238	169	2591	47	185	1357	607	43	1032	462
Arrive On Green	0.08	0.72	0.72	0.09	0.73	0.73	0.10	0.38	0.38	0.02	0.29	0.29
Sat Flow, veh/h	1774	3243	331	1774	3557	64	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	124	486	496	226	386	404	198	356	197	26	299	52
Grp Sat Flow(s),veh/h/ln	1774	1770	1804	1774	1770	1851	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	8.3	12.8	12.8	11.4	9.1	9.1	12.5	8.3	10.5	1.7	7.8	3.8
Cycle Q Clear(g_c), s	8.3	12.8	12.8	11.4	9.1	9.1	12.5	8.3	10.5	1.7	7.8	3.8
Prop In Lane	1.00		0.18	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	1270	1295	169	1289	1349	185	1357	607	43	1032	462
V/C Ratio(X)	0.83	0.38	0.38	1.34	0.30	0.30	1.07	0.26	0.32	0.61	0.29	0.11
Avail Cap(c_a), veh/h	149	1270	1295	169	1289	1349	185	1357	607	84	1032	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.1	6.6	6.6	54.3	5.7	5.7	53.8	25.4	26.1	58.0	32.9	53.9
Incr Delay (d2), s/veh	29.4	0.9	0.9	187.8	0.6	0.6	86.5	0.5	1.4	5.1	0.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	6.5	6.6	14.4	4.6	4.8	10.5	4.1	4.8	0.9	3.9	1.7
LnGrp Delay(d),s/veh	83.5	7.5	7.5	242.1	6.3	6.2	140.2	25.8	27.5	63.0	33.6	54.4
LnGrp LOS	F	A	A	F	A	A	F	C	C	E	C	D
Approach Vol, veh/h		1106			1016			751			377	
Approach Delay, s/veh		16.0			58.7			56.4			38.5	
Approach LOS		B			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	93.5	18.5	41.0	14.7	94.8	7.5	52.0
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	11.4	39.9	12.5	* 35	10.1	41.2	5.7	41.8
Max Q Clear Time (g_c+I1), s	13.4	14.8	14.5	9.8	10.3	11.1	3.7	12.5
Green Ext Time (p_c), s	0.0	6.9	0.0	1.1	0.0	7.1	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	41.3
HCM 2010 LOS	D

Notes

Intersection	
Int Delay, s/veh	7.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	54	196	646	45	86	573
Future Vol, veh/h	54	196	646	45	86	573
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	63	228	751	52	100	666

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1617	751	0	0	751	0
Stage 1	751	-	-	-	-	-
Stage 2	866	-	-	-	-	-
Critical Hdwy	7.12	6.22	-	-	4.12	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	83	411	-	-	858	-
Stage 1	403	-	-	-	-	-
Stage 2	348	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	76	411	-	-	858	-
Mov Cap-2 Maneuver	242	-	-	-	-	-
Stage 1	403	-	-	-	-	-
Stage 2	307	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	47.1	0	1.3
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	357	858	-
HCM Lane V/C Ratio	-	-	0.814	0.117	-
HCM Control Delay (s)	-	-	47.1	9.7	-
HCM Lane LOS	-	-	E	A	-
HCM 95th %tile Q(veh)	-	-	7.1	0.4	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	12	666	3	0	693
Future Vol, veh/h	3	12	666	3	0	693
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	13	724	3	0	753

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1479	726	0	0	727	0
Stage 1	726	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	138	425	-	-	876	-
Stage 1	479	-	-	-	-	-
Stage 2	465	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	138	425	-	-	876	-
Mov Cap-2 Maneuver	342	-	-	-	-	-
Stage 1	479	-	-	-	-	-
Stage 2	465	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	405	876	-
HCM Lane V/C Ratio	-	-	0.04	-	-
HCM Control Delay (s)	-	-	14.3	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Intersection Delay, s/veh	141.5
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	40	82	5	0	145	75	204	0	0	415	100
Future Vol, veh/h	0	40	82	5	0	145	75	204	0	0	415	100
Peak Hour Factor	0.92	0.98	0.98	0.98	0.92	0.98	0.98	0.98	0.92	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	41	84	5	0	148	77	208	0	0	423	102
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	2
HCM Control Delay	19.7	22.3	46.5
HCM LOS	C	C	E

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	31%	100%	0%	29%
Vol Thru, %	100%	0%	65%	0%	27%	66%
Vol Right, %	0%	100%	4%	0%	73%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	415	100	127	145	279	712
LT Vol	0	0	40	145	0	210
Through Vol	415	0	82	0	75	468
RT Vol	0	100	5	0	204	34
Lane Flow Rate	423	102	130	148	285	727
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	0.912	0.2	0.339	0.359	0.611	1.605
Departure Headway (Hd)	8.709	7.978	11.127	9.904	8.843	7.953
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	419	453	325	365	410	458
Service Time	6.409	5.678	9.127	7.604	6.543	5.998
HCM Lane V/C Ratio	1.01	0.225	0.4	0.405	0.695	1.587
HCM Control Delay	54.6	12.7	19.7	18	24.5	303
HCM Lane LOS	F	B	C	C	C	F
HCM 95th-tile Q	9.8	0.7	1.5	1.6	3.9	40.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	210	468	34
Future Vol, veh/h	0	210	468	34
Peak Hour Factor	0.92	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	214	478	35
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	303
HCM LOS	F

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	65	22	37	459	519
Future Volume (vph)	65	22	37	459	519
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	34.8	34.8	9.2	15.8	34.8
Total Split (s)	34.8	34.8	9.3	49.3	40.0
Total Split (%)	41.4%	41.4%	11.1%	58.6%	47.6%
Yellow Time (s)	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	13.8	13.8	5.7	63.0	56.8
Actuated g/C Ratio	0.16	0.16	0.07	0.75	0.68
v/c Ratio	0.23	0.08	0.32	0.34	0.53
Control Delay	30.1	10.2	44.5	7.1	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	10.2	44.5	7.1	14.3
LOS	C	B	D	A	B
Approach Delay	25.0			9.9	14.3
Approach LOS	C			A	B

Intersection Summary	
Cycle Length: 84.1	
Actuated Cycle Length: 84.1	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 52.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 27: Warren Rd. & New Stetson Av.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	65	22	37	459	519	111
Future Volume (veh/h)	65	22	37	459	519	111
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	67	23	38	473	535	114
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	185	165	62	1411	1002	213
Arrive On Green	0.10	0.10	0.03	0.76	0.67	0.67
Sat Flow, veh/h	1774	1583	1774	1863	1489	317
Grp Volume(v), veh/h	67	23	38	473	0	649
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	0	1807
Q Serve(g_s), s	3.0	1.1	1.8	6.9	0.0	15.4
Cycle Q Clear(g_c), s	3.0	1.1	1.8	6.9	0.0	15.4
Prop In Lane	1.00	1.00	1.00			0.18
Lane Grp Cap(c), veh/h	185	165	62	1411	0	1215
V/C Ratio(X)	0.36	0.14	0.61	0.34	0.00	0.53
Avail Cap(c_a), veh/h	612	547	108	1411	0	1215
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	34.2	40.0	3.3	0.0	7.0
Incr Delay (d2), s/veh	0.4	0.1	3.6	0.6	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.0	0.9	3.8	0.0	8.1
LnGrp Delay(d),s/veh	35.4	34.3	43.6	4.0	0.0	8.7
LnGrp LOS	D	C	D	A		A
Approach Vol, veh/h	90			511	649	
Approach Delay, s/veh	35.2			6.9	8.7	
Approach LOS	D			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		69.4		14.6	7.1	62.3		
Change Period (Y+Rc), s		5.8		5.8	* 4.2	5.8		
Max Green Setting (Gmax), s		43.5		29.0	* 5.1	34.2		
Max Q Clear Time (g_c+I1), s		8.9		5.0	3.8	17.4		
Green Ext Time (p_c), s		4.6		0.1	0.0	4.1		

Intersection Summary	
HCM 2010 Ctrl Delay	9.9
HCM 2010 LOS	A

Notes

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	11	18	474	504	37
Future Vol, veh/h	22	11	18	474	504	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	12	20	515	548	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1122	568	588	0	-	0
Stage 1	568	-	-	-	-	-
Stage 2	554	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	228	522	987	-	-	-
Stage 1	567	-	-	-	-	-
Stage 2	575	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	222	522	987	-	-	-
Mov Cap-2 Maneuver	222	-	-	-	-	-
Stage 1	567	-	-	-	-	-
Stage 2	559	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20	0.3	0
HCM LOS	C		

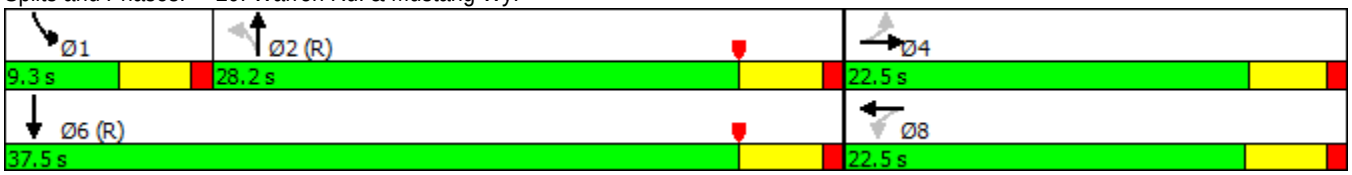
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	987	-	275	-	-
HCM Lane V/C Ratio	0.02	-	0.13	-	-
HCM Control Delay (s)	8.7	0	20	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	50	13	102	22	59	398	51	367
Future Volume (vph)	50	13	102	22	59	398	51	367
Turn Type	Perm	NA	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2			
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.5	22.5	21.6	21.6	21.7	21.7	9.2	14.7
Total Split (s)	22.5	22.5	22.5	22.5	28.2	28.2	9.3	37.5
Total Split (%)	37.5%	37.5%	37.5%	37.5%	47.0%	47.0%	15.5%	62.5%
Yellow Time (s)	3.5	3.5	3.6	3.6	3.7	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.6	4.6	4.7	4.7	4.2	4.7
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	10.9	10.9	11.7	11.7	36.4	36.4	5.9	42.8
Actuated g/C Ratio	0.18	0.18	0.20	0.20	0.61	0.61	0.10	0.71
v/c Ratio	0.21	0.15	0.39	0.16	0.11	0.56	0.30	0.35
Control Delay	21.1	10.1	24.9	11.2	10.6	14.5	29.7	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.1	10.1	24.9	11.2	10.6	14.5	29.7	5.8
LOS	C	B	C	B	B	B	C	A
Approach Delay		15.7		20.0		14.1		8.2
Approach LOS		B		C		B		A

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 12.8 — Intersection LOS: B
Intersection Capacity Utilization 60.7% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	13	35	102	22	34	59	398	197	51	367	85
Future Volume (veh/h)	50	13	35	102	22	34	59	398	197	51	367	85
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	51	13	36	104	22	8	60	406	177	52	374	87
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	325	71	198	306	213	77	642	693	302	86	997	232
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.56	0.56	0.56	0.05	0.68	0.68
Sat Flow, veh/h	1374	437	1211	1351	1305	474	927	1231	537	1774	1463	340
Grp Volume(v), veh/h	51	0	49	104	0	30	60	0	583	52	0	461
Grp Sat Flow(s),veh/h/ln	1374	0	1649	1351	0	1779	927	0	1767	1774	0	1803
Q Serve(g_s), s	2.0	0.0	1.5	4.3	0.0	0.9	1.8	0.0	12.9	1.7	0.0	6.6
Cycle Q Clear(g_c), s	2.8	0.0	1.5	5.9	0.0	0.9	1.8	0.0	12.9	1.7	0.0	6.6
Prop In Lane	1.00		0.73	1.00		0.27	1.00		0.30	1.00		0.19
Lane Grp Cap(c), veh/h	325	0	269	306	0	291	642	0	996	86	0	1229
V/C Ratio(X)	0.16	0.00	0.18	0.34	0.00	0.10	0.09	0.00	0.59	0.61	0.00	0.38
Avail Cap(c_a), veh/h	512	0	495	488	0	531	642	0	996	151	0	1229
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.6	0.0	21.6	24.2	0.0	21.4	6.1	0.0	8.5	28.0	0.0	4.1
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.7	0.0	0.2	0.3	0.0	2.5	2.6	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.7	1.7	0.0	0.4	0.5	0.0	6.9	0.9	0.0	3.5
LnGrp Delay(d),s/veh	22.8	0.0	22.0	24.8	0.0	21.5	6.4	0.0	11.1	30.6	0.0	5.0
LnGrp LOS	C		C	C		C	A		B	C		A
Approach Vol, veh/h		100			134			643			513	
Approach Delay, s/veh		22.4			24.1			10.6			7.6	
Approach LOS		C			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	7.1	38.5		14.4		45.6		14.4
Change Period (Y+Rc), s	* 4.2	* 4.7		* 4.6		* 4.7		4.6
Max Green Setting (Gmax), s	* 5.1	* 24		* 18		* 33		17.9
Max Q Clear Time (g_c+I1), s	3.7	14.9		4.8		8.6		7.9
Green Ext Time (p_c), s	0.0	5.6		0.7		11.3		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	11.6
HCM 2010 LOS	B

Notes

Intersection	
Intersection Delay, s/veh	22.6
Intersection LOS	C

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	216	32	0	365	153	0	23	425
Future Vol, veh/h	0	216	32	0	365	153	0	23	425
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	227	34	0	384	161	0	24	447
Number of Lanes	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	15.9	23.5	25.3
HCM LOS	C	C	D

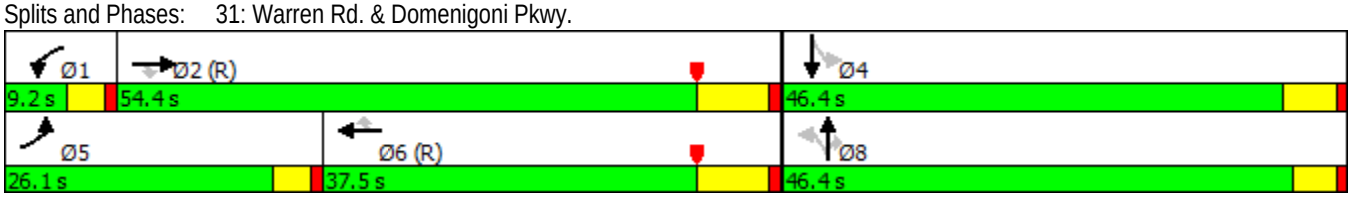
Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	87%	0%	100%
Vol Right, %	0%	100%	13%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	23	425	248	365	153
LT Vol	23	0	0	365	0
Through Vol	0	0	216	0	153
RT Vol	0	425	32	0	0
Lane Flow Rate	24	447	261	384	161
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.049	0.762	0.483	0.751	0.292
Departure Headway (Hd)	7.353	6.132	6.664	7.037	6.527
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	484	586	538	511	548
Service Time	5.135	3.912	4.754	4.82	4.31
HCM Lane V/C Ratio	0.05	0.763	0.485	0.751	0.294
HCM Control Delay	10.5	26.1	15.9	28.3	12
HCM Lane LOS	B	D	C	D	B
HCM 95th-tile Q	0.2	6.9	2.6	6.4	1.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	393	1313	6	3	1087	51	3	3	1	49	2
Future Volume (vph)	393	1313	6	3	1087	51	3	3	1	49	2
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	35.2	78.3	78.3	5.0	40.7	40.7		18.4	18.4		17.6
Actuated g/C Ratio	0.32	0.71	0.71	0.05	0.37	0.37		0.17	0.17		0.16
v/c Ratio	0.74	0.55	0.01	0.04	0.88	0.08		0.02	0.00		0.78
Control Delay	44.5	12.3	0.0	51.3	42.2	0.4		30.3	0.0		17.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	44.5	12.3	0.0	51.3	42.2	0.4		30.3	0.0		17.1
LOS	D	B	A	D	D	A		C	A		B
Approach Delay		19.7			40.4			26.0			17.1
Approach LOS		B			D			C			B

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 26.6 — Intersection LOS: C
Intersection Capacity Utilization 97.2% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	393	1313	6	3	1087	51	3	3	1	49	2	358
Future Volume (veh/h)	393	1313	6	3	1087	51	3	3	1	49	2	358
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	418	1397	4	3	1156	47	3	3	1	52	2	167
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	2417	1081	7	1727	772	129	113	258	87	15	192
Arrive On Green	0.20	0.68	0.68	0.00	0.49	0.49	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	488	695	1583	288	93	1180
Grp Volume(v), veh/h	418	1397	4	3	1156	47	6	0	1	221	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1184	0	1583	1561	0	0
Q Serve(g_s), s	21.9	22.7	0.1	0.2	27.3	1.7	0.0	0.0	0.1	11.5	0.0	0.0
Cycle Q Clear(g_c), s	21.9	22.7	0.1	0.2	27.3	1.7	0.3	0.0	0.1	15.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.50		1.00	0.24		0.76
Lane Grp Cap(c), veh/h	353	2417	1081	7	1727	772	242	0	258	295	0	0
V/C Ratio(X)	1.18	0.58	0.00	0.42	0.67	0.06	0.02	0.00	0.00	0.75	0.00	0.00
Avail Cap(c_a), veh/h	353	2417	1081	81	1727	772	561	0	602	618	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	9.1	5.5	54.7	21.4	14.9	38.6	0.0	38.5	44.8	0.0	0.0
Incr Delay (d2), s/veh	107.8	1.0	0.0	14.3	2.1	0.2	0.0	0.0	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.3	11.4	0.0	0.1	13.8	0.8	0.2	0.0	0.0	6.7	0.0	0.0
LnGrp Delay(d),s/veh	151.8	10.1	5.5	69.0	23.5	15.0	38.7	0.0	38.6	46.2	0.0	0.0
LnGrp LOS	F	B	A	E	C	B	D		D	D		
Approach Vol, veh/h		1819			1206			7			221	
Approach Delay, s/veh		42.7			23.3			38.6			46.2	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.6	82.0		23.3	26.1	60.6		23.3
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.2	24.7		17.1	23.9	29.3		2.3
Green Ext Time (p_c), s	0.0	12.6		0.8	0.0	1.1		0.9

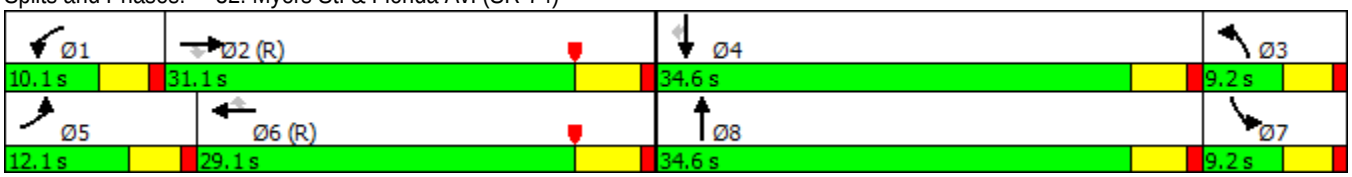
Intersection Summary	
HCM 2010 Ctrl Delay	35.7
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	152	981	19	48	893	12	5	28	10	16	69
Future Volume (vph)	152	981	19	48	893	12	5	28	10	16	69
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.1	31.1	31.1	10.1	29.1	29.1	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.2%	36.6%	36.6%	11.9%	34.2%	34.2%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	12.6	36.8	36.8	6.3	26.6	26.6	5.0	30.0	5.0	30.0	30.0
Actuated g/C Ratio	0.15	0.43	0.43	0.07	0.31	0.31	0.06	0.35	0.06	0.35	0.35
v/c Ratio	0.62	0.69	0.03	0.40	0.87	0.02	0.05	0.11	0.11	0.03	0.11
Control Delay	47.7	25.0	0.1	52.0	22.8	0.1	38.8	10.7	40.3	18.2	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	25.0	0.1	52.0	22.8	0.1	38.8	10.7	40.3	18.2	0.9
LOS	D	C	A	D	C	A	D	B	D	B	A
Approach Delay		27.6			24.0			12.6		8.0	
Approach LOS		C			C			B		A	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 80.1 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 53.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	981	19	48	893	12	5	28	35	10	16	69
Future Volume (veh/h)	152	981	19	48	893	12	5	28	35	10	16	69
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	163	1055	10	52	960	7	5	30	15	11	17	22
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1342	600	74	1160	519	24	414	207	24	657	559
Arrive On Green	0.09	0.38	0.38	0.04	0.33	0.33	0.01	0.35	0.35	0.01	0.35	0.35
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	1173	586	1774	1863	1583
Grp Volume(v), veh/h	163	1055	10	52	960	7	5	0	45	11	17	22
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	0	1759	1774	1863	1583
Q Serve(g_s), s	7.8	22.4	0.3	2.5	21.3	0.2	0.2	0.0	1.4	0.5	0.5	0.5
Cycle Q Clear(g_c), s	7.8	22.4	0.3	2.5	21.3	0.2	0.2	0.0	1.4	0.5	0.5	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	165	1342	600	74	1160	519	24	0	621	24	657	559
V/C Ratio(X)	0.99	0.79	0.02	0.70	0.83	0.01	0.21	0.00	0.07	0.46	0.03	0.04
Avail Cap(c_a), veh/h	165	1342	600	123	1160	519	104	0	621	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	23.3	10.6	40.2	26.4	12.9	41.5	0.0	18.3	41.6	18.0	8.8
Incr Delay (d2), s/veh	66.4	4.7	0.1	4.5	6.8	0.0	1.6	0.0	0.2	5.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	11.7	0.1	1.3	11.5	0.1	0.1	0.0	0.7	0.3	0.3	0.3
LnGrp Delay(d),s/veh	104.9	28.1	10.7	44.7	33.2	12.9	43.1	0.0	18.5	46.7	18.0	8.9
LnGrp LOS	F	C	B	D	C	B	D		B	D	B	A
Approach Vol, veh/h		1228			1019			50			50	
Approach Delay, s/veh		38.1			33.7			20.9			20.3	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	37.3	5.3	34.6	12.1	33.0	5.3	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.9	26.0	5.0	* 30	* 7.9	24.0	5.0	* 30
Max Q Clear Time (g_c+I1), s	4.5	24.4	2.2	2.5	9.8	23.3	2.5	3.4
Green Ext Time (p_c), s	0.0	1.5	0.0	0.1	0.0	0.7	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	35.4
HCM 2010 LOS	D

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	930	208	1	1020	0	2
Future Vol, veh/h	930	208	1	1020	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	989	221	1	1085	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	989	0	-	495
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*1065	-	0	*712
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*1065	-	-	*712
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

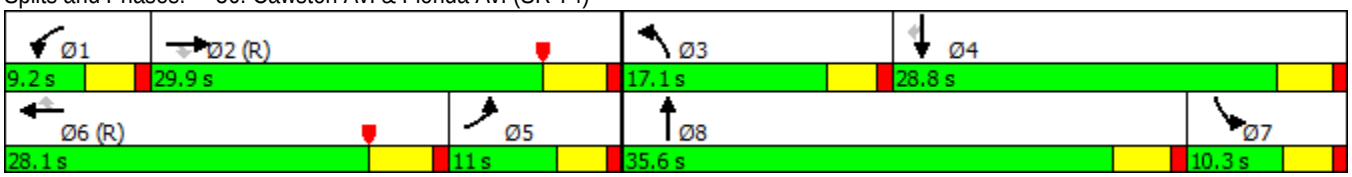
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	712	-	-	* 1065	-
HCM Lane V/C Ratio	0.003	-	-	0.001	-
HCM Control Delay (s)	10.1	-	-	8.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	142	777	13	12	743	113	167	83	118	98	111
Future Volume (vph)	142	777	13	12	743	113	167	83	118	98	111
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	11.0	29.9	29.9	9.2	28.1	28.1	17.1	35.6	10.3	28.8	28.8
Total Split (%)	12.9%	35.2%	35.2%	10.8%	33.1%	33.1%	20.1%	41.9%	12.1%	33.9%	33.9%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	6.8	32.2	32.2	5.0	23.0	23.0	11.4	31.0	6.1	25.7	25.7
Actuated g/C Ratio	0.08	0.38	0.38	0.06	0.27	0.27	0.13	0.36	0.07	0.30	0.30
v/c Ratio	1.05	0.60	0.02	0.12	0.81	0.21	0.73	0.08	0.97	0.18	0.19
Control Delay	110.1	8.8	0.1	40.8	36.9	1.2	53.9	16.0	115.1	23.8	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	110.1	8.8	0.1	40.8	36.9	1.2	53.9	16.0	115.1	23.8	0.9
LOS	F	A	A	D	D	A	D	B	F	C	A
Approach Delay		24.1			32.3			40.4		48.9	
Approach LOS		C			C			D		D	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 35 (41%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 32.3	Intersection LOS: C
Intersection Capacity Utilization 65.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	777	13	12	743	113	167	83	10	118	98	111
Future Volume (veh/h)	142	777	13	12	743	113	167	83	10	118	98	111
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	148	809	12	12	774	74	174	86	4	123	102	52
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	513	1968	880	26	958	426	210	1255	58	127	602	511
Arrive On Green	0.58	1.00	1.00	0.01	0.27	0.27	0.12	0.36	0.36	0.07	0.32	0.32
Sat Flow, veh/h	1774	3539	1583	1774	3539	1575	1774	3442	159	1774	1863	1583
Grp Volume(v), veh/h	148	809	12	12	774	74	174	44	46	123	102	52
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1575	1774	1770	1831	1774	1863	1583
Q Serve(g_s), s	3.6	0.0	0.0	0.6	17.4	3.1	8.2	1.4	1.4	5.9	3.3	1.4
Cycle Q Clear(g_c), s	3.6	0.0	0.0	0.6	17.4	3.1	8.2	1.4	1.4	5.9	3.3	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	513	1968	880	26	958	426	210	645	668	127	602	511
V/C Ratio(X)	0.29	0.41	0.01	0.47	0.81	0.17	0.83	0.07	0.07	0.97	0.17	0.10
Avail Cap(c_a), veh/h	513	1968	880	104	958	426	269	645	668	127	602	511
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.5	0.0	0.0	41.6	28.9	23.7	36.6	17.6	17.6	39.3	20.6	10.9
Incr Delay (d2), s/veh	0.1	0.6	0.0	4.8	7.3	0.9	12.5	0.2	0.2	68.7	0.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.2	0.0	0.3	9.5	1.4	4.7	0.7	0.7	5.3	1.8	0.7
LnGrp Delay(d),s/veh	13.6	0.6	0.0	46.4	36.2	24.6	49.2	17.8	17.8	108.0	21.2	11.3
LnGrp LOS	B	A	A	D	D	C	D	B	B	F	C	B
Approach Vol, veh/h		969			860			264			277	
Approach Delay, s/veh		2.6			35.4			38.5			57.9	
Approach LOS		A			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	52.4	14.2	32.1	29.7	28.1	10.7	35.6
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	5.1	* 5.1	4.6	* 4.6
Max Green Setting (Gmax), s	* 5	24.8	* 13	24.2	6.8	* 23	6.1	* 31
Max Q Clear Time (g_c+I1), s	2.6	2.0	10.2	5.3	5.6	19.4	7.9	3.4
Green Ext Time (p_c), s	0.0	8.0	0.1	0.8	0.1	2.1	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	25.0
HCM 2010 LOS	C

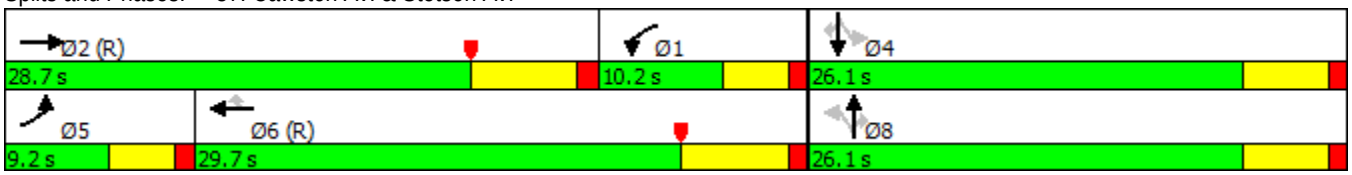
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	22	337	145	315	18	48	94	146	16	135	50
Future Volume (vph)	22	337	145	315	18	48	94	146	16	135	50
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.2	28.7	10.2	29.7	29.7	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.2%	44.2%	15.7%	45.7%	45.7%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	337	53	145	315	18	48	94	146	16	135	50
Future Volume (veh/h)	22	337	53	145	315	18	48	94	146	16	135	50
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	23	355	42	153	332	16	51	99	65	17	142	26
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	1105	130	1133	1843	1566	435	602	512	458	602	512
Arrive On Green	0.03	0.35	0.35	0.64	0.99	0.99	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	3191	375	1774	1863	1583	1212	1863	1583	1217	1863	1583
Grp Volume(v), veh/h	23	196	201	153	332	16	51	99	65	17	142	26
Grp Sat Flow(s),veh/h/ln	1774	1770	1797	1774	1863	1583	1212	1863	1583	1217	1863	1583
Q Serve(g_s), s	0.8	5.3	5.4	2.2	0.2	0.0	2.1	2.5	1.9	0.7	3.6	0.7
Cycle Q Clear(g_c), s	0.8	5.3	5.4	2.2	0.2	0.0	5.7	2.5	1.9	3.1	3.6	0.7
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	46	613	622	1133	1843	1566	435	602	512	458	602	512
V/C Ratio(X)	0.50	0.32	0.32	0.14	0.18	0.01	0.12	0.16	0.13	0.04	0.24	0.05
Avail Cap(c_a), veh/h	136	613	622	1133	1843	1566	435	602	512	458	602	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	15.6	15.6	4.6	0.0	0.0	18.2	15.7	15.5	16.8	16.1	15.1
Incr Delay (d2), s/veh	2.5	1.1	1.1	0.0	0.2	0.0	0.5	0.6	0.5	0.2	0.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.7	2.8	1.1	0.1	0.0	0.8	1.4	0.9	0.2	2.0	0.3
LnGrp Delay(d),s/veh	33.7	16.8	16.8	4.7	0.2	0.0	18.8	16.3	16.0	17.0	17.0	15.3
LnGrp LOS	C	B	B	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		420			501			215			185	
Approach Delay, s/veh		17.7			1.6			16.8			16.8	
Approach LOS		B			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	48.2	28.7		26.1	5.9	71.0		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	6.0	* 23		21.0	* 5	23.5		21.0
Max Q Clear Time (g_c+I1), s	4.2	7.4		5.6	2.8	2.2		7.7
Green Ext Time (p_c), s	0.1	1.1		1.0	0.0	1.2		0.9

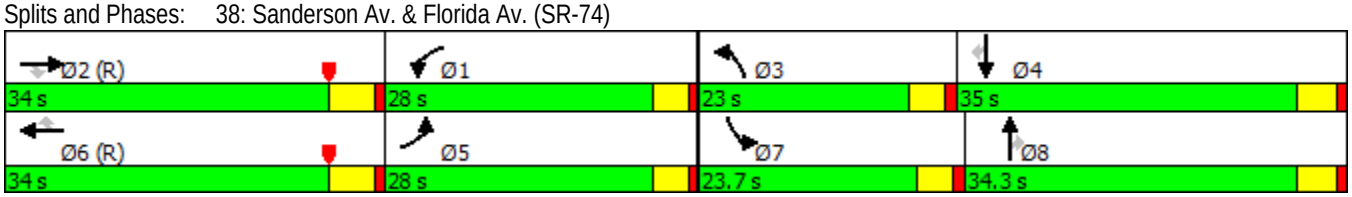
Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	227	715	77	213	572	144	211	681	200	178	710	143
Future Volume (vph)	227	715	77	213	572	144	211	681	200	178	710	143
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	28.0	34.0	34.0	28.0	34.0	34.0	23.0	34.3	34.3	23.7	35.0	35.0
Total Split (%)	23.3%	28.3%	28.3%	23.3%	28.3%	28.3%	19.2%	28.6%	28.6%	19.8%	29.2%	29.2%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	19.2	28.9	28.9	19.2	28.9	28.9	17.4	37.9	37.9	15.8	36.3	36.3
Actuated g/C Ratio	0.16	0.24	0.24	0.16	0.24	0.24	0.14	0.32	0.32	0.13	0.30	0.30
v/c Ratio	0.81	0.85	0.18	0.76	0.68	0.30	0.83	0.62	0.32	0.77	0.67	0.25
Control Delay	69.9	54.1	6.2	65.1	46.0	7.6	75.7	39.4	6.4	71.5	41.7	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.9	54.1	6.2	65.1	46.0	7.6	75.7	39.4	6.4	71.5	41.7	6.9
LOS	E	D	A	E	D	A	E	D	A	E	D	A
Approach Delay		54.0			44.5			40.4			42.0	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 45.1	Intersection LOS: D
Intersection Capacity Utilization 81.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	715	77	213	572	144	211	681	200	178	710	143
Future Volume (veh/h)	227	715	77	213	572	144	211	681	200	178	710	143
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	229	722	38	215	578	88	213	688	116	180	717	86
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	390	852	374	390	852	375	240	958	420	208	894	394
Arrive On Green	0.22	0.24	0.24	0.22	0.24	0.24	0.14	0.27	0.27	0.12	0.25	0.25
Sat Flow, veh/h	1774	3539	1554	1774	3539	1555	1774	3539	1551	1774	3539	1559
Grp Volume(v), veh/h	229	722	38	215	578	88	213	688	116	180	717	86
Grp Sat Flow(s),veh/h/ln	1774	1770	1554	1774	1770	1555	1774	1770	1551	1774	1770	1559
Q Serve(g_s), s	13.9	23.3	1.6	12.9	17.8	4.1	14.2	21.1	4.2	12.0	22.8	3.2
Cycle Q Clear(g_c), s	13.9	23.3	1.6	12.9	17.8	4.1	14.2	21.1	4.2	12.0	22.8	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	390	852	374	390	852	375	240	958	420	208	894	394
V/C Ratio(X)	0.59	0.85	0.10	0.55	0.68	0.23	0.89	0.72	0.28	0.87	0.80	0.22
Avail Cap(c_a), veh/h	390	852	374	390	852	375	278	958	420	288	894	394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	43.4	18.4	41.6	41.3	20.3	51.0	39.6	12.3	52.1	42.0	13.1
Incr Delay (d2), s/veh	1.6	10.2	0.5	1.0	4.3	1.5	23.2	4.6	1.6	14.1	7.5	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	12.6	0.8	6.4	9.2	1.9	8.5	10.9	2.0	6.7	12.1	1.5
LnGrp Delay(d),s/veh	43.5	53.6	18.9	42.6	45.6	21.7	74.2	44.2	13.9	66.2	49.6	14.3
LnGrp LOS	D	D	B	D	D	C	E	D	B	E	D	B
Approach Vol, veh/h		989			881			1017			983	
Approach Delay, s/veh		50.0			42.5			47.0			49.5	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.6	34.0	20.4	35.0	30.6	34.0	18.2	37.2
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	23.8	* 29	* 19	* 30	23.8	* 29	* 20	* 30
Max Q Clear Time (g_c+I1), s	14.9	25.3	16.2	24.8	15.9	19.8	14.0	23.1
Green Ext Time (p_c), s	0.5	1.9	0.1	4.1	0.5	3.5	0.1	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	47.4
HCM 2010 LOS	D

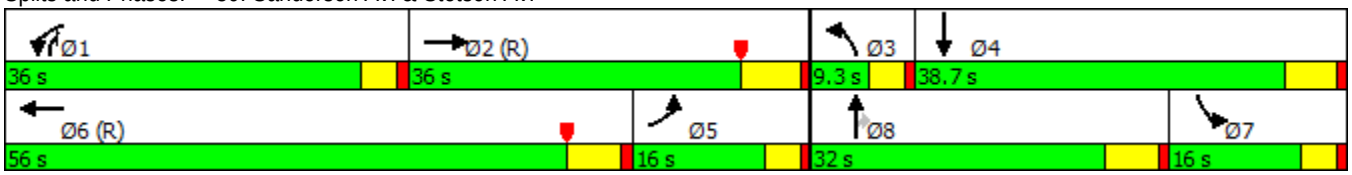
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	197	481	429	440	33	601	442	176	730
Future Volume (vph)	197	481	429	440	33	601	442	176	730
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	16.0	36.0	36.0	56.0	9.3	32.0	36.0	16.0	38.7
Total Split (%)	13.3%	30.0%	30.0%	46.7%	7.8%	26.7%	30.0%	13.3%	32.3%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 21.4 (18%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 105
Control Type: Actuated-Coordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	481	32	429	440	153	33	601	442	176	730	141
Future Volume (veh/h)	197	481	32	429	440	153	33	601	442	176	730	141
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	203	496	31	442	454	137	34	620	87	181	753	134
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1239	2934	183	465	1123	336	50	773	753	174	906	161
Arrive On Green	0.70	0.87	0.87	0.26	0.42	0.42	0.03	0.22	0.22	0.10	0.30	0.30
Sat Flow, veh/h	1774	3380	211	1774	2686	804	1774	3539	1548	1774	3004	534
Grp Volume(v), veh/h	203	259	268	442	298	293	34	620	87	181	444	443
Grp Sat Flow(s),veh/h/ln	1774	1770	1821	1774	1770	1720	1774	1770	1548	1774	1770	1768
Q Serve(g_s), s	4.7	2.7	2.7	29.4	14.1	14.3	2.3	19.9	6.6	11.8	28.0	28.0
Cycle Q Clear(g_c), s	4.7	2.7	2.7	29.4	14.1	14.3	2.3	19.9	6.6	11.8	28.0	28.0
Prop In Lane	1.00		0.12	1.00		0.47	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	1239	1536	1581	465	740	720	50	773	753	174	534	534
V/C Ratio(X)	0.16	0.17	0.17	0.95	0.40	0.41	0.68	0.80	0.12	1.04	0.83	0.83
Avail Cap(c_a), veh/h	1239	1536	1581	470	740	720	75	773	753	174	534	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.2	1.2	1.2	43.5	24.4	24.5	57.8	44.4	55.1	54.1	39.0	39.0
Incr Delay (d2), s/veh	0.0	0.2	0.2	29.0	1.6	1.7	5.8	8.6	0.3	78.4	14.0	14.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	1.4	1.4	18.1	7.2	7.1	1.2	10.7	2.9	9.6	15.7	15.7
LnGrp Delay(d),s/veh	6.2	1.5	1.4	72.5	26.0	26.2	63.6	53.1	55.4	132.6	53.0	53.1
LnGrp LOS	A	A	A	E	C	C	E	D	E	F	D	D
Approach Vol, veh/h		730			1033			741			1068	
Approach Delay, s/veh		2.8			46.0			53.8			66.5	
Approach LOS		A			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.6	111.6	7.6	42.0	91.2	56.0	17.6	32.0
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	6.2	* 5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 32	29.8	* 5.1	32.9	11.8	* 50	11.8	* 26
Max Q Clear Time (g_c+I1), s	31.4	4.7	4.3	30.0	6.7	16.3	13.8	21.9
Green Ext Time (p_c), s	0.0	2.9	0.0	1.8	1.4	3.5	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	44.9
HCM 2010 LOS	D

Notes

APPENDIX 5.2:

E+P (PROJECT BUILDOUT) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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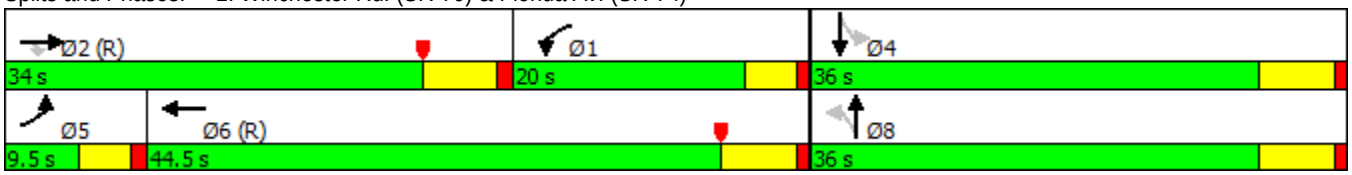
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	11	701	90	328	689	91	9	16	25
Future Volume (vph)	11	701	90	328	689	91	9	16	25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	28.0	28.0	15.5	46.1	30.0	30.0	30.0	30.0
Actuated g/C Ratio	0.06	0.31	0.31	0.17	0.51	0.33	0.33	0.33	0.33
v/c Ratio	0.11	0.66	0.16	1.11	0.41	0.20	0.43	0.06	0.04
Control Delay	43.1	30.5	4.3	122.0	14.9	23.0	5.1	21.2	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	30.5	4.3	122.0	14.9	23.0	5.1	21.2	20.6
LOS	D	C	A	F	B	C	A	C	C
Approach Delay		27.7			48.6		9.3		20.9
Approach LOS		C			D		A		C

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 34.0 — Intersection LOS: C
Intersection Capacity Utilization 80.3% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	701	90	328	689	26	91	9	291	16	25	0
Future Volume (veh/h)	11	701	90	328	689	26	91	9	291	16	25	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	723	54	338	710	25	94	9	120	16	26	0
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	24	1089	493	786	2641	93	526	37	496	425	621	0
Arrive On Green	0.01	0.31	0.31	0.44	0.76	0.76	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	1774	3502	1583	1774	3488	123	1378	112	1487	1255	1863	0
Grp Volume(v), veh/h	11	723	54	338	360	375	94	0	129	16	26	0
Grp Sat Flow(s),veh/h/ln	1774	1751	1583	1774	1770	1841	1378	0	1599	1255	1863	0
Q Serve(g_s), s	0.6	16.1	2.2	11.8	5.6	5.6	4.5	0.0	5.3	0.8	0.8	0.0
Cycle Q Clear(g_c), s	0.6	16.1	2.2	11.8	5.6	5.6	5.3	0.0	5.3	6.1	0.8	0.0
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.93	1.00		0.00
Lane Grp Cap(c), veh/h	24	1089	493	786	1340	1394	526	0	533	425	621	0
V/C Ratio(X)	0.46	0.66	0.11	0.43	0.27	0.27	0.18	0.00	0.24	0.04	0.04	0.00
Avail Cap(c_a), veh/h	99	1089	493	786	1340	1394	526	0	533	425	621	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.1	26.9	22.1	17.3	3.3	3.3	22.1	0.0	21.8	24.0	20.3	0.0
Incr Delay (d2), s/veh	5.2	3.2	0.4	0.1	0.5	0.5	0.7	0.0	1.1	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	8.2	1.0	5.8	2.9	3.0	1.8	0.0	2.5	0.3	0.5	0.0
LnGrp Delay(d),s/veh	49.2	30.1	22.6	17.4	3.8	3.8	22.8	0.0	22.8	24.1	20.4	0.0
LnGrp LOS	D	C	C	B	A	A	C		C	C	C	
Approach Vol, veh/h		788			1073			223			42	
Approach Delay, s/veh		29.9			8.1			22.8			21.8	
Approach LOS		C			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	45.9	34.0		36.0	5.7	74.2		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	13.8	18.1		8.1	2.6	7.6		7.3
Green Ext Time (p_c), s	0.2	2.2		0.6	0.0	2.9		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	1	22	2	0	2	20	360	2	2	573	25
Future Vol, veh/h	26	1	22	2	0	2	20	360	2	2	573	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	1	24	2	0	2	22	387	2	2	616	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1066	1066	630	1065	1078	388	643	0	0	389	0	0
Stage 1	634	634	-	431	431	-	-	-	-	-	-	-
Stage 2	432	432	-	634	647	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	188	201	482	188	197	*788	942	-	-	*1180	-	-
Stage 1	467	473	-	718	633	-	-	-	-	-	-	-
Stage 2	716	632	-	467	467	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	184	196	482	175	192	*788	942	-	-	*1180	-	-
Mov Cap-2 Maneuver	184	196	-	175	192	-	-	-	-	-	-	-
Stage 1	456	472	-	701	618	-	-	-	-	-	-	-
Stage 2	698	617	-	442	466	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.3	17.8	0.5	0
HCM LOS	C	C		

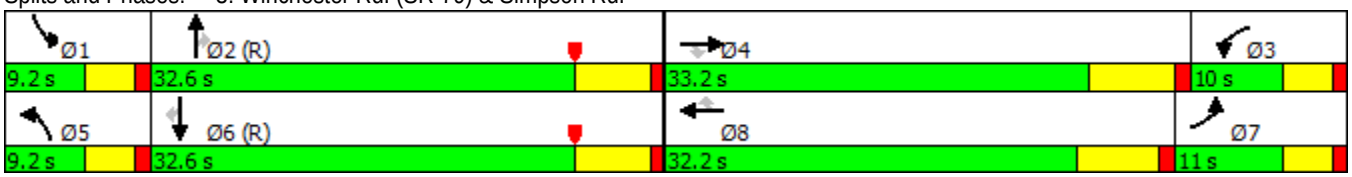
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	942	-	-	184	482	286	* 1180	-	-
HCM Lane V/C Ratio	0.023	-	-	0.158	0.049	0.015	0.002	-	-
HCM Control Delay (s)	8.9	-	-	28.2	12.9	17.8	8.1	-	-
HCM Lane LOS	A	-	-	D	B	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.2	0	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	128	51	82	145	41	24	262	36	24	458	100
Future Volume (vph)	87	128	51	82	145	41	24	262	36	24	458	100
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	11.0	33.2	33.2	10.0	32.2	32.2	9.2	32.6	32.6	9.2	32.6	32.6
Total Split (%)	12.9%	39.1%	39.1%	11.8%	37.9%	37.9%	10.8%	38.4%	38.4%	10.8%	38.4%	38.4%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	8.1	14.2	14.2	8.3	14.8	14.8	5.4	43.9	43.9	5.4	43.9	43.9
Actuated g/C Ratio	0.10	0.17	0.17	0.10	0.17	0.17	0.06	0.52	0.52	0.06	0.52	0.52
v/c Ratio	0.57	0.45	0.14	0.51	0.49	0.12	0.23	0.16	0.05	0.23	0.27	0.13
Control Delay	51.6	34.9	0.8	48.6	35.6	0.6	42.9	14.6	0.1	42.9	15.3	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.6	34.9	0.8	48.6	35.6	0.6	42.9	14.6	0.1	42.9	15.3	2.1
LOS	D	C	A	D	D	A	D	B	A	D	B	A
Approach Delay		33.9			34.2			15.1			14.2	
Approach LOS		C			C			B			B	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay: 21.7	Intersection LOS: C
Intersection Capacity Utilization 50.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	128	51	82	145	41	24	262	36	24	458	100
Future Volume (veh/h)	87	128	51	82	145	41	24	262	36	24	458	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	95	139	30	89	158	28	26	285	27	26	498	64
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	255	212	115	255	214	48	1868	824	48	1868	829
Arrive On Green	0.07	0.14	0.14	0.06	0.14	0.14	0.03	0.53	0.53	0.03	0.53	0.53
Sat Flow, veh/h	1774	1863	1545	1774	1863	1560	1774	3539	1561	1774	3539	1570
Grp Volume(v), veh/h	95	139	30	89	158	28	26	285	27	26	498	64
Grp Sat Flow(s),veh/h/ln	1774	1863	1545	1774	1863	1560	1774	1770	1561	1774	1770	1570
Q Serve(g_s), s	4.5	5.9	1.2	4.2	6.8	1.1	1.2	3.5	0.4	1.2	6.6	1.0
Cycle Q Clear(g_c), s	4.5	5.9	1.2	4.2	6.8	1.1	1.2	3.5	0.4	1.2	6.6	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	121	255	212	115	255	214	48	1868	824	48	1868	829
V/C Ratio(X)	0.78	0.54	0.14	0.78	0.62	0.13	0.54	0.15	0.03	0.54	0.27	0.08
Avail Cap(c_a), veh/h	142	585	485	121	570	477	104	1868	824	104	1868	829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	34.2	21.9	39.1	34.6	22.0	40.8	10.3	3.6	40.8	11.0	3.6
Incr Delay (d2), s/veh	17.9	1.8	0.3	22.7	2.4	0.3	3.4	0.2	0.1	3.5	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	3.2	0.5	2.8	3.7	0.5	0.7	1.7	0.2	0.7	3.3	0.5
LnGrp Delay(d),s/veh	56.9	36.0	22.2	61.8	37.0	22.3	44.2	10.5	3.7	44.4	11.4	3.8
LnGrp LOS	E	D	C	E	D	C	D	B	A	D	B	A
Approach Vol, veh/h		264			275			338			588	
Approach Delay, s/veh		42.0			43.6			12.5			12.0	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	50.7	9.7	18.1	6.5	50.7	10.0	17.8
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 5	26.8	5.8	* 27	* 5	26.8	6.8	* 26
Max Q Clear Time (g_c+I1), s	3.2	5.5	6.2	7.9	3.2	8.6	6.5	8.8
Green Ext Time (p_c), s	0.0	7.1	0.0	0.6	0.0	6.6	0.0	0.7

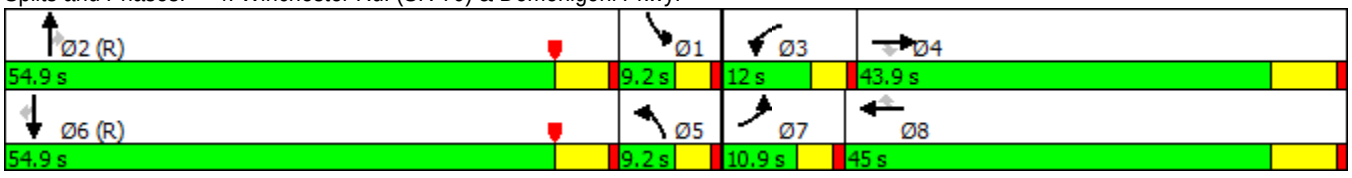
Intersection Summary	
HCM 2010 Ctrl Delay	23.4
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	798	62	734	802	18	36	221	578	13	419	158
Future Volume (vph)	112	798	62	734	802	18	36	221	578	13	419	158
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	10.9	43.9	43.9	12.0	45.0	45.0	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.1%	36.6%	36.6%	10.0%	37.5%	37.5%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	6.6	34.3	34.3	9.6	37.4	37.4	5.0	55.5	55.5	5.0	51.8	51.8
Actuated g/C Ratio	0.06	0.29	0.29	0.08	0.31	0.31	0.04	0.46	0.46	0.04	0.43	0.43
v/c Ratio	0.65	0.86	0.13	2.89	0.55	0.04	0.53	0.15	0.73	0.19	0.30	0.22
Control Delay	72.2	49.8	2.4	882.9	35.9	0.1	82.3	19.9	22.3	61.8	23.5	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.2	49.8	2.4	882.9	35.9	0.1	82.3	19.9	22.3	61.8	23.5	4.0
LOS	E	D	A	F	D	A	F	B	C	E	C	A
Approach Delay		49.4			435.4			24.2			19.1	
Approach LOS		D			F			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.89	
Intersection Signal Delay: 191.5	Intersection LOS: F
Intersection Capacity Utilization 76.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	798	62	734	802	18	36	221	578	13	419	158
Future Volume (veh/h)	112	798	62	734	802	18	36	221	578	13	419	158
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	122	867	30	798	872	8	39	240	366	14	455	73
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	1030	461	224	1552	483	105	1448	648	105	1448	648
Arrive On Green	0.05	0.29	0.29	0.07	0.31	0.31	0.06	0.41	0.41	0.06	0.41	0.41
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	122	867	30	798	872	8	39	240	366	14	455	73
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.2	27.6	1.3	7.8	17.3	0.3	2.5	5.2	16.0	0.9	10.5	2.6
Cycle Q Clear(g_c), s	4.2	27.6	1.3	7.8	17.3	0.3	2.5	5.2	16.0	0.9	10.5	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	1030	461	224	1552	483	105	1448	648	105	1448	648
V/C Ratio(X)	0.70	0.84	0.07	3.57	0.56	0.02	0.37	0.17	0.56	0.13	0.31	0.11
Avail Cap(c_a), veh/h	192	1091	488	224	1615	503	105	1448	648	105	1448	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	56.1	40.0	19.0	56.1	35.0	17.8	54.3	22.5	15.3	53.5	24.0	13.1
Incr Delay (d2), s/veh	7.4	5.8	0.1	1166.3	0.4	0.0	0.8	0.2	3.5	0.2	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	14.3	0.6	39.9	8.1	0.1	1.3	2.5	7.6	0.4	5.2	1.2
LnGrp Delay(d),s/veh	63.5	45.8	19.1	1222.4	35.4	17.8	55.1	22.7	18.8	53.8	24.6	13.5
LnGrp LOS	E	D	B	F	D	B	E	C	B	D	C	B
Approach Vol, veh/h		1019			1678			645			542	
Approach Delay, s/veh		47.1			599.8			22.5			23.8	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	54.9	12.0	41.8	11.3	54.9	10.3	43.5
Change Period (Y+Rc), s	4.2	* 5.8	* 4.2	6.9	4.2	* 5.8	* 4.2	6.9
Max Green Setting (Gmax), s	5.0	* 49	* 7.8	37.0	5.0	* 49	* 6.7	38.1
Max Q Clear Time (g_c+I1), s	2.9	18.0	9.8	29.6	4.5	12.5	6.2	19.3
Green Ext Time (p_c), s	0.0	4.3	0.0	5.3	0.0	4.7	0.0	10.5

Intersection Summary		
HCM 2010 Ctrl Delay		278.6
HCM 2010 LOS		F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1388	0	0	0	1553	0	0	0	0	0	1
Future Vol, veh/h	0	1388	0	0	0	1553	0	0	0	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1542	0	0	0	1726	0	0	0	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	771	-	-	863
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*537	0	0	298
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*537	-	-	298
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	17.1
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	298
HCM Lane V/C Ratio	-	-	-	-	-	0.004
HCM Control Delay (s)	0	-	-	-	-	17.1
HCM Lane LOS	A	-	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	83	0	3	3	4	97
Future Vol, veh/h	83	0	3	3	4	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	101	0	4	4	5	118

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	16	5	5	0	-	0
Stage 1	5	-	-	-	-	-
Stage 2	11	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1002	1078	1616	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1012	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1000	1078	1616	-	-	-
Mov Cap-2 Maneuver	1000	-	-	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1010	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	3.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1616	-	1000	-	-
HCM Lane V/C Ratio	0.002	-	0.101	-	-
HCM Control Delay (s)	7.2	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	178	0	0	229	1	2	1	0	2	1	4
Future Vol, veh/h	2	178	0	0	229	1	2	1	0	2	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	196	0	0	252	1	2	1	0	2	1	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	253	0	0	196	0	0	455	453	196	453	452	252
Stage 1	-	-	-	-	-	-	200	200	-	252	252	-
Stage 2	-	-	-	-	-	-	255	253	-	201	200	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1312	-	-	1377	-	-	515	503	845	517	503	787
Stage 1	-	-	-	-	-	-	802	736	-	752	698	-
Stage 2	-	-	-	-	-	-	749	698	-	801	736	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1312	-	-	1377	-	-	510	502	845	515	502	787
Mov Cap-2 Maneuver	-	-	-	-	-	-	510	502	-	515	502	-
Stage 1	-	-	-	-	-	-	800	735	-	750	698	-
Stage 2	-	-	-	-	-	-	744	698	-	798	735	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	12.1	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	507	1312	-	-	1377	-	-	639
HCM Lane V/C Ratio	0.007	0.002	-	-	-	-	-	0.012
HCM Control Delay (s)	12.1	7.7	0	-	0	-	-	10.7
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	7.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	11	0	0	33
Future Vol, veh/h	0	0	11	0	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	12	0	0	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1	0	25	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	24	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1622	-	991	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	999	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1622	-	984	1084
Mov Cap-2 Maneuver	-	-	-	-	984	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	992	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.2	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1084	-	-	1622	-
HCM Lane V/C Ratio	0.033	-	-	0.007	-
HCM Control Delay (s)	8.4	-	-	7.2	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	6.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	33	0	50	11	0	82
Future Vol, veh/h	33	0	50	11	0	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	0	54	12	0	89

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	36	0	157	36
Stage 1	-	-	-	-	36	-
Stage 2	-	-	-	-	121	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1575	-	834	1037
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	904	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1575	-	805	1037
Mov Cap-2 Maneuver	-	-	-	-	805	-
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	873	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1037	-	-	1575	-
HCM Lane V/C Ratio	0.086	-	-	0.035	-
HCM Control Delay (s)	8.8	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	115	0	30	61	0	44
Future Vol, veh/h	115	0	30	61	0	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	125	0	33	66	0	48

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	125	0	257	125
Stage 1	-	-	-	-	125	-
Stage 2	-	-	-	-	132	-
Critical Hdwy	-	-	4.12	-	7.12	6.22
Critical Hdwy Stg 1	-	-	-	-	6.12	-
Critical Hdwy Stg 2	-	-	-	-	6.12	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1462	-	696	926
Stage 1	-	-	-	-	879	-
Stage 2	-	-	-	-	871	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1462	-	684	926
Mov Cap-2 Maneuver	-	-	-	-	684	-
Stage 1	-	-	-	-	879	-
Stage 2	-	-	-	-	851	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	926	-	-	1462	-
HCM Lane V/C Ratio	0.052	-	-	0.022	-
HCM Control Delay (s)	9.1	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Intersection Delay, s/veh	45.7
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	25	31	3	0	174	15	50	0	2	461	180
Future Vol, veh/h	0	25	31	3	0	174	15	50	0	2	461	180
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	27	33	3	0	185	16	53	0	2	490	191
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	12	16.4	73.9
HCM LOS	B	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	42%	73%	7%
Vol Thru, %	72%	53%	6%	91%
Vol Right, %	28%	5%	21%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	643	59	239	338
LT Vol	2	25	174	25
Through Vol	461	31	15	306
RT Vol	180	3	50	7
Lane Flow Rate	684	63	254	360
Geometry Grp	1	1	1	1
Degree of Util (X)	1.054	0.131	0.481	0.61
Departure Headway (Hd)	5.548	7.855	7.058	6.316
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	650	459	514	575
Service Time	3.628	5.855	5.058	4.316
HCM Lane V/C Ratio	1.052	0.137	0.494	0.626
HCM Control Delay	73.9	12	16.4	18.7
HCM Lane LOS	F	B	C	C
HCM 95th-tile Q	18.2	0.4	2.6	4.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	25	306	7
Future Vol, veh/h	0	25	306	7
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	27	326	7
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	18.7
HCM LOS	C

Intersection	
Intersection Delay, s/veh	107.5
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	200	131	13	0	48	212	27	0	8	415	27	0	19	328	137
Future Vol, veh/h	0	200	131	13	0	48	212	27	0	8	415	27	0	19	328	137
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	213	139	14	0	51	226	29	0	9	441	29	0	20	349	146
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	64.2	44	116.6	167.4
HCM LOS	F	E	F	F

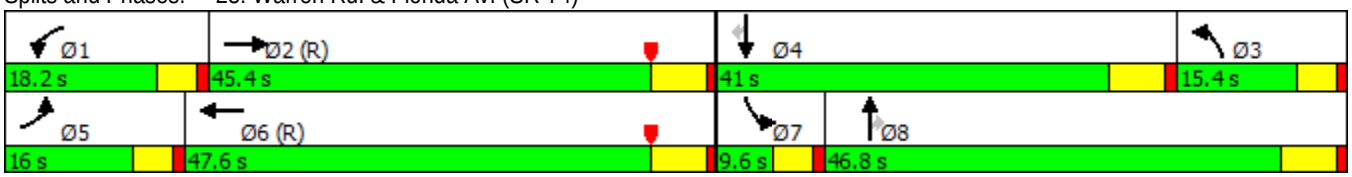
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	0%	58%	17%	4%
Vol Thru, %	98%	0%	38%	74%	68%
Vol Right, %	0%	100%	4%	9%	28%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	423	27	344	287	484
LT Vol	8	0	200	48	19
Through Vol	415	0	131	212	328
RT Vol	0	27	13	27	137
Lane Flow Rate	450	29	366	305	515
Geometry Grp	7	7	2	2	5
Degree of Util (X)	1.144	0.067	0.925	0.79	1.268
Departure Headway (Hd)	9.851	9.109	10.34	10.658	9.346
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	374	396	355	342	391
Service Time	7.551	6.809	8.34	8.658	7.346
HCM Lane V/C Ratio	1.203	0.073	1.031	0.892	1.317
HCM Control Delay	123.2	12.5	64.2	44	167.4
HCM Lane LOS	F	B	F	E	F
HCM 95th-tile Q	16.2	0.2	9.5	6.5	21.4

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	102	565	240	472	165	344	198	15	299	92
Future Volume (vph)	102	565	240	472	165	344	198	15	299	92
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	16.0	45.4	18.2	47.6	15.4	46.8	46.8	9.6	41.0	41.0
Total Split (%)	13.3%	37.8%	15.2%	39.7%	12.8%	39.0%	39.0%	8.0%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	10.1	39.4	13.6	42.9	10.8	46.6	46.6	5.0	35.0	35.0
Actuated g/C Ratio	0.08	0.33	0.11	0.36	0.09	0.39	0.39	0.04	0.29	0.29
v/c Ratio	0.70	0.67	1.23	0.39	1.06	0.26	0.28	0.21	0.30	0.17
Control Delay	77.5	36.2	181.9	30.2	139.4	26.5	4.8	62.3	33.9	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.5	36.2	181.9	30.2	139.4	26.5	4.8	62.3	33.9	3.2
LOS	E	D	F	C	F	C	A	E	C	A
Approach Delay		41.2		80.4		46.7			28.0	
Approach LOS		D		F		D			C	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 18.2 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.23
Intersection Signal Delay: 51.2 — Intersection LOS: D
Intersection Capacity Utilization 94.1% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	565	184	240	472	13	165	344	198	15	299	92
Future Volume (veh/h)	102	565	184	240	472	13	165	344	198	15	299	92
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	104	577	125	245	482	9	168	351	157	15	305	30
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	2066	446	201	2681	50	160	1334	596	29	1032	460
Arrive On Green	0.07	0.71	0.71	0.11	0.75	0.75	0.09	0.38	0.38	0.02	0.29	0.29
Sat Flow, veh/h	1774	2896	626	1774	3554	66	1774	3539	1581	1774	3539	1578
Grp Volume(v), veh/h	104	352	350	245	240	251	168	351	157	15	305	30
Grp Sat Flow(s),veh/h/ln	1774	1770	1752	1774	1770	1851	1774	1770	1581	1774	1770	1578
Q Serve(g_s), s	6.9	8.5	8.6	13.6	4.6	4.6	10.8	8.2	8.2	1.0	8.0	2.2
Cycle Q Clear(g_c), s	6.9	8.5	8.6	13.6	4.6	4.6	10.8	8.2	8.2	1.0	8.0	2.2
Prop In Lane	1.00		0.36	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	1262	1250	201	1335	1396	160	1334	596	29	1032	460
V/C Ratio(X)	0.81	0.28	0.28	1.22	0.18	0.18	1.05	0.26	0.26	0.52	0.30	0.07
Avail Cap(c_a), veh/h	169	1262	1250	201	1335	1396	160	1334	596	74	1032	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	6.2	6.2	53.2	4.2	4.2	54.6	25.9	25.9	58.5	32.9	54.5
Incr Delay (d2), s/veh	15.1	0.6	0.6	134.8	0.3	0.3	85.7	0.5	1.1	5.2	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	4.3	4.3	14.2	2.3	2.4	9.1	4.1	3.8	0.5	4.0	1.0
LnGrp Delay(d),s/veh	70.0	6.7	6.7	188.0	4.5	4.5	140.4	26.3	26.9	63.7	33.7	54.8
LnGrp LOS	E	A	A	F	A	A	F	C	C	E	C	D
Approach Vol, veh/h		806			736			676			350	
Approach Delay, s/veh		14.9			65.6			54.8			36.8	
Approach LOS		B			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.2	93.0	16.8	41.0	13.3	97.9	6.6	51.2
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	13.6	39.4	10.8	* 35	11.4	41.6	5.0	40.8
Max Q Clear Time (g_c+I1), s	15.6	10.6	12.8	10.0	8.9	6.6	3.0	10.2
Green Ext Time (p_c), s	0.0	4.1	0.0	1.1	0.0	4.2	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	42.9
HCM 2010 LOS	D

Notes

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	37	668	77	191	492
Future Vol, veh/h	8	37	668	77	191	492
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	39	711	82	203	523

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1642	712	0	0	712	0
Stage 1	712	-	-	-	-	-
Stage 2	930	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	110	432	-	-	888	-
Stage 1	486	-	-	-	-	-
Stage 2	384	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	85	432	-	-	888	-
Mov Cap-2 Maneuver	250	-	-	-	-	-
Stage 1	486	-	-	-	-	-
Stage 2	296	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.8	0	2.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	382	888	-
HCM Lane V/C Ratio	-	-	0.125	0.229	-
HCM Control Delay (s)	-	-	15.8	10.3	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.4	0.9	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	41	758	3	17	502
Future Vol, veh/h	0	41	758	3	17	502
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	42	781	3	18	518

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1336	783	0	0	785	0
Stage 1	783	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	169	394	-	-	834	-
Stage 1	450	-	-	-	-	-
Stage 2	576	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	165	394	-	-	834	-
Mov Cap-2 Maneuver	365	-	-	-	-	-
Stage 1	450	-	-	-	-	-
Stage 2	564	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.2	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	394	834	-
HCM Lane V/C Ratio	-	-	0.107	0.021	-
HCM Control Delay (s)	-	-	15.2	9.4	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Intersection	
Intersection Delay, s/veh	76.7
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	27	56	5	0	118	67	205	0	3	532	145
Future Vol, veh/h	0	27	56	5	0	118	67	205	0	3	532	145
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	28	58	5	0	123	70	214	0	3	554	151
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	2
HCM Control Delay	16.5	20.3	92.8
HCM LOS	C	C	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	1%	0%	31%	100%	0%	25%
Vol Thru, %	99%	0%	64%	0%	25%	71%
Vol Right, %	0%	100%	6%	0%	75%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	535	145	88	118	272	515
LT Vol	3	0	27	118	0	130
Through Vol	532	0	56	0	67	364
RT Vol	0	145	5	0	205	21
Lane Flow Rate	557	151	92	123	283	536
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	1.146	0.281	0.241	0.295	0.6	1.125
Departure Headway (Hd)	7.761	7.035	10.297	9.199	8.129	7.915
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	474	514	351	393	448	461
Service Time	5.461	4.735	8.297	6.899	5.829	5.915
HCM Lane V/C Ratio	1.175	0.294	0.262	0.313	0.632	1.163
HCM Control Delay	114.6	12.5	16.5	15.7	22.3	108.3
HCM Lane LOS	F	B	C	C	C	F
HCM 95th-tile Q	19	1.1	0.9	1.2	3.8	17.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	130	364	21
Future Vol, veh/h	0	130	364	21
Peak Hour Factor	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	135	379	22
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	108.3
HCM LOS	F

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	123	35	16	550	407
Future Volume (vph)	123	35	16	550	407
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	34.8	34.8	9.2	15.8	34.8
Total Split (s)	35.0	35.0	9.2	49.1	39.9
Total Split (%)	41.6%	41.6%	10.9%	58.4%	47.4%
Yellow Time (s)	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	14.5	14.5	5.3	58.0	56.1
Actuated g/C Ratio	0.17	0.17	0.06	0.69	0.67
v/c Ratio	0.44	0.13	0.15	0.47	0.43
Control Delay	34.0	8.8	40.6	9.1	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	8.8	40.6	9.1	10.6
LOS	C	A	D	A	B
Approach Delay	28.5			10.0	10.6
Approach LOS	C			A	B

Intersection Summary	
Cycle Length: 84.1	
Actuated Cycle Length: 84.1	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 12.6	Intersection LOS: B
Intersection Capacity Utilization 48.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 27: Warren Rd. & New Stetson Av.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	123	35	16	550	407	75
Future Volume (veh/h)	123	35	16	550	407	75
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	134	38	17	598	442	82
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	207	185	35	1388	1033	192
Arrive On Green	0.12	0.12	0.02	0.75	0.68	0.68
Sat Flow, veh/h	1774	1583	1774	1863	1529	284
Grp Volume(v), veh/h	134	38	17	598	0	524
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	0	1813
Q Serve(g_s), s	6.1	1.8	0.8	10.1	0.0	11.1
Cycle Q Clear(g_c), s	6.1	1.8	0.8	10.1	0.0	11.1
Prop In Lane	1.00	1.00	1.00			0.16
Lane Grp Cap(c), veh/h	207	185	35	1388	0	1225
V/C Ratio(X)	0.65	0.21	0.49	0.43	0.00	0.43
Avail Cap(c_a), veh/h	617	550	106	1388	0	1225
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.4	33.6	40.8	4.0	0.0	6.2
Incr Delay (d2), s/veh	1.3	0.2	4.0	1.0	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	1.7	0.4	5.5	0.0	5.8
LnGrp Delay(d),s/veh	36.7	33.8	44.7	5.0	0.0	7.3
LnGrp LOS	D	C	D	A		A
Approach Vol, veh/h	172			615	524	
Approach Delay, s/veh	36.0			6.1	7.3	
Approach LOS	D			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		68.4		15.6	5.8	62.5		
Change Period (Y+Rc), s		5.8		5.8	* 4.2	5.8		
Max Green Setting (Gmax), s		43.3		29.2	* 5	34.1		
Max Q Clear Time (g_c+I1), s		12.1		8.1	2.8	13.1		
Green Ext Time (p_c), s		4.5		0.2	0.0	4.3		

Intersection Summary	
HCM 2010 Ctrl Delay	10.5
HCM 2010 LOS	B

Notes

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	52	20	513	399
Future Volume (vph)	52	20	513	399
Turn Type	Prot	Prot	NA	NA
Protected Phases	4	5	2	6
Permitted Phases				
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	10.8	23.8
Total Split (s)	13.0	10.0	47.0	37.0
Total Split (%)	21.7%	16.7%	78.3%	61.7%
Yellow Time (s)	3.6	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Min	C-Min
Act Effct Green (s)	6.7	5.5	45.9	43.7
Actuated g/C Ratio	0.11	0.09	0.76	0.73
v/c Ratio	0.39	0.14	0.39	0.36
Control Delay	23.0	33.8	2.4	6.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.0	33.8	2.4	6.3
LOS	C	C	A	A
Approach Delay	23.0		3.6	6.3
Approach LOS	C		A	A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.39	
Intersection Signal Delay: 6.2	Intersection LOS: A
Intersection Capacity Utilization 40.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 28: Warren Rd. & Street D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	52	25	20	513	399	44
Future Volume (veh/h)	52	25	20	513	399	44
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	57	27	22	558	434	48
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	72	34	45	1422	1090	121
Arrive On Green	0.06	0.06	0.05	1.00	0.66	0.66
Sat Flow, veh/h	1146	543	1774	1863	1648	182
Grp Volume(v), veh/h	85	0	22	558	0	482
Grp Sat Flow(s),veh/h/ln	1710	0	1774	1863	0	1831
Q Serve(g_s), s	2.9	0.0	0.7	0.0	0.0	7.3
Cycle Q Clear(g_c), s	2.9	0.0	0.7	0.0	0.0	7.3
Prop In Lane	0.67	0.32	1.00			0.10
Lane Grp Cap(c), veh/h	108	0	45	1422	0	1211
V/C Ratio(X)	0.79	0.00	0.48	0.39	0.00	0.40
Avail Cap(c_a), veh/h	239	0	160	1422	0	1211
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.84	0.84	0.00	1.00
Uniform Delay (d), s/veh	27.7	0.0	28.1	0.0	0.0	4.7
Incr Delay (d2), s/veh	4.7	0.0	2.5	0.7	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.4	0.3	0.0	3.9
LnGrp Delay(d),s/veh	32.4	0.0	30.6	0.7	0.0	5.7
LnGrp LOS	C		C	A		A
Approach Vol, veh/h	85			580	482	
Approach Delay, s/veh	32.4			1.8	5.7	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		51.6		8.4	6.1	45.5		
Change Period (Y+Rc), s		5.8		4.6	4.6	5.8		
Max Green Setting (Gmax), s		41.2		8.4	5.4	31.2		
Max Q Clear Time (g_c+I1), s		2.0		4.9	2.7	9.3		
Green Ext Time (p_c), s		11.3		0.0	0.0	9.1		

Intersection Summary	
HCM 2010 Ctrl Delay	5.7
HCM 2010 LOS	A

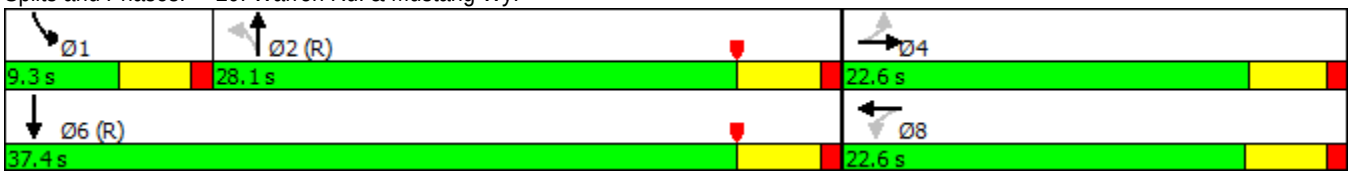
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	75	20	199	7	18	396	38	365
Future Volume (vph)	75	20	199	7	18	396	38	365
Turn Type	Perm	NA	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2			
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.5	22.5	21.6	21.6	21.7	21.7	9.2	14.7
Total Split (s)	22.6	22.6	22.6	22.6	28.1	28.1	9.3	37.4
Total Split (%)	37.7%	37.7%	37.7%	37.7%	46.8%	46.8%	15.5%	62.3%
Yellow Time (s)	3.5	3.5	3.6	3.6	3.7	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.6	4.6	4.7	4.7	4.2	4.7
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	14.8	14.8	14.7	14.7	32.2	32.2	5.3	36.0
Actuated g/C Ratio	0.25	0.25	0.24	0.24	0.54	0.54	0.09	0.60
v/c Ratio	0.26	0.18	0.69	0.19	0.04	0.56	0.27	0.39
Control Delay	19.1	8.2	31.8	6.5	10.8	14.8	30.3	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.1	8.2	31.8	6.5	10.8	14.8	30.3	8.2
LOS	B	A	C	A	B	B	C	A
Approach Delay		13.7		24.7		14.6		10.1
Approach LOS		B		C		B		B

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 15.2 — Intersection LOS: B
Intersection Capacity Utilization 57.0% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	20	52	199	7	69	18	396	101	38	365	25
Future Volume (veh/h)	75	20	52	199	7	69	18	396	101	38	365	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	83	22	58	221	8	30	20	440	98	42	406	28
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	428	111	292	389	84	314	575	722	161	74	1036	71
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.49	0.49	0.49	0.04	0.60	0.60
Sat Flow, veh/h	1364	454	1197	1313	344	1291	951	1476	329	1774	1723	119
Grp Volume(v), veh/h	83	0	80	221	0	38	20	0	538	42	0	434
Grp Sat Flow(s),veh/h/ln	1364	0	1651	1313	0	1635	951	0	1805	1774	0	1842
Q Serve(g_s), s	3.0	0.0	2.3	9.6	0.0	1.1	0.7	0.0	13.0	1.4	0.0	7.4
Cycle Q Clear(g_c), s	4.1	0.0	2.3	12.0	0.0	1.1	1.3	0.0	13.0	1.4	0.0	7.4
Prop In Lane	1.00		0.73	1.00		0.79	1.00		0.18	1.00		0.06
Lane Grp Cap(c), veh/h	428	0	402	389	0	398	575	0	883	74	0	1108
V/C Ratio(X)	0.19	0.00	0.20	0.57	0.00	0.10	0.03	0.00	0.61	0.56	0.00	0.39
Avail Cap(c_a), veh/h	507	0	498	463	0	490	575	0	883	151	0	1108
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.2	0.0	18.0	22.8	0.0	17.6	8.3	0.0	11.1	28.2	0.0	6.2
Incr Delay (d2), s/veh	0.2	0.0	0.2	1.3	0.0	0.1	0.1	0.0	3.1	2.5	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.1	3.6	0.0	0.5	0.2	0.0	7.2	0.7	0.0	4.1
LnGrp Delay(d),s/veh	19.4	0.0	18.3	24.1	0.0	17.7	8.4	0.0	14.3	30.7	0.0	7.3
LnGrp LOS	B		B	C		B	A		B	C		A
Approach Vol, veh/h		163			259			558			476	
Approach Delay, s/veh		18.8			23.1			14.1			9.3	
Approach LOS		B			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	6.7	34.1		19.2		40.8		19.2
Change Period (Y+Rc), s	* 4.2	* 4.7		* 4.6		* 4.7		4.6
Max Green Setting (Gmax), s	* 5.1	* 23		* 18		* 33		18.0
Max Q Clear Time (g_c+I1), s	3.4	15.0		6.1		9.4		14.0
Green Ext Time (p_c), s	0.0	5.0		1.3		9.7		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Notes

Intersection	
Intersection Delay, s/veh	27.8
Intersection LOS	D

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	147	28	0	417	193	0	38	349
Future Vol, veh/h	0	147	28	0	417	193	0	38	349
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	169	32	0	479	222	0	44	401
Number of Lanes	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	13.8	35.9	21.4
HCM LOS	B	E	C

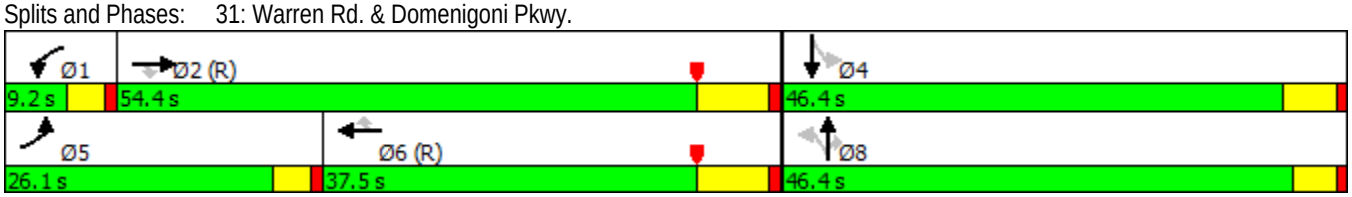
Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	84%	0%	100%
Vol Right, %	0%	100%	16%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	349	175	417	193
LT Vol	38	0	0	417	0
Through Vol	0	0	147	0	193
RT Vol	0	349	28	0	0
Lane Flow Rate	44	401	201	479	222
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.091	0.7	0.374	0.911	0.39
Departure Headway (Hd)	7.505	6.284	6.691	6.844	6.336
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	476	574	535	527	566
Service Time	5.28	4.058	4.767	4.609	4.101
HCM Lane V/C Ratio	0.092	0.699	0.376	0.909	0.392
HCM Control Delay	11	22.5	13.8	46.4	13.1
HCM Lane LOS	B	C	B	E	B
HCM 95th-tile Q	0.3	5.5	1.7	10.8	1.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	340	1031	22	2	1207	52	3	4	1	66	2
Future Volume (vph)	340	1031	22	2	1207	52	3	4	1	66	2
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	30.0	72.5	72.5	5.0	40.1	40.1		24.2	24.2		23.4
Actuated g/C Ratio	0.27	0.66	0.66	0.05	0.36	0.36		0.22	0.22		0.21
v/c Ratio	0.78	0.49	0.02	0.03	1.03	0.09		0.02	0.00		0.87
Control Delay	50.3	13.2	0.0	51.0	68.1	0.8		26.3	0.0		32.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	50.3	13.2	0.0	51.0	68.1	0.8		26.3	0.0		32.6
LOS	D	B	A	D	E	A		C	A		C
Approach Delay		22.1			65.3			23.0			32.6
Approach LOS		C			E			C			C

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 41.1 — Intersection LOS: D
Intersection Capacity Utilization 99.5% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	340	1031	22	2	1207	52	3	4	1	66	2	375
Future Volume (veh/h)	340	1031	22	2	1207	52	3	4	1	66	2	375
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	374	1133	24	2	1326	47	3	4	0	73	2	267
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	2143	939	5	1448	634	137	166	383	106	16	294
Arrive On Green	0.20	0.61	0.61	0.00	0.41	0.41	0.24	0.24	0.00	0.24	0.24	0.24
Sat Flow, veh/h	1774	3539	1551	1774	3539	1550	374	686	1583	275	67	1217
Grp Volume(v), veh/h	374	1133	24	2	1326	47	7	0	0	342	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1551	1774	1770	1550	1060	0	1583	1559	0	0
Q Serve(g_s), s	21.9	20.4	0.7	0.1	38.9	2.0	0.0	0.0	0.0	19.0	0.0	0.0
Cycle Q Clear(g_c), s	21.9	20.4	0.7	0.1	38.9	2.0	0.3	0.0	0.0	23.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.43		1.00	0.21		0.78
Lane Grp Cap(c), veh/h	353	2143	939	5	1448	634	303	0	383	417	0	0
V/C Ratio(X)	1.06	0.53	0.03	0.42	0.92	0.07	0.02	0.00	0.00	0.82	0.00	0.00
Avail Cap(c_a), veh/h	353	2143	939	81	1448	634	502	0	602	619	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	12.6	8.7	54.8	30.7	19.8	31.7	0.0	0.0	40.4	0.0	0.0
Incr Delay (d2), s/veh	64.3	0.9	0.1	20.2	10.6	0.2	0.0	0.0	0.0	3.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.0	10.2	0.3	0.1	21.1	0.9	0.2	0.0	0.0	10.5	0.0	0.0
LnGrp Delay(d),s/veh	108.3	13.5	8.7	74.9	41.3	20.0	31.7	0.0	0.0	43.7	0.0	0.0
LnGrp LOS	F	B	A	E	D	C	C			D		
Approach Vol, veh/h		1531			1375			7			342	
Approach Delay, s/veh		36.6			40.6			31.7			43.7	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	73.5		32.0	26.1	51.9		32.0
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.1	22.4		25.4	23.9	40.9		2.3
Green Ext Time (p_c), s	0.0	12.7		1.2	0.0	0.0		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	39.1
HCM 2010 LOS	D

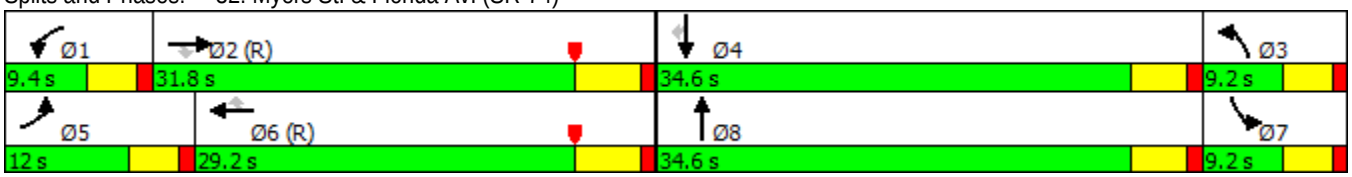
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	72	732	7	15	588	7	26	16	1	10	71
Future Volume (vph)	72	732	7	15	588	7	26	16	1	10	71
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.0	31.8	31.8	9.4	29.2	29.2	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.1%	37.4%	37.4%	11.1%	34.4%	34.4%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.0	39.7	39.7	5.1	32.3	32.3	5.0	31.8	5.0	30.0	30.0
Actuated g/C Ratio	0.08	0.47	0.47	0.06	0.38	0.38	0.06	0.37	0.06	0.35	0.35
v/c Ratio	0.50	0.45	0.01	0.14	0.45	0.01	0.26	0.08	0.01	0.02	0.11
Control Delay	49.3	18.1	0.0	51.6	7.5	0.0	44.7	8.5	38.0	18.1	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.3	18.1	0.0	51.6	7.5	0.0	44.7	8.5	38.0	18.1	0.7
LOS	D	B	A	D	A	A	D	A	D	B	A
Approach Delay		20.7			8.5			20.7		3.3	
Approach LOS		C			A			C		A	

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay: 15.1 — Intersection LOS: B
Intersection Capacity Utilization 44.3% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	732	7	15	588	7	26	16	36	1	10	71
Future Volume (veh/h)	72	732	7	15	588	7	26	16	36	1	10	71
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	73	747	7	15	600	7	27	16	13	1	10	17
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	1376	603	31	1251	557	49	336	273	49	657	559
Arrive On Green	0.05	0.39	0.39	0.04	0.71	0.71	0.03	0.35	0.35	0.03	0.35	0.35
Sat Flow, veh/h	1774	3539	1550	1774	3539	1577	1774	952	774	1774	1863	1583
Grp Volume(v), veh/h	73	747	7	15	600	7	27	0	29	1	10	17
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1577	1774	0	1726	1774	1863	1583
Q Serve(g_s), s	3.5	13.9	0.2	0.7	6.4	0.1	1.3	0.0	0.9	0.0	0.3	0.5
Cycle Q Clear(g_c), s	3.5	13.9	0.2	0.7	6.4	0.1	1.3	0.0	0.9	0.0	0.3	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	94	1376	603	31	1251	557	49	0	609	49	657	559
V/C Ratio(X)	0.78	0.54	0.01	0.48	0.48	0.01	0.55	0.00	0.05	0.02	0.02	0.03
Avail Cap(c_a), veh/h	163	1376	603	109	1251	557	104	0	609	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	20.1	9.6	40.6	9.0	5.0	40.8	0.0	18.1	40.2	17.9	10.3
Incr Delay (d2), s/veh	5.1	1.5	0.0	4.2	1.3	0.0	3.5	0.0	0.1	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	7.0	0.1	0.4	3.1	0.0	0.7	0.0	0.5	0.0	0.2	0.2
LnGrp Delay(d),s/veh	44.9	21.7	9.6	44.9	10.3	5.0	44.3	0.0	18.2	40.3	17.9	10.4
LnGrp LOS	D	C	A	D	B	A	D		B	D	B	B
Approach Vol, veh/h		827			622			56			28	
Approach Delay, s/veh		23.6			11.1			30.8			14.2	
Approach LOS		C			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	38.2	6.6	34.6	8.7	35.2	6.6	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.2	26.7	5.0	* 30	* 7.8	24.1	5.0	* 30
Max Q Clear Time (g_c+I1), s	2.7	15.9	3.3	2.5	5.5	8.4	2.0	2.9
Green Ext Time (p_c), s	0.0	7.6	0.0	0.1	0.0	10.1	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	18.6
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	715	126	0	687	0	0
Future Vol, veh/h	715	126	0	687	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	761	134	0	731	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	761	0	-	380
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*1173	-	0	*784
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*1173	-	-	*784
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	* 1173	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

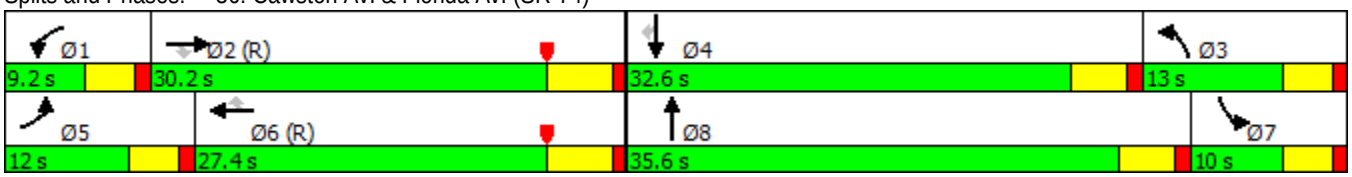
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	92	616	11	4	490	47	99	51	79	59	98
Future Volume (vph)	92	616	11	4	490	47	99	51	79	59	98
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	12.0	30.2	30.2	9.2	27.4	27.4	13.0	35.6	10.0	32.6	32.6
Total Split (%)	14.1%	35.5%	35.5%	10.8%	32.2%	32.2%	15.3%	41.9%	11.8%	38.4%	38.4%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.2	34.5	34.5	5.0	26.8	26.8	8.1	31.0	5.7	28.6	28.6
Actuated g/C Ratio	0.08	0.41	0.41	0.06	0.32	0.32	0.10	0.36	0.07	0.34	0.34
v/c Ratio	0.63	0.44	0.02	0.04	0.45	0.08	0.61	0.05	0.69	0.10	0.16
Control Delay	70.8	16.0	0.0	49.0	16.3	0.6	52.3	16.2	69.1	20.4	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.8	16.0	0.0	49.0	16.3	0.6	52.3	16.2	69.1	20.4	2.5
LOS	E	B	A	D	B	A	D	B	E	C	A
Approach Delay		22.8			15.2			39.1		29.2	
Approach LOS		C			B			D		C	

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 38 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 22.8 — Intersection LOS: C
Intersection Capacity Utilization 58.6% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	616	11	4	490	47	99	51	6	79	59	98
Future Volume (veh/h)	92	616	11	4	490	47	99	51	6	79	59	98
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	95	635	10	4	505	32	102	53	3	81	61	33
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	1269	568	9	1049	469	166	1243	70	104	614	522
Arrive On Green	0.14	0.72	0.72	0.01	0.30	0.30	0.09	0.36	0.36	0.06	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3407	191	1774	1863	1583
Grp Volume(v), veh/h	95	635	10	4	505	32	102	27	29	81	61	33
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1829	1774	1863	1583
Q Serve(g_s), s	4.4	6.7	0.1	0.2	10.0	0.9	4.7	0.8	0.9	3.8	1.9	0.9
Cycle Q Clear(g_c), s	4.4	6.7	0.1	0.2	10.0	0.9	4.7	0.8	0.9	3.8	1.9	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	120	1269	568	9	1049	469	166	645	667	104	614	522
V/C Ratio(X)	0.79	0.50	0.02	0.43	0.48	0.07	0.61	0.04	0.04	0.78	0.10	0.06
Avail Cap(c_a), veh/h	163	1269	568	104	1049	469	184	645	667	121	614	522
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	8.7	3.6	42.1	24.5	12.5	37.0	17.4	17.4	39.5	19.8	10.8
Incr Delay (d2), s/veh	11.9	1.4	0.1	10.9	1.6	0.3	3.1	0.1	0.1	20.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.3	0.1	0.1	5.1	0.4	2.4	0.4	0.5	2.4	1.0	0.4
LnGrp Delay(d),s/veh	48.1	10.1	3.7	53.1	26.1	12.7	40.1	17.5	17.5	59.6	20.1	11.1
LnGrp LOS	D	B	A	D	C	B	D	B	B	E	C	B
Approach Vol, veh/h		740			541			158			175	
Approach Delay, s/veh		14.9			25.5			32.1			36.7	
Approach LOS		B			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	35.6	12.2	32.6	9.9	30.3	9.2	35.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5	25.1	8.8	* 28	* 7.8	22.3	5.8	* 31
Max Q Clear Time (g_c+I1), s	2.2	8.7	6.7	3.9	6.4	12.0	5.8	2.9
Green Ext Time (p_c), s	0.0	9.1	0.1	0.4	0.0	6.5	0.0	0.2

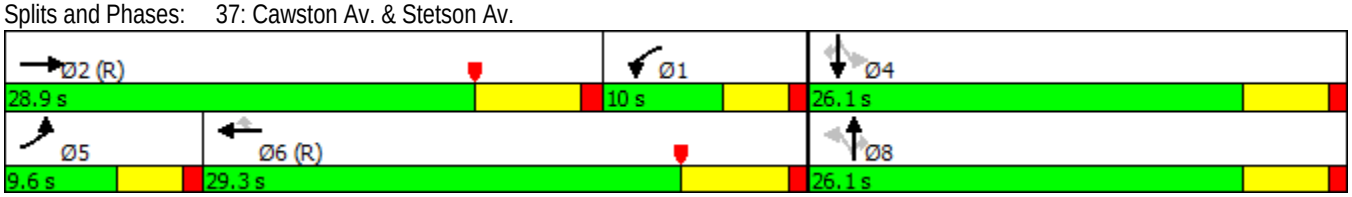
Intersection Summary	
HCM 2010 Ctrl Delay	22.5
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	35	246	157	278	20	66	145	219	17	104	19
Future Volume (vph)	35	246	157	278	20	66	145	219	17	104	19
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.6	28.9	10.0	29.3	29.3	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.8%	44.5%	15.4%	45.1%	45.1%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.3	22.7	5.8	26.9	26.9	21.0	21.0	21.0	21.0	21.0	21.0
Actuated g/C Ratio	0.08	0.35	0.09	0.41	0.41	0.32	0.32	0.32	0.32	0.32	0.32
v/c Ratio	0.30	0.27	1.22	0.44	0.03	0.20	0.29	0.39	0.05	0.21	0.03
Control Delay	33.9	15.0	173.4	17.3	0.1	17.6	18.1	4.3	15.8	17.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	15.0	173.4	17.3	0.1	17.6	18.1	4.3	15.8	17.2	0.1
LOS	C	B	F	B	A	B	B	A	B	B	A
Approach Delay		17.1		70.4			11.0			14.7	
Approach LOS		B		E			B			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.22	
Intersection Signal Delay: 33.1	Intersection LOS: C
Intersection Capacity Utilization 45.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	246	28	157	278	20	66	145	219	17	104	19
Future Volume (veh/h)	35	246	28	157	278	20	66	145	219	17	104	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	43	300	32	191	339	17	80	177	128	21	127	6
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	1128	119	1444	2147	1825	453	602	512	380	602	505
Arrive On Green	0.04	0.35	0.35	0.81	1.00	1.00	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	3230	342	1774	1863	1583	1252	1863	1583	1070	1863	1563
Grp Volume(v), veh/h	43	163	169	191	339	17	80	177	128	21	127	6
Grp Sat Flow(s),veh/h/ln	1774	1770	1802	1774	1863	1583	1252	1863	1583	1070	1863	1563
Q Serve(g_s), s	1.5	4.3	4.4	1.5	0.0	0.0	3.2	4.6	3.9	1.0	3.2	0.2
Cycle Q Clear(g_c), s	1.5	4.3	4.4	1.5	0.0	0.0	6.4	4.6	3.9	5.6	3.2	0.2
Prop In Lane	1.00		0.19	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	618	629	1444	2147	1825	453	602	512	380	602	505
V/C Ratio(X)	0.58	0.26	0.27	0.13	0.16	0.01	0.18	0.29	0.25	0.06	0.21	0.01
Avail Cap(c_a), veh/h	147	618	629	1444	2147	1825	453	602	512	380	602	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	15.2	15.2	1.3	0.0	0.0	18.3	16.5	16.2	18.5	16.0	14.9
Incr Delay (d2), s/veh	2.5	1.0	1.0	0.0	0.1	0.0	0.8	1.2	1.2	0.3	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.3	2.3	0.7	0.1	0.0	1.2	2.6	1.8	0.3	1.8	0.1
LnGrp Delay(d),s/veh	33.1	16.1	16.1	1.3	0.1	0.0	19.2	17.7	17.4	18.8	16.8	15.0
LnGrp LOS	C	B	B	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		375			547			385			154	
Approach Delay, s/veh		18.1			0.5			17.9			17.0	
Approach LOS		B			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	59.9	28.9		26.1	6.9	81.9		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.8	* 23		21.0	* 5.4	23.1		21.0
Max Q Clear Time (g_c+I1), s	3.5	6.4		7.6	3.5	2.0		8.4
Green Ext Time (p_c), s	0.1	0.9		1.3	0.0	1.3		1.2

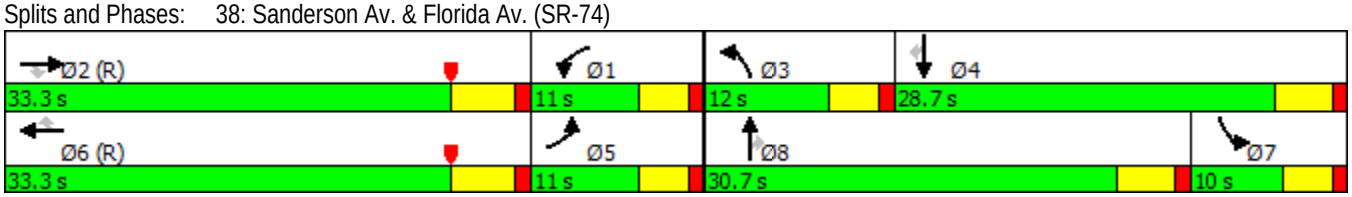
Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	157	469	34	138	393	96	117	692	138	127	543	107
Future Volume (vph)	157	469	34	138	393	96	117	692	138	127	543	107
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	11.0	33.3	33.3	11.0	33.3	33.3	12.0	30.7	30.7	10.0	28.7	28.7
Total Split (%)	12.9%	39.2%	39.2%	12.9%	39.2%	39.2%	14.1%	36.1%	36.1%	11.8%	33.8%	33.8%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	6.8	28.2	28.2	6.8	28.2	28.2	7.7	26.0	26.0	5.8	24.1	24.1
Actuated g/C Ratio	0.08	0.33	0.33	0.08	0.33	0.33	0.09	0.31	0.31	0.07	0.28	0.28
v/c Ratio	1.23	0.44	0.06	1.08	0.37	0.16	0.81	0.70	0.26	1.17	0.59	0.22
Control Delay	171.6	14.0	0.4	138.7	22.7	0.6	74.9	30.3	5.3	172.6	29.2	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	171.6	14.0	0.4	138.7	22.7	0.6	74.9	30.3	5.3	172.6	29.2	4.6
LOS	F	B	A	F	C	A	E	C	A	F	C	A
Approach Delay		50.9			45.0			32.1			49.3	
Approach LOS		D			D			C			D	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 81 (95%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay: 43.3	Intersection LOS: D
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	469	34	138	393	96	117	692	138	127	543	107
Future Volume (veh/h)	157	469	34	138	393	96	117	692	138	127	543	107
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	173	515	8	152	432	46	129	760	42	140	597	66
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	486	1174	516	486	1174	516	160	1083	469	121	1025	459
Arrive On Green	0.27	0.33	0.33	0.27	0.33	0.33	0.09	0.31	0.31	0.07	0.29	0.29
Sat Flow, veh/h	1774	3539	1556	1774	3539	1555	1774	3539	1535	1774	3539	1583
Grp Volume(v), veh/h	173	515	8	152	432	46	129	760	42	140	597	66
Grp Sat Flow(s),veh/h/ln	1774	1770	1556	1774	1770	1555	1774	1770	1535	1774	1770	1583
Q Serve(g_s), s	6.7	9.7	0.3	5.8	7.9	1.7	6.1	16.1	1.7	5.8	12.3	2.0
Cycle Q Clear(g_c), s	6.7	9.7	0.3	5.8	7.9	1.7	6.1	16.1	1.7	5.8	12.3	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	486	1174	516	486	1174	516	160	1083	469	121	1025	459
V/C Ratio(X)	0.36	0.44	0.02	0.31	0.37	0.09	0.80	0.70	0.09	1.16	0.58	0.14
Avail Cap(c_a), veh/h	486	1174	516	486	1174	516	163	1083	469	121	1025	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	22.2	19.1	24.5	21.6	19.6	37.9	26.1	21.1	39.6	25.8	12.5
Incr Delay (d2), s/veh	0.2	1.2	0.1	0.1	0.9	0.3	22.7	3.8	0.4	130.0	2.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	4.9	0.1	2.8	4.0	0.8	4.0	8.4	0.7	7.2	6.3	0.9
LnGrp Delay(d),s/veh	25.0	23.4	19.1	24.6	22.5	19.9	60.7	29.9	21.4	169.6	28.2	13.2
LnGrp LOS	C	C	B	C	C	B	E	C	C	F	C	B
Approach Vol, veh/h		696			630			931			803	
Approach Delay, s/veh		23.7			22.8			33.8			51.6	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	33.3	11.9	29.3	28.0	33.3	10.5	30.7
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.7	* 4.7
Max Green Setting (Gmax), s	6.8	* 28	* 7.8	* 24	6.8	* 28	* 5.8	* 26
Max Q Clear Time (g_c+I1), s	7.8	11.7	8.1	14.3	8.7	9.9	7.8	18.1
Green Ext Time (p_c), s	0.0	4.1	0.0	3.1	0.0	3.8	0.0	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	33.9
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	104	347	446	555	36	661	583	69	684
Future Volume (vph)	104	347	446	555	36	661	583	69	684
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	23.4	33.2	40.0	49.8	9.5	36.8	40.0	10.0	37.3
Total Split (%)	19.5%	27.7%	33.3%	41.5%	7.9%	30.7%	33.3%	8.3%	31.1%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	12.6	27.0	35.8	50.6	5.2	31.0	68.4	5.8	33.4
Actuated g/C Ratio	0.10	0.22	0.30	0.42	0.04	0.26	0.57	0.05	0.28
v/c Ratio	0.65	0.56	0.98	0.54	0.55	0.84	0.74	0.94	0.92
Control Delay	67.5	43.6	77.5	27.3	81.8	51.8	20.6	139.8	57.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.5	43.6	77.5	27.3	81.8	51.8	20.6	139.8	57.9
LOS	E	D	E	C	F	D	C	F	E
Approach Delay		48.8		47.2		38.5			64.6
Approach LOS		D		D		D			E

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 77.8 (65%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 48.3 — Intersection LOS: D
Intersection Capacity Utilization 90.2% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 39: Sanderson Av. & Stetson Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	347	31	446	555	124	36	661	583	69	684	90
Future Volume (veh/h)	104	347	31	446	555	124	36	661	583	69	684	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	121	403	35	519	645	127	42	769	298	80	795	99
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	745	64	529	1305	257	55	915	865	86	832	104
Arrive On Green	0.08	0.23	0.23	0.30	0.44	0.44	0.03	0.26	0.26	0.05	0.26	0.26
Sat Flow, veh/h	1774	3283	283	1774	2950	580	1774	3539	1521	1774	3168	394
Grp Volume(v), veh/h	121	216	222	519	387	385	42	769	298	80	444	450
Grp Sat Flow(s),veh/h/ln	1774	1770	1797	1774	1770	1760	1774	1770	1521	1774	1770	1793
Q Serve(g_s), s	8.1	12.9	13.1	34.8	18.7	18.8	2.8	24.7	13.0	5.4	29.6	29.7
Cycle Q Clear(g_c), s	8.1	12.9	13.1	34.8	18.7	18.8	2.8	24.7	13.0	5.4	29.6	29.7
Prop In Lane	1.00		0.16	1.00		0.33	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	147	402	408	529	783	779	55	915	865	86	465	471
V/C Ratio(X)	0.82	0.54	0.54	0.98	0.49	0.50	0.77	0.84	0.34	0.93	0.96	0.96
Avail Cap(c_a), veh/h	284	402	408	529	783	779	78	915	865	86	465	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.1	40.8	40.9	41.8	23.9	23.9	57.7	42.2	14.7	56.9	43.6	43.6
Incr Delay (d2), s/veh	4.1	4.9	4.9	33.9	2.2	2.2	13.9	9.2	1.1	74.1	32.1	31.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	6.9	7.0	22.0	9.6	9.6	1.6	13.2	5.7	4.4	18.6	18.8
LnGrp Delay(d),s/veh	58.3	45.7	45.8	75.7	26.1	26.1	71.7	51.4	15.7	131.0	75.7	75.5
LnGrp LOS	E	D	D	E	C	C	E	D	B	F	E	E
Approach Vol, veh/h		559			1291			1109			974	
Approach Delay, s/veh		48.5			46.0			42.6			80.1	
Approach LOS		D			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.0	33.4	9.5	37.3	14.2	59.3	10.0	36.8
Change Period (Y+Rc), s	* 4.2	6.2	5.8	* 5.8	* 4.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 36	27.0	5.3	* 32	* 19	* 44	* 5.8	31.0
Max Q Clear Time (g_c+I1), s	36.8	15.1	4.8	31.7	10.1	20.8	7.4	26.7
Green Ext Time (p_c), s	0.0	5.3	0.2	0.0	0.1	7.2	0.0	2.8

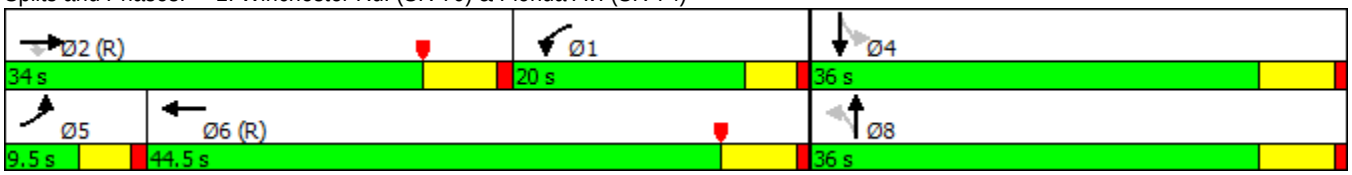
Intersection Summary	
HCM 2010 Ctrl Delay	53.9
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	13	952	102	353	788	124	6	14	16
Future Volume (vph)	13	952	102	353	788	124	6	14	16
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	28.0	28.0	15.5	46.1	30.0	30.0	30.0	30.0
Actuated g/C Ratio	0.06	0.31	0.31	0.17	0.51	0.33	0.33	0.33	0.33
v/c Ratio	0.15	0.98	0.20	1.32	0.52	0.31	0.60	0.11	0.04
Control Delay	44.2	55.3	5.6	197.7	16.4	24.6	7.9	23.4	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	55.3	5.6	197.7	16.4	24.6	7.9	23.4	17.4
LOS	D	E	A	F	B	C	A	C	B
Approach Delay		50.4			70.8		11.7		19.9
Approach LOS		D			E		B		B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.32	
Intersection Signal Delay: 51.0	Intersection LOS: D
Intersection Capacity Utilization 85.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	952	102	353	788	35	124	6	419	14	16	4
Future Volume (veh/h)	13	952	102	353	788	35	124	6	419	14	16	4
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	15	1082	69	401	895	34	141	7	268	16	18	0
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	31	1101	493	980	2999	114	532	13	516	293	621	0
Arrive On Green	0.02	0.31	0.31	0.55	0.86	0.86	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3477	132	1383	40	1549	1100	1863	0
Grp Volume(v), veh/h	15	1082	69	401	456	473	141	0	275	16	18	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1839	1383	0	1589	1100	1863	0
Q Serve(g_s), s	0.8	27.3	2.8	11.8	4.3	4.3	6.9	0.0	12.6	1.1	0.6	0.0
Cycle Q Clear(g_c), s	0.8	27.3	2.8	11.8	4.3	4.3	7.5	0.0	12.6	13.6	0.6	0.0
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	31	1101	493	980	1526	1587	532	0	530	293	621	0
V/C Ratio(X)	0.49	0.98	0.14	0.41	0.30	0.30	0.27	0.00	0.52	0.05	0.03	0.00
Avail Cap(c_a), veh/h	99	1101	493	980	1526	1587	532	0	530	293	621	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.8	30.8	22.3	11.7	1.1	1.1	22.7	0.0	24.2	29.7	20.2	0.0
Incr Delay (d2), s/veh	4.4	23.3	0.6	0.1	0.5	0.5	1.2	0.0	3.6	0.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	16.8	1.3	5.7	2.2	2.3	2.8	0.0	6.0	0.4	0.3	0.0
LnGrp Delay(d),s/veh	48.2	54.0	22.9	11.8	1.6	1.6	23.9	0.0	27.8	30.0	20.3	0.0
LnGrp LOS	D	D	C	B	A	A	C		C	C	C	
Approach Vol, veh/h		1166			1330			416			34	
Approach Delay, s/veh		52.1			4.7			26.5			24.9	
Approach LOS		D			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	55.7	34.0		36.0	6.1	83.7		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	13.8	29.3		15.6	2.8	6.3		14.6
Green Ext Time (p_c), s	0.3	0.0		1.1	0.0	3.8		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	26.8
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	1	34	6	1	2	31	583	4	2	472	28
Future Vol, veh/h	33	1	34	6	1	2	31	583	4	2	472	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	1	36	6	1	2	33	620	4	2	502	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1212	1212	518	1210	1225	622	533	0	0	624	0	0
Stage 1	522	522	-	688	688	-	-	-	-	-	-	-
Stage 2	690	690	-	522	537	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	127	139	558	128	135	*608	1035	-	-	*910	-	-
Stage 1	538	531	-	539	477	-	-	-	-	-	-	-
Stage 2	536	476	-	538	523	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	123	134	557	116	130	*608	1035	-	-	*910	-	-
Mov Cap-2 Maneuver	123	134	-	116	130	-	-	-	-	-	-	-
Stage 1	520	529	-	522	462	-	-	-	-	-	-	-
Stage 2	516	460	-	501	521	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29	31.8	0.4	0
HCM LOS	D	D		

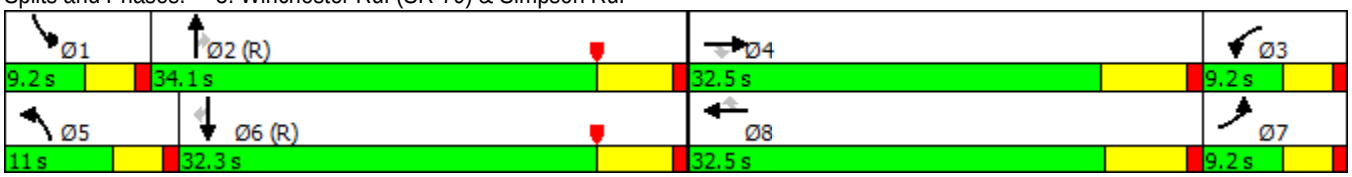
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1035	-	-	123	557	144	* 910	-	-
HCM Lane V/C Ratio	0.032	-	-	0.294	0.065	0.066	0.002	-	-
HCM Control Delay (s)	8.6	-	-	46	11.9	31.8	9	-	-
HCM Lane LOS	A	-	-	E	B	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.1	0.2	0.2	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	140	49	53	111	43	54	554	113	34	376	82
Future Volume (vph)	49	140	49	53	111	43	54	554	113	34	376	82
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	9.2	32.5	32.5	9.2	32.5	32.5	11.0	34.1	34.1	9.2	32.3	32.3
Total Split (%)	10.8%	38.2%	38.2%	10.8%	38.2%	38.2%	12.9%	40.1%	40.1%	10.8%	38.0%	38.0%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	7.1	14.4	14.4	6.3	16.0	16.0	6.6	43.4	43.4	5.7	42.6	42.6
Actuated g/C Ratio	0.08	0.17	0.17	0.07	0.19	0.19	0.08	0.51	0.51	0.07	0.50	0.50
v/c Ratio	0.35	0.47	0.14	0.42	0.34	0.11	0.42	0.32	0.13	0.31	0.22	0.10
Control Delay	43.7	35.3	0.7	48.7	31.6	0.6	46.5	15.8	2.3	44.8	15.7	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.7	35.3	0.7	48.7	31.6	0.6	46.5	15.8	2.3	44.8	15.7	0.7
LOS	D	D	A	D	C	A	D	B	A	D	B	A
Approach Delay		29.9			29.6			16.0			15.2	
Approach LOS		C			C			B			B	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 19.5	Intersection LOS: B
Intersection Capacity Utilization 55.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	140	49	53	111	43	54	554	113	34	376	82
Future Volume (veh/h)	49	140	49	53	111	43	54	554	113	34	376	82
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	52	147	31	56	117	31	57	583	66	36	396	59
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	83	223	187	77	223	189	77	1981	886	60	1946	870
Arrive On Green	0.05	0.12	0.12	0.04	0.12	0.12	0.04	0.56	0.56	0.03	0.55	0.55
Sat Flow, veh/h	1774	1863	1561	1774	1863	1577	1774	3539	1583	1774	3539	1582
Grp Volume(v), veh/h	52	147	31	56	117	31	57	583	66	36	396	59
Grp Sat Flow(s),veh/h/ln	1774	1863	1561	1774	1863	1577	1774	1770	1583	1774	1770	1582
Q Serve(g_s), s	2.4	6.4	1.2	2.7	5.0	1.2	2.7	7.4	1.0	1.7	4.8	0.9
Cycle Q Clear(g_c), s	2.4	6.4	1.2	2.7	5.0	1.2	2.7	7.4	1.0	1.7	4.8	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	223	187	77	223	189	77	1981	886	60	1946	870
V/C Ratio(X)	0.63	0.66	0.17	0.73	0.52	0.16	0.74	0.29	0.07	0.60	0.20	0.07
Avail Cap(c_a), veh/h	104	570	478	104	576	488	142	1981	886	104	1946	870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	35.7	21.9	40.2	35.1	22.7	40.2	9.9	3.5	40.5	9.7	3.6
Incr Delay (d2), s/veh	2.9	3.3	0.4	8.8	1.9	0.4	4.8	0.4	0.2	3.6	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.5	0.6	1.5	2.7	0.6	1.4	3.7	0.5	0.9	2.4	0.4
LnGrp Delay(d),s/veh	42.7	39.0	22.3	49.0	37.0	23.1	45.0	10.2	3.6	44.1	9.9	3.8
LnGrp LOS	D	D	C	D	D	C	D	B	A	D	A	A
Approach Vol, veh/h		230			204			706			491	
Approach Delay, s/veh		37.6			38.2			12.4			11.7	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	53.4	7.9	16.7	7.9	52.5	8.2	16.4
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 5	28.3	5.0	* 26	* 6.8	26.5	5.0	* 26
Max Q Clear Time (g_c+I1), s	3.7	9.4	4.7	8.4	4.7	6.8	4.4	7.0
Green Ext Time (p_c), s	0.0	8.6	0.0	0.6	0.0	8.7	0.0	0.5

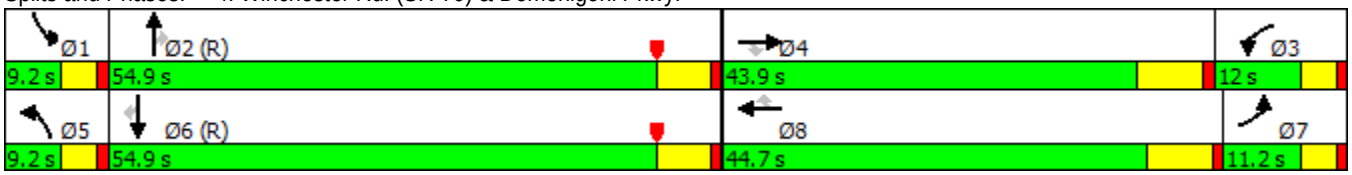
Intersection Summary	
HCM 2010 Ctrl Delay	19.0
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	187	778	58	622	822	18	68	524	935	12	289	142
Future Volume (vph)	187	778	58	622	822	18	68	524	935	12	289	142
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	11.2	43.9	43.9	12.0	44.7	44.7	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.3%	36.6%	36.6%	10.0%	37.3%	37.3%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	16.6	33.5	33.5	11.3	28.2	28.2	5.0	54.6	54.6	5.0	49.1	49.1
Actuated g/C Ratio	0.14	0.28	0.28	0.09	0.24	0.24	0.04	0.46	0.46	0.04	0.41	0.41
v/c Ratio	0.42	0.84	0.12	2.04	0.73	0.04	0.99	0.35	1.16	0.18	0.21	0.21
Control Delay	52.1	49.0	1.9	507.9	45.8	0.2	159.4	22.6	109.6	61.2	23.4	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	49.0	1.9	507.9	45.8	0.2	159.4	22.6	109.6	61.2	23.4	4.2
LOS	D	D	A	F	D	A	F	C	F	E	C	A
Approach Delay		46.9			242.0			82.0			18.3	
Approach LOS		D			F			F			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.04	
Intersection Signal Delay: 120.1	Intersection LOS: F
Intersection Capacity Utilization 97.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	778	58	622	822	18	68	524	935	12	289	142
Future Volume (veh/h)	187	778	58	622	822	18	68	524	935	12	289	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	199	828	31	662	874	9	72	557	580	13	307	42
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	388	944	422	224	1113	347	74	1691	757	26	1595	714
Arrive On Green	0.11	0.27	0.27	0.07	0.22	0.22	0.04	0.48	0.48	0.01	0.45	0.45
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	199	828	31	662	874	9	72	557	580	13	307	42
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.5	26.9	1.4	7.8	19.5	0.5	4.9	11.7	25.9	0.9	6.3	1.2
Cycle Q Clear(g_c), s	6.5	26.9	1.4	7.8	19.5	0.5	4.9	11.7	25.9	0.9	6.3	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	388	944	422	224	1113	347	74	1691	757	26	1595	714
V/C Ratio(X)	0.51	0.88	0.07	2.96	0.79	0.03	0.97	0.33	0.77	0.50	0.19	0.06
Avail Cap(c_a), veh/h	388	1091	488	224	1602	499	74	1691	757	74	1595	714
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	50.1	42.1	22.0	56.1	44.2	27.4	57.4	19.4	13.2	58.7	19.8	7.7
Incr Delay (d2), s/veh	0.5	7.5	0.1	893.6	1.7	0.0	95.1	0.5	7.3	5.3	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	14.1	0.6	31.5	9.3	0.2	4.3	5.8	12.8	0.5	3.1	0.5
LnGrp Delay(d),s/veh	50.6	49.6	22.0	949.7	45.9	27.4	152.6	19.9	20.5	64.0	20.1	7.8
LnGrp LOS	D	D	C	F	D	C	F	B	C	E	C	A
Approach Vol, veh/h		1058			1545			1209			362	
Approach Delay, s/veh		49.0			433.1			28.1			20.2	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	63.1	12.0	38.9	9.2	59.9	17.7	33.2
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.9	* 4.2	5.8	4.2	* 6.9
Max Green Setting (Gmax), s	* 5	49.1	7.8	* 37	* 5	49.1	7.0	* 38
Max Q Clear Time (g_c+I1), s	2.9	27.9	9.8	28.9	6.9	8.3	8.5	21.5
Green Ext Time (p_c), s	0.0	11.3	0.0	3.1	0.0	15.3	0.0	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	182.6
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1721	3	0	1462	0	0	0	0	0	0	0
Future Vol, veh/h	0	1721	3	0	1462	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1738	3	0	1477	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	871	-	-	738
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*389	0	0	360
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*389	-	-	360
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	-	0
HCM Lane LOS	A	-	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	119	5	2	9	9	90
Future Vol, veh/h	119	5	2	9	9	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	142	6	2	11	11	107

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	26	11	11	0	-	0
Stage 1	11	-	-	-	-	-
Stage 2	15	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	989	1070	1608	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	988	1070	1608	-	-	-
Mov Cap-2 Maneuver	988	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	1007	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	1.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	991	-	-
HCM Lane V/C Ratio	0.001	-	0.149	-	-
HCM Control Delay (s)	7.2	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	249	2	2	180	0	1	1	2	1	2	2
Future Vol, veh/h	2	249	2	2	180	0	1	1	2	1	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	283	2	2	205	0	1	1	2	1	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	205	0	0	285	0	0	500	498	284	499	499	205
Stage 1	-	-	-	-	-	-	289	289	-	209	209	-
Stage 2	-	-	-	-	-	-	211	209	-	290	290	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1366	-	-	1277	-	-	481	474	755	482	473	836
Stage 1	-	-	-	-	-	-	719	673	-	793	729	-
Stage 2	-	-	-	-	-	-	791	729	-	718	672	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1366	-	-	1277	-	-	476	472	755	478	471	836
Mov Cap-2 Maneuver	-	-	-	-	-	-	476	472	-	478	471	-
Stage 1	-	-	-	-	-	-	718	672	-	791	728	-
Stage 2	-	-	-	-	-	-	785	728	-	713	671	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	11.2	11.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	582	1366	-	-	1277	-	-	573
HCM Lane V/C Ratio	0.008	0.002	-	-	0.002	-	-	0.01
HCM Control Delay (s)	11.2	7.6	0	-	7.8	0	-	11.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	7.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	29	0	0	19
Future Vol, veh/h	0	0	29	0	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	32	0	0	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1	0	64	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	63	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1622	-	942	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	960	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1622	-	923	1084
Mov Cap-2 Maneuver	-	-	-	-	923	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	941	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.3	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1084	-	-	1622	-
HCM Lane V/C Ratio	0.019	-	-	0.019	-
HCM Control Delay (s)	8.4	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	6.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	24	112	29	0	107
Future Vol, veh/h	0	24	112	29	0	107
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	26	122	32	0	116

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	26	0	288	13
Stage 1	-	-	-	-	13	-
Stage 2	-	-	-	-	275	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1588	-	702	1067
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	771	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1588	-	648	1067
Mov Cap-2 Maneuver	-	-	-	-	648	-
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	712	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.9	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1067	-	-	1588	-
HCM Lane V/C Ratio	0.109	-	-	0.077	-
HCM Control Delay (s)	8.8	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	86	16	65	141	0	65
Future Vol, veh/h	86	16	65	141	0	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	93	17	71	153	0	71

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	111	0	397	102
Stage 1	-	-	-	-	102	-
Stage 2	-	-	-	-	295	-
Critical Hdwy	-	-	4.12	-	7.12	6.22
Critical Hdwy Stg 1	-	-	-	-	6.12	-
Critical Hdwy Stg 2	-	-	-	-	6.12	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1479	-	563	953
Stage 1	-	-	-	-	904	-
Stage 2	-	-	-	-	713	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1479	-	542	953
Mov Cap-2 Maneuver	-	-	-	-	542	-
Stage 1	-	-	-	-	904	-
Stage 2	-	-	-	-	679	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	953	-	-	1479	-
HCM Lane V/C Ratio	0.074	-	-	0.048	-
HCM Control Delay (s)	9.1	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Intersection Delay, s/veh	41.6
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	14	25	1	0	127	39	36	0	0	434	188
Future Vol, veh/h	0	14	25	1	0	127	39	36	0	0	434	188
Peak Hour Factor	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	25	1	0	128	39	36	0	0	438	190
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	11.9	15.1	54.6
HCM LOS	B	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	35%	63%	14%
Vol Thru, %	70%	62%	19%	78%
Vol Right, %	30%	3%	18%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	622	40	202	539
LT Vol	0	14	127	77
Through Vol	434	25	39	421
RT Vol	188	1	36	41
Lane Flow Rate	628	40	204	544
Geometry Grp	1	1	1	1
Degree of Util (X)	0.981	0.09	0.407	0.89
Departure Headway (Hd)	5.623	7.99	7.188	5.888
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	647	447	500	615
Service Time	3.664	6.068	5.243	3.93
HCM Lane V/C Ratio	0.971	0.089	0.408	0.885
HCM Control Delay	54.6	11.9	15.1	38.8
HCM Lane LOS	F	B	C	E
HCM 95th-tile Q	14.6	0.3	2	10.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	77	421	41
Future Vol, veh/h	0	77	421	41
Peak Hour Factor	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	78	425	41
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	38.8
HCM LOS	E

Intersection	
Intersection Delay, s/veh	137.8
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	191	165	16	0	45	228	20	0	21	411	53	0	30	394	125
Future Vol, veh/h	0	191	165	16	0	45	228	20	0	21	411	53	0	30	394	125
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	199	172	17	0	47	238	21	0	22	428	55	0	31	410	130
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0

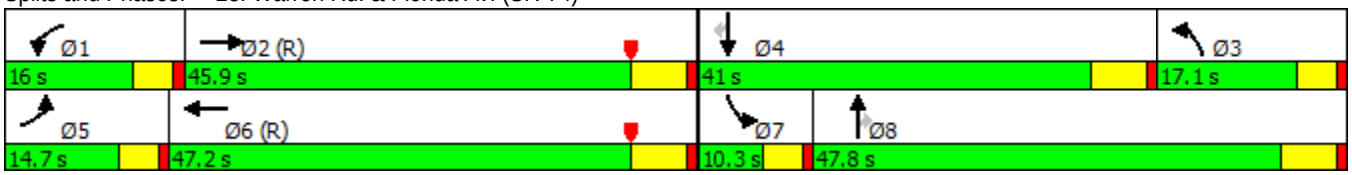
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	79.6	48.4	120.5	240.3
HCM LOS	F	E	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	0%	51%	15%	5%
Vol Thru, %	95%	0%	44%	78%	72%
Vol Right, %	0%	100%	4%	7%	23%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	432	53	372	293	549
LT Vol	21	0	191	45	30
Through Vol	411	0	165	228	394
RT Vol	0	53	16	20	125
Lane Flow Rate	450	55	388	305	572
Geometry Grp	7	7	2	2	5
Degree of Util (X)	1.167	0.132	0.984	0.806	1.445
Departure Headway (Hd)	10.405	9.644	10.83	11.37	9.621
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	351	374	337	320	383
Service Time	8.105	7.344	8.83	9.37	7.621
HCM Lane V/C Ratio	1.282	0.147	1.151	0.953	1.493
HCM Control Delay	133.6	13.8	79.6	48.4	240.3
HCM Lane LOS	F	B	F	E	F
HCM 95th-tile Q	16.4	0.5	10.7	6.7	28

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	118	846	245	737	217	359	330	25	302	114
Future Volume (vph)	118	846	245	737	217	359	330	25	302	114
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	14.7	45.9	16.0	47.2	17.1	47.8	47.8	10.3	41.0	41.0
Total Split (%)	12.3%	38.3%	13.3%	39.3%	14.3%	39.8%	39.8%	8.6%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	9.9	39.9	11.4	41.4	12.5	45.9	45.9	5.5	35.0	35.0
Actuated g/C Ratio	0.08	0.33	0.10	0.34	0.10	0.38	0.38	0.05	0.29	0.29
v/c Ratio	0.86	0.93	1.54	0.65	1.24	0.28	0.45	0.33	0.31	0.22
Control Delay	99.1	52.7	305.3	36.3	189.6	27.2	8.8	66.3	34.1	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.1	52.7	305.3	36.3	189.6	27.2	8.8	66.3	34.1	6.1
LOS	F	D	F	D	F	C	A	E	C	A
Approach Delay		57.5		102.1		59.4			28.7	
Approach LOS		E		F		E			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.54	
Intersection Signal Delay: 67.1	Intersection LOS: E
Intersection Capacity Utilization 80.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	846	181	245	737	19	217	359	330	25	302	114
Future Volume (veh/h)	118	846	181	245	737	19	217	359	330	25	302	114
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	124	891	126	258	776	14	228	378	231	26	318	52
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	2234	316	169	2591	47	185	1357	607	43	1032	462
Arrive On Green	0.08	0.72	0.72	0.09	0.73	0.73	0.10	0.38	0.38	0.02	0.29	0.29
Sat Flow, veh/h	1774	3114	440	1774	3557	64	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	124	506	511	258	386	404	228	378	231	26	318	52
Grp Sat Flow(s),veh/h/ln	1774	1770	1785	1774	1770	1851	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	8.3	13.6	13.6	11.4	9.1	9.1	12.5	8.8	12.6	1.7	8.4	3.8
Cycle Q Clear(g_c), s	8.3	13.6	13.6	11.4	9.1	9.1	12.5	8.8	12.6	1.7	8.4	3.8
Prop In Lane	1.00		0.25	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	1270	1281	169	1289	1349	185	1357	607	43	1032	462
V/C Ratio(X)	0.83	0.40	0.40	1.53	0.30	0.30	1.23	0.28	0.38	0.61	0.31	0.11
Avail Cap(c_a), veh/h	149	1270	1281	169	1289	1349	185	1357	607	84	1032	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.1	6.7	6.7	54.3	5.7	5.7	53.8	25.5	26.7	58.0	33.1	53.9
Incr Delay (d2), s/veh	29.4	0.9	0.9	266.5	0.6	0.6	143.0	0.5	1.8	5.1	0.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	6.9	7.0	18.0	4.6	4.8	13.4	4.4	5.8	0.9	4.2	1.7
LnGrp Delay(d),s/veh	83.5	7.6	7.6	320.8	6.3	6.2	196.8	26.1	28.5	63.0	33.9	54.4
LnGrp LOS	F	A	A	F	A	A	F	C	C	E	C	D
Approach Vol, veh/h		1141			1048			837			396	
Approach Delay, s/veh		15.9			83.7			73.2			38.5	
Approach LOS		B			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	93.5	18.5	41.0	14.7	94.8	7.5	52.0
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	11.4	39.9	12.5	* 35	10.1	41.2	5.7	41.8
Max Q Clear Time (g_c+I1), s	13.4	15.6	14.5	10.4	10.3	11.1	3.7	14.6
Green Ext Time (p_c), s	0.0	7.0	0.0	1.1	0.0	7.4	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	53.3
HCM 2010 LOS	D

Notes

Intersection	
Int Delay, s/veh	10.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	53	196	730	45	86	654
Future Vol, veh/h	53	196	730	45	86	654
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	228	849	52	100	760

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1809	849	0	0	849	0
Stage 1	849	-	-	-	-	-
Stage 2	960	-	-	-	-	-
Critical Hdwy	7.12	6.22	-	-	4.12	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 61	361	-	-	789	-
Stage 1	356	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 55	361	-	-	789	-
Mov Cap-2 Maneuver	209	-	-	-	-	-
Stage 1	356	-	-	-	-	-
Stage 2	269	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	70.9	0	1.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	313	789	-
HCM Lane V/C Ratio	-	-	0.925	0.127	-
HCM Control Delay (s)	-	-	70.9	10.2	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	9.1	0.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	12	749	3	0	773
Future Vol, veh/h	3	12	749	3	0	773
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	13	814	3	0	840

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1656	816	0	0	817	0
Stage 1	816	-	-	-	-	-
Stage 2	840	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	108	377	-	-	811	-
Stage 1	435	-	-	-	-	-
Stage 2	424	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	108	377	-	-	811	-
Mov Cap-2 Maneuver	306	-	-	-	-	-
Stage 1	435	-	-	-	-	-
Stage 2	424	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	360	811	-
HCM Lane V/C Ratio	-	-	0.045	-	-
HCM Control Delay (s)	-	-	15.5	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Intersection Delay, s/veh	186
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	40	82	5	0	158	75	204	0	0	498	120
Future Vol, veh/h	0	40	82	5	0	158	75	204	0	0	498	120
Peak Hour Factor	0.92	0.98	0.98	0.98	0.92	0.98	0.98	0.98	0.92	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	41	84	5	0	161	77	208	0	0	508	122
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	2
HCM Control Delay	21.2	23.7	85.5
HCM LOS	C	C	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	31%	100%	0%	27%
Vol Thru, %	100%	0%	65%	0%	27%	69%
Vol Right, %	0%	100%	4%	0%	73%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	498	120	127	158	279	792
LT Vol	0	0	40	158	0	210
Through Vol	498	0	82	0	75	548
RT Vol	0	120	5	0	204	34
Lane Flow Rate	508	122	130	161	285	808
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	1.094	0.24	0.346	0.396	0.62	1.78
Departure Headway (Hd)	9.014	8.281	11.958	10.345	9.278	8.289
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	407	437	303	350	393	444
Service Time	6.714	5.981	9.958	8.045	6.978	6.289
HCM Lane V/C Ratio	1.248	0.279	0.429	0.46	0.725	1.82
HCM Control Delay	102.8	13.6	21.2	19.7	26	380.3
HCM Lane LOS	F	B	C	C	D	F
HCM 95th-tile Q	15.4	0.9	1.5	1.8	4	48.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	210	548	34
Future Vol, veh/h	0	210	548	34
Peak Hour Factor	0.92	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	214	559	35
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	380.3
HCM LOS	F

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	125	27	38	503	555
Future Volume (vph)	125	27	38	503	555
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	34.8	34.8	9.2	15.8	34.8
Total Split (s)	34.8	34.8	9.3	49.3	40.0
Total Split (%)	41.4%	41.4%	11.1%	58.6%	47.6%
Yellow Time (s)	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	14.4	14.4	5.8	58.1	51.9
Actuated g/C Ratio	0.17	0.17	0.07	0.69	0.62
v/c Ratio	0.43	0.10	0.32	0.40	0.66
Control Delay	33.8	9.5	44.6	8.3	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.8	9.5	44.6	8.3	17.9
LOS	C	A	D	A	B
Approach Delay	29.5			10.8	17.9
Approach LOS	C			B	B

Intersection Summary	
Cycle Length: 84.1	
Actuated Cycle Length: 84.1	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 16.4	Intersection LOS: B
Intersection Capacity Utilization 57.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 27: Warren Rd. & New Stetson Av.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	125	27	38	503	555	168
Future Volume (veh/h)	125	27	38	503	555	168
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	129	28	39	519	572	173
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	206	184	63	1389	907	274
Arrive On Green	0.12	0.12	0.04	0.75	0.66	0.66
Sat Flow, veh/h	1774	1583	1774	1863	1374	416
Grp Volume(v), veh/h	129	28	39	519	0	745
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	0	1789
Q Serve(g_s), s	5.8	1.3	1.8	8.2	0.0	20.4
Cycle Q Clear(g_c), s	5.8	1.3	1.8	8.2	0.0	20.4
Prop In Lane	1.00	1.00	1.00			0.23
Lane Grp Cap(c), veh/h	206	184	63	1389	0	1182
V/C Ratio(X)	0.63	0.15	0.62	0.37	0.00	0.63
Avail Cap(c_a), veh/h	612	547	108	1389	0	1182
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.4	33.4	39.9	3.8	0.0	8.3
Incr Delay (d2), s/veh	1.2	0.1	3.6	0.8	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	1.2	1.0	4.5	0.0	10.8
LnGrp Delay(d),s/veh	36.6	33.6	43.6	4.5	0.0	10.9
LnGrp LOS	D	C	D	A		B
Approach Vol, veh/h	157			558	745	
Approach Delay, s/veh	36.0			7.3	10.9	
Approach LOS	D			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		68.5		15.5	7.2	61.3		
Change Period (Y+Rc), s		5.8		5.8	* 4.2	5.8		
Max Green Setting (Gmax), s		43.5		29.0	* 5.1	34.2		
Max Q Clear Time (g_c+I1), s		10.2		7.8	3.8	22.4		
Green Ext Time (p_c), s		5.6		0.2	0.0	4.2		

Intersection Summary	
HCM 2010 Ctrl Delay	12.2
HCM 2010 LOS	B

Notes

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	99	68	442	478
Future Volume (vph)	99	68	442	478
Turn Type	Prot	Prot	NA	NA
Protected Phases	4	5	2	6
Permitted Phases				
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	10.8	23.8
Total Split (s)	14.0	10.0	46.0	36.0
Total Split (%)	23.3%	16.7%	76.7%	60.0%
Yellow Time (s)	3.6	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Min	C-Min
Act Effct Green (s)	7.9	5.7	44.7	38.4
Actuated g/C Ratio	0.13	0.10	0.74	0.64
v/c Ratio	0.61	0.44	0.35	0.54
Control Delay	29.7	41.2	1.5	11.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	29.7	41.2	1.5	11.2
LOS	C	D	A	B
Approach Delay	29.7		6.8	11.2
Approach LOS	C		A	B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 56.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 28: Warren Rd. & Street D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	99	44	68	442	478	104
Future Volume (veh/h)	99	44	68	442	478	104
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	108	48	74	480	520	113
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	135	60	105	1327	855	186
Arrive On Green	0.11	0.11	0.12	1.00	0.58	0.58
Sat Flow, veh/h	1177	523	1774	1863	1483	322
Grp Volume(v), veh/h	157	0	74	480	0	633
Grp Sat Flow(s),veh/h/ln	1712	0	1774	1863	0	1806
Q Serve(g_s), s	5.4	0.0	2.4	0.0	0.0	13.7
Cycle Q Clear(g_c), s	5.4	0.0	2.4	0.0	0.0	13.7
Prop In Lane	0.69	0.31	1.00			0.18
Lane Grp Cap(c), veh/h	196	0	105	1327	0	1041
V/C Ratio(X)	0.80	0.00	0.71	0.36	0.00	0.61
Avail Cap(c_a), veh/h	268	0	160	1327	0	1041
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.82	0.82	0.00	1.00
Uniform Delay (d), s/veh	25.9	0.0	26.0	0.0	0.0	8.3
Incr Delay (d2), s/veh	8.1	0.0	2.7	0.6	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	1.2	0.2	0.0	7.4
LnGrp Delay(d),s/veh	34.0	0.0	28.6	0.6	0.0	10.9
LnGrp LOS	C		C	A		B
Approach Vol, veh/h	157			554	633	
Approach Delay, s/veh	34.0			4.4	10.9	
Approach LOS	C			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		48.5		11.5	8.1	40.4		
Change Period (Y+Rc), s		5.8		4.6	4.6	5.8		
Max Green Setting (Gmax), s		40.2		9.4	5.4	30.2		
Max Q Clear Time (g_c+I1), s		2.0		7.4	4.4	15.7		
Green Ext Time (p_c), s		12.5		0.0	0.0	7.8		

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

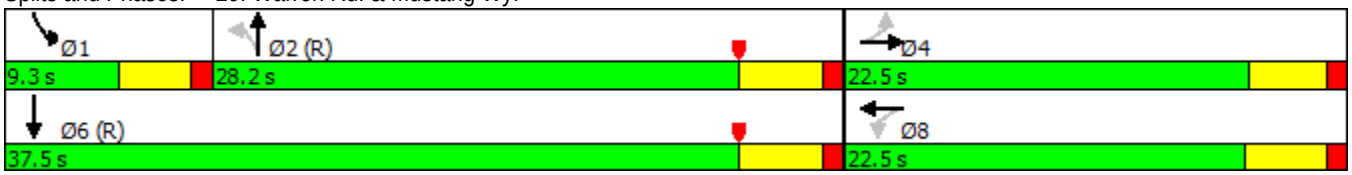
Notes

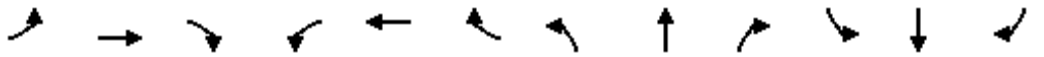
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	44	11	102	17	46	411	60	384
Future Volume (vph)	44	11	102	17	46	411	60	384
Turn Type	Perm	NA	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2			
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.5	22.5	21.6	21.6	21.7	21.7	9.2	14.7
Total Split (s)	22.5	22.5	22.5	22.5	28.2	28.2	9.3	37.5
Total Split (%)	37.5%	37.5%	37.5%	37.5%	47.0%	47.0%	15.5%	62.5%
Yellow Time (s)	3.5	3.5	3.6	3.6	3.7	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.6	4.6	4.7	4.7	4.2	4.7
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	10.9	10.9	11.7	11.7	36.3	36.3	6.1	42.8
Actuated g/C Ratio	0.18	0.18	0.20	0.20	0.60	0.60	0.10	0.71
v/c Ratio	0.19	0.13	0.39	0.17	0.08	0.57	0.34	0.35
Control Delay	20.7	10.2	24.8	9.9	10.5	14.9	30.5	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.7	10.2	24.8	9.9	10.5	14.9	30.5	5.8
LOS	C	B	C	A	B	B	C	A
Approach Delay		15.6		19.2		14.6		8.7
Approach LOS		B		B		B		A

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay: 13.1 — Intersection LOS: B
Intersection Capacity Utilization 61.4% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 29: Warren Rd. & Mustang Wy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	11	30	102	17	45	46	411	197	60	384	67
Future Volume (veh/h)	44	11	30	102	17	45	46	411	197	60	384	67
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	45	11	31	104	17	19	47	419	177	61	392	68
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	318	70	198	312	131	146	639	695	294	94	1055	183
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.56	0.56	0.56	0.05	0.68	0.68
Sat Flow, veh/h	1367	432	1216	1359	805	899	928	1244	525	1774	1547	268
Grp Volume(v), veh/h	45	0	42	104	0	36	47	0	596	61	0	460
Grp Sat Flow(s),veh/h/ln	1367	0	1648	1359	0	1704	928	0	1769	1774	0	1815
Q Serve(g_s), s	1.7	0.0	1.3	4.3	0.0	1.1	1.4	0.0	13.4	2.0	0.0	6.5
Cycle Q Clear(g_c), s	2.8	0.0	1.3	5.6	0.0	1.1	1.4	0.0	13.4	2.0	0.0	6.5
Prop In Lane	1.00		0.74	1.00		0.53	1.00		0.30	1.00		0.15
Lane Grp Cap(c), veh/h	318	0	268	312	0	278	639	0	989	94	0	1238
V/C Ratio(X)	0.14	0.00	0.16	0.33	0.00	0.13	0.07	0.00	0.60	0.65	0.00	0.37
Avail Cap(c_a), veh/h	505	0	494	496	0	508	639	0	989	151	0	1238
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.7	0.0	21.6	24.0	0.0	21.5	6.1	0.0	8.8	27.9	0.0	4.1
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.6	0.0	0.2	0.2	0.0	2.7	2.8	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.6	1.6	0.0	0.5	0.4	0.0	7.2	1.1	0.0	3.5
LnGrp Delay(d),s/veh	22.9	0.0	21.8	24.6	0.0	21.7	6.4	0.0	11.5	30.6	0.0	4.9
LnGrp LOS	C		C	C		C	A		B	C		A
Approach Vol, veh/h		87			140			643			521	
Approach Delay, s/veh		22.4			23.8			11.1			7.9	
Approach LOS		C			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	7.4	38.2		14.4		45.6		14.4
Change Period (Y+Rc), s	* 4.2	* 4.7		* 4.6		* 4.7		4.6
Max Green Setting (Gmax), s	* 5.1	* 24		* 18		* 33		17.9
Max Q Clear Time (g_c+I1), s	4.0	15.4		4.8		8.5		7.6
Green Ext Time (p_c), s	0.0	5.3		0.7		11.3		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	11.9
HCM 2010 LOS	B

Notes

Intersection	
Intersection Delay, s/veh	22.3
Intersection LOS	C

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	224	32	0	366	164	0	23	417
Future Vol, veh/h	0	224	32	0	366	164	0	23	417
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	236	34	0	385	173	0	24	439
Number of Lanes	0	1	0	0	1	1	0	1	1

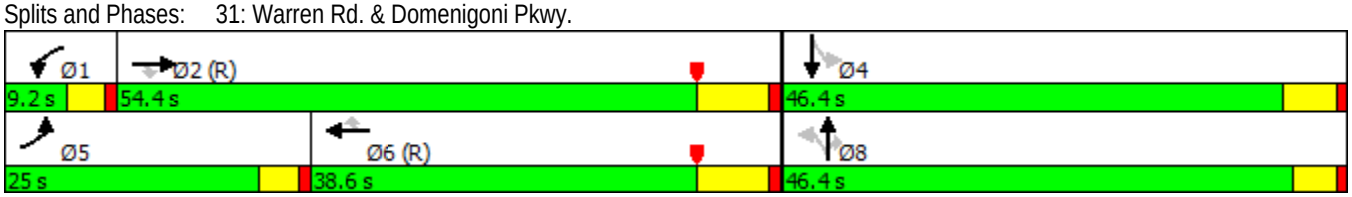
Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	16.2	23.3	24.7
HCM LOS	C	C	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	88%	0%	100%
Vol Right, %	0%	100%	12%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	23	417	256	366	164
LT Vol	23	0	0	366	0
Through Vol	0	0	224	0	164
RT Vol	0	417	32	0	0
Lane Flow Rate	24	439	269	385	173
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.05	0.752	0.498	0.752	0.313
Departure Headway (Hd)	7.388	6.167	6.651	7.03	6.52
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	482	584	539	512	547
Service Time	5.172	3.949	4.741	4.815	4.305
HCM Lane V/C Ratio	0.05	0.752	0.499	0.752	0.316
HCM Control Delay	10.6	25.5	16.2	28.3	12.3
HCM Lane LOS	B	D	C	D	B
HCM 95th-tile Q	0.2	6.6	2.8	6.4	1.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	387	1313	6	3	1087	49	3	3	1	50	2
Future Volume (vph)	387	1313	6	3	1087	49	3	3	1	50	2
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	25.0	54.4	54.4	9.2	38.6	38.6	46.4	46.4	46.4	46.4	46.4
Total Split (%)	22.7%	49.5%	49.5%	8.4%	35.1%	35.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	35.7	78.0	78.0	5.0	40.0	40.0		18.7	18.7		17.9
Actuated g/C Ratio	0.32	0.71	0.71	0.05	0.36	0.36		0.17	0.17		0.16
v/c Ratio	0.72	0.56	0.01	0.04	0.90	0.08		0.02	0.00		0.78
Control Delay	43.5	12.4	0.0	51.3	44.1	0.2		30.0	0.0		17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	43.5	12.4	0.0	51.3	44.1	0.2		30.0	0.0		17.9
LOS	D	B	A	D	D	A		C	A		B
Approach Delay		19.5			42.3			25.7			17.9
Approach LOS		B			D			C			B

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 27.2	Intersection LOS: C
Intersection Capacity Utilization 96.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	387	1313	6	3	1087	49	3	3	1	50	2	358
Future Volume (veh/h)	387	1313	6	3	1087	49	3	3	1	50	2	358
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	412	1397	4	3	1156	45	3	3	1	53	2	167
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	2415	1080	7	1759	787	129	114	259	89	15	192
Arrive On Green	0.19	0.68	0.68	0.00	0.50	0.50	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	489	695	1583	294	93	1174
Grp Volume(v), veh/h	412	1397	4	3	1156	45	6	0	1	222	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1184	0	1583	1560	0	0
Q Serve(g_s), s	20.8	22.8	0.1	0.2	26.8	1.6	0.0	0.0	0.1	11.6	0.0	0.0
Cycle Q Clear(g_c), s	20.8	22.8	0.1	0.2	26.8	1.6	0.3	0.0	0.1	15.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.50		1.00	0.24		0.75
Lane Grp Cap(c), veh/h	335	2415	1080	7	1759	787	243	0	259	296	0	0
V/C Ratio(X)	1.23	0.58	0.00	0.42	0.66	0.06	0.02	0.00	0.00	0.75	0.00	0.00
Avail Cap(c_a), veh/h	335	2415	1080	81	1759	787	560	0	602	618	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.6	9.2	5.6	54.7	20.7	14.3	38.6	0.0	38.5	44.7	0.0	0.0
Incr Delay (d2), s/veh	126.2	1.0	0.0	14.3	1.9	0.1	0.0	0.0	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.9	11.4	0.0	0.1	13.5	0.7	0.2	0.0	0.0	6.7	0.0	0.0
LnGrp Delay(d),s/veh	170.8	10.2	5.6	69.0	22.6	14.5	38.6	0.0	38.5	46.2	0.0	0.0
LnGrp LOS	F	B	A	E	C	B	D		D	D		
Approach Vol, veh/h		1813			1204			7			222	
Approach Delay, s/veh		46.7			22.4			38.6			46.2	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.6	81.9		23.4	25.0	61.6		23.4
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 21	31.7		* 42
Max Q Clear Time (g_c+I1), s	2.2	24.8		17.2	22.8	28.8		2.3
Green Ext Time (p_c), s	0.0	12.6		0.8	0.0	2.4		0.9

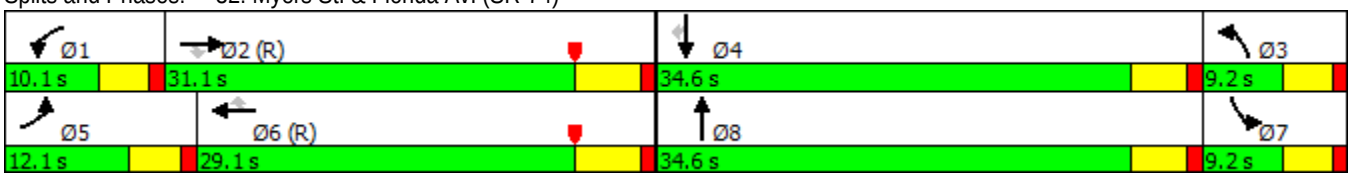
Intersection Summary	
HCM 2010 Ctrl Delay	37.6
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	151	1008	27	48	916	12	14	28	10	16	67
Future Volume (vph)	151	1008	27	48	916	12	14	28	10	16	67
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.1	31.1	31.1	10.1	29.1	29.1	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.2%	36.6%	36.6%	11.9%	34.2%	34.2%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	12.5	36.8	36.8	6.3	26.7	26.7	5.0	30.0	5.0	30.0	30.0
Actuated g/C Ratio	0.15	0.43	0.43	0.07	0.31	0.31	0.06	0.35	0.06	0.35	0.35
v/c Ratio	0.62	0.71	0.04	0.40	0.88	0.02	0.14	0.11	0.11	0.03	0.11
Control Delay	47.9	25.5	0.1	52.0	24.4	0.1	41.3	10.7	40.3	18.2	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.9	25.5	0.1	52.0	24.4	0.1	41.3	10.7	40.3	18.2	0.7
LOS	D	C	A	D	C	A	D	B	D	B	A
Approach Delay		27.8			25.4			16.2		8.1	
Approach LOS		C			C			B		A	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 80.1 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 25.6	Intersection LOS: C
Intersection Capacity Utilization 53.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	1008	27	48	916	12	14	28	35	10	16	67
Future Volume (veh/h)	151	1008	27	48	916	12	14	28	35	10	16	67
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	162	1084	19	52	985	7	15	30	15	11	17	20
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1327	594	74	1145	512	31	414	207	31	657	559
Arrive On Green	0.09	0.37	0.37	0.04	0.32	0.32	0.02	0.35	0.35	0.02	0.35	0.35
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	1173	586	1774	1863	1583
Grp Volume(v), veh/h	162	1084	19	52	985	7	15	0	45	11	17	20
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	0	1759	1774	1863	1583
Q Serve(g_s), s	7.7	23.5	0.5	2.5	22.2	0.2	0.7	0.0	1.4	0.5	0.5	0.5
Cycle Q Clear(g_c), s	7.7	23.5	0.5	2.5	22.2	0.2	0.7	0.0	1.4	0.5	0.5	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	165	1327	594	74	1145	512	31	0	621	31	657	559
V/C Ratio(X)	0.98	0.82	0.03	0.70	0.86	0.01	0.48	0.00	0.07	0.35	0.03	0.04
Avail Cap(c_a), veh/h	165	1327	594	123	1145	512	104	0	621	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	23.9	10.7	40.2	26.9	12.9	41.4	0.0	18.3	41.3	18.0	8.7
Incr Delay (d2), s/veh	64.5	5.7	0.1	4.5	8.5	0.0	4.2	0.0	0.2	2.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	12.5	0.2	1.3	12.2	0.1	0.4	0.0	0.7	0.3	0.3	0.2
LnGrp Delay(d),s/veh	103.0	29.6	10.8	44.7	35.4	12.9	45.6	0.0	18.5	43.8	18.0	8.9
LnGrp LOS	F	C	B	D	D	B	D		B	D	B	A
Approach Vol, veh/h		1265			1044			60			48	
Approach Delay, s/veh		38.7			35.8			25.3			20.1	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	37.0	5.7	34.6	12.1	32.6	5.7	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.9	26.0	5.0	* 30	* 7.9	24.0	5.0	* 30
Max Q Clear Time (g_c+I1), s	4.5	25.5	2.7	2.5	9.7	24.2	2.5	3.4
Green Ext Time (p_c), s	0.0	0.5	0.0	0.1	0.0	0.0	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	36.7
HCM 2010 LOS	D

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	950	214	1	1043	0	2
Future Vol, veh/h	950	214	1	1043	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1011	228	1	1110	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1011	0	-	505
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*1065	-	0	*712
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*1065	-	-	*712
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

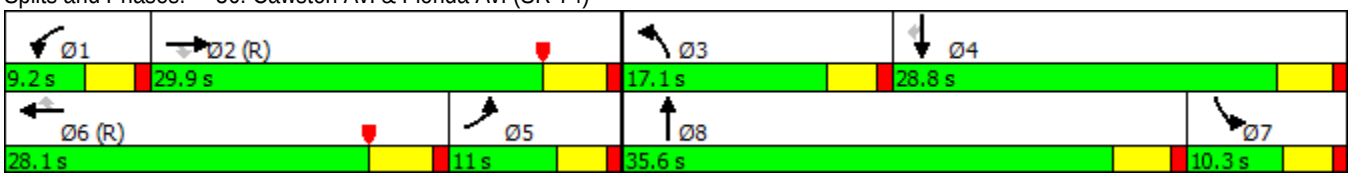
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	712	-	-	* 1065	-
HCM Lane V/C Ratio	0.003	-	-	0.001	-
HCM Control Delay (s)	10.1	-	-	8.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	151	788	13	12	749	113	173	83	118	98	122
Future Volume (vph)	151	788	13	12	749	113	173	83	118	98	122
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	11.0	29.9	29.9	9.2	28.1	28.1	17.1	35.6	10.3	28.8	28.8
Total Split (%)	12.9%	35.2%	35.2%	10.8%	33.1%	33.1%	20.1%	41.9%	12.1%	33.9%	33.9%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	6.8	32.2	32.2	5.0	23.0	23.0	11.5	31.0	6.1	25.6	25.6
Actuated g/C Ratio	0.08	0.38	0.38	0.06	0.27	0.27	0.14	0.36	0.07	0.30	0.30
v/c Ratio	1.11	0.61	0.02	0.12	0.82	0.21	0.75	0.08	0.97	0.18	0.21
Control Delay	128.5	8.9	0.1	40.8	37.3	1.2	55.3	16.0	115.1	23.8	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	128.5	8.9	0.1	40.8	37.3	1.2	55.3	16.0	115.1	23.8	1.5
LOS	F	A	A	D	D	A	E	B	F	C	A
Approach Delay		27.7			32.6			41.6		47.7	
Approach LOS		C			C			D		D	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 35 (41%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 33.8	Intersection LOS: C
Intersection Capacity Utilization 66.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	788	13	12	749	113	173	83	10	118	98	122
Future Volume (veh/h)	151	788	13	12	749	113	173	83	10	118	98	122
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	157	821	12	12	780	74	180	86	4	123	102	63
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	544	2029	908	26	958	426	216	1255	58	127	595	506
Arrive On Green	0.61	1.00	1.00	0.01	0.27	0.27	0.12	0.36	0.36	0.07	0.32	0.32
Sat Flow, veh/h	1774	3539	1583	1774	3539	1575	1774	3442	159	1774	1863	1583
Grp Volume(v), veh/h	157	821	12	12	780	74	180	44	46	123	102	63
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1575	1774	1770	1831	1774	1863	1583
Q Serve(g_s), s	3.5	0.0	0.0	0.6	17.5	3.1	8.4	1.4	1.4	5.9	3.4	1.8
Cycle Q Clear(g_c), s	3.5	0.0	0.0	0.6	17.5	3.1	8.4	1.4	1.4	5.9	3.4	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	544	2029	908	26	958	426	216	645	668	127	595	506
V/C Ratio(X)	0.29	0.40	0.01	0.47	0.81	0.17	0.83	0.07	0.07	0.97	0.17	0.12
Avail Cap(c_a), veh/h	544	2029	908	104	958	426	269	645	668	127	595	506
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.1	0.0	0.0	41.6	29.0	23.7	36.5	17.6	17.6	39.3	20.8	11.1
Incr Delay (d2), s/veh	0.1	0.6	0.0	4.8	7.6	0.9	13.8	0.2	0.2	68.7	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.2	0.0	0.3	9.6	1.4	5.0	0.7	0.7	5.3	1.8	0.8
LnGrp Delay(d),s/veh	12.2	0.6	0.0	46.4	36.6	24.6	50.3	17.8	17.8	108.0	21.4	11.6
LnGrp LOS	B	A	A	D	D	C	D	B	B	F	C	B
Approach Vol, veh/h		990			866			270			288	
Approach Delay, s/veh		2.4			35.7			39.4			56.3	
Approach LOS		A			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	53.8	14.5	31.8	31.2	28.1	10.7	35.6
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	5.1	* 5.1	4.6	* 4.6
Max Green Setting (Gmax), s	* 5	24.8	* 13	24.2	6.8	* 23	6.1	* 31
Max Q Clear Time (g_c+I1), s	2.6	2.0	10.4	5.4	5.5	19.5	7.9	3.4
Green Ext Time (p_c), s	0.0	8.1	0.1	0.9	0.1	2.1	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	24.9
HCM 2010 LOS	C

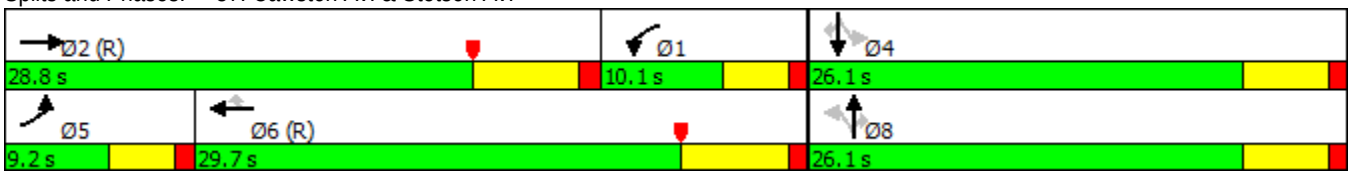
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	22	349	145	320	18	58	94	146	16	135	50
Future Volume (vph)	22	349	145	320	18	58	94	146	16	135	50
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.2	28.8	10.1	29.7	29.7	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.2%	44.3%	15.5%	45.7%	45.7%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	349	62	145	320	18	58	94	146	16	135	50
Future Volume (veh/h)	22	349	62	145	320	18	58	94	146	16	135	50
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	23	367	51	153	337	16	61	99	65	17	142	26
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	1087	150	1185	1901	1616	435	602	512	458	602	512
Arrive On Green	0.03	0.35	0.35	0.67	1.00	1.00	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	3125	431	1774	1863	1583	1212	1863	1583	1217	1863	1583
Grp Volume(v), veh/h	23	207	211	153	337	16	61	99	65	17	142	26
Grp Sat Flow(s),veh/h/ln	1774	1770	1787	1774	1863	1583	1212	1863	1583	1217	1863	1583
Q Serve(g_s), s	0.8	5.6	5.7	2.0	0.0	0.0	2.5	2.5	1.9	0.7	3.6	0.7
Cycle Q Clear(g_c), s	0.8	5.6	5.7	2.0	0.0	0.0	6.2	2.5	1.9	3.1	3.6	0.7
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	46	615	621	1185	1901	1616	435	602	512	458	602	512
V/C Ratio(X)	0.50	0.34	0.34	0.13	0.18	0.01	0.14	0.16	0.13	0.04	0.24	0.05
Avail Cap(c_a), veh/h	136	615	621	1185	1901	1616	435	602	512	458	602	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	15.7	15.7	3.9	0.0	0.0	18.4	15.7	15.5	16.8	16.1	15.1
Incr Delay (d2), s/veh	2.4	1.2	1.2	0.0	0.2	0.0	0.7	0.6	0.5	0.2	0.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.9	3.0	1.0	0.1	0.0	0.9	1.4	0.9	0.2	2.0	0.3
LnGrp Delay(d),s/veh	33.7	16.8	16.9	3.9	0.2	0.0	19.1	16.3	16.0	17.0	17.0	15.3
LnGrp LOS	C	B	B	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		441			506			225			185	
Approach Delay, s/veh		17.7			1.3			17.0			16.8	
Approach LOS		B			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	50.2	28.8		26.1	5.9	73.1		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.9	* 23		21.0	* 5	23.5		21.0
Max Q Clear Time (g_c+I1), s	4.0	7.7		5.6	2.8	2.0		8.2
Green Ext Time (p_c), s	0.1	1.1		1.0	0.0	1.2		0.9

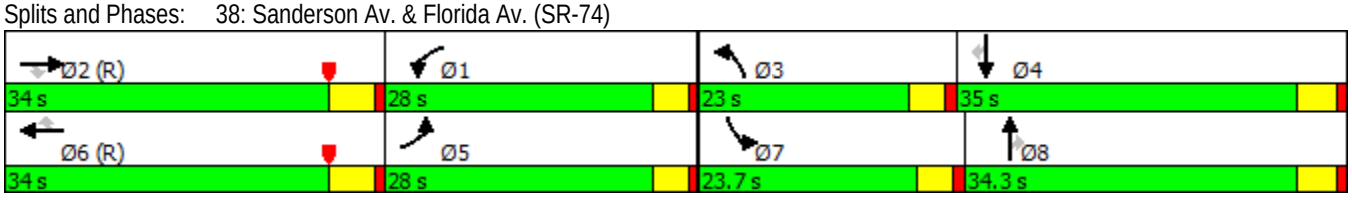
Intersection Summary	
HCM 2010 Ctrl Delay	11.4
HCM 2010 LOS	B

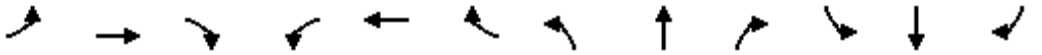
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	233	721	77	213	575	144	211	680	200	178	707	150
Future Volume (vph)	233	721	77	213	575	144	211	680	200	178	707	150
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	28.0	34.0	34.0	28.0	34.0	34.0	23.0	34.3	34.3	23.7	35.0	35.0
Total Split (%)	23.3%	28.3%	28.3%	23.3%	28.3%	28.3%	19.2%	28.6%	28.6%	19.8%	29.2%	29.2%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	19.5	28.9	28.9	19.5	28.9	28.9	17.3	37.6	37.6	15.8	36.1	36.1
Actuated g/C Ratio	0.16	0.24	0.24	0.16	0.24	0.24	0.14	0.31	0.31	0.13	0.30	0.30
v/c Ratio	0.82	0.85	0.18	0.75	0.68	0.30	0.84	0.62	0.32	0.77	0.67	0.26
Control Delay	70.4	54.6	6.2	63.8	46.1	7.6	76.3	39.7	6.4	71.5	41.8	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.4	54.6	6.2	63.8	46.1	7.6	76.3	39.7	6.4	71.5	41.8	6.8
LOS	E	D	A	E	D	A	E	D	A	E	D	A
Approach Delay		54.5			44.2			40.7			41.9	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 45.3	Intersection LOS: D
Intersection Capacity Utilization 82.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	233	721	77	213	575	144	211	680	200	178	707	150
Future Volume (veh/h)	233	721	77	213	575	144	211	680	200	178	707	150
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	235	728	38	215	581	88	213	687	116	180	714	94
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	390	852	374	390	852	375	240	958	420	208	894	394
Arrive On Green	0.22	0.24	0.24	0.22	0.24	0.24	0.14	0.27	0.27	0.12	0.25	0.25
Sat Flow, veh/h	1774	3539	1554	1774	3539	1555	1774	3539	1551	1774	3539	1559
Grp Volume(v), veh/h	235	728	38	215	581	88	213	687	116	180	714	94
Grp Sat Flow(s),veh/h/ln	1774	1770	1554	1774	1770	1555	1774	1770	1551	1774	1770	1559
Q Serve(g_s), s	14.3	23.6	1.6	12.9	17.9	4.1	14.2	21.1	4.2	12.0	22.7	3.5
Cycle Q Clear(g_c), s	14.3	23.6	1.6	12.9	17.9	4.1	14.2	21.1	4.2	12.0	22.7	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	390	852	374	390	852	375	240	958	420	208	894	394
V/C Ratio(X)	0.60	0.85	0.10	0.55	0.68	0.23	0.89	0.72	0.28	0.87	0.80	0.24
Avail Cap(c_a), veh/h	390	852	374	390	852	375	278	958	420	288	894	394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.1	43.5	18.4	41.6	41.4	20.3	51.0	39.6	12.3	52.1	42.0	13.1
Incr Delay (d2), s/veh	1.9	10.6	0.5	1.0	4.4	1.5	23.2	4.6	1.6	14.1	7.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	12.8	0.8	6.4	9.2	1.9	8.5	10.9	2.0	6.7	12.0	1.7
LnGrp Delay(d),s/veh	44.0	54.2	18.9	42.6	45.8	21.7	74.2	44.2	13.9	66.2	49.4	14.6
LnGrp LOS	D	D	B	D	D	C	E	D	B	E	D	B
Approach Vol, veh/h		1001			884			1016			988	
Approach Delay, s/veh		50.4			42.6			47.0			49.1	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.6	34.0	20.4	35.0	30.6	34.0	18.2	37.2
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	23.8	* 29	* 19	* 30	23.8	* 29	* 20	* 30
Max Q Clear Time (g_c+I1), s	14.9	25.6	16.2	24.7	16.3	19.9	14.0	23.1
Green Ext Time (p_c), s	0.5	1.8	0.1	4.2	0.5	3.5	0.1	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	47.4
HCM 2010 LOS	D

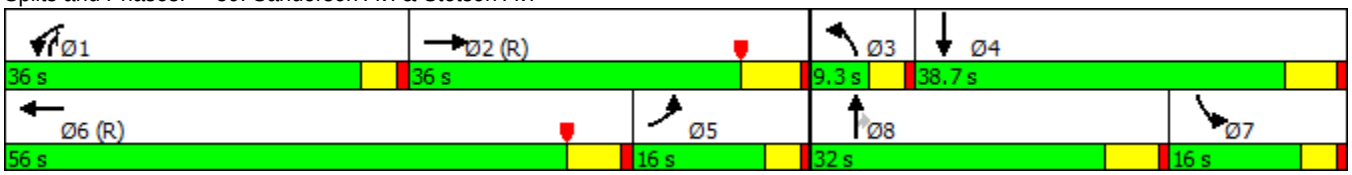
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	195	487	429	443	39	601	442	176	730
Future Volume (vph)	195	487	429	443	39	601	442	176	730
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	16.0	36.0	36.0	56.0	9.3	32.0	36.0	16.0	38.7
Total Split (%)	13.3%	30.0%	30.0%	46.7%	7.8%	26.7%	30.0%	13.3%	32.3%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 21.4 (18%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 105
Control Type: Actuated-Coordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	487	40	429	443	153	39	601	442	176	730	135
Future Volume (veh/h)	195	487	40	429	443	153	39	601	442	176	730	135
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	201	502	39	442	457	137	40	620	87	181	753	128
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1232	2873	223	465	1125	335	54	773	753	174	906	154
Arrive On Green	0.69	0.86	0.86	0.26	0.42	0.42	0.03	0.22	0.22	0.10	0.30	0.30
Sat Flow, veh/h	1774	3324	258	1774	2690	800	1774	3539	1548	1774	3027	514
Grp Volume(v), veh/h	201	267	274	442	299	295	40	620	87	181	440	441
Grp Sat Flow(s),veh/h/ln	1774	1770	1812	1774	1770	1721	1774	1770	1548	1774	1770	1772
Q Serve(g_s), s	4.7	2.9	2.9	29.4	14.2	14.4	2.7	19.9	6.5	11.8	27.8	27.9
Cycle Q Clear(g_c), s	4.7	2.9	2.9	29.4	14.2	14.4	2.7	19.9	6.5	11.8	27.8	27.9
Prop In Lane	1.00		0.14	1.00		0.47	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	1232	1529	1566	465	740	720	54	773	753	174	530	530
V/C Ratio(X)	0.16	0.17	0.18	0.95	0.40	0.41	0.73	0.80	0.12	1.04	0.83	0.83
Avail Cap(c_a), veh/h	1232	1529	1566	470	740	720	75	773	753	174	530	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.3	1.3	1.3	43.5	24.4	24.5	57.7	44.4	54.7	54.1	39.2	39.2
Incr Delay (d2), s/veh	0.0	0.2	0.2	29.0	1.6	1.7	11.4	8.6	0.3	78.4	14.1	14.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	1.5	1.6	18.1	7.2	7.2	1.5	10.7	2.9	9.6	15.6	15.7
LnGrp Delay(d),s/veh	6.3	1.5	1.5	72.5	26.1	26.2	69.1	53.1	55.0	132.6	53.3	53.3
LnGrp LOS	A	A	A	E	C	C	E	D	D	F	D	D
Approach Vol, veh/h		742			1036			747			1062	
Approach Delay, s/veh		2.8			45.9			54.1			66.8	
Approach LOS		A			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.6	111.1	7.9	41.7	90.8	56.0	17.6	32.0
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	6.2	* 5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 32	29.8	* 5.1	32.9	11.8	* 50	11.8	* 26
Max Q Clear Time (g_c+I1), s	31.4	4.9	4.7	29.9	6.7	16.4	13.8	21.9
Green Ext Time (p_c), s	0.0	3.0	0.0	1.9	1.5	3.5	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	44.9
HCM 2010 LOS	D

Notes

APPENDIX 5.3:

E+P (PHASE 1) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

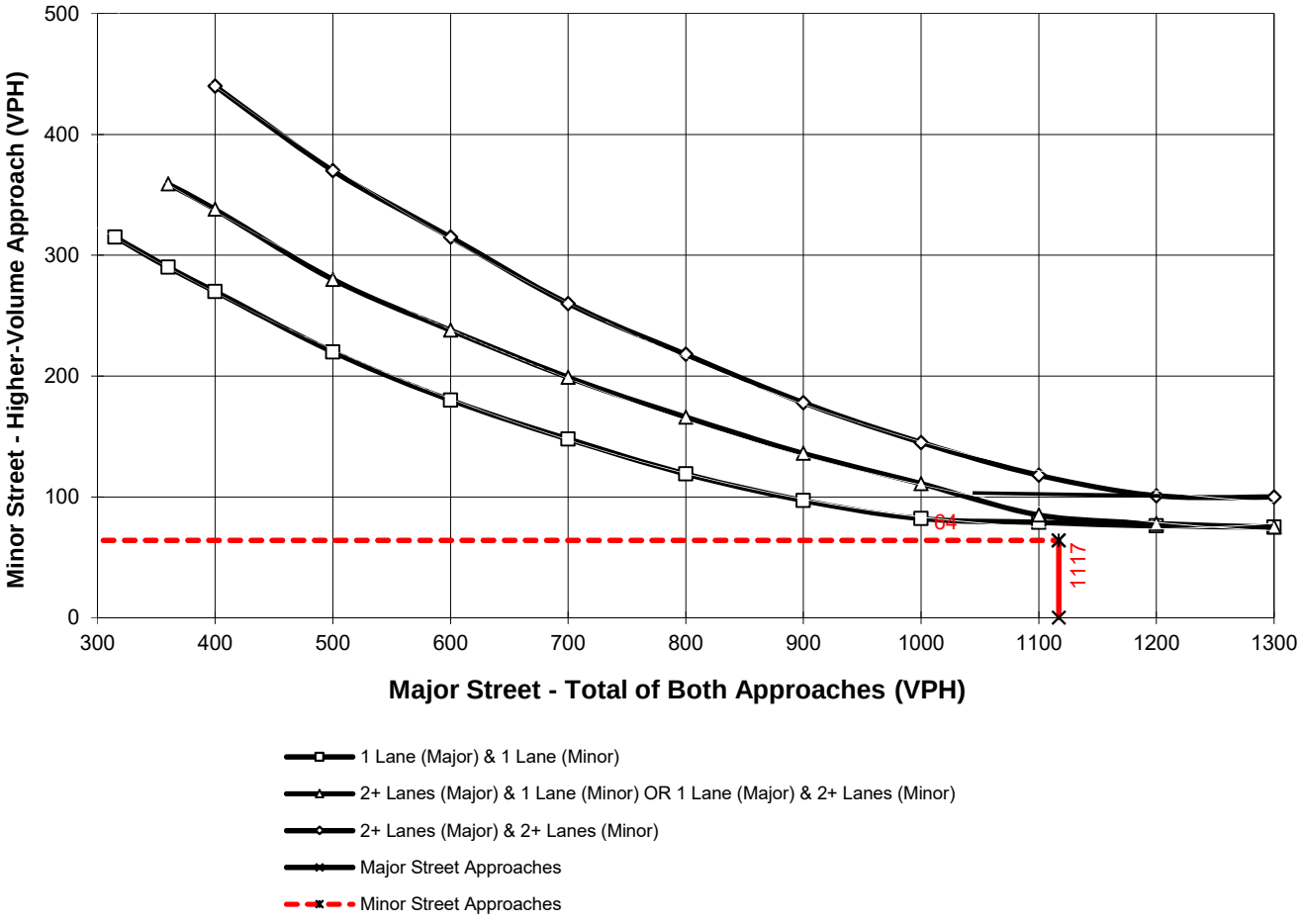
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 1) Conditions - Weekday PM Peak Hour**

Major Street Name = **Winchester Road (SR-79)** Total of Both Approaches (VPH) = **1117**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **9th Street** High Volume Approach (VPH) = **64**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

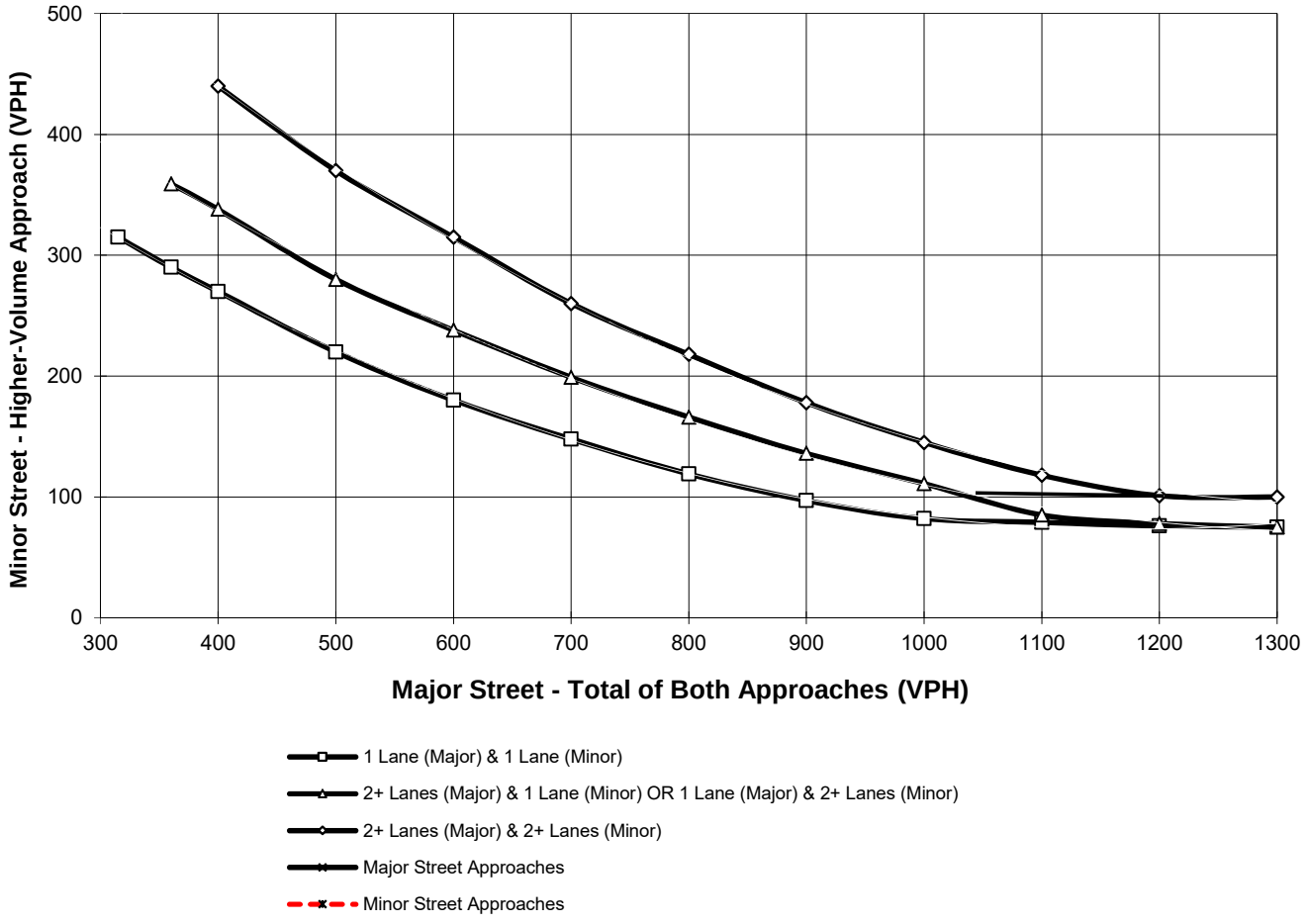
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 1) Conditions - Weekday PM Peak Hour**

Major Street Name = **California Avenue** — Total of Both Approaches (VPH) = **110**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Stowe Road** — High Volume Approach (VPH) = **124**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

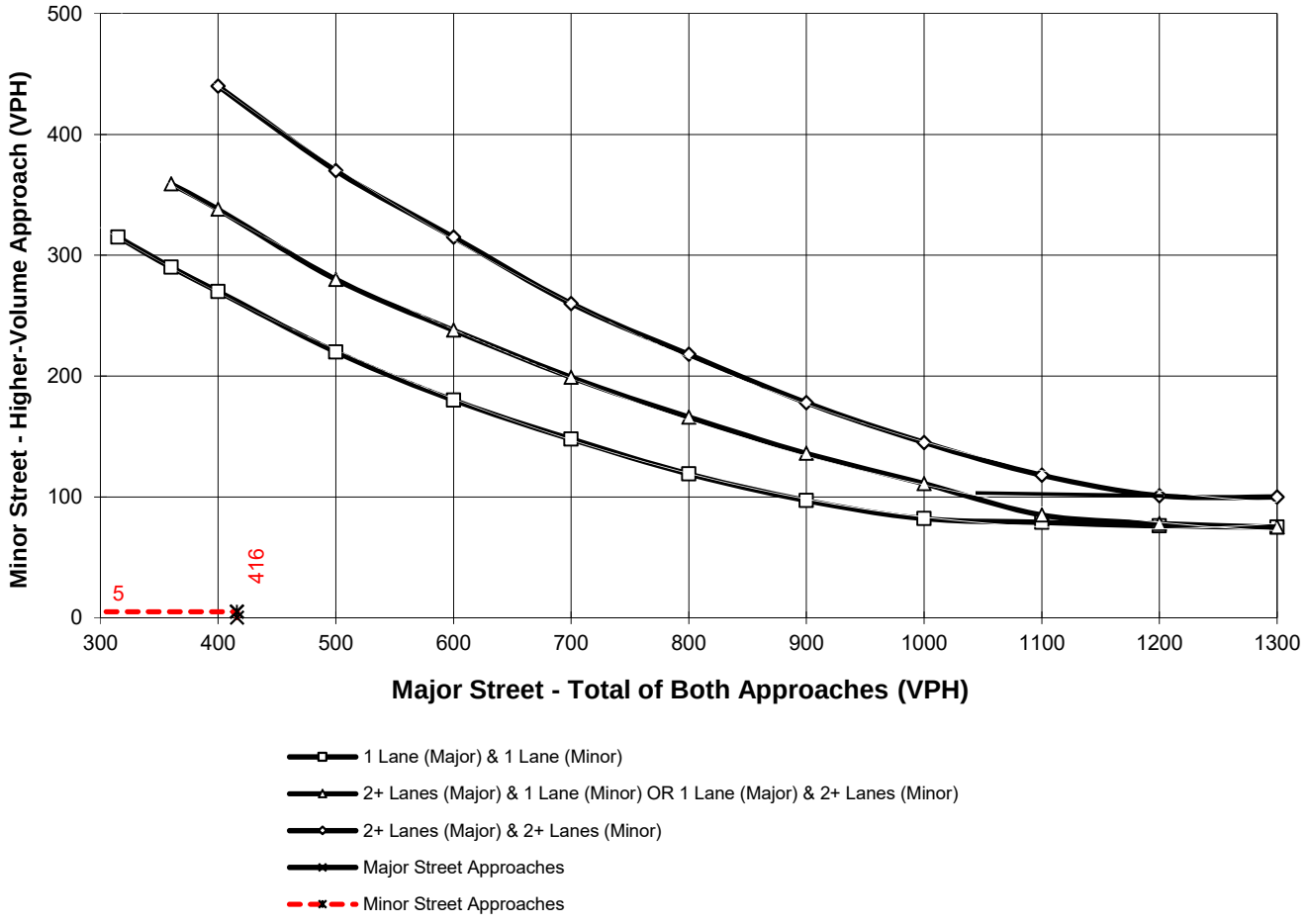
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P Phase 1 Conditions - Weekday PM Peak Hour**

Major Street Name = **Simpson Road** — Total of Both Approaches (VPH) = **416**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **California Avenue** — High Volume Approach (VPH) = **5**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		E+P Phase 1	
				CALC	RV	DATE	09/21/17
Jurisdiction:	City of Hemet			CHK	CHS	DATE	09/21/17
Major Street:	New Stetson Avenue			Critical Approach Speed (Major)		45	mph
Minor Street:	Street C			Critical Approach Speed (Minor)		25	mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **280** vpd Minor Street Future ADT = **280** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **280**	*1* **280**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **280**	*1* **280**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more ….. **A** 5% **B** 3%		2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P Phase 1
				CALC RV	DATE 09/21/17
Jurisdiction: City of Hemet				CHK CHS	DATE 09/21/17
Major Street: New Stetson Avenue				Critical Approach Speed (Major)	45 mph
Minor Street: Mustang Way				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **1,120** vpd Minor Street Future ADT = **560** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or **RURAL (R)**

In built up area of isolated community of < 10,000 population ……..

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **1,120** / 1 **560**	8,000	5,600	2,400	1,680
2 + / 1	9,600	6,720	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **1,120** / 1 **560**	12,000	8,400	1,200	850
2 + / 1	14,400	10,080	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A 20% B 13%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P Phase 1
				CALC RV	DATE 09/21/17
Jurisdiction: City of Hemet				CHK CHS	DATE 09/21/17
Major Street: New Stetson Avenue				Critical Approach Speed (Major)	45 mph
Minor Street: Street D				Critical Approach Speed (Minor)	45 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **1,958** vpd Minor Street Future ADT = **280** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,958**	*1* **280**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,958**	*1* **280**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A 17% B 23%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

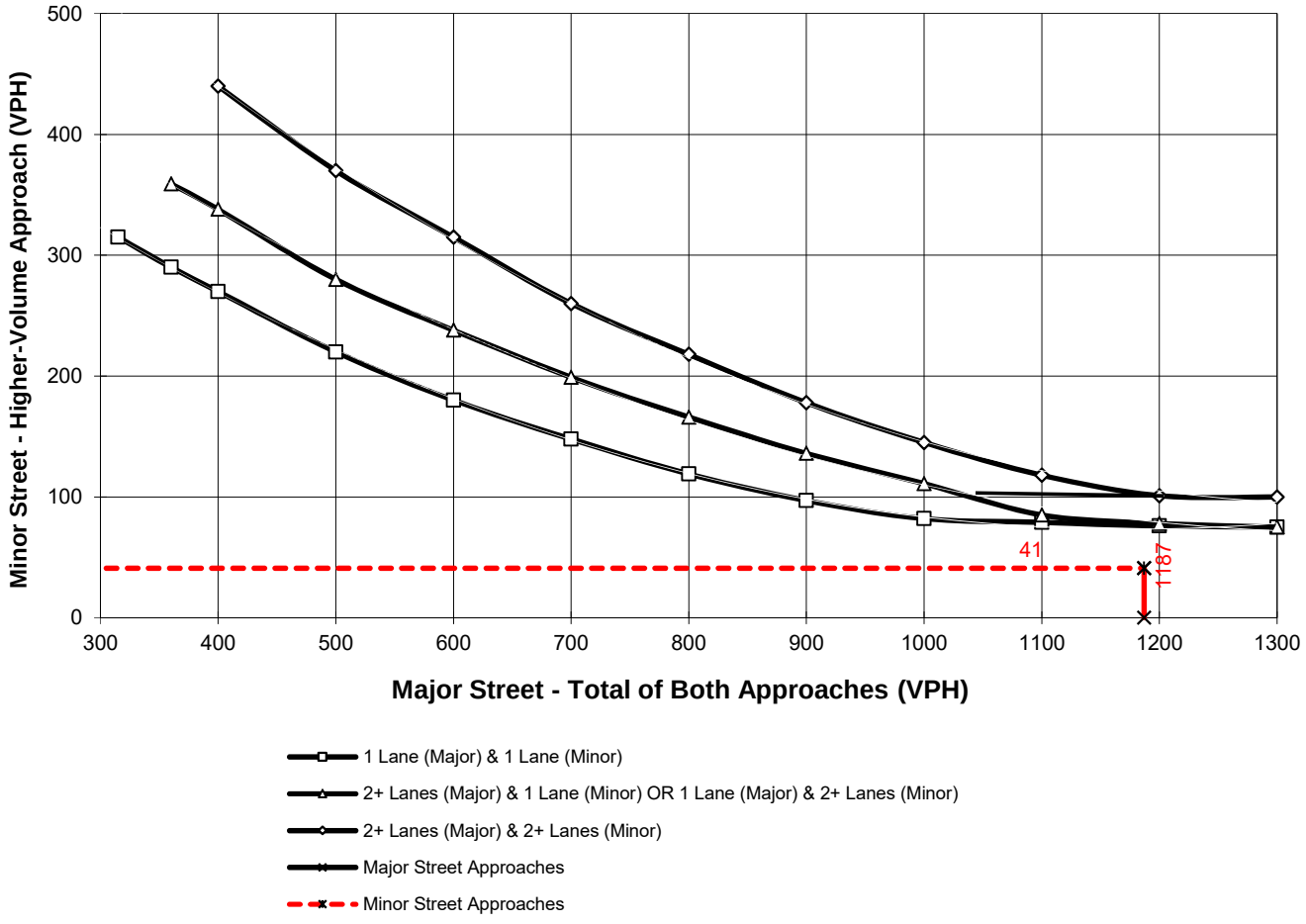
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P Phase 1 Conditions - Weekday AM Peak Hour**

Major Street Name = **Warren Road** — Total of Both Approaches (VPH) = **1187**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Whittier Avenue** — High Volume Approach (VPH) = **41**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		E+P Phase 1
				CALC	RV	DATE	09/21/17
Jurisdiction:	City of Hemet			CHK	CHS	DATE	09/21/17
Major Street:	Warren Road				Critical Approach Speed (Major)		45 mph
Minor Street:	New Stetson Avenue				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **13,096** vpd Minor Street Future ADT = **1,119** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **13,096**	1 **1,119**	8,000	5,600 *	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **13,096**	1 **1,119**	12,000	8,400 *	1,200	850 *
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A / B				
	67% / 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P Phase 1
				CALC RV	DATE 09/21/17
Jurisdiction: City of Hemet				CHK CHS	DATE 09/21/17
Major Street: Warren Road				Critical Approach Speed (Major)	45 mph
Minor Street: Street D				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **12,315** vpd Minor Street Future ADT = **417** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Number of lanes for moving traffic on each approach: Major Street	Minor Street	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
CONDITION A - Minimum Vehicular Volume						
Satisfied / Not Satisfied XX						
	1 **12,315**	1 **417**	8,000	5,600 *	2,400	1,680
	2 +	1	9,600	6,720	2,400	1,680
	2 +	2 +	9,600	6,720	3,200	2,240
	1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic						
Satisfied / Not Satisfied XX						
	1 **12,315**	1 **417**	12,000	8,400 *	1,200	850
	2 +	1	14,400	10,080	1,200	850
	2 +	2 +	14,400	10,080	1,600	1,120
	1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B						
Satisfied / Not Satisfied XX						
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 25%	**B** 49%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 5.4:

E+P (PROJECT BUILDOUT) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

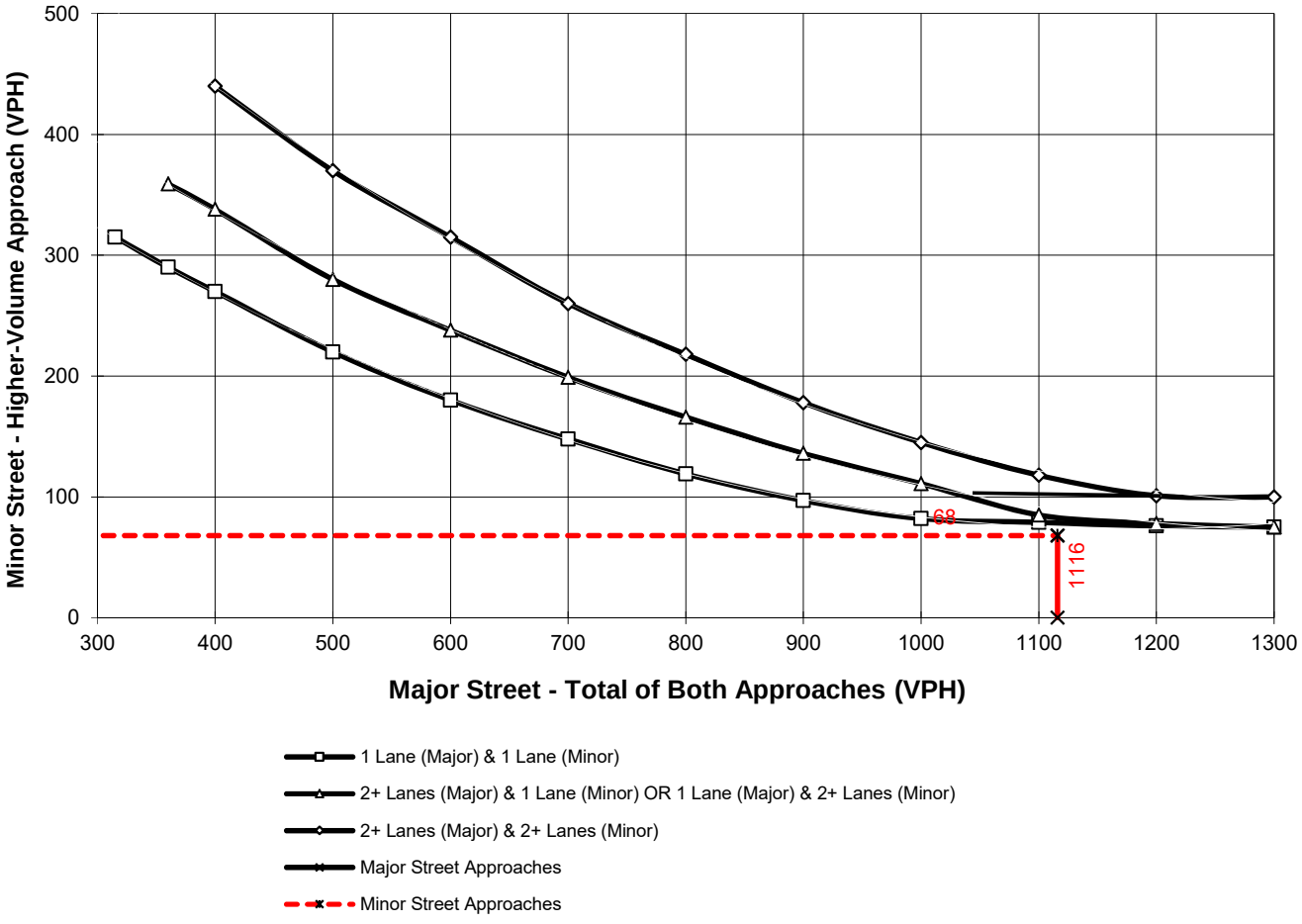
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Project Buildout) Conditions - Weekday PM Peak Hour**

Major Street Name = **Winchester Road (SR-79)** Total of Both Approaches (VPH) = **1116**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **9th Street** High Volume Approach (VPH) = **68**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

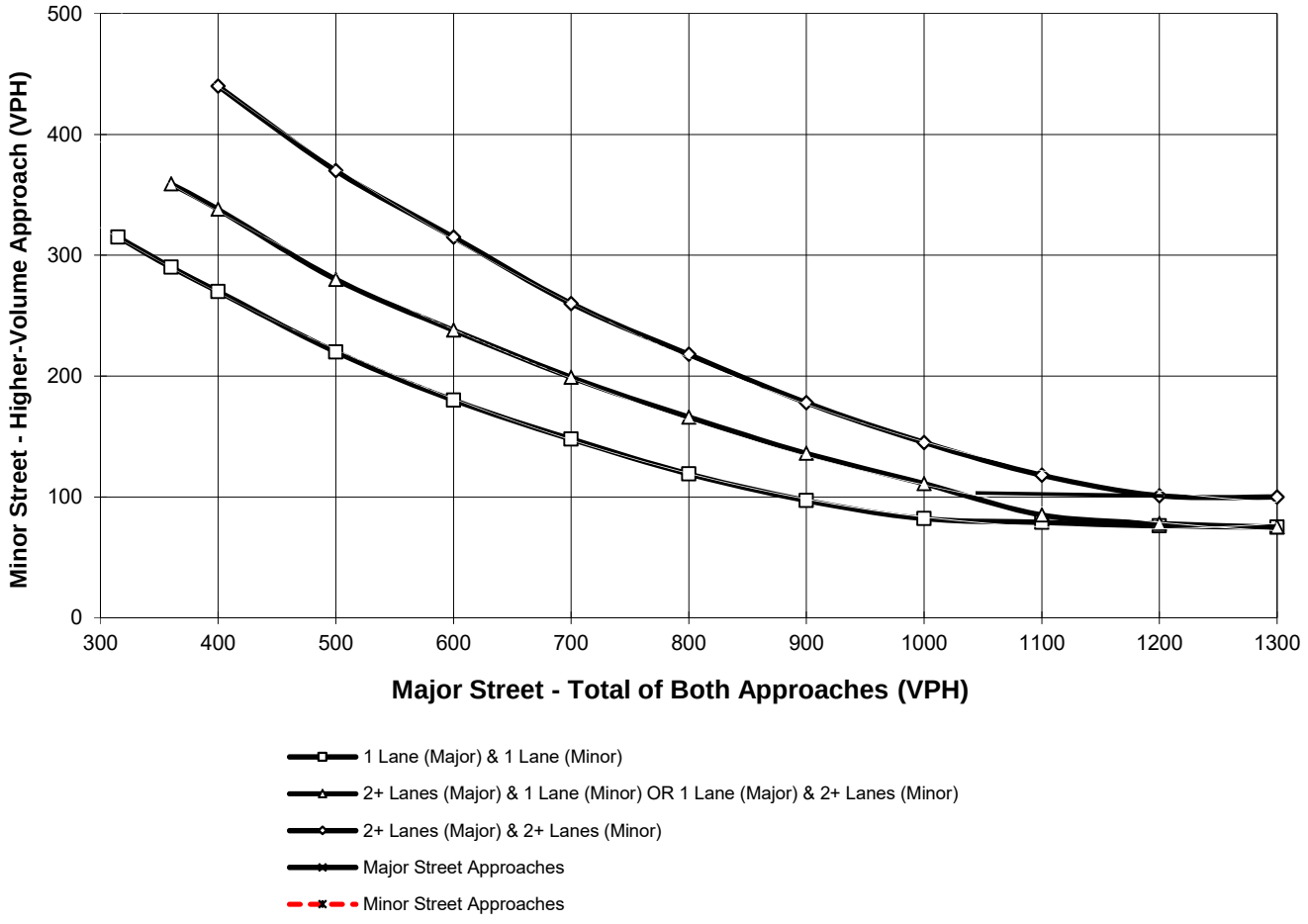
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Project Buildout) Conditions - Weekday PM Peak Hour**

Major Street Name = **California Avenue** — Total of Both Approaches (VPH) = **110**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Stowe Road** — High Volume Approach (VPH) = **124**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

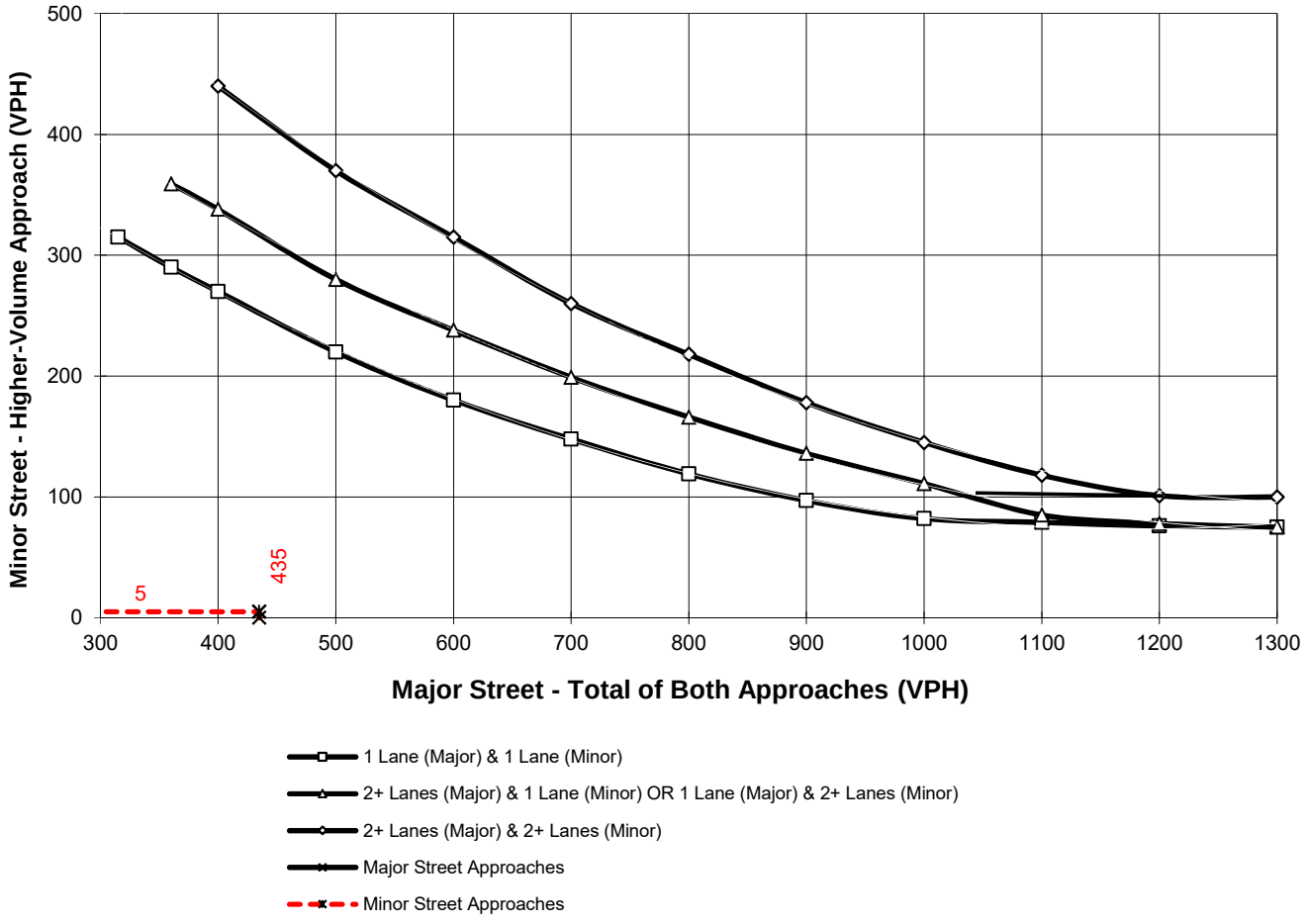
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Project Buildout) Conditions - Weekday PM Peak Hour**

Major Street Name = **Simpson Road** Total of Both Approaches (VPH) = **435**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **California Avenue** High Volume Approach (VPH) = **5**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		+P Project Buildo
				CALC	RV	DATE	09/21/17
Jurisdiction:	City of Hemet			CHK	CHS	DATE	09/21/17
Major Street:	New Stetson Avenue				Critical Approach Speed (Major)		45 mph
Minor Street:	Street C				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **227** vpd Minor Street Future ADT = **227** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √

or

In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **227**	*1* **227**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **227**	*1* **227**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more	**A** 4% **B** 3%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM				
				TRAFFIC CONDITIONS		**+P Project Buildo**	
				CALC	RV	DATE	09/21/17
Jurisdiction:	**City of Hemet**			CHK	CHS	DATE	09/21/17
Major Street:	**New Stetson Avenue**				Critical Approach Speed (Major)		45 mph
Minor Street:	**Mustang Way**				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **1,458** vpd Minor Street Future ADT = **1,570** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √

or

In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,458**	*1* **1,570**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,458**	*1* **1,570**	12,000	8,400	1,200	850 *
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more	**A** 26% **B** 17%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		+P Project Buildo
				CALC	RV	DATE	09/21/17
Jurisdiction:	City of Hemet			CHK	CHS	DATE	09/21/17
Major Street:	New Stetson Avenue				Critical Approach Speed (Major)		45 mph
Minor Street:	Street D				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **3,057** vpd Minor Street Future ADT = **971** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √

or

In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Number of lanes for moving traffic on each approach		Minimum Requirements EADT			
			Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Major Street	Minor Street	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume						
Satisfied / Not Satisfied XX	1 **3,057**	1 **971**	8,000	5,600	2,400	1,680
XX	2 +	1	9,600	6,720	2,400	1,680
	2 +	2 +	9,600	6,720	3,200	2,240
	1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic						
Satisfied / Not Satisfied XX	1 **3,057**	1 **971**	12,000	8,400	1,200	850 *
XX	2 +	1	14,400	10,080	1,200	850
	2 +	2 +	14,400	10,080	1,600	1,120
	1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B						
Satisfied / Not Satisfied XX			2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more	**A** 55%	**B** 36%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

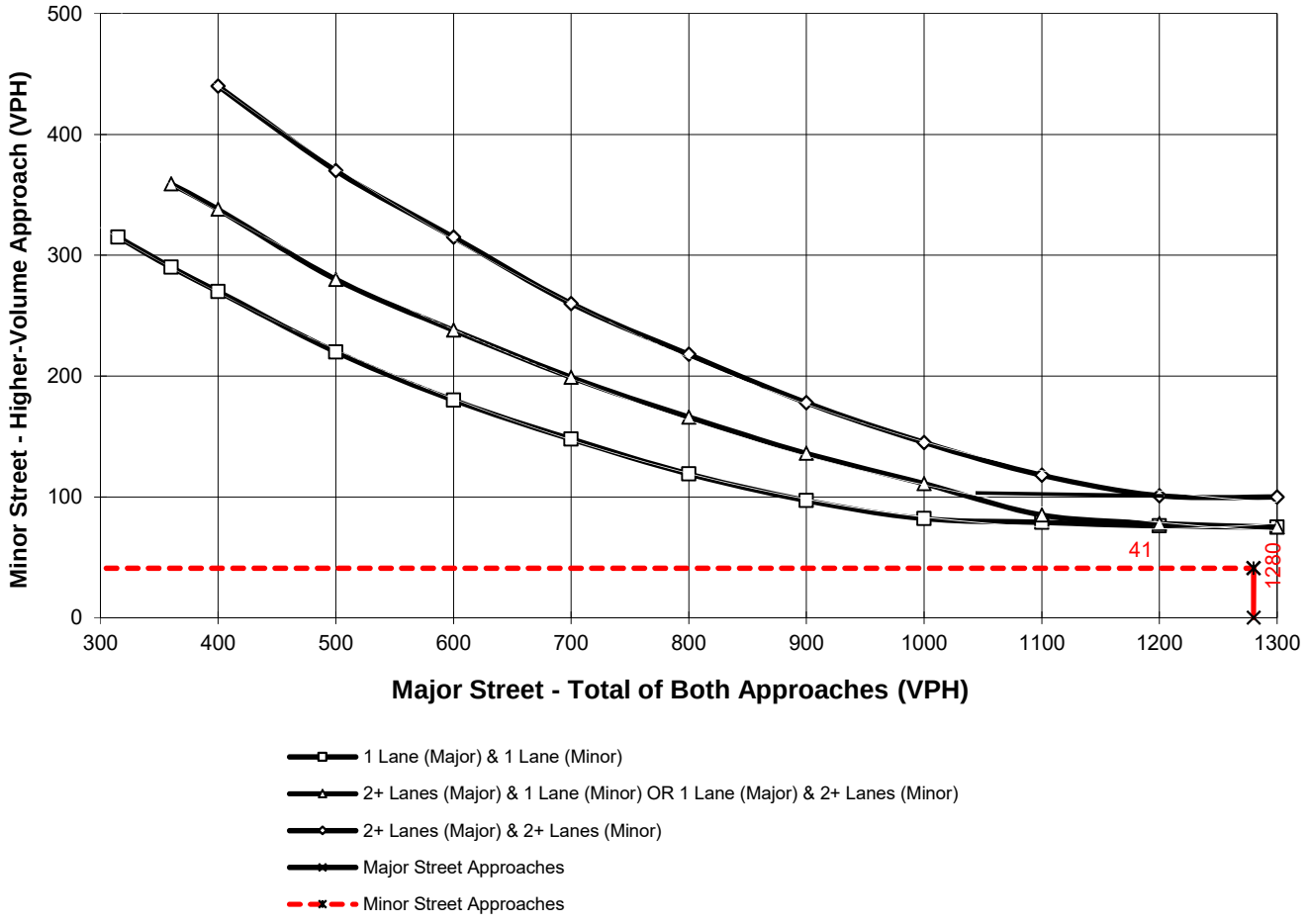
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Project Buildout) Conditions - Weekday AM Peak Hour**

Major Street Name = **Warren Road** Total of Both Approaches (VPH) = **1280**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Whittier Avenue** High Volume Approach (VPH) = **41**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		+P Project Buildo
				CALC	RV	DATE	09/21/17
Jurisdiction:	City of Hemet			CHK	CHS	DATE	09/21/17
Major Street:	Warren Road				Critical Approach Speed (Major)		45 mph
Minor Street:	New Stetson Avenue				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **14,737** vpd Minor Street Future ADT = **1,825** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √

or

In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street: 1 **14,737** / Minor Street: 1 **1,825**	8,000	5,600 *	2,400	1,680 *
2 + / 1	9,600	6,720	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street: 1 **14,737** / Minor Street: 1 **1,825**	12,000	8,400 *	1,200	850 *
2 + / 1	14,400	10,080	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ..... A: 100% B: 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		+P Project Buildo
				CALC	RV	DATE	09/21/17
Jurisdiction:	City of Hemet			CHK	CHS	DATE	09/21/17
Major Street:	Warren Road				Critical Approach Speed (Major)		45 mph
Minor Street:	Street D				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **12,989** vpd Minor Street Future ADT = **2,198** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √

or

In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1 **12,989**	1 **2,198**	8,000	5,600 *	2,400	1,680 *
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1 **12,989**	1 **2,198**	12,000	8,400 *	1,200	850 *
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX					
No one condition satisfied, but following conditions fulfilled 80% of more	A 100% B 100%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 5.5:

E+P (PHASE 1) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	26	1	0	19	360	2	573
Future Volume (vph)	26	1	0	19	360	2	573
Turn Type	Perm	NA	NA	Prot	NA	Prot	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4						
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	9.6	28.2	9.6	28.2
Total Split (s)	31.6	31.6	31.6	9.6	38.8	9.6	38.8
Total Split (%)	39.5%	39.5%	39.5%	12.0%	48.5%	12.0%	48.5%
Yellow Time (s)	3.6	3.6	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	4.6	4.6	6.2	4.6	6.2
Lead/Lag				Lead	Lag	Lead	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	Min
Act Effct Green (s)		13.5	13.5	5.7	37.6	5.7	37.6
Actuated g/C Ratio		0.26	0.26	0.11	0.73	0.11	0.73
v/c Ratio		0.13	0.00	0.10	0.28	0.01	0.47
Control Delay		13.7	0.0	30.9	8.9	30.5	11.7
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		13.7	0.0	30.9	8.9	30.5	11.7
LOS		B	A	C	A	C	B
Approach Delay		13.7			10.0		11.8
Approach LOS		B			A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 51.3	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 11.2	Intersection LOS: B
Intersection Capacity Utilization 50.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	1	20	0	0	2	19	360	1	2	573	25
Future Volume (veh/h)	26	1	20	0	0	2	19	360	1	2	573	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	28	1	22	0	0	2	20	387	1	2	616	27
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	26	74	0	0	176	44	932	2	5	850	37
Arrive On Green	0.11	0.11	0.11	0.00	0.00	0.11	0.02	0.50	0.50	0.00	0.48	0.48
Sat Flow, veh/h	643	232	664	0	0	1583	1774	1857	5	1774	1771	78
Grp Volume(v), veh/h	51	0	0	0	0	2	20	0	388	2	0	643
Grp Sat Flow(s),veh/h/ln	1539	0	0	0	0	1583	1774	0	1862	1774	0	1849
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.4	0.0	5.3	0.0	0.0	11.1
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.0	0.0	0.0	0.4	0.0	5.3	0.0	0.0	11.1
Prop In Lane	0.55		0.43	0.00		1.00	1.00		0.00	1.00		0.04
Lane Grp Cap(c), veh/h	310	0	0	0	0	176	44	0	935	5	0	887
V/C Ratio(X)	0.16	0.00	0.00	0.00	0.00	0.01	0.45	0.00	0.42	0.41	0.00	0.72
Avail Cap(c_a), veh/h	1146	0	0	0	0	1066	221	0	1514	221	0	1504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.3	0.0	0.0	0.0	0.0	15.9	19.3	0.0	6.3	20.0	0.0	8.3
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.3	19.2	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.0	2.8	0.0	0.0	5.8
LnGrp Delay(d),s/veh	16.6	0.0	0.0	0.0	0.0	15.9	22.0	0.0	6.6	39.2	0.0	9.5
LnGrp LOS	B					B	C		A	D		A
Approach Vol, veh/h		51			2			408			645	
Approach Delay, s/veh		16.6			15.9			7.3			9.6	
Approach LOS		B			B			A			A	

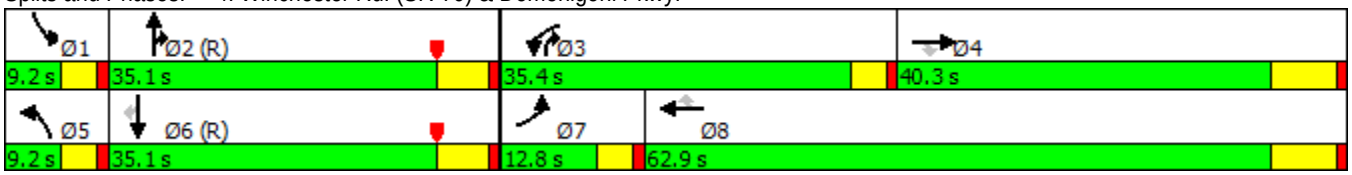
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.7	26.3		9.1	5.6	25.4		9.1
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6
Max Green Setting (Gmax), s	5.0	32.6		27.0	5.0	32.6		27.0
Max Q Clear Time (g_c+I1), s	2.0	7.3		3.1	2.4	13.1		2.0
Green Ext Time (p_c), s	0.0	6.7		0.2	0.0	6.1		0.2

Intersection Summary		
HCM 2010 Ctrl Delay		9.1
HCM 2010 LOS		A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	797	62	733	802	18	36	221	576	13	419	158
Future Volume (vph)	112	797	62	733	802	18	36	221	576	13	419	158
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	2 3	1	6	
Permitted Phases			4			8						6
Detector Phase	7	4	4	3	8	8	5	2	2 3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8		9.2	33.8	33.8
Total Split (s)	12.8	40.3	40.3	35.4	62.9	62.9	9.2	35.1		9.2	35.1	35.1
Total Split (%)	10.7%	33.6%	33.6%	29.5%	52.4%	52.4%	7.7%	29.3%		7.7%	29.3%	29.3%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8		3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8		4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	7.9	32.6	32.6	30.2	54.9	54.9	5.0	36.7	71.1	5.0	33.0	33.0
Actuated g/C Ratio	0.07	0.27	0.27	0.25	0.46	0.46	0.04	0.31	0.59	0.04	0.28	0.28
v/c Ratio	0.54	0.90	0.13	0.92	0.38	0.03	0.53	0.22	0.64	0.19	0.47	0.31
Control Delay	63.4	55.6	0.5	60.9	21.7	0.1	81.9	33.5	17.7	61.8	39.4	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	55.6	0.5	60.9	21.7	0.1	81.9	33.5	17.7	61.8	39.4	6.9
LOS	E	E	A	E	C	A	F	C	B	E	D	A
Approach Delay		53.0			40.0			24.7			31.2	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 38.6	Intersection LOS: D
Intersection Capacity Utilization 76.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	797	62	733	802	18	36	221	576	13	419	158
Future Volume (veh/h)	112	797	62	733	802	18	36	221	576	13	419	158
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	122	866	30	797	872	8	39	240	364	14	455	73
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	962	430	851	2380	741	54	1025	850	28	973	435
Arrive On Green	0.05	0.27	0.27	0.25	0.47	0.47	0.03	0.29	0.29	0.02	0.27	0.27
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	122	866	30	797	872	8	39	240	364	14	455	73
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.2	28.3	1.7	27.2	13.2	0.3	2.6	6.2	16.6	0.9	12.8	4.2
Cycle Q Clear(g_c), s	4.2	28.3	1.7	27.2	13.2	0.3	2.6	6.2	16.6	0.9	12.8	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	962	430	851	2380	741	54	1025	850	28	973	435
V/C Ratio(X)	0.70	0.90	0.07	0.94	0.37	0.01	0.73	0.23	0.43	0.51	0.47	0.17
Avail Cap(c_a), veh/h	247	985	441	895	2380	741	74	1025	850	74	973	435
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	56.0	42.1	32.4	44.2	20.5	17.1	57.7	32.5	16.7	58.6	36.2	33.1
Incr Delay (d2), s/veh	1.9	11.0	0.1	16.0	0.1	0.0	10.7	0.5	1.6	5.1	1.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	15.3	0.7	14.8	6.2	0.1	1.4	3.1	7.6	0.5	6.5	1.9
LnGrp Delay(d),s/veh	57.9	53.1	32.5	60.2	20.6	17.1	68.3	33.0	18.3	63.7	37.8	33.9
LnGrp LOS	E	D	C	E	C	B	E	C	B	E	D	C
Approach Vol, veh/h		1018			1677			643			542	
Approach Delay, s/veh		53.1			39.4			26.8			37.9	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	40.6	33.9	39.5	7.8	38.8	10.3	63.1
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	6.9	* 4.2	5.8	* 4.2	6.9
Max Green Setting (Gmax), s	* 5	29.3	* 31	33.4	* 5	29.3	* 8.6	56.0
Max Q Clear Time (g_c+I1), s	2.9	18.6	29.2	30.3	4.6	14.8	6.2	15.2
Green Ext Time (p_c), s	0.0	5.6	0.5	2.3	0.0	6.8	0.0	14.9

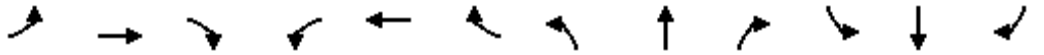
Intersection Summary	
HCM 2010 Ctrl Delay	40.7
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	25	31	170	15	2	458	25	302
Future Volume (vph)	25	31	170	15	2	458	25	302
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	27.8	9.6	27.8
Total Split (s)	31.7	31.7	31.7	31.7	9.6	33.7	9.6	33.7
Total Split (%)	42.3%	42.3%	42.3%	42.3%	12.8%	44.9%	12.8%	44.9%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	14.4	14.4	14.4	14.4	5.1	30.6	5.1	32.4
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.09	0.52	0.09	0.55
v/c Ratio	0.08	0.08	0.54	0.16	0.01	0.72	0.18	0.32
Control Delay	17.2	15.9	25.5	8.3	30.0	20.2	31.8	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.2	15.9	25.5	8.3	30.0	20.2	31.8	10.9
LOS	B	B	C	A	C	C	C	B
Approach Delay		16.5		20.7		20.3		12.5
Approach LOS		B		C		C		B

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 59	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 18.1	Intersection LOS: B
Intersection Capacity Utilization 59.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 20: Warren Rd. & Esplanade Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	31	3	170	15	50	2	458	177	25	302	7
Future Volume (veh/h)	25	31	3	170	15	50	2	458	177	25	302	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	27	33	3	181	16	53	2	487	188	27	321	7
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	369	340	31	402	77	255	5	588	227	56	886	19
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.00	0.46	0.46	0.03	0.49	0.49
Sat Flow, veh/h	1326	1683	153	1367	380	1260	1774	1281	495	1774	1816	40
Grp Volume(v), veh/h	27	0	36	181	0	69	2	0	675	27	0	328
Grp Sat Flow(s),veh/h/ln	1326	0	1836	1367	0	1640	1774	0	1775	1774	0	1856
Q Serve(g_s), s	0.8	0.0	0.8	6.1	0.0	1.7	0.1	0.0	16.2	0.7	0.0	5.4
Cycle Q Clear(g_c), s	2.6	0.0	0.8	6.8	0.0	1.7	0.1	0.0	16.2	0.7	0.0	5.4
Prop In Lane	1.00		0.08	1.00		0.77	1.00		0.28	1.00		0.02
Lane Grp Cap(c), veh/h	369	0	371	402	0	331	5	0	816	56	0	906
V/C Ratio(X)	0.07	0.00	0.10	0.45	0.00	0.21	0.41	0.00	0.83	0.48	0.00	0.36
Avail Cap(c_a), veh/h	837	0	1019	884	0	911	182	0	1015	182	0	1061
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.3	0.0	15.9	18.6	0.0	16.2	24.3	0.0	11.5	23.3	0.0	7.8
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.8	0.0	0.3	19.3	0.0	4.7	2.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.4	2.4	0.0	0.8	0.1	0.0	8.8	0.4	0.0	2.8
LnGrp Delay(d),s/veh	17.4	0.0	16.0	19.4	0.0	16.5	43.7	0.0	16.3	25.7	0.0	8.0
LnGrp LOS	B		B	B		B	D		B	C		A
Approach Vol, veh/h		63			250			677			355	
Approach Delay, s/veh		16.6			18.6			16.3			9.4	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.1	28.2		14.5	4.7	29.6		14.5
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6
Max Green Setting (Gmax), s	5.0	27.9		27.1	5.0	27.9		27.1
Max Q Clear Time (g_c+I1), s	2.7	18.2		4.6	2.1	7.4		8.8
Green Ext Time (p_c), s	0.0	4.2		1.2	0.0	6.3		1.2

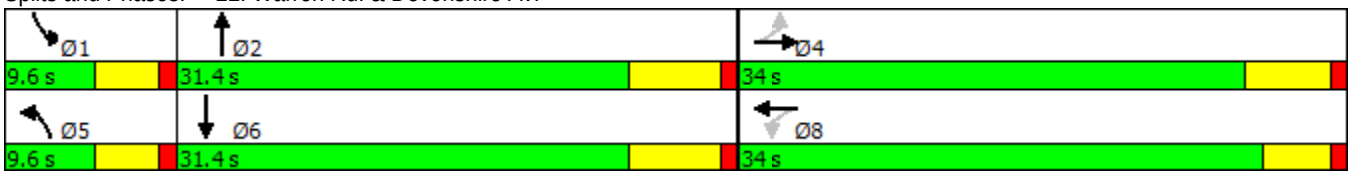
Intersection Summary		
HCM 2010 Ctrl Delay		14.9
HCM 2010 LOS		B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	200	131	43	212	7	410	19	319
Future Volume (vph)	200	131	43	212	7	410	19	319
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	31.8	31.8	9.6	28.2	9.6	28.2
Total Split (s)	34.0	34.0	34.0	34.0	9.6	31.4	9.6	31.4
Total Split (%)	45.3%	45.3%	45.3%	45.3%	12.8%	41.9%	12.8%	41.9%
Yellow Time (s)	4.8	4.8	3.8	3.8	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.8		4.8	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		23.8		24.9	5.3	20.1	5.3	21.6
Actuated g/C Ratio		0.40		0.42	0.09	0.34	0.09	0.36
v/c Ratio		0.77		0.43	0.04	0.74	0.13	0.73
Control Delay		31.5		16.3	32.7	27.7	33.9	24.6
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		31.5		16.3	32.7	27.7	33.9	24.6
LOS		C		B	C	C	C	C
Approach Delay		31.5		16.3		27.8		25.0
Approach LOS		C		B		C		C

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 59.8
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 25.6 Intersection LOS: C
Intersection Capacity Utilization 72.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	131	11	43	212	27	7	410	24	19	319	137
Future Volume (veh/h)	200	131	11	43	212	27	7	410	24	19	319	137
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	213	139	12	46	226	29	7	436	26	20	339	146
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	355	197	15	130	484	57	16	584	35	43	433	187
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.01	0.34	0.34	0.02	0.35	0.35
Sat Flow, veh/h	746	588	45	161	1447	171	1774	1741	104	1774	1236	532
Grp Volume(v), veh/h	364	0	0	301	0	0	7	0	462	20	0	485
Grp Sat Flow(s),veh/h/ln	1380	0	0	1779	0	0	1774	0	1844	1774	0	1769
Q Serve(g_s), s	5.6	0.0	0.0	0.0	0.0	0.0	0.2	0.0	12.1	0.6	0.0	13.3
Cycle Q Clear(g_c), s	12.7	0.0	0.0	7.1	0.0	0.0	0.2	0.0	12.1	0.6	0.0	13.3
Prop In Lane	0.59		0.03	0.15		0.10	1.00		0.06	1.00		0.30
Lane Grp Cap(c), veh/h	567	0	0	672	0	0	16	0	619	43	0	620
V/C Ratio(X)	0.64	0.00	0.00	0.45	0.00	0.00	0.43	0.00	0.75	0.47	0.00	0.78
Avail Cap(c_a), veh/h	814	0	0	1017	0	0	163	0	856	163	0	821
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.1	0.0	0.0	14.4	0.0	0.0	26.8	0.0	16.0	26.2	0.0	15.8
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.5	0.0	0.0	6.4	0.0	2.3	3.0	0.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	0.0	3.7	0.0	0.0	0.1	0.0	6.4	0.3	0.0	7.1
LnGrp Delay(d),s/veh	17.3	0.0	0.0	14.9	0.0	0.0	33.2	0.0	18.3	29.1	0.0	19.4
LnGrp LOS	B			B			C		B	C		B
Approach Vol, veh/h		364			301			469			505	
Approach Delay, s/veh		17.3			14.9			18.5			19.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.9	24.4		24.0	5.1	25.2		24.0
Change Period (Y+Rc), s	4.6	6.2		5.8	4.6	6.2		* 5.8
Max Green Setting (Gmax), s	5.0	25.2		28.2	5.0	25.2		* 29
Max Q Clear Time (g_c+I1), s	2.6	14.1		14.7	2.2	15.3		9.1
Green Ext Time (p_c), s	0.0	4.0		3.5	0.0	3.7		4.1

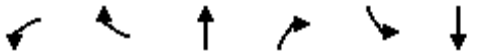
Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

Notes

Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	8	634	77	191	434
Future Volume (vph)	8	634	77	191	434
Turn Type	Prot	NA	Perm	Prot	NA
Protected Phases	8	2		1	6
Permitted Phases			2		
Detector Phase	8	2	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	28.2	28.2	9.6	24.2
Total Split (s)	31.6	32.4	32.4	16.0	48.4
Total Split (%)	39.5%	40.5%	40.5%	20.0%	60.5%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2
Lead/Lag		Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	
Recall Mode	None	Min	Min	None	Min
Act Effct Green (s)	13.0	30.1	30.1	10.5	48.3
Actuated g/C Ratio	0.21	0.48	0.48	0.17	0.77
v/c Ratio	0.13	0.75	0.10	0.68	0.32
Control Delay	10.0	25.2	5.0	40.2	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	25.2	5.0	40.2	6.6
LOS	A	C	A	D	A
Approach Delay	10.0	23.0			16.8
Approach LOS	A	C			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 62.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 19.8	Intersection LOS: B
Intersection Capacity Utilization 65.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 24: Warren Rd. & Auto Bl.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	8	37	634	77	191	434
Future Volume (veh/h)	8	37	634	77	191	434
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	9	39	674	82	203	462
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	30	128	826	701	255	1268
Arrive On Green	0.10	0.10	0.44	0.44	0.14	0.68
Sat Flow, veh/h	298	1290	1863	1582	1774	1863
Grp Volume(v), veh/h	49	0	674	82	203	462
Grp Sat Flow(s),veh/h/ln	1620	0	1863	1582	1774	1863
Q Serve(g_s), s	1.4	0.0	15.5	1.5	5.4	5.2
Cycle Q Clear(g_c), s	1.4	0.0	15.5	1.5	5.4	5.2
Prop In Lane	0.18	0.80		1.00	1.00	
Lane Grp Cap(c), veh/h	161	0	826	701	255	1268
V/C Ratio(X)	0.30	0.00	0.82	0.12	0.80	0.36
Avail Cap(c_a), veh/h	891	0	994	844	412	1600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	0.0	11.9	8.0	20.3	3.3
Incr Delay (d2), s/veh	1.1	0.0	4.5	0.1	2.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	8.9	0.7	2.8	2.6
LnGrp Delay(d),s/veh	21.6	0.0	16.5	8.1	22.5	3.5
LnGrp LOS	C		B	A	C	A
Approach Vol, veh/h	49		756			665
Approach Delay, s/veh	21.6		15.5			9.3
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	11.7	28.0				39.6		9.5
Change Period (Y+Rc), s	4.6	6.2				6.2		4.6
Max Green Setting (Gmax), s	11.4	26.2				42.2		27.0
Max Q Clear Time (g_c+I1), s	7.4	17.5				7.2		3.4
Green Ext Time (p_c), s	0.1	4.3				7.9		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	12.9
HCM 2010 LOS	B

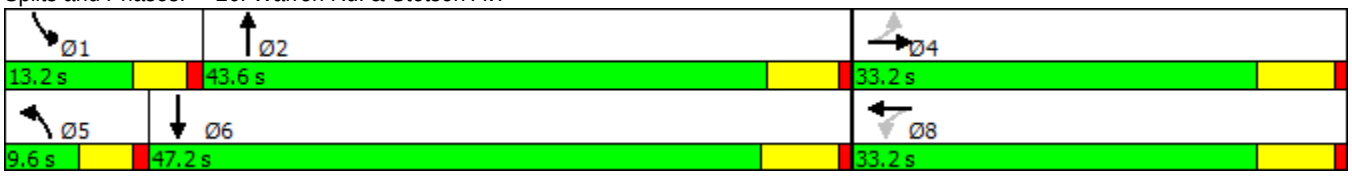
Notes

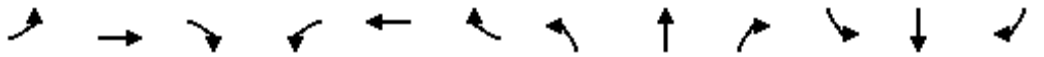
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	27	56	103	67	3	497	130	306
Future Volume (vph)	27	56	103	67	3	497	130	306
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	33.2	33.2	33.2	33.2	9.6	27.8	9.6	28.2
Total Split (s)	33.2	33.2	33.2	33.2	9.6	43.6	13.2	47.2
Total Split (%)	36.9%	36.9%	36.9%	36.9%	10.7%	48.4%	14.7%	52.4%
Yellow Time (s)	5.2	5.2	5.2	5.2	3.6	4.8	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	6.2	6.2	4.6	5.8	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	13.9	13.9	13.9	13.9	5.2	29.6	8.4	40.9
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.08	0.43	0.12	0.59
v/c Ratio	0.20	0.17	0.40	0.60	0.02	0.84	0.62	0.31
Control Delay	28.1	23.8	30.3	16.6	37.3	29.6	47.7	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	23.8	30.3	16.6	37.3	29.6	47.7	9.7
LOS	C	C	C	B	D	C	D	A
Approach Delay		25.1		20.3		29.6		20.5
Approach LOS		C		C		C		C

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 69.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 24.4 — Intersection LOS: C
Intersection Capacity Utilization 77.9% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 26: Warren Rd. & Stetson Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	56	5	103	67	205	3	497	136	130	306	21
Future Volume (veh/h)	27	56	5	103	67	205	3	497	136	130	306	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	28	58	5	107	70	214	3	518	142	135	319	22
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	187	401	35	382	96	294	7	602	165	170	895	62
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.00	0.43	0.43	0.10	0.52	0.52
Sat Flow, veh/h	1091	1691	146	1334	405	1239	1774	1408	386	1774	1723	119
Grp Volume(v), veh/h	28	0	63	107	0	284	3	0	660	135	0	341
Grp Sat Flow(s),veh/h/ln	1091	0	1837	1334	0	1644	1774	0	1795	1774	0	1842
Q Serve(g_s), s	1.7	0.0	1.9	4.9	0.0	11.3	0.1	0.0	23.7	5.3	0.0	7.8
Cycle Q Clear(g_c), s	13.0	0.0	1.9	6.8	0.0	11.3	0.1	0.0	23.7	5.3	0.0	7.8
Prop In Lane	1.00		0.08	1.00		0.75	1.00		0.22	1.00		0.06
Lane Grp Cap(c), veh/h	187	0	436	382	0	390	7	0	767	170	0	956
V/C Ratio(X)	0.15	0.00	0.14	0.28	0.00	0.73	0.42	0.00	0.86	0.79	0.00	0.36
Avail Cap(c_a), veh/h	342	0	698	572	0	625	125	0	955	215	0	1063
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.0	0.0	21.4	24.1	0.0	25.0	35.3	0.0	18.4	31.4	0.0	10.1
Incr Delay (d2), s/veh	0.4	0.0	0.2	0.4	0.0	2.6	13.7	0.0	6.7	11.6	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.0	1.9	0.0	5.4	0.1	0.0	13.0	3.1	0.0	3.9
LnGrp Delay(d),s/veh	31.4	0.0	21.5	24.5	0.0	27.6	49.0	0.0	25.1	43.0	0.0	10.3
LnGrp LOS	C		C	C		C	D		C	D		B
Approach Vol, veh/h		91			391			663			476	
Approach Delay, s/veh		24.6			26.7			25.2			19.6	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.4	36.6		23.1	4.9	43.1		23.1
Change Period (Y+Rc), s	4.6	* 6.2		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s	8.6	* 38		27.0	5.0	41.0		27.0
Max Q Clear Time (g_c+I1), s	7.3	25.7		15.0	2.1	9.8		13.3
Green Ext Time (p_c), s	0.0	4.7		1.8	0.0	6.8		1.9

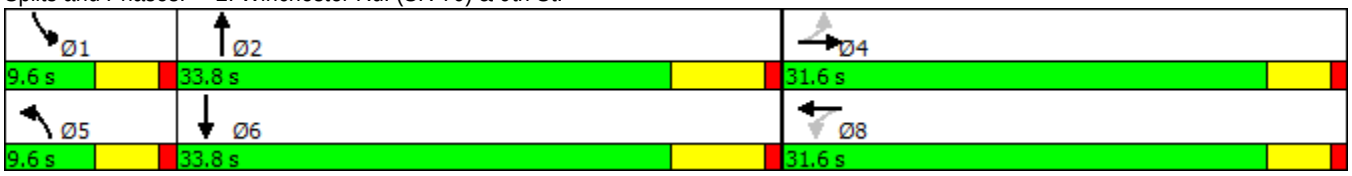
Intersection Summary	
HCM 2010 Ctrl Delay	23.9
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	33	1	2	1	28	584	2	474
Future Volume (vph)	33	1	2	1	28	584	2	474
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	28.2	9.6	28.2
Total Split (s)	31.6	31.6	31.6	31.6	9.6	33.8	9.6	33.8
Total Split (%)	42.1%	42.1%	42.1%	42.1%	12.8%	45.1%	12.8%	45.1%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		13.2		13.2	5.5	35.3	5.5	33.5
Actuated g/C Ratio		0.27		0.27	0.11	0.72	0.11	0.68
v/c Ratio		0.16		0.01	0.15	0.47	0.01	0.43
Control Delay		12.0		14.4	29.4	12.6	28.5	13.0
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		12.0		14.4	29.4	12.6	28.5	13.0
LOS		B		B	C	B	C	B
Approach Delay		12.0		14.4		13.4		13.0
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 49.3	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 48.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	1	30	2	1	2	28	584	1	2	474	28
Future Volume (veh/h)	33	1	30	2	1	2	28	584	1	2	474	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	35	1	32	2	1	2	30	621	1	2	504	30
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	35	101	176	85	90	63	880	1	5	767	46
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.04	0.47	0.47	0.00	0.44	0.44
Sat Flow, veh/h	566	255	730	362	609	647	1774	1859	3	1774	1741	104
Grp Volume(v), veh/h	68	0	0	5	0	0	30	0	622	2	0	534
Grp Sat Flow(s),veh/h/ln	1551	0	0	1618	0	0	1774	0	1862	1774	0	1844
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	10.6	0.0	0.0	9.1
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.1	0.0	0.0	0.7	0.0	10.6	0.0	0.0	9.1
Prop In Lane	0.51		0.47	0.40		0.40	1.00		0.00	1.00		0.06
Lane Grp Cap(c), veh/h	352	0	0	351	0	0	63	0	881	5	0	812
V/C Ratio(X)	0.19	0.00	0.00	0.01	0.00	0.00	0.48	0.00	0.71	0.41	0.00	0.66
Avail Cap(c_a), veh/h	1152	0	0	1174	0	0	222	0	1286	222	0	1273
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.4	0.0	0.0	14.9	0.0	0.0	18.9	0.0	8.3	19.9	0.0	8.8
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.0	0.0	0.0	2.1	0.0	1.1	19.2	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.0	0.0	0.0	0.4	0.0	5.6	0.0	0.0	4.8
LnGrp Delay(d),s/veh	15.7	0.0	0.0	14.9	0.0	0.0	21.0	0.0	9.4	39.1	0.0	9.7
LnGrp LOS	B			B			C		A	D		A
Approach Vol, veh/h		68			5			652			536	
Approach Delay, s/veh		15.7			14.9			9.9			9.8	
Approach LOS		B			B			A			A	

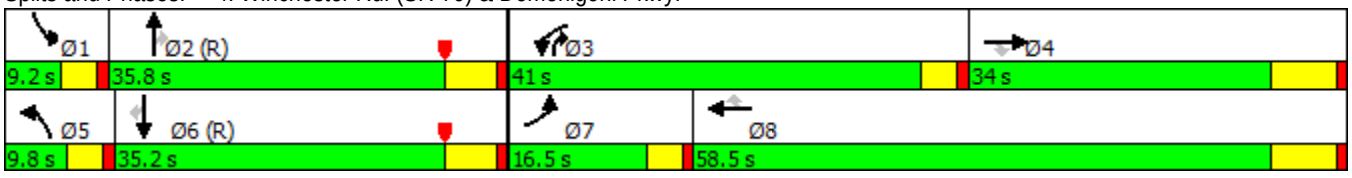
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.7	25.1		10.2	6.0	23.8		10.2
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6
Max Green Setting (Gmax), s	5.0	27.6		27.0	5.0	27.6		27.0
Max Q Clear Time (g_c+I1), s	2.0	12.6		3.4	2.7	11.1		2.1
Green Ext Time (p_c), s	0.0	6.2		0.3	0.0	6.5		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	10.2
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	187	782	58	621	822	18	68	524	937	12	289	142
Future Volume (vph)	187	782	58	621	822	18	68	524	937	12	289	142
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8	9.2	9.2	33.8	33.8
Total Split (s)	16.5	34.0	34.0	41.0	58.5	58.5	9.8	35.8	41.0	9.2	35.2	35.2
Total Split (%)	13.8%	28.3%	28.3%	34.2%	48.8%	48.8%	8.2%	29.8%	34.2%	7.7%	29.3%	29.3%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	3.2	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	4.2	4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	C-Max
Act Effct Green (s)	10.7	27.1	27.1	36.8	53.2	53.2	5.6	35.5	78.1	5.0	29.4	29.4
Actuated g/C Ratio	0.09	0.23	0.23	0.31	0.44	0.44	0.05	0.30	0.65	0.04	0.24	0.24
v/c Ratio	0.65	1.04	0.13	0.63	0.39	0.03	0.88	0.53	0.93	0.18	0.35	0.30
Control Delay	62.8	88.3	0.6	38.9	23.3	0.1	127.0	38.4	33.4	61.2	38.9	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.8	88.3	0.6	38.9	23.3	0.1	127.0	38.4	33.4	61.2	38.9	7.3
LOS	E	F	A	D	C	A	F	D	C	E	D	A
Approach Delay		78.7			29.7			39.3			29.4	
Approach LOS		E			C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 44.2	Intersection LOS: D
Intersection Capacity Utilization 96.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	782	58	621	822	18	68	524	937	12	289	142
Future Volume (veh/h)	187	782	58	621	822	18	68	524	937	12	289	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	199	832	31	661	874	9	72	557	582	13	307	42
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	799	358	732	1852	577	83	1313	924	26	1200	537
Arrive On Green	0.07	0.23	0.23	0.21	0.36	0.36	0.05	0.37	0.37	0.01	0.34	0.34
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	199	832	31	661	874	9	72	557	582	13	307	42
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.8	27.1	1.9	22.5	15.8	0.4	4.8	14.1	29.0	0.9	7.5	2.2
Cycle Q Clear(g_c), s	6.8	27.1	1.9	22.5	15.8	0.4	4.8	14.1	29.0	0.9	7.5	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	256	799	358	732	1852	577	83	1313	924	26	1200	537
V/C Ratio(X)	0.78	1.04	0.09	0.90	0.47	0.02	0.87	0.42	0.63	0.50	0.26	0.08
Avail Cap(c_a), veh/h	353	799	358	1055	2187	681	83	1313	924	74	1200	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	54.6	46.5	36.7	46.0	29.3	24.4	56.8	28.2	16.4	58.7	28.7	26.9
Incr Delay (d2), s/veh	4.7	43.0	0.1	6.3	0.2	0.0	56.3	1.0	3.2	5.3	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	18.0	0.8	11.3	7.5	0.2	3.7	7.1	13.4	0.5	3.8	1.0
LnGrp Delay(d),s/veh	59.3	89.4	36.8	52.3	29.5	24.4	113.1	29.2	19.7	64.0	29.2	27.2
LnGrp LOS	E	F	D	D	C	C	F	C	B	E	C	C
Approach Vol, veh/h		1062			1544			1211			362	
Approach Delay, s/veh		82.2			39.2			29.6			30.2	
Approach LOS		F			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	50.3	29.7	34.0	9.8	46.5	13.1	50.6
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	6.9	* 4.2	5.8	* 4.2	6.9
Max Green Setting (Gmax), s	* 5	30.0	* 37	27.1	* 5.6	29.4	* 12	51.6
Max Q Clear Time (g_c+I1), s	2.9	31.0	24.5	29.1	6.8	9.5	8.8	17.8
Green Ext Time (p_c), s	0.0	0.0	1.1	0.0	0.0	10.9	0.1	13.6

Intersection Summary	
HCM 2010 Ctrl Delay	46.6
HCM 2010 LOS	D

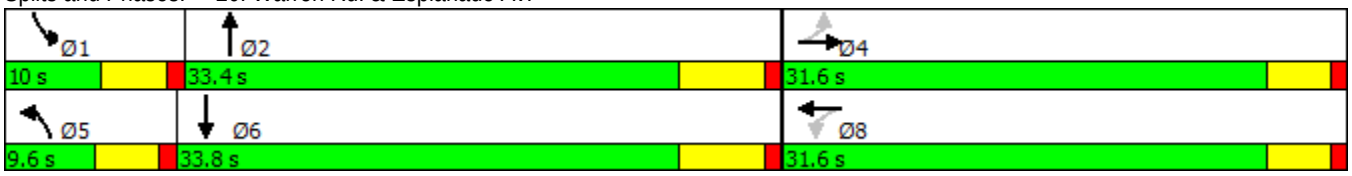
Notes

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	Ø5
Lane Configurations								
Traffic Volume (vph)	14	25	124	39	428	77	418	
Future Volume (vph)	14	25	124	39	428	77	418	
Turn Type	Perm	NA	Perm	NA	NA	Prot	NA	
Protected Phases		4		8	2	1	6	5
Permitted Phases	4		8					
Detector Phase	4	4	8	8	2	1	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	31.6	31.6	31.6	31.6	27.8	9.6	27.8	9.6
Total Split (s)	31.6	31.6	31.6	31.6	33.4	10.0	33.8	9.6
Total Split (%)	42.1%	42.1%	42.1%	42.1%	44.5%	13.3%	45.1%	13%
Yellow Time (s)	3.6	3.6	3.6	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	4.6	4.6	4.6	5.8	4.6	5.8	
Lead/Lag					Lag	Lead	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	Min	None
Act Effct Green (s)	13.9	13.9	13.9	13.9	30.4	5.7	37.7	
Actuated g/C Ratio	0.25	0.25	0.25	0.25	0.54	0.10	0.68	
v/c Ratio	0.04	0.06	0.37	0.16	0.63	0.43	0.37	
Control Delay	17.9	17.5	23.0	12.0	19.0	38.4	8.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	17.9	17.5	23.0	12.0	19.0	38.4	8.3	
LOS	B	B	C	B	B	D	A	
Approach Delay		17.7		18.8	19.0		12.7	
Approach LOS		B		B	B		B	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 55.8
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 16.5 — Intersection LOS: B
Intersection Capacity Utilization 63.9% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 20: Warren Rd. & Esplanade Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	25	1	124	39	36	0	428	182	77	418	41
Future Volume (veh/h)	14	25	1	124	39	36	0	428	182	77	418	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	14	25	1	125	39	36	0	432	184	78	422	41
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	358	350	14	402	176	162	4	534	227	118	988	96
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.00	0.43	0.43	0.07	0.59	0.59
Sat Flow, veh/h	1319	1779	71	1379	893	824	1774	1241	529	1774	1672	162
Grp Volume(v), veh/h	14	0	26	125	0	75	0	0	616	78	0	463
Grp Sat Flow(s),veh/h/ln	1319	0	1850	1379	0	1717	1774	0	1769	1774	0	1834
Q Serve(g_s), s	0.4	0.0	0.6	4.0	0.0	1.8	0.0	0.0	14.9	2.1	0.0	6.8
Cycle Q Clear(g_c), s	2.2	0.0	0.6	4.5	0.0	1.8	0.0	0.0	14.9	2.1	0.0	6.8
Prop In Lane	1.00		0.04	1.00		0.48	1.00		0.30	1.00		0.09
Lane Grp Cap(c), veh/h	358	0	364	402	0	338	4	0	761	118	0	1084
V/C Ratio(X)	0.04	0.00	0.07	0.31	0.00	0.22	0.00	0.00	0.81	0.66	0.00	0.43
Avail Cap(c_a), veh/h	827	0	1021	893	0	948	181	0	998	196	0	1084
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.4	0.0	16.0	17.9	0.0	16.5	0.0	0.0	12.2	22.3	0.0	5.5
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.4	0.0	0.3	0.0	0.0	3.8	2.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	1.5	0.0	0.9	0.0	0.0	8.0	1.1	0.0	3.4
LnGrp Delay(d),s/veh	17.5	0.0	16.1	18.3	0.0	16.8	0.0	0.0	16.0	24.6	0.0	5.7
LnGrp LOS	B		B	B		B			B	C		A
Approach Vol, veh/h		40			200			616			541	
Approach Delay, s/veh		16.6			17.7			16.0			8.5	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	26.8		14.2	0.0	34.7		14.2
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6
Max Green Setting (Gmax), s	5.4	27.6		27.0	5.0	28.0		27.0
Max Q Clear Time (g_c+I1), s	4.1	16.9		4.2	0.0	8.8		6.5
Green Ext Time (p_c), s	0.0	4.1		1.0	0.0	6.5		0.9

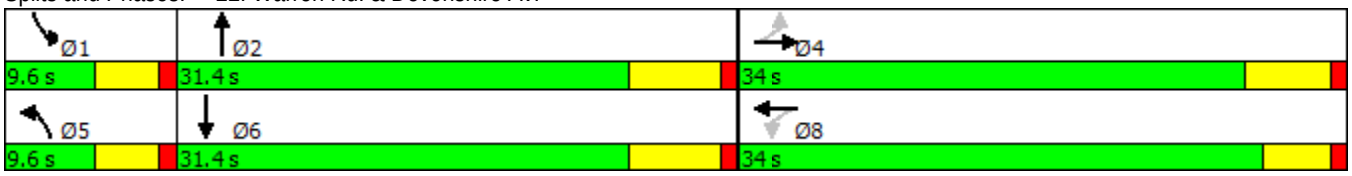
Intersection Summary		
HCM 2010 Ctrl Delay		13.4
HCM 2010 LOS		B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	191	165	36	228	18	400	30	388
Future Volume (vph)	191	165	36	228	18	400	30	388
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	31.8	31.8	9.6	28.2	9.6	28.2
Total Split (s)	34.0	34.0	34.0	34.0	9.6	31.4	9.6	31.4
Total Split (%)	45.3%	45.3%	45.3%	45.3%	12.8%	41.9%	12.8%	41.9%
Yellow Time (s)	4.8	4.8	3.8	3.8	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.8		4.8	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		24.5		25.6	5.2	22.2	5.2	23.8
Actuated g/C Ratio		0.39		0.41	0.08	0.36	0.08	0.38
v/c Ratio		0.81		0.43	0.13	0.71	0.21	0.77
Control Delay		34.3		16.8	34.3	26.0	35.7	26.7
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		34.3		16.8	34.3	26.0	35.7	26.7
LOS		C		B	C	C	D	C
Approach Delay		34.3		16.8		26.3		27.2
Approach LOS		C		B		C		C

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 62.5
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 26.8 — Intersection LOS: C
Intersection Capacity Utilization 77.3% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	165	14	36	228	20	18	400	45	30	388	125
Future Volume (veh/h)	191	165	14	36	228	20	18	400	45	30	388	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	199	172	15	38	238	21	19	417	47	31	404	130
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	317	232	18	112	516	43	40	574	65	60	487	157
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.02	0.35	0.35	0.03	0.36	0.36
Sat Flow, veh/h	667	689	55	128	1534	126	1774	1645	185	1774	1351	435
Grp Volume(v), veh/h	386	0	0	297	0	0	19	0	464	31	0	534
Grp Sat Flow(s),veh/h/ln	1411	0	0	1788	0	0	1774	0	1830	1774	0	1786
Q Serve(g_s), s	7.1	0.0	0.0	0.0	0.0	0.0	0.6	0.0	13.1	1.0	0.0	16.1
Cycle Q Clear(g_c), s	14.6	0.0	0.0	7.6	0.0	0.0	0.6	0.0	13.1	1.0	0.0	16.1
Prop In Lane	0.52		0.04	0.13		0.07	1.00		0.10	1.00		0.24
Lane Grp Cap(c), veh/h	567	0	0	670	0	0	40	0	639	60	0	643
V/C Ratio(X)	0.68	0.00	0.00	0.44	0.00	0.00	0.47	0.00	0.73	0.52	0.00	0.83
Avail Cap(c_a), veh/h	761	0	0	941	0	0	150	0	780	150	0	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.7	0.0	0.0	15.5	0.0	0.0	28.5	0.0	16.8	28.1	0.0	17.3
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.5	0.0	0.0	3.2	0.0	2.7	2.6	0.0	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.0	0.0	3.9	0.0	0.0	0.3	0.0	7.0	0.5	0.0	9.1
LnGrp Delay(d),s/veh	19.2	0.0	0.0	16.0	0.0	0.0	31.7	0.0	19.4	30.6	0.0	24.0
LnGrp LOS	B			B			C		B	C		C
Approach Vol, veh/h		386			297			483			565	
Approach Delay, s/veh		19.2			16.0			19.9			24.3	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.6	26.8		25.7	5.9	27.5		25.7
Change Period (Y+Rc), s	4.6	6.2		5.8	4.6	6.2		* 5.8
Max Green Setting (Gmax), s	5.0	25.2		28.2	5.0	25.2		* 29
Max Q Clear Time (g_c+I1), s	3.0	15.1		16.6	2.6	18.1		9.6
Green Ext Time (p_c), s	0.0	4.0		3.3	0.0	3.2		4.1

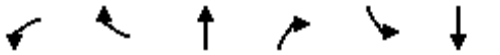
Intersection Summary	
HCM 2010 Ctrl Delay	20.5
HCM 2010 LOS	C

Notes

Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	54	646	45	86	573
Future Volume (vph)	54	646	45	86	573
Turn Type	Prot	NA	Perm	Prot	NA
Protected Phases	8	2		1	6
Permitted Phases			2		
Detector Phase	8	2	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	28.2	28.2	9.6	24.2
Total Split (s)	31.6	37.4	37.4	11.0	48.4
Total Split (%)	39.5%	46.8%	46.8%	13.8%	60.5%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2
Lead/Lag		Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	
Recall Mode	None	Min	Min	None	Min
Act Effct Green (s)	13.0	32.0	32.0	6.3	40.5
Actuated g/C Ratio	0.20	0.50	0.50	0.10	0.63
v/c Ratio	0.57	0.81	0.06	0.58	0.57
Control Delay	10.7	25.9	4.6	46.8	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	25.9	4.6	46.8	10.6
LOS	B	C	A	D	B
Approach Delay	10.7	24.5			15.4
Approach LOS	B	C			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 64.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 18.6	Intersection LOS: B
Intersection Capacity Utilization 66.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 24: Warren Rd. & Auto Bl.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	54	196	646	45	86	573
Future Volume (veh/h)	54	196	646	45	86	573
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	63	228	751	52	100	666
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	76	274	863	734	128	1136
Arrive On Green	0.22	0.22	0.46	0.46	0.07	0.61
Sat Flow, veh/h	350	1266	1863	1583	1774	1863
Grp Volume(v), veh/h	292	0	751	52	100	666
Grp Sat Flow(s),veh/h/ln	1622	0	1863	1583	1774	1863
Q Serve(g_s), s	10.7	0.0	22.5	1.1	3.4	13.5
Cycle Q Clear(g_c), s	10.7	0.0	22.5	1.1	3.4	13.5
Prop In Lane	0.22	0.78		1.00	1.00	
Lane Grp Cap(c), veh/h	351	0	863	734	128	1136
V/C Ratio(X)	0.83	0.00	0.87	0.07	0.78	0.59
Avail Cap(c_a), veh/h	705	0	936	796	183	1266
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	15.0	9.2	28.3	7.4
Incr Delay (d2), s/veh	5.1	0.0	8.4	0.0	7.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	13.5	0.5	2.0	7.0
LnGrp Delay(d),s/veh	28.4	0.0	23.4	9.3	36.1	7.9
LnGrp LOS	C		C	A	D	A
Approach Vol, veh/h	292		803			766
Approach Delay, s/veh	28.4		22.5			11.6
Approach LOS	C		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.1	35.0				44.1		18.0
Change Period (Y+Rc), s	4.6	6.2				6.2		4.6
Max Green Setting (Gmax), s	6.4	31.2				42.2		27.0
Max Q Clear Time (g_c+I1), s	5.4	24.5				15.5		12.7
Green Ext Time (p_c), s	0.0	4.3				10.0		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	18.9
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	Ø5
Lane Configurations								
Traffic Volume (vph)	40	82	145	75	415	210	468	
Future Volume (vph)	40	82	145	75	415	210	468	
Turn Type	Perm	NA	Perm	NA	NA	Prot	NA	
Protected Phases		4		8	2	1	6	5
Permitted Phases	4		8					
Detector Phase	4	4	8	8	2	1	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	33.2	33.2	33.2	33.2	27.8	9.6	28.2	9.6
Total Split (s)	33.2	33.2	33.2	33.2	30.8	16.0	37.2	9.6
Total Split (%)	41.5%	41.5%	41.5%	41.5%	38.5%	20.0%	46.5%	12%
Yellow Time (s)	5.2	5.2	5.2	5.2	4.8	3.6	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.2	6.2	6.2	6.2	5.8	4.6	6.2	
Lead/Lag					Lag	Lead	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	Min	None
Act Effct Green (s)	14.5	14.5	14.5	14.5	22.8	10.9	38.1	
Actuated g/C Ratio	0.22	0.22	0.22	0.22	0.35	0.17	0.58	
v/c Ratio	0.22	0.21	0.51	0.56	0.82	0.72	0.48	
Control Delay	23.9	21.4	29.2	13.1	32.5	44.3	10.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	23.9	21.4	29.2	13.1	32.5	44.3	10.7	
LOS	C	C	C	B	C	D	B	
Approach Delay		22.2		18.6	32.5		20.6	
Approach LOS		C		B	C		C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 65.2	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 23.7	Intersection LOS: C
Intersection Capacity Utilization 83.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 26: Warren Rd. & Stetson Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	82	5	145	75	204	0	415	100	210	468	34
Future Volume (veh/h)	40	82	5	145	75	204	0	415	100	210	468	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	41	84	5	148	77	208	0	423	102	214	478	35
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	446	27	398	114	309	3	478	115	259	940	69
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.00	0.33	0.33	0.15	0.55	0.55
Sat Flow, veh/h	1090	1741	104	1303	446	1204	1774	1451	350	1774	1715	126
Grp Volume(v), veh/h	41	0	89	148	0	285	0	0	525	214	0	513
Grp Sat Flow(s),veh/h/ln	1090	0	1844	1303	0	1650	1774	0	1801	1774	0	1841
Q Serve(g_s), s	2.2	0.0	2.4	6.4	0.0	9.8	0.0	0.0	17.5	7.4	0.0	11.1
Cycle Q Clear(g_c), s	12.1	0.0	2.4	8.7	0.0	9.8	0.0	0.0	17.5	7.4	0.0	11.1
Prop In Lane	1.00		0.06	1.00		0.73	1.00		0.19	1.00		0.07
Lane Grp Cap(c), veh/h	224	0	473	398	0	423	3	0	593	259	0	1009
V/C Ratio(X)	0.18	0.00	0.19	0.37	0.00	0.67	0.00	0.00	0.88	0.83	0.00	0.51
Avail Cap(c_a), veh/h	408	0	785	619	0	702	140	0	710	319	0	1009
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.6	0.0	18.4	21.8	0.0	21.2	0.0	0.0	20.1	26.3	0.0	9.0
Incr Delay (d2), s/veh	0.4	0.0	0.2	0.6	0.0	1.9	0.0	0.0	11.3	11.3	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.2	2.3	0.0	4.7	0.0	0.0	10.5	4.4	0.0	5.7
LnGrp Delay(d),s/veh	27.0	0.0	18.6	22.4	0.0	23.1	0.0	0.0	31.4	37.6	0.0	9.4
LnGrp LOS	C		B	C		C			C	D		A
Approach Vol, veh/h		130			433			525			727	
Approach Delay, s/veh		21.3			22.9			31.4			17.7	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.9	27.1		22.5	0.0	41.0		22.5
Change Period (Y+Rc), s	4.6	* 6.2		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s	11.4	* 25		27.0	5.0	31.0		27.0
Max Q Clear Time (g_c+I1), s	9.4	19.5		14.1	0.0	13.1		11.8
Green Ext Time (p_c), s	0.1	1.4		2.2	0.0	5.8		2.3

Intersection Summary	
HCM 2010 Ctrl Delay	23.2
HCM 2010 LOS	C

Notes

APPENDIX 5.6:

E+P (PROJECT BUILDOUT) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	26	1	2	0	20	360	2	573
Future Volume (vph)	26	1	2	0	20	360	2	573
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	28.2	9.6	28.2
Total Split (s)	31.6	31.6	31.6	31.6	9.6	38.8	9.6	38.8
Total Split (%)	39.5%	39.5%	39.5%	39.5%	12.0%	48.5%	12.0%	48.5%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		13.5		13.5	5.7	37.3	5.7	37.3
Actuated g/C Ratio		0.26		0.26	0.11	0.73	0.11	0.73
v/c Ratio		0.13		0.01	0.11	0.29	0.01	0.48
Control Delay		13.3		0.0	30.8	8.9	30.0	11.8
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		13.3		0.0	30.8	8.9	30.0	11.8
LOS		B		A	C	A	C	B
Approach Delay		13.3				10.1		11.8
Approach LOS		B				B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 51	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 11.2	Intersection LOS: B
Intersection Capacity Utilization 49.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	1	22	2	0	2	20	360	2	2	573	25
Future Volume (veh/h)	26	1	22	2	0	2	20	360	2	2	573	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	28	1	24	2	0	2	22	387	2	2	616	27
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	29	82	190	34	91	48	929	5	5	846	37
Arrive On Green	0.12	0.12	0.12	0.12	0.00	0.12	0.03	0.50	0.50	0.00	0.48	0.48
Sat Flow, veh/h	600	246	700	487	291	778	1774	1851	10	1774	1771	78
Grp Volume(v), veh/h	53	0	0	4	0	0	22	0	389	2	0	643
Grp Sat Flow(s),veh/h/ln	1546	0	0	1555	0	0	1774	0	1861	1774	0	1849
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	5.4	0.0	0.0	11.3
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.1	0.0	0.0	0.5	0.0	5.4	0.0	0.0	11.3
Prop In Lane	0.53		0.45	0.50		0.50	1.00		0.01	1.00		0.04
Lane Grp Cap(c), veh/h	316	0	0	314	0	0	48	0	934	5	0	883
V/C Ratio(X)	0.17	0.00	0.00	0.01	0.00	0.00	0.46	0.00	0.42	0.41	0.00	0.73
Avail Cap(c_a), veh/h	1131	0	0	1121	0	0	218	0	1492	218	0	1482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.4	0.0	0.0	15.9	0.0	0.0	19.5	0.0	6.4	20.2	0.0	8.5
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.3	19.2	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	0.0	0.3	0.0	2.8	0.0	0.0	6.0
LnGrp Delay(d),s/veh	16.6	0.0	0.0	15.9	0.0	0.0	22.0	0.0	6.7	39.5	0.0	9.7
LnGrp LOS	B			B			C		A	D		A
Approach Vol, veh/h		53			4			411			645	
Approach Delay, s/veh		16.6			15.9			7.5			9.8	
Approach LOS		B			B			A			A	

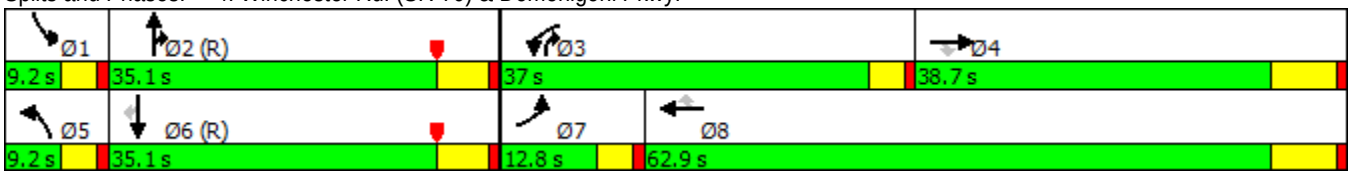
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.7	26.6		9.3	5.7	25.6		9.3
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6
Max Green Setting (Gmax), s	5.0	32.6		27.0	5.0	32.6		27.0
Max Q Clear Time (g_c+I1), s	2.0	7.4		3.1	2.5	13.3		2.1
Green Ext Time (p_c), s	0.0	6.7		0.2	0.0	6.1		0.3

Intersection Summary		
HCM 2010 Ctrl Delay		9.3
HCM 2010 LOS		A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	798	62	734	802	18	36	221	578	13	419	158
Future Volume (vph)	112	798	62	734	802	18	36	221	578	13	419	158
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	2 3	1	6	
Permitted Phases			4			8						6
Detector Phase	7	4	4	3	8	8	5	2	2 3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8		9.2	33.8	33.8
Total Split (s)	12.8	38.7	38.7	37.0	62.9	62.9	9.2	35.1		9.2	35.1	35.1
Total Split (%)	10.7%	32.3%	32.3%	30.8%	52.4%	52.4%	7.7%	29.3%		7.7%	29.3%	29.3%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8		3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8		4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	7.9	31.9	31.9	31.0	55.0	55.0	5.0	36.6	71.8	5.0	32.9	32.9
Actuated g/C Ratio	0.07	0.27	0.27	0.26	0.46	0.46	0.04	0.30	0.60	0.04	0.27	0.27
v/c Ratio	0.54	0.92	0.13	0.90	0.37	0.03	0.53	0.22	0.63	0.19	0.47	0.31
Control Delay	63.4	59.0	0.5	57.1	21.7	0.1	82.3	33.6	17.0	61.8	39.5	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	59.0	0.5	57.1	21.7	0.1	82.3	33.6	17.0	61.8	39.5	6.9
LOS	E	E	A	E	C	A	F	C	B	E	D	A
Approach Delay		55.8			38.1			24.2			31.2	
Approach LOS		E			D			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 38.5	Intersection LOS: D
Intersection Capacity Utilization 76.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	798	62	734	802	18	36	221	578	13	419	158
Future Volume (veh/h)	112	798	62	734	802	18	36	221	578	13	419	158
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	122	867	30	798	872	8	39	240	366	14	455	73
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	932	417	858	2348	731	54	1047	863	28	995	445
Arrive On Green	0.05	0.26	0.26	0.25	0.46	0.46	0.03	0.30	0.30	0.02	0.28	0.28
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	122	867	30	798	872	8	39	240	366	14	455	73
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.2	28.7	1.7	27.2	13.4	0.3	2.6	6.1	16.4	0.9	12.7	4.2
Cycle Q Clear(g_c), s	4.2	28.7	1.7	27.2	13.4	0.3	2.6	6.1	16.4	0.9	12.7	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	932	417	858	2348	731	54	1047	863	28	995	445
V/C Ratio(X)	0.70	0.93	0.07	0.93	0.37	0.01	0.73	0.23	0.42	0.51	0.46	0.16
Avail Cap(c_a), veh/h	247	938	420	941	2373	739	74	1047	863	74	995	445
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	56.0	43.1	33.2	44.0	21.0	17.5	57.7	31.9	16.1	58.6	35.6	32.5
Incr Delay (d2), s/veh	1.9	15.2	0.1	14.0	0.1	0.0	10.7	0.5	1.5	5.1	1.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	15.9	0.8	14.5	6.2	0.1	1.4	3.1	7.5	0.5	6.4	1.9
LnGrp Delay(d),s/veh	57.9	58.3	33.3	58.0	21.1	17.5	68.3	32.4	17.7	63.7	37.0	33.3
LnGrp LOS	E	E	C	E	C	B	E	C	B	E	D	C
Approach Vol, veh/h		1019			1678			645			542	
Approach Delay, s/veh		57.5			38.6			26.2			37.2	
Approach LOS		E			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	41.3	34.1	38.5	7.8	39.5	10.3	62.3
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	6.9	* 4.2	5.8	* 4.2	6.9
Max Green Setting (Gmax), s	* 5	29.3	* 33	31.8	* 5	29.3	* 8.6	56.0
Max Q Clear Time (g_c+I1), s	2.9	18.4	29.2	30.7	4.6	14.7	6.2	15.4
Green Ext Time (p_c), s	0.0	5.7	0.7	0.9	0.0	6.9	0.0	14.9

Intersection Summary	
HCM 2010 Ctrl Delay	41.3
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	25	31	174	15	2	461	25	306
Future Volume (vph)	25	31	174	15	2	461	25	306
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	27.8	9.6	27.8
Total Split (s)	31.7	31.7	31.7	31.7	9.6	33.7	9.6	33.7
Total Split (%)	42.3%	42.3%	42.3%	42.3%	12.8%	44.9%	12.8%	44.9%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	14.5	14.5	14.5	14.5	5.1	31.0	5.1	32.8
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.09	0.52	0.09	0.55
v/c Ratio	0.08	0.08	0.56	0.16	0.01	0.72	0.18	0.32
Control Delay	17.2	15.9	26.0	8.3	30.0	20.4	31.9	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.2	15.9	26.0	8.3	30.0	20.4	31.9	10.9
LOS	B	B	C	A	C	C	C	B
Approach Delay		16.5		21.2		20.4		12.5
Approach LOS		B		C		C		B

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 59.5	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 60.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 20: Warren Rd. & Esplanade Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	31	3	174	15	50	2	461	180	25	306	7
Future Volume (veh/h)	25	31	3	174	15	50	2	461	180	25	306	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	27	33	3	185	16	53	2	490	191	27	326	7
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	344	31	403	78	258	5	588	229	56	889	19
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.00	0.46	0.46	0.03	0.49	0.49
Sat Flow, veh/h	1326	1683	153	1367	380	1260	1774	1277	498	1774	1817	39
Grp Volume(v), veh/h	27	0	36	185	0	69	2	0	681	27	0	333
Grp Sat Flow(s),veh/h/ln	1326	0	1836	1367	0	1640	1774	0	1775	1774	0	1856
Q Serve(g_s), s	0.9	0.0	0.8	6.3	0.0	1.7	0.1	0.0	16.6	0.7	0.0	5.5
Cycle Q Clear(g_c), s	2.6	0.0	0.8	7.1	0.0	1.7	0.1	0.0	16.6	0.7	0.0	5.5
Prop In Lane	1.00		0.08	1.00		0.77	1.00		0.28	1.00		0.02
Lane Grp Cap(c), veh/h	371	0	375	403	0	335	5	0	818	56	0	908
V/C Ratio(X)	0.07	0.00	0.10	0.46	0.00	0.21	0.41	0.00	0.83	0.49	0.00	0.37
Avail Cap(c_a), veh/h	827	0	1007	874	0	900	180	0	1002	180	0	1048
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.4	0.0	15.9	18.8	0.0	16.3	24.6	0.0	11.7	23.5	0.0	7.9
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.8	0.0	0.3	19.4	0.0	5.1	2.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.4	2.5	0.0	0.8	0.1	0.0	9.1	0.4	0.0	2.8
LnGrp Delay(d),s/veh	17.5	0.0	16.1	19.6	0.0	16.6	44.0	0.0	16.8	26.0	0.0	8.1
LnGrp LOS	B		B	B		B	D		B	C		A
Approach Vol, veh/h		63			254			683			360	
Approach Delay, s/veh		16.7			18.8			16.9			9.4	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.1	28.6		14.7	4.7	30.0		14.7
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6
Max Green Setting (Gmax), s	5.0	27.9		27.1	5.0	27.9		27.1
Max Q Clear Time (g_c+I1), s	2.7	18.6		4.6	2.1	7.5		9.1
Green Ext Time (p_c), s	0.0	4.2		1.2	0.0	6.3		1.2

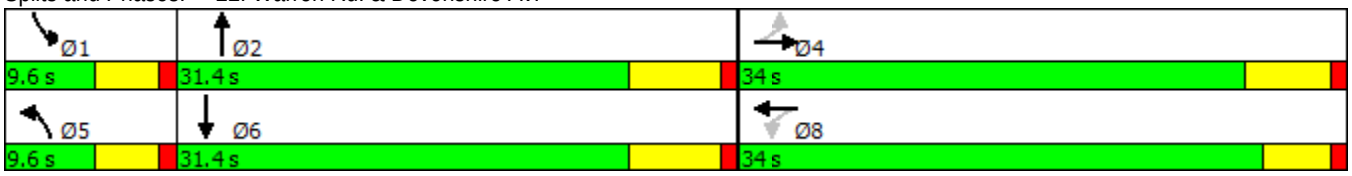
Intersection Summary		
HCM 2010 Ctrl Delay		15.2
HCM 2010 LOS		B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	200	131	48	212	8	415	19	328
Future Volume (vph)	200	131	48	212	8	415	19	328
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	31.8	31.8	9.6	28.2	9.6	28.2
Total Split (s)	34.0	34.0	34.0	34.0	9.6	31.4	9.6	31.4
Total Split (%)	45.3%	45.3%	45.3%	45.3%	12.8%	41.9%	12.8%	41.9%
Yellow Time (s)	4.8	4.8	3.8	3.8	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.8		4.8	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		24.1		25.1	5.3	20.5	5.3	22.0
Actuated g/C Ratio		0.40		0.42	0.09	0.34	0.09	0.36
v/c Ratio		0.78		0.44	0.06	0.75	0.13	0.74
Control Delay		32.3		16.6	33.0	28.1	34.1	25.2
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		32.3		16.6	33.0	28.1	34.1	25.2
LOS		C		B	C	C	C	C
Approach Delay		32.3		16.6		28.2		25.5
Approach LOS		C		B		C		C

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 60.4
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 26.1 — Intersection LOS: C
Intersection Capacity Utilization 73.8% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	131	13	48	212	27	8	415	27	19	328	137
Future Volume (veh/h)	200	131	13	48	212	27	8	415	27	19	328	137
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	213	139	14	51	226	29	9	441	29	20	349	146
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	351	195	18	137	477	56	21	589	39	42	440	184
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.01	0.34	0.34	0.02	0.35	0.35
Sat Flow, veh/h	737	580	52	181	1418	167	1774	1729	114	1774	1248	522
Grp Volume(v), veh/h	366	0	0	306	0	0	9	0	470	20	0	495
Grp Sat Flow(s),veh/h/ln	1370	0	0	1766	0	0	1774	0	1843	1774	0	1771
Q Serve(g_s), s	5.8	0.0	0.0	0.0	0.0	0.0	0.3	0.0	12.5	0.6	0.0	13.9
Cycle Q Clear(g_c), s	13.3	0.0	0.0	7.4	0.0	0.0	0.3	0.0	12.5	0.6	0.0	13.9
Prop In Lane	0.58		0.04	0.17		0.09	1.00		0.06	1.00		0.29
Lane Grp Cap(c), veh/h	564	0	0	670	0	0	21	0	627	42	0	625
V/C Ratio(X)	0.65	0.00	0.00	0.46	0.00	0.00	0.43	0.00	0.75	0.47	0.00	0.79
Avail Cap(c_a), veh/h	793	0	0	990	0	0	160	0	836	160	0	804
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.4	0.0	0.0	14.7	0.0	0.0	27.3	0.0	16.2	26.7	0.0	16.1
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.5	0.0	0.0	5.3	0.0	2.6	3.0	0.0	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.0	0.0	3.8	0.0	0.0	0.2	0.0	6.7	0.3	0.0	7.5
LnGrp Delay(d),s/veh	17.7	0.0	0.0	15.2	0.0	0.0	32.5	0.0	18.8	29.8	0.0	20.3
LnGrp LOS	B			B			C		B	C		C
Approach Vol, veh/h		366			306			479			515	
Approach Delay, s/veh		17.7			15.2			19.1			20.7	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.9	25.1		24.5	5.2	25.8		24.5
Change Period (Y+Rc), s	4.6	6.2		5.8	4.6	6.2		* 5.8
Max Green Setting (Gmax), s	5.0	25.2		28.2	5.0	25.2		* 29
Max Q Clear Time (g_c+I1), s	2.6	14.5		15.3	2.3	15.9		9.4
Green Ext Time (p_c), s	0.0	4.0		3.4	0.0	3.6		4.1

Intersection Summary	
HCM 2010 Ctrl Delay	18.6
HCM 2010 LOS	B

Notes

Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	8	668	77	191	492
Future Volume (vph)	8	668	77	191	492
Turn Type	Prot	NA	Perm	Prot	NA
Protected Phases	8	2		1	6
Permitted Phases			2		
Detector Phase	8	2	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	28.2	28.2	9.6	24.2
Total Split (s)	31.6	32.4	32.4	16.0	48.4
Total Split (%)	39.5%	40.5%	40.5%	20.0%	60.5%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2
Lead/Lag		Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	
Recall Mode	None	Min	Min	None	Min
Act Effct Green (s)	13.0	30.1	30.1	10.5	48.3
Actuated g/C Ratio	0.21	0.48	0.48	0.17	0.77
v/c Ratio	0.13	0.79	0.10	0.68	0.36
Control Delay	10.0	27.4	5.0	40.2	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	27.4	5.0	40.2	7.0
LOS	A	C	A	D	A
Approach Delay	10.0	25.1			16.3
Approach LOS	A	C			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 62.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 20.5	Intersection LOS: C
Intersection Capacity Utilization 66.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 24: Warren Rd. & Auto Bl.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	8	37	668	77	191	492
Future Volume (veh/h)	8	37	668	77	191	492
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	9	39	711	82	203	523
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	29	127	847	720	254	1283
Arrive On Green	0.10	0.10	0.45	0.45	0.14	0.69
Sat Flow, veh/h	298	1290	1863	1582	1774	1863
Grp Volume(v), veh/h	49	0	711	82	203	523
Grp Sat Flow(s),veh/h/ln	1620	0	1863	1582	1774	1863
Q Serve(g_s), s	1.4	0.0	17.1	1.5	5.6	6.2
Cycle Q Clear(g_c), s	1.4	0.0	17.1	1.5	5.6	6.2
Prop In Lane	0.18	0.80		1.00	1.00	
Lane Grp Cap(c), veh/h	159	0	847	720	254	1283
V/C Ratio(X)	0.31	0.00	0.84	0.11	0.80	0.41
Avail Cap(c_a), veh/h	862	0	962	817	399	1549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	0.0	12.2	7.9	21.0	3.4
Incr Delay (d2), s/veh	1.1	0.0	6.0	0.1	2.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	10.1	0.7	2.9	3.1
LnGrp Delay(d),s/veh	22.4	0.0	18.2	8.0	23.7	3.6
LnGrp LOS	C		B	A	C	A
Approach Vol, veh/h	49		793			726
Approach Delay, s/veh	22.4		17.2			9.2
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	11.9	29.3				41.2		9.6
Change Period (Y+Rc), s	4.6	6.2				6.2		4.6
Max Green Setting (Gmax), s	11.4	26.2				42.2		27.0
Max Q Clear Time (g_c+I1), s	7.6	19.1				8.2		3.4
Green Ext Time (p_c), s	0.1	4.0				8.8		0.1

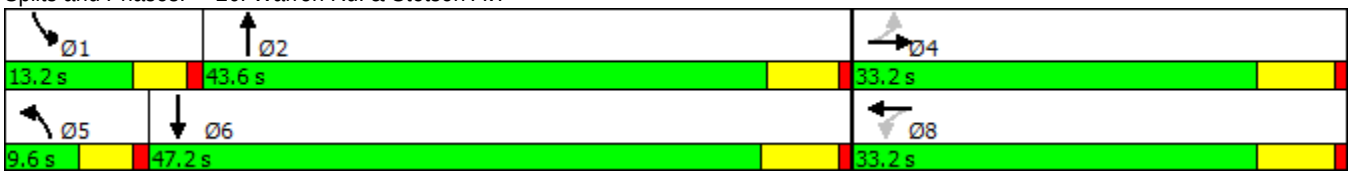
Intersection Summary	
HCM 2010 Ctrl Delay	13.7
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	27	56	118	67	3	532	130	364
Future Volume (vph)	27	56	118	67	3	532	130	364
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	33.2	33.2	33.2	33.2	9.6	27.8	9.6	28.2
Total Split (s)	33.2	33.2	33.2	33.2	9.6	43.6	13.2	47.2
Total Split (%)	36.9%	36.9%	36.9%	36.9%	10.7%	48.4%	14.7%	52.4%
Yellow Time (s)	5.2	5.2	5.2	5.2	3.6	4.8	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	6.2	6.2	4.6	5.8	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	14.2	14.2	14.2	14.2	5.1	32.8	8.4	44.0
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.07	0.45	0.12	0.61
v/c Ratio	0.21	0.17	0.47	0.61	0.02	0.85	0.66	0.36
Control Delay	29.4	24.6	33.1	17.1	38.0	30.2	51.5	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.4	24.6	33.1	17.1	38.0	30.2	51.5	10.1
LOS	C	C	C	B	D	C	D	B
Approach Delay		26.0		21.9		30.2		20.6
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 72.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 25.1	Intersection LOS: C
Intersection Capacity Utilization 80.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	56	5	118	67	205	3	532	145	130	364	21
Future Volume (veh/h)	27	56	5	118	67	205	3	532	145	130	364	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	28	58	5	123	70	214	3	554	151	135	379	22
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	178	397	34	373	95	291	7	625	170	169	932	54
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.00	0.44	0.44	0.10	0.53	0.53
Sat Flow, veh/h	1091	1691	146	1334	405	1239	1774	1410	384	1774	1744	101
Grp Volume(v), veh/h	28	0	63	123	0	284	3	0	705	135	0	401
Grp Sat Flow(s),veh/h/ln	1091	0	1837	1334	0	1644	1774	0	1795	1774	0	1845
Q Serve(g_s), s	1.8	0.0	2.0	6.0	0.0	12.0	0.1	0.0	27.0	5.6	0.0	9.7
Cycle Q Clear(g_c), s	13.8	0.0	2.0	8.1	0.0	12.0	0.1	0.0	27.0	5.6	0.0	9.7
Prop In Lane	1.00		0.08	1.00		0.75	1.00		0.21	1.00		0.05
Lane Grp Cap(c), veh/h	178	0	431	373	0	386	7	0	796	169	0	986
V/C Ratio(X)	0.16	0.00	0.15	0.33	0.00	0.74	0.42	0.00	0.89	0.80	0.00	0.41
Avail Cap(c_a), veh/h	314	0	661	539	0	591	118	0	904	203	0	1007
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.0	0.0	22.8	26.0	0.0	26.6	37.3	0.0	19.2	33.3	0.0	10.4
Incr Delay (d2), s/veh	0.4	0.0	0.2	0.5	0.0	2.7	13.8	0.0	9.7	14.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.1	2.3	0.0	5.7	0.1	0.0	15.5	3.4	0.0	5.0
LnGrp Delay(d),s/veh	33.4	0.0	22.9	26.5	0.0	29.3	51.1	0.0	28.8	47.3	0.0	10.7
LnGrp LOS	C		C	C		C	D		C	D		B
Approach Vol, veh/h		91			407			708			536	
Approach Delay, s/veh		26.1			28.5			28.9			19.9	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.8	39.5		23.8	4.9	46.3		23.8
Change Period (Y+Rc), s	4.6	* 6.2		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s	8.6	* 38		27.0	5.0	41.0		27.0
Max Q Clear Time (g_c+I1), s	7.6	29.0		15.8	2.1	11.7		14.0
Green Ext Time (p_c), s	0.0	4.3		1.8	0.0	7.7		1.9

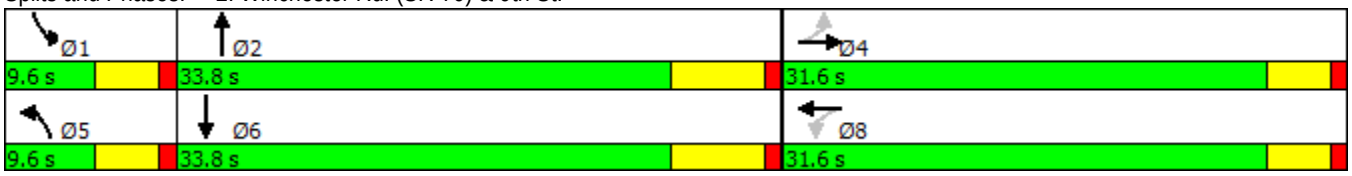
Intersection Summary	
HCM 2010 Ctrl Delay	25.9
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	33	1	6	1	31	583	2	472
Future Volume (vph)	33	1	6	1	31	583	2	472
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	28.2	9.6	28.2
Total Split (s)	31.6	31.6	31.6	31.6	9.6	33.8	9.6	33.8
Total Split (%)	42.1%	42.1%	42.1%	42.1%	12.8%	45.1%	12.8%	45.1%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		13.2		13.2	5.5	34.9	5.5	33.1
Actuated g/C Ratio		0.27		0.27	0.11	0.71	0.11	0.68
v/c Ratio		0.17		0.02	0.17	0.47	0.01	0.43
Control Delay		11.5		15.1	29.3	12.7	28.5	13.0
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		11.5		15.1	29.3	12.7	28.5	13.0
LOS		B		B	C	B	C	B
Approach Delay		11.5		15.1		13.6		13.1
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 49	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 48.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	1	34	6	1	2	31	583	4	2	472	28
Future Volume (veh/h)	33	1	34	6	1	2	31	583	4	2	472	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	35	1	36	6	1	2	33	620	4	2	502	30
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	208	38	115	270	53	50	68	872	6	5	759	45
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.04	0.47	0.47	0.00	0.44	0.44
Sat Flow, veh/h	520	259	779	835	363	342	1774	1849	12	1774	1740	104
Grp Volume(v), veh/h	72	0	0	9	0	0	33	0	624	2	0	532
Grp Sat Flow(s),veh/h/ln	1557	0	0	1540	0	0	1774	0	1861	1774	0	1844
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	10.9	0.0	0.0	9.3
Cycle Q Clear(g_c), s	1.5	0.0	0.0	0.2	0.0	0.0	0.7	0.0	10.9	0.0	0.0	9.3
Prop In Lane	0.49		0.50	0.67		0.22	1.00		0.01	1.00		0.06
Lane Grp Cap(c), veh/h	361	0	0	374	0	0	68	0	878	5	0	804
V/C Ratio(X)	0.20	0.00	0.00	0.02	0.00	0.00	0.49	0.00	0.71	0.41	0.00	0.66
Avail Cap(c_a), veh/h	1132	0	0	1124	0	0	218	0	1261	218	0	1250
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.5	0.0	0.0	14.9	0.0	0.0	19.2	0.0	8.5	20.3	0.0	9.1
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.0	0.0	0.0	2.0	0.0	1.1	19.2	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.1	0.0	0.0	0.4	0.0	5.6	0.0	0.0	4.8
LnGrp Delay(d),s/veh	15.7	0.0	0.0	14.9	0.0	0.0	21.2	0.0	9.6	39.5	0.0	10.0
LnGrp LOS	B			B			C		A	D		B
Approach Vol, veh/h		72			9			657			534	
Approach Delay, s/veh		15.7			14.9			10.2			10.1	
Approach LOS		B			B			B			B	

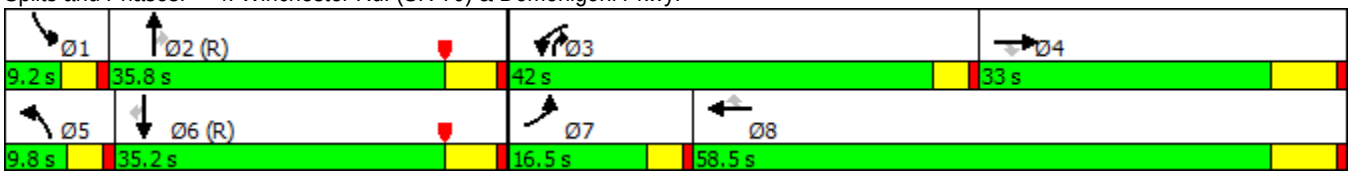
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.7	25.4		10.6	6.2	24.0		10.6
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6
Max Green Setting (Gmax), s	5.0	27.6		27.0	5.0	27.6		27.0
Max Q Clear Time (g_c+I1), s	2.0	12.9		3.5	2.7	11.3		2.2
Green Ext Time (p_c), s	0.0	6.1		0.4	0.0	6.4		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	10.5
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	187	778	58	622	822	18	68	524	935	12	289	142
Future Volume (vph)	187	778	58	622	822	18	68	524	935	12	289	142
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8	9.2	9.2	33.8	33.8
Total Split (s)	16.5	33.0	33.0	42.0	58.5	58.5	9.8	35.8	42.0	9.2	35.2	35.2
Total Split (%)	13.8%	27.5%	27.5%	35.0%	48.8%	48.8%	8.2%	29.8%	35.0%	7.7%	29.3%	29.3%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	3.2	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	4.2	4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	C-Max
Act Effct Green (s)	10.7	26.2	26.2	37.7	53.2	53.2	5.6	35.5	79.0	5.0	29.4	29.4
Actuated g/C Ratio	0.09	0.22	0.22	0.31	0.44	0.44	0.05	0.30	0.66	0.04	0.24	0.24
v/c Ratio	0.65	1.07	0.14	0.61	0.39	0.03	0.88	0.53	0.92	0.18	0.35	0.30
Control Delay	62.8	98.5	0.6	37.9	23.3	0.1	127.0	38.4	31.0	61.2	38.9	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.8	98.5	0.6	37.9	23.3	0.1	127.0	38.4	31.0	61.2	38.9	7.3
LOS	E	F	A	D	C	A	F	D	C	E	D	A
Approach Delay		86.4			29.2			37.8			29.4	
Approach LOS		F			C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 45.3	Intersection LOS: D
Intersection Capacity Utilization 96.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	778	58	622	822	18	68	524	935	12	289	142
Future Volume (veh/h)	187	778	58	622	822	18	68	524	935	12	289	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	199	828	31	662	874	9	72	557	580	13	307	42
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	770	344	733	1812	564	83	1341	937	26	1228	549
Arrive On Green	0.07	0.22	0.22	0.21	0.36	0.36	0.05	0.38	0.38	0.01	0.35	0.35
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	199	828	31	662	874	9	72	557	580	13	307	42
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.8	26.1	1.9	22.5	16.0	0.4	4.8	13.9	28.3	0.9	7.4	2.1
Cycle Q Clear(g_c), s	6.8	26.1	1.9	22.5	16.0	0.4	4.8	13.9	28.3	0.9	7.4	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	256	770	344	733	1812	564	83	1341	937	26	1228	549
V/C Ratio(X)	0.78	1.08	0.09	0.90	0.48	0.02	0.87	0.42	0.62	0.50	0.25	0.08
Avail Cap(c_a), veh/h	353	770	344	1084	2187	681	83	1341	937	74	1228	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	54.6	46.9	37.5	46.0	30.0	25.0	56.8	27.5	15.8	58.7	28.0	26.3
Incr Delay (d2), s/veh	4.7	54.7	0.1	5.7	0.2	0.0	56.3	0.9	3.1	5.3	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	18.6	0.8	11.2	7.6	0.2	3.7	7.0	13.0	0.5	3.7	1.0
LnGrp Delay(d),s/veh	59.3	101.7	37.6	51.7	30.2	25.0	113.1	28.4	18.8	64.0	28.5	26.6
LnGrp LOS	E	F	D	D	C	C	F	C	B	E	C	C
Approach Vol, veh/h		1058			1545			1209			362	
Approach Delay, s/veh		91.8			39.4			28.9			29.5	
Approach LOS		F			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	51.3	29.8	33.0	9.8	47.4	13.1	49.7
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	6.9	* 4.2	5.8	* 4.2	6.9
Max Green Setting (Gmax), s	* 5	30.0	* 38	26.1	* 5.6	29.4	* 12	51.6
Max Q Clear Time (g_c+I1), s	2.9	30.3	24.5	28.1	6.8	9.4	8.8	18.0
Green Ext Time (p_c), s	0.0	0.0	1.1	0.0	0.0	10.9	0.1	13.6

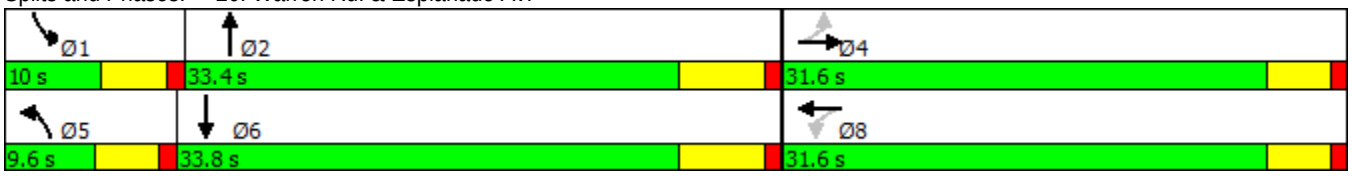
Intersection Summary	
HCM 2010 Ctrl Delay	48.8
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	Ø5
Lane Configurations								
Traffic Volume (vph)	14	25	127	39	434	77	421	
Future Volume (vph)	14	25	127	39	434	77	421	
Turn Type	Perm	NA	Perm	NA	NA	Prot	NA	
Protected Phases		4		8	2	1	6	5
Permitted Phases	4		8					
Detector Phase	4	4	8	8	2	1	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	31.6	31.6	31.6	31.6	27.8	9.6	27.8	9.6
Total Split (s)	31.6	31.6	31.6	31.6	33.4	10.0	33.8	9.6
Total Split (%)	42.1%	42.1%	42.1%	42.1%	44.5%	13.3%	45.1%	13%
Yellow Time (s)	3.6	3.6	3.6	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	4.6	4.6	4.6	5.8	4.6	5.8	
Lead/Lag					Lag	Lead	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	Min	None
Act Effct Green (s)	13.9	13.9	13.9	13.9	30.9	5.7	38.2	
Actuated g/C Ratio	0.25	0.25	0.25	0.25	0.55	0.10	0.68	
v/c Ratio	0.04	0.06	0.38	0.17	0.64	0.44	0.37	
Control Delay	17.9	17.6	23.3	12.0	19.3	38.9	8.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	17.9	17.6	23.3	12.0	19.3	38.9	8.3	
LOS	B	B	C	B	B	D	A	
Approach Delay		17.7		19.2	19.3		12.7	
Approach LOS		B		B	B		B	

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 56.4	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 16.7	Intersection LOS: B
Intersection Capacity Utilization 64.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 20: Warren Rd. & Esplanade Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	25	1	127	39	36	0	434	188	77	421	41
Future Volume (veh/h)	14	25	1	127	39	36	0	434	188	77	421	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	14	25	1	128	39	36	0	438	190	78	425	41
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	356	349	14	401	175	161	4	533	231	118	991	96
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.00	0.43	0.43	0.07	0.59	0.59
Sat Flow, veh/h	1319	1779	71	1379	893	824	1774	1233	535	1774	1673	161
Grp Volume(v), veh/h	14	0	26	128	0	75	0	0	628	78	0	466
Grp Sat Flow(s),veh/h/ln	1319	0	1850	1379	0	1717	1774	0	1768	1774	0	1834
Q Serve(g_s), s	0.4	0.0	0.6	4.1	0.0	1.8	0.0	0.0	15.4	2.1	0.0	6.8
Cycle Q Clear(g_c), s	2.3	0.0	0.6	4.7	0.0	1.8	0.0	0.0	15.4	2.1	0.0	6.8
Prop In Lane	1.00		0.04	1.00		0.48	1.00		0.30	1.00		0.09
Lane Grp Cap(c), veh/h	356	0	362	401	0	336	4	0	765	118	0	1087
V/C Ratio(X)	0.04	0.00	0.07	0.32	0.00	0.22	0.00	0.00	0.82	0.66	0.00	0.43
Avail Cap(c_a), veh/h	822	0	1015	887	0	942	180	0	992	195	0	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.6	0.0	16.1	18.0	0.0	16.6	0.0	0.0	12.3	22.4	0.0	5.5
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.5	0.0	0.3	0.0	0.0	4.3	2.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	1.6	0.0	0.9	0.0	0.0	8.3	1.1	0.0	3.4
LnGrp Delay(d),s/veh	17.6	0.0	16.2	18.5	0.0	17.0	0.0	0.0	16.6	24.8	0.0	5.7
LnGrp LOS	B		B	B		B			B	C		A
Approach Vol, veh/h		40			203			628			544	
Approach Delay, s/veh		16.7			17.9			16.6			8.5	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	27.1		14.2	0.0	35.0		14.2
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6
Max Green Setting (Gmax), s	5.4	27.6		27.0	5.0	28.0		27.0
Max Q Clear Time (g_c+I1), s	4.1	17.4		4.3	0.0	8.8		6.7
Green Ext Time (p_c), s	0.0	3.9		1.0	0.0	6.6		0.9

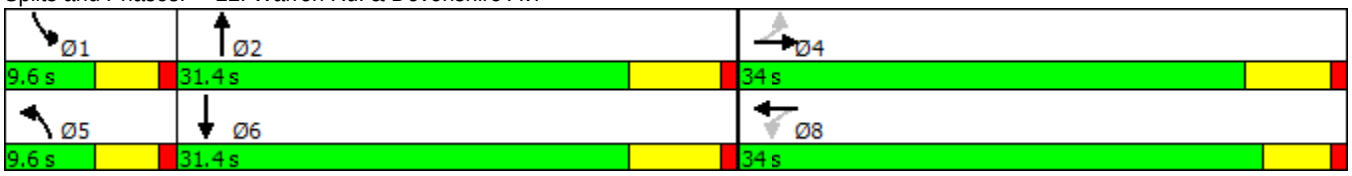
Intersection Summary		
HCM 2010 Ctrl Delay		13.7
HCM 2010 LOS		B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	191	165	45	228	21	411	30	394
Future Volume (vph)	191	165	45	228	21	411	30	394
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	31.8	31.8	9.6	28.2	9.6	28.2
Total Split (s)	34.0	34.0	34.0	34.0	9.6	31.4	9.6	31.4
Total Split (%)	45.3%	45.3%	45.3%	45.3%	12.8%	41.9%	12.8%	41.9%
Yellow Time (s)	4.8	4.8	3.8	3.8	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.8		4.8	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		24.6		25.7	5.2	22.4	5.2	22.4
Actuated g/C Ratio		0.39		0.41	0.08	0.36	0.08	0.36
v/c Ratio		0.81		0.45	0.15	0.73	0.21	0.82
Control Delay		34.8		17.2	34.7	27.2	35.7	32.4
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		34.8		17.2	34.7	27.2	35.7	32.4
LOS		C		B	C	C	D	C
Approach Delay		34.8		17.2		27.6		32.5
Approach LOS		C		B		C		C

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 62.8
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 29.0 — Intersection LOS: C
Intersection Capacity Utilization 78.3% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	165	16	45	228	20	21	411	53	30	394	125
Future Volume (veh/h)	191	165	16	45	228	20	21	411	53	30	394	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	199	172	17	47	238	21	22	428	55	31	410	130
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	313	230	21	124	501	41	45	570	73	60	489	155
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.03	0.35	0.35	0.03	0.36	0.36
Sat Flow, veh/h	659	679	61	163	1478	121	1774	1618	208	1774	1357	430
Grp Volume(v), veh/h	388	0	0	306	0	0	22	0	483	31	0	540
Grp Sat Flow(s),veh/h/ln	1399	0	0	1762	0	0	1774	0	1826	1774	0	1787
Q Serve(g_s), s	7.2	0.0	0.0	0.0	0.0	0.0	0.7	0.0	14.1	1.0	0.0	16.7
Cycle Q Clear(g_c), s	15.2	0.0	0.0	8.0	0.0	0.0	0.7	0.0	14.1	1.0	0.0	16.7
Prop In Lane	0.51		0.04	0.15		0.07	1.00		0.11	1.00		0.24
Lane Grp Cap(c), veh/h	564	0	0	666	0	0	45	0	644	60	0	644
V/C Ratio(X)	0.69	0.00	0.00	0.46	0.00	0.00	0.49	0.00	0.75	0.52	0.00	0.84
Avail Cap(c_a), veh/h	741	0	0	912	0	0	147	0	763	147	0	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.1	0.0	0.0	15.8	0.0	0.0	29.0	0.0	17.2	28.7	0.0	17.7
Incr Delay (d2), s/veh	1.8	0.0	0.0	0.5	0.0	0.0	3.0	0.0	3.5	2.6	0.0	7.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	0.0	0.0	4.1	0.0	0.0	0.4	0.0	7.6	0.6	0.0	9.4
LnGrp Delay(d),s/veh	19.8	0.0	0.0	16.3	0.0	0.0	32.0	0.0	20.7	31.3	0.0	25.1
LnGrp LOS	B			B			C		C	C		C
Approach Vol, veh/h		388			306			505			571	
Approach Delay, s/veh		19.8			16.3			21.2			25.5	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.6	27.5		26.2	6.1	27.9		26.2
Change Period (Y+Rc), s	4.6	6.2		5.8	4.6	6.2		* 5.8
Max Green Setting (Gmax), s	5.0	25.2		28.2	5.0	25.2		* 29
Max Q Clear Time (g_c+I1), s	3.0	16.1		17.2	2.7	18.7		10.0
Green Ext Time (p_c), s	0.0	3.9		3.2	0.0	3.0		4.2

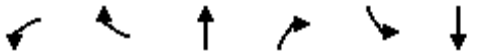
Intersection Summary	
HCM 2010 Ctrl Delay	21.4
HCM 2010 LOS	C

Notes

Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	53	730	45	86	654
Future Volume (vph)	53	730	45	86	654
Turn Type	Prot	NA	Perm	Prot	NA
Protected Phases	8	2		1	6
Permitted Phases			2		
Detector Phase	8	2	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	28.2	28.2	9.6	24.2
Total Split (s)	31.6	37.4	37.4	11.0	48.4
Total Split (%)	39.5%	46.8%	46.8%	13.8%	60.5%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2
Lead/Lag		Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	
Recall Mode	None	Min	Min	None	Min
Act Effct Green (s)	13.0	32.0	32.0	6.3	40.5
Actuated g/C Ratio	0.20	0.50	0.50	0.10	0.63
v/c Ratio	0.56	0.92	0.06	0.58	0.65
Control Delay	10.7	35.6	4.8	46.8	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	35.6	4.8	46.8	12.4
LOS	B	D	A	D	B
Approach Delay	10.7	33.8			16.4
Approach LOS	B	C			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 64.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 23.2	Intersection LOS: C
Intersection Capacity Utilization 71.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 24: Warren Rd. & Auto Bl.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	53	196	730	45	86	654
Future Volume (veh/h)	53	196	730	45	86	654
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	62	228	849	52	100	760
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	74	272	889	756	128	1155
Arrive On Green	0.21	0.21	0.48	0.48	0.07	0.62
Sat Flow, veh/h	345	1270	1863	1583	1774	1863
Grp Volume(v), veh/h	291	0	849	52	100	760
Grp Sat Flow(s),veh/h/ln	1621	0	1863	1583	1774	1863
Q Serve(g_s), s	11.2	0.0	28.5	1.2	3.6	17.1
Cycle Q Clear(g_c), s	11.2	0.0	28.5	1.2	3.6	17.1
Prop In Lane	0.21	0.78		1.00	1.00	
Lane Grp Cap(c), veh/h	347	0	889	756	128	1155
V/C Ratio(X)	0.84	0.00	0.95	0.07	0.78	0.66
Avail Cap(c_a), veh/h	672	0	892	759	174	1207
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	0.0	16.3	9.2	29.7	7.9
Incr Delay (d2), s/veh	5.4	0.0	20.0	0.0	9.9	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	0.0	19.3	0.5	2.1	9.1
LnGrp Delay(d),s/veh	29.9	0.0	36.3	9.2	39.6	9.2
LnGrp LOS	C		D	A	D	A
Approach Vol, veh/h	291		901			860
Approach Delay, s/veh	29.9		34.8			12.7
Approach LOS	C		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.3	37.3				46.6		18.5
Change Period (Y+Rc), s	4.6	6.2				6.2		4.6
Max Green Setting (Gmax), s	6.4	31.2				42.2		27.0
Max Q Clear Time (g_c+I1), s	5.6	30.5				19.1		13.2
Green Ext Time (p_c), s	0.0	0.6				11.3		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	Ø5
Lane Configurations								
Traffic Volume (vph)	40	82	158	75	498	210	548	
Future Volume (vph)	40	82	158	75	498	210	548	
Turn Type	Perm	NA	Perm	NA	NA	Prot	NA	
Protected Phases		4		8	2	1	6	5
Permitted Phases	4		8					
Detector Phase	4	4	8	8	2	1	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	33.2	33.2	33.2	33.2	27.8	9.6	28.2	9.6
Total Split (s)	33.2	33.2	33.2	33.2	30.8	16.0	37.2	9.6
Total Split (%)	41.5%	41.5%	41.5%	41.5%	38.5%	20.0%	46.5%	12%
Yellow Time (s)	5.2	5.2	5.2	5.2	4.8	3.6	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.2	6.2	6.2	6.2	5.8	4.6	6.2	
Lead/Lag					Lag	Lead	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	Min	None
Act Effct Green (s)	15.0	15.0	15.0	15.0	25.2	10.9	40.4	
Actuated g/C Ratio	0.22	0.22	0.22	0.22	0.37	0.16	0.59	
v/c Ratio	0.23	0.22	0.56	0.56	0.93	0.75	0.54	
Control Delay	24.1	21.4	31.0	13.1	44.3	47.5	11.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	24.1	21.4	31.0	13.1	44.3	47.5	11.8	
LOS	C	C	C	B	D	D	B	
Approach Delay		22.3		19.6	44.3		21.2	
Approach LOS		C		B	D		C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 67.9	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 28.1	Intersection LOS: C
Intersection Capacity Utilization 89.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 26: Warren Rd. & Stetson Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	82	5	158	75	204	0	498	120	210	548	34
Future Volume (veh/h)	40	82	5	158	75	204	0	498	120	210	548	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	41	84	5	161	77	208	0	508	122	214	559	35
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	437	26	381	112	302	3	523	126	256	990	62
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.00	0.36	0.36	0.14	0.57	0.57
Sat Flow, veh/h	1090	1741	104	1303	446	1204	1774	1452	349	1774	1735	109
Grp Volume(v), veh/h	41	0	89	161	0	285	0	0	630	214	0	594
Grp Sat Flow(s),veh/h/ln	1090	0	1844	1303	0	1650	1774	0	1801	1774	0	1844
Q Serve(g_s), s	2.5	0.0	2.6	7.7	0.0	10.9	0.0	0.0	23.9	8.2	0.0	14.2
Cycle Q Clear(g_c), s	13.3	0.0	2.6	10.3	0.0	10.9	0.0	0.0	23.9	8.2	0.0	14.2
Prop In Lane	1.00		0.06	1.00		0.73	1.00		0.19	1.00		0.06
Lane Grp Cap(c), veh/h	207	0	463	381	0	414	3	0	648	256	0	1052
V/C Ratio(X)	0.20	0.00	0.19	0.42	0.00	0.69	0.00	0.00	0.97	0.84	0.00	0.56
Avail Cap(c_a), veh/h	357	0	717	560	0	641	128	0	648	291	0	1052
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.6	0.0	20.5	24.5	0.0	23.5	0.0	0.0	21.9	28.9	0.0	9.5
Incr Delay (d2), s/veh	0.5	0.0	0.2	0.7	0.0	2.0	0.0	0.0	28.4	15.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.4	2.9	0.0	5.1	0.0	0.0	16.8	5.1	0.0	7.3
LnGrp Delay(d),s/veh	30.0	0.0	20.7	25.3	0.0	25.6	0.0	0.0	50.3	44.1	0.0	10.2
LnGrp LOS	C		C	C		C			D	D		B
Approach Vol, veh/h		130			446			630			808	
Approach Delay, s/veh		23.6			25.5			50.3			19.2	
Approach LOS		C			C			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.6	31.2		23.6	0.0	45.8		23.6
Change Period (Y+Rc), s	4.6	* 6.2		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s	11.4	* 25		27.0	5.0	31.0		27.0
Max Q Clear Time (g_c+I1), s	10.2	25.9		15.3	0.0	16.2		12.9
Green Ext Time (p_c), s	0.0	0.0		2.1	0.0	6.4		2.3

Intersection Summary	
HCM 2010 Ctrl Delay	30.6
HCM 2010 LOS	C

Notes

APPENDIX 6.1:

OPENING YEAR CUMULATIVE (2024) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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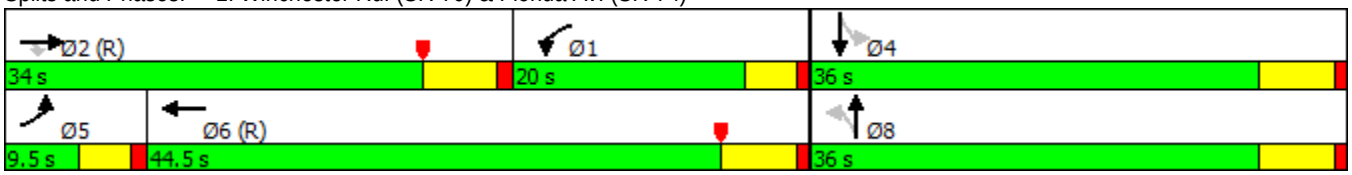
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	18	832	123	434	824	112	11	22	30
Future Volume (vph)	18	832	123	434	824	112	11	22	30
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	28.0	28.0	15.5	44.2	30.0	30.0	30.0	30.0
Actuated g/C Ratio	0.06	0.31	0.31	0.17	0.49	0.33	0.33	0.33	0.33
v/c Ratio	0.19	0.80	0.22	1.47	0.51	0.25	0.57	0.14	0.06
Control Delay	45.4	35.5	5.4	259.2	17.6	23.8	6.3	23.9	18.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.4	35.5	5.4	259.2	17.6	23.8	6.3	23.9	18.7
LOS	D	D	A	F	B	C	A	C	B
Approach Delay		31.9			98.7		9.8		20.7
Approach LOS		C			F		A		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 20 (22%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.47	
Intersection Signal Delay: 57.4	Intersection LOS: E
Intersection Capacity Utilization 88.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	832	123	434	824	34	112	11	432	22	30	5
Future Volume (veh/h)	18	832	123	434	824	34	112	11	432	22	30	5
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	19	858	88	447	849	33	115	11	265	23	31	5
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	1066	493	1085	3190	124	517	21	509	292	522	84
Arrive On Green	0.02	0.31	0.31	0.61	0.92	0.92	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1774	3427	1583	1774	3473	135	1365	63	1528	1098	1565	252
Grp Volume(v), veh/h	19	858	88	447	433	449	115	0	276	23	0	36
Grp Sat Flow(s),veh/h/ln	1774	1714	1583	1774	1770	1839	1365	0	1591	1098	0	1818
Q Serve(g_s), s	1.0	20.7	3.6	11.8	2.4	2.4	5.6	0.0	12.6	1.6	0.0	1.2
Cycle Q Clear(g_c), s	1.0	20.7	3.6	11.8	2.4	2.4	6.8	0.0	12.6	14.1	0.0	1.2
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.96	1.00		0.14
Lane Grp Cap(c), veh/h	37	1066	493	1085	1625	1689	517	0	530	292	0	606
V/C Ratio(X)	0.51	0.80	0.18	0.41	0.27	0.27	0.22	0.00	0.52	0.08	0.00	0.06
Avail Cap(c_a), veh/h	99	1066	493	1085	1625	1689	517	0	530	292	0	606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.6	28.5	22.6	9.1	0.4	0.4	22.7	0.0	24.2	29.9	0.0	20.4
Incr Delay (d2), s/veh	4.0	6.5	0.8	0.1	0.4	0.4	1.0	0.0	3.6	0.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	10.7	1.7	5.7	1.3	1.3	2.3	0.0	6.1	0.5	0.0	0.6
LnGrp Delay(d),s/veh	47.6	35.0	23.4	9.2	0.8	0.8	23.7	0.0	27.8	30.4	0.0	20.6
LnGrp LOS	D	C	C	A	A	A	C		C	C		C
Approach Vol, veh/h		965			1329			391			59	
Approach Delay, s/veh		34.2			3.6			26.6			24.4	
Approach LOS		C			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	61.1	34.0		36.0	6.4	88.7		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	13.8	22.7		16.1	3.0	4.4		14.6
Green Ext Time (p_c), s	0.3	1.9		1.1	0.0	3.7		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	18.1
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	1	39	0	0	3	28	531	1	3	799	37
Future Vol, veh/h	47	1	39	0	0	3	28	531	1	3	799	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	1	42	0	0	3	30	571	1	3	859	40

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1518	1517	879	1518	1537	572	899	0	0	572	0	0
Stage 1	885	885	-	632	632	-	-	-	-	-	-	-
Stage 2	633	632	-	886	905	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	57	70	347	57	67	*644	756	-	-	*964	-	-
Stage 1	340	363	-	580	513	-	-	-	-	-	-	-
Stage 2	579	513	-	339	355	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	55	67	347	48	64	*644	756	-	-	*964	-	-
Mov Cap-2 Maneuver	55	67	-	48	64	-	-	-	-	-	-	-
Stage 1	327	362	-	557	492	-	-	-	-	-	-	-
Stage 2	553	492	-	296	354	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	130.8	10.6	0.5	0
HCM LOS	F	B		

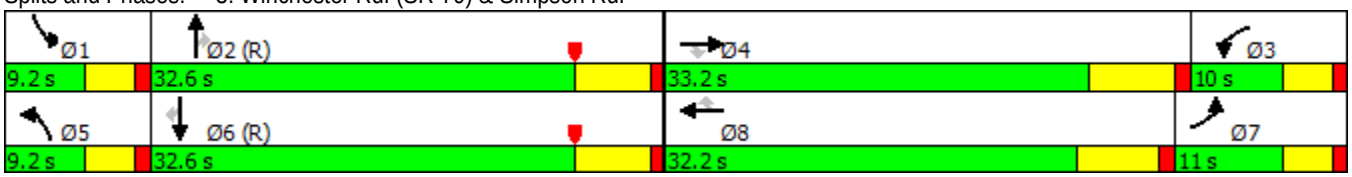
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	756	-	-	55	347	644	* 964	-	-
HCM Lane V/C Ratio	0.04	-	-	0.938	0.121	0.005	0.003	-	-
HCM Control Delay (s)	10	-	-	223.4	16.8	10.6	8.7	-	-
HCM Lane LOS	A	-	-	F	C	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	4.2	0.4	0	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	155	75	103	200	46	34	392	44	24	669	128
Future Volume (vph)	132	155	75	103	200	46	34	392	44	24	669	128
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	11.0	33.2	33.2	10.0	32.2	32.2	9.2	32.6	32.6	9.2	32.6	32.6
Total Split (%)	12.9%	39.1%	39.1%	11.8%	37.9%	37.9%	10.8%	38.4%	38.4%	10.8%	38.4%	38.4%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	11.8	15.0	15.0	12.8	16.3	16.3	5.5	36.8	36.8	5.4	34.7	34.7
Actuated g/C Ratio	0.14	0.18	0.18	0.15	0.19	0.19	0.06	0.43	0.43	0.06	0.41	0.41
v/c Ratio	0.59	0.51	0.21	0.42	0.61	0.12	0.32	0.28	0.06	0.23	0.50	0.19
Control Delay	47.8	35.9	1.9	40.9	37.7	0.6	45.9	18.3	0.2	43.2	22.3	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.8	35.9	1.9	40.9	37.7	0.6	45.9	18.3	0.2	43.2	22.3	4.2
LOS	D	D	A	D	D	A	D	B	A	D	C	A
Approach Delay		33.1			33.7			18.6			20.1	
Approach LOS		C			C			B			C	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 24.5	Intersection LOS: C
Intersection Capacity Utilization 61.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	155	75	103	200	46	34	392	44	24	669	128
Future Volume (veh/h)	132	155	75	103	200	46	34	392	44	24	669	128
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	143	168	57	112	217	33	37	426	36	26	727	94
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	257	213	178	301	253	61	1739	766	48	1714	759
Arrive On Green	0.08	0.14	0.14	0.10	0.16	0.16	0.03	0.49	0.49	0.03	0.48	0.48
Sat Flow, veh/h	1774	1863	1545	1774	1863	1564	1774	3539	1559	1774	3539	1569
Grp Volume(v), veh/h	143	168	57	112	217	33	37	426	36	26	727	94
Grp Sat Flow(s),veh/h/ln	1774	1863	1545	1774	1863	1564	1774	1770	1559	1774	1770	1569
Q Serve(g_s), s	6.8	7.3	2.3	5.2	9.4	1.3	1.7	5.9	0.6	1.2	11.3	1.7
Cycle Q Clear(g_c), s	6.8	7.3	2.3	5.2	9.4	1.3	1.7	5.9	0.6	1.2	11.3	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	142	257	213	178	301	253	61	1739	766	48	1714	759
V/C Ratio(X)	1.01	0.65	0.27	0.63	0.72	0.13	0.61	0.24	0.05	0.54	0.42	0.12
Avail Cap(c_a), veh/h	142	585	485	178	570	478	104	1739	766	104	1714	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	34.7	21.7	36.7	33.8	20.6	40.5	12.5	3.7	40.8	14.2	4.6
Incr Delay (d2), s/veh	77.6	2.8	0.7	5.3	3.3	0.2	3.4	0.3	0.1	3.5	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	3.9	1.0	2.8	5.1	0.6	0.9	3.0	0.3	0.7	5.6	0.8
LnGrp Delay(d),s/veh	116.7	37.5	22.4	42.1	37.1	20.8	43.8	12.8	3.8	44.4	15.0	4.9
LnGrp LOS	F	D	C	D	D	C	D	B	A	D	B	A
Approach Vol, veh/h		368			362			499			847	
Approach Delay, s/veh		66.0			37.1			14.5			14.8	
Approach LOS		E			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	47.6	12.7	18.2	7.1	47.0	11.0	19.9
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 5	26.8	5.8	* 27	* 5	26.8	6.8	* 26
Max Q Clear Time (g_c+I1), s	3.2	7.9	7.2	9.3	3.7	13.3	8.8	11.4
Green Ext Time (p_c), s	0.0	10.0	0.0	0.8	0.0	8.0	0.0	0.9

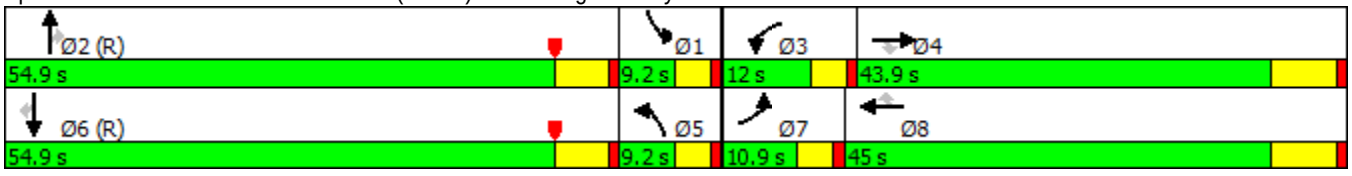
Intersection Summary	
HCM 2010 Ctrl Delay	27.7
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	147	913	77	817	902	37	46	319	658	48	586	212
Future Volume (vph)	147	913	77	817	902	37	46	319	658	48	586	212
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	10.9	43.9	43.9	12.0	45.0	45.0	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.1%	36.6%	36.6%	10.0%	37.5%	37.5%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	6.9	36.3	36.3	9.6	39.0	39.0	5.0	49.8	49.8	5.0	49.8	49.8
Actuated g/C Ratio	0.06	0.30	0.30	0.08	0.32	0.32	0.04	0.42	0.42	0.04	0.42	0.42
v/c Ratio	0.82	0.93	0.15	3.22	0.59	0.07	0.68	0.24	0.94	0.71	0.43	0.30
Control Delay	86.2	55.7	4.4	1027.4	35.9	0.2	98.8	23.5	46.2	102.7	26.3	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.2	55.7	4.4	1027.4	35.9	0.2	98.8	23.5	46.2	102.7	26.3	6.7
LOS	F	E	A	F	D	A	F	C	D	F	C	A
Approach Delay		56.1			496.6			41.5			25.7	
Approach LOS		E			F			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.22	
Intersection Signal Delay: 210.0	Intersection LOS: F
Intersection Capacity Utilization 86.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	913	77	817	902	37	46	319	658	48	586	212
Future Volume (veh/h)	147	913	77	817	902	37	46	319	658	48	586	212
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	160	992	47	888	980	28	50	347	453	52	637	131
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	1081	483	224	1599	498	79	1448	648	79	1448	648
Arrive On Green	0.06	0.31	0.31	0.07	0.31	0.31	0.04	0.41	0.41	0.04	0.41	0.41
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	160	992	47	888	980	28	50	347	453	52	637	131
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	5.5	32.5	2.0	7.8	19.6	1.2	3.3	7.7	21.3	3.5	15.6	4.9
Cycle Q Clear(g_c), s	5.5	32.5	2.0	7.8	19.6	1.2	3.3	7.7	21.3	3.5	15.6	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	1081	483	224	1599	498	79	1448	648	79	1448	648
V/C Ratio(X)	0.83	0.92	0.10	3.97	0.61	0.06	0.63	0.24	0.70	0.66	0.44	0.20
Avail Cap(c_a), veh/h	192	1091	488	224	1615	503	79	1448	648	79	1448	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	56.1	40.2	19.2	56.1	34.9	18.4	56.3	23.2	16.5	56.4	25.5	13.3
Incr Delay (d2), s/veh	24.4	12.1	0.1	1346.9	0.7	0.0	11.6	0.4	6.2	12.9	0.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	17.7	0.9	45.5	9.3	0.5	1.9	3.8	10.3	2.0	7.8	2.2
LnGrp Delay(d),s/veh	80.5	52.3	19.3	1403.0	35.6	18.4	68.0	23.6	22.6	69.4	26.4	14.0
LnGrp LOS	F	D	B	F	D	B	E	C	C	E	C	B
Approach Vol, veh/h		1199			1896			850			820	
Approach Delay, s/veh		54.8			675.8			25.7			27.1	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	54.9	12.0	43.5	9.6	54.9	10.9	44.6
Change Period (Y+Rc), s	4.2	* 5.8	* 4.2	6.9	4.2	* 5.8	* 4.2	6.9
Max Green Setting (Gmax), s	5.0	* 49	* 7.8	37.0	5.0	* 49	* 6.7	38.1
Max Q Clear Time (g_c+I1), s	5.5	23.3	9.8	34.5	5.3	17.6	7.5	21.6
Green Ext Time (p_c), s	0.0	5.9	0.0	2.2	0.0	7.0	0.0	10.9

Intersection Summary	
HCM 2010 Ctrl Delay	291.9
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1644	0	0	1793	1	0	0	0	0	0	1
Future Vol, veh/h	0	1644	0	0	1793	1	0	0	0	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1827	0	0	1992	1	0	0	0	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	913	-	-	997
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*439	0	0	243
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*439	-	-	243
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	19.9
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	243
HCM Lane V/C Ratio	-	-	-	-	-	0.005
HCM Control Delay (s)	0	-	-	-	-	19.9
HCM Lane LOS	A	-	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	95	0	3	3	5	111
Future Vol, veh/h	95	0	3	3	5	111
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	0	4	4	6	135

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	17	6	6	0	-	0
Stage 1	6	-	-	-	-	-
Stage 2	11	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1001	1077	1615	-	-	-
Stage 1	1017	-	-	-	-	-
Stage 2	1012	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	999	1077	1615	-	-	-
Mov Cap-2 Maneuver	999	-	-	-	-	-
Stage 1	1017	-	-	-	-	-
Stage 2	1010	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	3.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1615	-	999	-	-
HCM Lane V/C Ratio	0.002	-	0.116	-	-
HCM Control Delay (s)	7.2	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	183	0	0	219	1	2	1	0	2	1	5
Future Vol, veh/h	2	183	0	0	219	1	2	1	0	2	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	201	0	0	241	1	2	1	0	2	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	242	0	0	201	0	0	450	447	201	447	446	241
Stage 1	-	-	-	-	-	-	205	205	-	241	241	-
Stage 2	-	-	-	-	-	-	245	242	-	206	205	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1324	-	-	1371	-	-	519	506	840	522	507	798
Stage 1	-	-	-	-	-	-	797	732	-	762	706	-
Stage 2	-	-	-	-	-	-	759	705	-	796	732	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1324	-	-	1371	-	-	514	505	840	520	506	798
Mov Cap-2 Maneuver	-	-	-	-	-	-	514	505	-	520	506	-
Stage 1	-	-	-	-	-	-	795	731	-	760	706	-
Stage 2	-	-	-	-	-	-	753	705	-	793	731	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	12.1	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	511	1324	-	-	1371	-	-	662
HCM Lane V/C Ratio	0.006	0.002	-	-	-	-	-	0.013
HCM Control Delay (s)	12.1	7.7	0	-	0	-	-	10.5
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Intersection Delay, s/veh	284.7
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	29	36	23	0	250	17	111	0	19	699	226
Future Vol, veh/h	0	29	36	23	0	250	17	111	0	19	699	226
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	31	38	24	0	266	18	118	0	20	744	240
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	19.4	48.1	468.2
HCM LOS	C	E	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	33%	66%	10%
Vol Thru, %	74%	41%	4%	89%
Vol Right, %	24%	26%	29%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	944	88	378	616
LT Vol	19	29	250	59
Through Vol	699	36	17	549
RT Vol	226	23	111	8
Lane Flow Rate	1004	94	402	655
Geometry Grp	1	1	1	1
Degree of Util (X)	1.983	0.237	0.847	1.321
Departure Headway (Hd)	7.756	12.554	9.69	8.905
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	482	288	378	413
Service Time	5.756	10.554	7.69	6.905
HCM Lane V/C Ratio	2.083	0.326	1.063	1.586
HCM Control Delay	468.2	19.4	48.1	186.6
HCM Lane LOS	F	C	E	F
HCM 95th-tile Q	62.6	0.9	7.9	24.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	59	549	8
Future Vol, veh/h	0	59	549	8
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	63	584	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	186.6
HCM LOS	F

Intersection	
Intersection Delay, s/veh	454.9
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	243	239	24	0	185	377	148	0	12	553	105	0	152	510	161
Future Vol, veh/h	0	243	239	24	0	185	377	148	0	12	553	105	0	152	510	161
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	259	254	26	0	197	401	157	0	13	588	112	0	162	543	171
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0

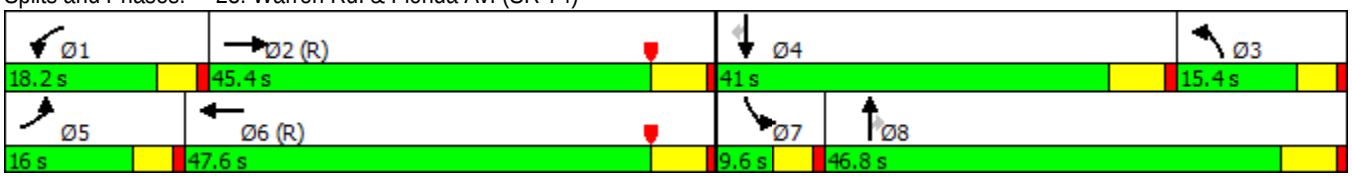
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	279	504.8	292.9	652
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	0%	48%	26%	18%
Vol Thru, %	98%	0%	47%	53%	62%
Vol Right, %	0%	100%	5%	21%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	565	105	506	710	823
LT Vol	12	0	243	185	152
Through Vol	553	0	239	377	510
RT Vol	0	105	24	148	161
Lane Flow Rate	601	112	538	755	876
Geometry Grp	7	7	2	2	5
Degree of Util (X)	1.627	0.28	1.45	2.005	2.346
Departure Headway (Hd)	17.631	16.869	20.656	17.324	16.237
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	210	216	183	219	236
Service Time	15.331	14.569	18.656	15.324	14.237
HCM Lane V/C Ratio	2.862	0.519	2.94	3.447	3.712
HCM Control Delay	342.5	26	279	504.8	652
HCM Lane LOS	F	D	F	F	F
HCM 95th-tile Q	21.7	1.1	15.8	31.1	42

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	179	1070	344	904	206	477	228	100	455	185
Future Volume (vph)	179	1070	344	904	206	477	228	100	455	185
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	16.0	45.4	18.2	47.6	15.4	46.8	46.8	9.6	41.0	41.0
Total Split (%)	13.3%	37.8%	15.2%	39.7%	12.8%	39.0%	39.0%	8.0%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	11.4	39.4	13.6	41.6	10.8	40.8	40.8	5.0	35.0	35.0
Actuated g/C Ratio	0.10	0.33	0.11	0.35	0.09	0.34	0.34	0.04	0.29	0.29
v/c Ratio	1.09	1.16	1.75	0.79	1.32	0.40	0.34	1.40	0.45	0.32
Control Delay	145.8	116.7	391.5	40.8	223.8	31.6	5.0	284.4	36.3	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	145.8	116.7	391.5	40.8	223.8	31.6	5.0	284.4	36.3	6.1
LOS	F	F	F	D	F	C	A	F	D	A
Approach Delay		120.2		134.4		68.3			62.3	
Approach LOS		F		F		E			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 18.2 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.75	
Intersection Signal Delay: 103.9	Intersection LOS: F
Intersection Capacity Utilization 114.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	1070	227	344	904	41	206	477	228	100	455	185
Future Volume (veh/h)	179	1070	227	344	904	41	206	477	228	100	455	185
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	183	1092	169	351	922	38	210	487	188	102	464	125
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	2193	339	201	2535	104	160	1245	556	74	1032	460
Arrive On Green	0.09	0.71	0.71	0.11	0.73	0.73	0.09	0.35	0.35	0.04	0.29	0.29
Sat Flow, veh/h	1774	3074	475	1774	3464	143	1774	3539	1581	1774	3539	1578
Grp Volume(v), veh/h	183	628	633	351	471	489	210	487	188	102	464	125
Grp Sat Flow(s),veh/h/ln	1774	1770	1779	1774	1770	1837	1774	1770	1581	1774	1770	1578
Q Serve(g_s), s	11.4	18.9	19.0	13.6	11.7	11.7	10.8	12.4	10.5	5.0	12.8	9.5
Cycle Q Clear(g_c), s	11.4	18.9	19.0	13.6	11.7	11.7	10.8	12.4	10.5	5.0	12.8	9.5
Prop In Lane	1.00		0.27	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	1262	1269	201	1295	1344	160	1245	556	74	1032	460
V/C Ratio(X)	1.09	0.50	0.50	1.75	0.36	0.36	1.32	0.39	0.34	1.38	0.45	0.27
Avail Cap(c_a), veh/h	169	1262	1269	201	1295	1344	160	1245	556	74	1032	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.3	7.6	7.7	53.2	5.9	5.9	54.6	29.2	28.6	57.5	34.6	55.4
Incr Delay (d2), s/veh	94.1	1.4	1.4	355.4	0.8	0.8	179.1	0.9	1.6	235.2	1.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	9.6	9.6	26.5	5.9	6.1	13.2	6.2	4.8	7.3	6.5	4.3
LnGrp Delay(d),s/veh	148.4	9.0	9.1	408.6	6.7	6.7	233.7	30.2	30.3	292.7	36.1	56.8
LnGrp LOS	F	A	A	F	A	A	F	C	C	F	D	E
Approach Vol, veh/h		1444			1311			885			691	
Approach Delay, s/veh		26.7			114.3			78.5			77.7	
Approach LOS		C			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.2	93.0	16.8	41.0	16.0	95.2	9.6	48.2
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	13.6	39.4	10.8	* 35	11.4	41.6	5.0	40.8
Max Q Clear Time (g_c+I1), s	15.6	21.0	12.8	14.8	13.4	13.7	7.0	14.4
Green Ext Time (p_c), s	0.0	8.5	0.0	1.7	0.0	10.0	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	71.9
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	60	845	101	248	733
Future Vol, veh/h	14	60	845	101	248	733
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	64	899	107	264	780

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2207	900	0	0	900	0
Stage 1	900	-	-	-	-	-
Stage 2	1307	-	-	-	-	-
Critical Hdwy	7.12	6.22	-	-	4.12	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	32	337	-	-	755	-
Stage 1	333	-	-	-	-	-
Stage 2	196	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	23	337	-	-	755	-
Mov Cap-2 Maneuver	113	-	-	-	-	-
Stage 1	333	-	-	-	-	-
Stage 2	127	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.5	0	3.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	245	755	-
HCM Lane V/C Ratio	-	-	0.321	0.349	-
HCM Control Delay (s)	-	-	26.5	12.3	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	1.3	1.6	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	53	967	3	22	751
Future Vol, veh/h	0	53	967	3	22	751
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	55	997	3	23	774

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1818	998	0	0	1000	0
Stage 1	998	-	-	-	-	-
Stage 2	820	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	86	296	-	-	692	-
Stage 1	357	-	-	-	-	-
Stage 2	433	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	83	296	-	-	692	-
Mov Cap-2 Maneuver	269	-	-	-	-	-
Stage 1	357	-	-	-	-	-
Stage 2	419	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.9	0	0.3
HCM LOS	C		

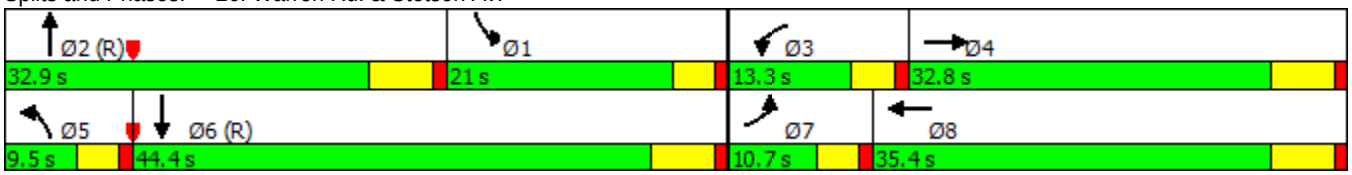
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	296	692	-
HCM Lane V/C Ratio	-	-	0.185	0.033	-
HCM Control Delay (s)	-	-	19.9	10.4	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	64	99	103	91	5	631	217	510
Future Volume (vph)	64	99	103	91	5	631	217	510
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	32.8	9.5	32.8
Total Split (s)	10.7	32.8	13.3	35.4	9.5	32.9	21.0	44.4
Total Split (%)	10.7%	32.8%	13.3%	35.4%	9.5%	32.9%	21.0%	44.4%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.2	18.2	8.5	22.4	5.1	36.5	16.8	55.6
Actuated g/C Ratio	0.06	0.18	0.08	0.22	0.05	0.36	0.17	0.56
v/c Ratio	0.61	0.35	0.71	0.79	0.06	0.60	0.76	0.29
Control Delay	69.5	34.4	70.2	33.0	46.6	29.3	57.5	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.5	34.4	70.2	33.0	46.6	29.3	57.5	14.1
LOS	E	C	E	C	D	C	E	B
Approach Delay		47.1		41.1		29.4		26.4
Approach LOS		D		D		C		C

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 32.4 — Intersection LOS: C
Intersection Capacity Utilization 75.6% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	99	14	103	91	279	5	631	106	217	510	39
Future Volume (veh/h)	64	99	14	103	91	279	5	631	106	217	510	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	67	103	15	107	95	291	5	657	110	226	531	41
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	86	370	54	134	105	322	12	823	138	364	1617	125
Arrive On Green	0.05	0.23	0.23	0.08	0.26	0.26	0.01	0.27	0.27	0.20	0.49	0.49
Sat Flow, veh/h	1774	1590	232	1774	405	1239	1774	3035	508	1774	3330	257
Grp Volume(v), veh/h	67	0	118	107	0	386	5	383	384	226	282	290
Grp Sat Flow(s),veh/h/ln	1774	0	1822	1774	0	1644	1774	1770	1773	1774	1770	1817
Q Serve(g_s), s	3.7	0.0	5.3	5.9	0.0	22.7	0.3	20.1	20.2	11.6	9.7	9.8
Cycle Q Clear(g_c), s	3.7	0.0	5.3	5.9	0.0	22.7	0.3	20.1	20.2	11.6	9.7	9.8
Prop In Lane	1.00		0.13	1.00		0.75	1.00		0.29	1.00		0.14
Lane Grp Cap(c), veh/h	86	0	424	134	0	427	12	480	481	364	859	882
V/C Ratio(X)	0.78	0.00	0.28	0.80	0.00	0.90	0.43	0.80	0.80	0.62	0.33	0.33
Avail Cap(c_a), veh/h	115	0	492	161	0	487	94	480	481	364	859	882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	0.0	31.5	45.5	0.0	35.8	49.5	33.9	33.9	36.2	15.7	15.8
Incr Delay (d2), s/veh	14.8	0.0	0.4	17.2	0.0	18.8	8.2	11.5	11.6	2.4	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	2.7	3.6	0.0	12.5	0.2	11.3	11.4	6.0	5.0	5.2
LnGrp Delay(d),s/veh	61.8	0.0	31.8	62.6	0.0	54.6	57.7	45.4	45.5	38.7	16.8	16.8
LnGrp LOS	E		C	E		D	E	D	D	D	B	B
Approach Vol, veh/h		185			493			772			798	
Approach Delay, s/veh		42.7			56.3			45.6			23.0	
Approach LOS		D			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.3	32.9	11.7	29.1	4.8	54.3	9.0	31.8
Change Period (Y+Rc), s	5.8	* 5.8	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8
Max Green Setting (Gmax), s	16.8	* 27	* 9.1	27.0	* 5.3	38.6	* 6.5	29.6
Max Q Clear Time (g_c+I1), s	13.6	22.2	7.9	7.3	2.3	11.8	5.7	24.7
Green Ext Time (p_c), s	0.4	2.4	0.0	2.7	0.0	4.5	0.0	1.2

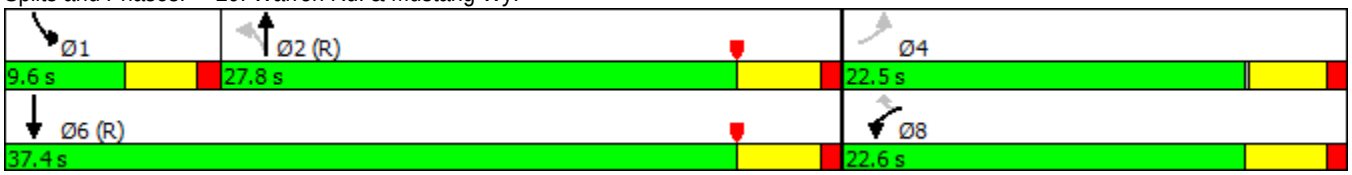
Intersection Summary	
HCM 2010 Ctrl Delay	39.7
HCM 2010 LOS	D

Notes

Lane Group	EBT	WBL	WBR	NBL	NBT	SBL	SBT	Ø4
Lane Configurations								
Traffic Volume (vph)	0	275	148	9	556	91	520	
Future Volume (vph)	0	275	148	9	556	91	520	
Turn Type		Prot	Perm	Perm	NA	Prot	NA	
Protected Phases		8			2	1	6	4
Permitted Phases			8	2				
Detector Phase		8	8	2	2	1	6	
Switch Phase								
Minimum Initial (s)		10.0	10.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)		22.5	22.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)		22.6	22.6	27.8	27.8	9.6	37.4	22.5
Total Split (%)		37.7%	37.7%	46.3%	46.3%	16.0%	62.3%	38%
Yellow Time (s)		3.6	3.6	3.7	3.7	3.2	3.7	3.5
All-Red Time (s)		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.7	4.2	4.7	
Lead/Lag				Lag	Lag	Lead		
Lead-Lag Optimize?				Yes	Yes	Yes		
Recall Mode		None	None	C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	0.0	14.8	14.8		27.3	6.2	35.9	
Actuated g/C Ratio	0.00	0.25	0.25		0.46	0.10	0.60	
v/c Ratio	0.39	0.70	0.32		0.96	0.55	0.53	
Control Delay	0.0	29.2	5.1		45.8	40.3	10.1	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	0.0	29.2	5.1		45.8	40.3	10.1	
LOS	A	C	A		D	D	B	
Approach Delay					45.8		14.5	
Approach LOS					D		B	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 27.7	Intersection LOS: C
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	0	28	275	0	148	9	556	155	91	520	13
Future Volume (veh/h)	39	0	28	275	0	148	9	556	155	91	520	13
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h				306	0	117	10	618	158	101	578	14
Adj No. of Lanes				1	0	1	0	1	0	1	1	0
Peak Hour Factor				0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	2
Cap, veh/h				374	0	333	64	700	177	129	1149	28
Arrive On Green				0.21	0.00	0.21	0.49	0.49	0.49	0.07	0.63	0.63
Sat Flow, veh/h				1774	0	1583	7	1423	360	1774	1811	44
Grp Volume(v), veh/h				306	0	117	786	0	0	101	0	592
Grp Sat Flow(s),veh/h/ln				1774	0	1583	1790	0	0	1774	0	1855
Q Serve(g_s), s				9.9	0.0	3.8	3.4	0.0	0.0	3.4	0.0	10.3
Cycle Q Clear(g_c), s				9.9	0.0	3.8	23.8	0.0	0.0	3.4	0.0	10.3
Prop In Lane				1.00		1.00	0.01		0.20	1.00		0.02
Lane Grp Cap(c), veh/h				374	0	333	941	0	0	129	0	1177
V/C Ratio(X)				0.82	0.00	0.35	0.84	0.00	0.00	0.78	0.00	0.50
Avail Cap(c_a), veh/h				532	0	475	941	0	0	160	0	1177
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh				22.6	0.0	20.2	13.8	0.0	0.0	27.4	0.0	5.9
Incr Delay (d2), s/veh				6.7	0.0	0.6	8.7	0.0	0.0	14.2	0.0	1.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.5	0.0	1.7	13.8	0.0	0.0	2.2	0.0	5.6
LnGrp Delay(d),s/veh				29.3	0.0	20.8	22.4	0.0	0.0	41.6	0.0	7.4
LnGrp LOS				C		C	C			D		A
Approach Vol, veh/h					423			786			693	
Approach Delay, s/veh					27.0			22.4			12.4	
Approach LOS					C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.6	34.2				42.8		17.2
Change Period (Y+Rc), s	* 4.2	* 4.7				* 4.7		4.6
Max Green Setting (Gmax), s	* 5.4	* 23				* 33		18.0
Max Q Clear Time (g_c+I1), s	5.4	25.8				12.3		11.9
Green Ext Time (p_c), s	0.0	0.0				13.2		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	19.8
HCM 2010 LOS	B

Notes

Intersection	
Intersection Delay, s/veh	118.9
Intersection LOS	F

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	188	32	0	592	224	0	44	513
Future Vol, veh/h	0	188	32	0	592	224	0	44	513
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	216	37	0	680	257	0	51	590
Number of Lanes	0	1	0	0	1	1	0	1	1

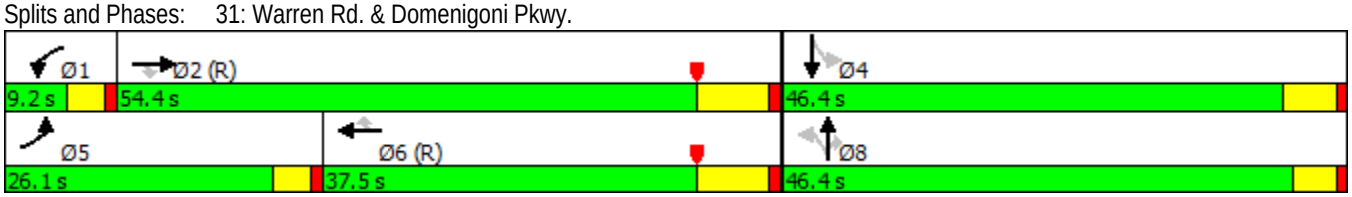
Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	19.1	170.8	82.4
HCM LOS	C	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	85%	0%	100%
Vol Right, %	0%	100%	15%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	44	513	220	592	224
LT Vol	44	0	0	592	0
Through Vol	0	0	188	0	224
RT Vol	0	513	32	0	0
Lane Flow Rate	51	590	253	680	257
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.109	1.077	0.515	1.433	0.506
Departure Headway (Hd)	8.357	7.127	7.953	7.89	7.377
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	431	513	458	470	492
Service Time	6.057	4.827	5.953	5.59	5.077
HCM Lane V/C Ratio	0.118	1.15	0.552	1.447	0.522
HCM Control Delay	12.1	88.4	19.1	228.8	17.4
HCM Lane LOS	B	F	C	F	C
HCM 95th-tile Q	0.4	16.9	2.9	32.3	2.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	464	1294	2	2	1543	89	3	14	1	103	9
Future Volume (vph)	464	1294	2	2	1543	89	3	14	1	103	9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	24.0	56.9	56.9	5.0	30.6	30.6		39.7	39.7		38.9
Actuated g/C Ratio	0.22	0.52	0.52	0.05	0.28	0.28		0.36	0.36		0.35
v/c Ratio	1.32	0.78	0.00	0.03	1.72	0.19		0.03	0.00		0.97
Control Delay	199.2	26.4	0.0	51.0	357.9	6.0		21.7	0.0		50.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	199.2	26.4	0.0	51.0	357.9	6.0		21.7	0.0		50.7
LOS	F	C	A	D	F	A		C	A		D
Approach Delay		72.0			338.3			20.5			50.7
Approach LOS		E			F			C			D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.72	
Intersection Signal Delay: 176.4	Intersection LOS: F
Intersection Capacity Utilization 126.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	1294	2	2	1543	89	3	14	1	103	9	510
Future Volume (veh/h)	464	1294	2	2	1543	89	3	14	1	103	9	510
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	510	1422	2	2	1696	88	3	15	0	113	10	415
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	1721	754	5	1026	449	96	455	572	145	23	433
Arrive On Green	0.20	0.49	0.49	0.00	0.29	0.29	0.36	0.36	0.00	0.36	0.36	0.36
Sat Flow, veh/h	1774	3539	1550	1774	3539	1550	161	1259	1583	291	64	1198
Grp Volume(v), veh/h	510	1422	2	2	1696	88	18	0	0	538	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1550	1420	0	1583	1553	0	0
Q Serve(g_s), s	21.9	38.0	0.1	0.1	31.9	4.7	0.0	0.0	0.0	33.1	0.0	0.0
Cycle Q Clear(g_c), s	21.9	38.0	0.1	0.1	31.9	4.7	0.7	0.0	0.0	37.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.17		1.00	0.21		0.77
Lane Grp Cap(c), veh/h	353	1721	754	5	1026	449	551	0	572	600	0	0
V/C Ratio(X)	1.44	0.83	0.00	0.42	1.65	0.20	0.03	0.00	0.00	0.90	0.00	0.00
Avail Cap(c_a), veh/h	353	1721	754	81	1026	449	581	0	602	618	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	24.3	14.5	54.8	39.1	29.4	22.7	0.0	0.0	34.2	0.0	0.0
Incr Delay (d2), s/veh	215.2	4.7	0.0	20.2	298.3	1.0	0.0	0.0	0.0	14.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	31.8	19.5	0.0	0.1	58.0	2.1	0.4	0.0	0.0	18.3	0.0	0.0
LnGrp Delay(d),s/veh	259.2	29.0	14.5	74.9	337.4	30.4	22.7	0.0	0.0	49.2	0.0	0.0
LnGrp LOS	F	C	B	E	F	C	C			D		
Approach Vol, veh/h		1934			1786			18			538	
Approach Delay, s/veh		89.7			321.9			22.7			49.2	
Approach LOS		F			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	60.4		45.1	26.1	38.8		45.1
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.1	40.0		39.2	23.9	33.9		2.7
Green Ext Time (p_c), s	0.0	6.5		0.5	0.0	0.0		2.6

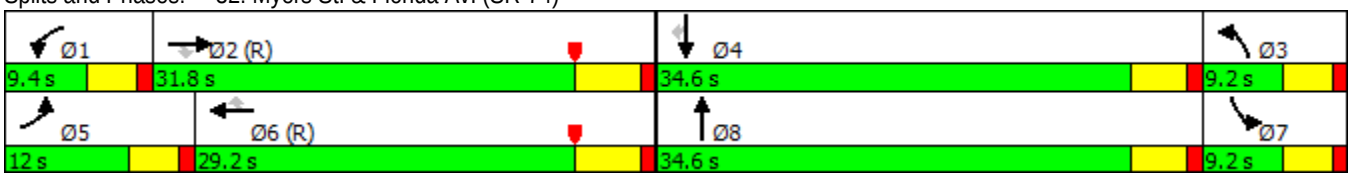
Intersection Summary		
HCM 2010 Ctrl Delay		181.3
HCM 2010 LOS		F

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	151	1147	5	17	961	144	24	69	147	52	190
Future Volume (vph)	151	1147	5	17	961	144	24	69	147	52	190
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.0	31.8	31.8	9.4	29.2	29.2	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.1%	37.4%	37.4%	11.1%	34.4%	34.4%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.8	32.3	32.3	5.1	24.1	24.1	5.0	30.0	5.0	35.5	35.5
Actuated g/C Ratio	0.09	0.38	0.38	0.06	0.28	0.28	0.06	0.35	0.06	0.42	0.42
v/c Ratio	0.95	0.87	0.01	0.16	0.98	0.27	0.23	0.17	1.44	0.07	0.25
Control Delay	100.5	34.9	0.0	52.8	25.3	1.2	43.8	13.5	277.9	17.1	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.5	34.9	0.0	52.8	25.3	1.2	43.8	13.5	277.9	17.1	4.0
LOS	F	C	A	D	C	A	D	B	F	B	A
Approach Delay		42.3			22.7			18.9		109.2	
Approach LOS		D			C			B		F	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.44	
Intersection Signal Delay: 42.6	Intersection LOS: D
Intersection Capacity Utilization 62.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	1147	5	17	961	144	24	69	41	147	52	190
Future Volume (veh/h)	151	1147	5	17	961	144	24	69	41	147	52	190
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	154	1170	5	17	981	147	24	70	18	150	53	139
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	1259	552	35	1003	447	104	505	130	104	657	559
Arrive On Green	0.09	0.36	0.36	0.04	0.57	0.57	0.06	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	1774	3539	1550	1774	3539	1575	1774	1430	368	1774	1863	1583
Grp Volume(v), veh/h	154	1170	5	17	981	147	24	0	88	150	53	139
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1575	1774	0	1798	1774	1863	1583
Q Serve(g_s), s	7.3	27.0	0.1	0.8	22.9	3.2	1.1	0.0	2.8	5.0	1.6	3.7
Cycle Q Clear(g_c), s	7.3	27.0	0.1	0.8	22.9	3.2	1.1	0.0	2.8	5.0	1.6	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	163	1259	552	35	1003	447	104	0	635	104	657	559
V/C Ratio(X)	0.95	0.93	0.01	0.49	0.98	0.33	0.23	0.00	0.14	1.44	0.08	0.25
Avail Cap(c_a), veh/h	163	1259	552	109	1003	447	104	0	635	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	26.3	9.7	40.4	18.1	8.3	38.2	0.0	18.7	40.0	18.3	9.5
Incr Delay (d2), s/veh	54.1	13.2	0.0	4.0	23.5	2.0	0.4	0.0	0.5	242.8	0.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	15.5	0.1	0.4	14.0	1.6	0.6	0.0	1.5	9.5	0.9	1.8
LnGrp Delay(d),s/veh	92.5	39.6	9.7	44.4	41.6	10.2	38.6	0.0	19.2	282.8	18.6	10.6
LnGrp LOS	F	D	A	D	D	B	D		B	F	B	B
Approach Vol, veh/h		1329			1145			112			342	
Approach Delay, s/veh		45.6			37.6			23.3			131.2	
Approach LOS		D			D			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	35.3	9.2	34.6	12.0	29.2	9.2	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.2	26.7	5.0	* 30	* 7.8	24.1	5.0	* 30
Max Q Clear Time (g_c+I1), s	2.8	29.0	3.1	5.7	9.3	24.9	7.0	4.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	51.6
HCM 2010 LOS	D

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1136	312	0	1279	0	0
Future Vol, veh/h	1136	312	0	1279	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1209	332	0	1361	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1209	0	-	604
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*902	-	0	*603
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*902	-	-	*603
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	* 902	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

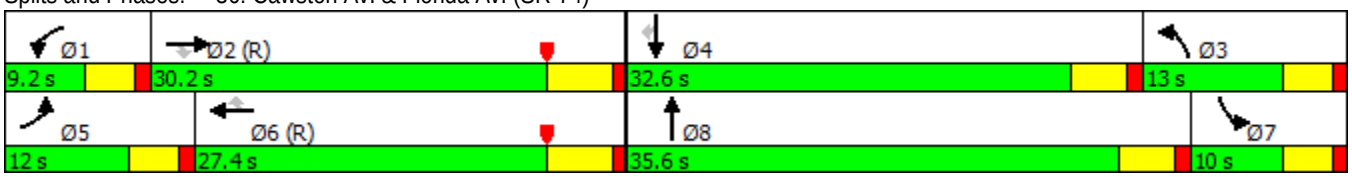
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	114	1014	9	31	1036	89	125	66	188	79	118
Future Volume (vph)	114	1014	9	31	1036	89	125	66	188	79	118
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	12.0	30.2	30.2	9.2	27.4	27.4	13.0	35.6	10.0	32.6	32.6
Total Split (%)	14.1%	35.5%	35.5%	10.8%	32.2%	32.2%	15.3%	41.9%	11.8%	38.4%	38.4%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.5	28.8	28.8	5.0	22.6	22.6	8.8	31.0	5.8	28.0	28.0
Actuated g/C Ratio	0.09	0.34	0.34	0.06	0.27	0.27	0.10	0.36	0.07	0.33	0.33
v/c Ratio	0.76	0.87	0.01	0.31	1.14	0.18	0.70	0.07	1.62	0.13	0.20
Control Delay	68.2	29.5	0.0	45.8	90.9	3.6	59.0	13.7	342.2	20.8	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	29.5	0.0	45.8	90.9	3.6	59.0	13.7	342.2	20.8	4.1
LOS	E	C	A	D	F	A	E	B	F	C	A
Approach Delay		33.2			83.0			40.1		172.7	
Approach LOS		C			F			D		F	

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 38 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.62
Intersection Signal Delay: 72.2 — Intersection LOS: E
Intersection Capacity Utilization 72.4% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	1014	9	31	1036	89	125	66	23	188	79	118
Future Volume (veh/h)	114	1014	9	31	1036	89	125	66	23	188	79	118
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	118	1045	8	32	1068	76	129	68	21	194	81	54
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	1143	511	55	959	429	184	982	291	121	614	522
Arrive On Green	0.11	0.43	0.43	0.03	0.27	0.27	0.10	0.36	0.36	0.07	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	2693	798	1774	1863	1583
Grp Volume(v), veh/h	118	1045	8	32	1068	76	129	44	45	194	81	54
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1721	1774	1863	1583
Q Serve(g_s), s	5.5	23.6	0.2	1.5	23.0	2.4	6.0	1.4	1.5	5.8	2.6	1.5
Cycle Q Clear(g_c), s	5.5	23.6	0.2	1.5	23.0	2.4	6.0	1.4	1.5	5.8	2.6	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.46	1.00		1.00
Lane Grp Cap(c), veh/h	147	1143	511	55	959	429	184	645	628	121	614	522
V/C Ratio(X)	0.80	0.91	0.02	0.58	1.11	0.18	0.70	0.07	0.07	1.60	0.13	0.10
Avail Cap(c_a), veh/h	163	1143	511	104	959	429	184	645	628	121	614	522
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	23.1	7.7	40.6	31.0	13.6	36.8	17.6	17.6	39.6	20.0	10.3
Incr Delay (d2), s/veh	19.9	12.7	0.1	3.5	65.3	0.9	9.8	0.2	0.2	306.2	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	13.4	0.1	0.8	19.9	1.1	3.4	0.7	0.7	13.1	1.4	0.7
LnGrp Delay(d),s/veh	57.0	35.8	7.8	44.1	96.3	14.5	46.6	17.8	17.8	345.8	20.4	10.7
LnGrp LOS	E	D	A	D	F	B	D	B	B	F	C	B
Approach Vol, veh/h		1171			1176			218			329	
Approach Delay, s/veh		37.7			89.6			34.8			210.7	
Approach LOS		D			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	32.5	13.0	32.6	11.3	28.1	10.0	35.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5	25.1	8.8	* 28	* 7.8	22.3	5.8	* 31
Max Q Clear Time (g_c+I1), s	3.5	25.6	8.0	4.6	7.5	25.0	7.8	3.5
Green Ext Time (p_c), s	0.0	0.0	0.1	0.6	0.0	0.0	0.0	0.5

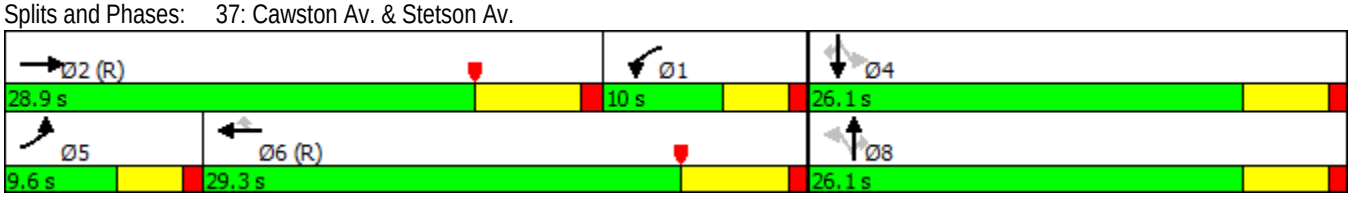
Intersection Summary	
HCM 2010 Ctrl Delay	78.3
HCM 2010 LOS	E

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	40	228	180	293	23	67	167	252	20	119	22
Future Volume (vph)	40	228	180	293	23	67	167	252	20	119	22
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.6	28.9	10.0	29.3	29.3	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.8%	44.5%	15.4%	45.1%	45.1%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.3	22.7	5.8	26.9	26.9	21.0	21.0	21.0	21.0	21.0	21.0
Actuated g/C Ratio	0.08	0.35	0.09	0.41	0.41	0.32	0.32	0.32	0.32	0.32	0.32
v/c Ratio	0.34	0.25	1.40	0.46	0.04	0.20	0.34	0.43	0.07	0.24	0.04
Control Delay	35.0	14.9	243.1	17.6	0.1	17.7	18.7	4.4	15.9	17.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	14.9	243.1	17.6	0.1	17.7	18.7	4.4	15.9	17.5	0.1
LOS	D	B	F	B	A	B	B	A	B	B	A
Approach Delay		17.7		98.8			11.2			14.9	
Approach LOS		B		F			B			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.40	
Intersection Signal Delay: 43.3	Intersection LOS: D
Intersection Capacity Utilization 49.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	228	21	180	293	23	67	167	252	20	119	22
Future Volume (veh/h)	40	228	21	180	293	23	67	167	252	20	119	22
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	49	278	24	220	357	21	82	204	168	24	145	10
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	1152	99	1527	2227	1893	437	602	512	352	602	505
Arrive On Green	0.05	0.35	0.35	0.86	1.00	1.00	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	3300	283	1774	1863	1583	1227	1863	1583	1006	1863	1563
Grp Volume(v), veh/h	49	148	154	220	357	21	82	204	168	24	145	10
Grp Sat Flow(s),veh/h/ln	1774	1770	1813	1774	1863	1583	1227	1863	1583	1006	1863	1563
Q Serve(g_s), s	1.8	3.9	3.9	1.3	0.0	0.0	3.4	5.4	5.2	1.2	3.7	0.3
Cycle Q Clear(g_c), s	1.8	3.9	3.9	1.3	0.0	0.0	7.1	5.4	5.2	6.6	3.7	0.3
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	80	618	633	1527	2227	1893	437	602	512	352	602	505
V/C Ratio(X)	0.61	0.24	0.24	0.14	0.16	0.01	0.19	0.34	0.33	0.07	0.24	0.02
Avail Cap(c_a), veh/h	147	618	633	1527	2227	1893	437	602	512	352	602	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.58	0.58	0.58	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	15.0	15.0	0.7	0.0	0.0	18.8	16.7	16.7	19.2	16.1	15.0
Incr Delay (d2), s/veh	2.6	0.9	0.8	0.0	0.1	0.0	0.9	1.5	1.7	0.4	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.0	2.1	0.6	0.1	0.0	1.3	3.0	2.5	0.4	2.1	0.1
LnGrp Delay(d),s/veh	33.1	15.9	15.9	0.7	0.1	0.0	19.7	18.2	18.4	19.6	17.1	15.1
LnGrp LOS	C	B	B	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		351			598			454			179	
Approach Delay, s/veh		18.3			0.3			18.6			17.3	
Approach LOS		B			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	62.9	28.9		26.1	7.1	84.7		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.8	* 23		21.0	* 5.4	23.1		21.0
Max Q Clear Time (g_c+I1), s	3.3	5.9		8.6	3.8	2.0		9.1
Green Ext Time (p_c), s	0.2	0.8		1.5	0.0	1.4		1.5

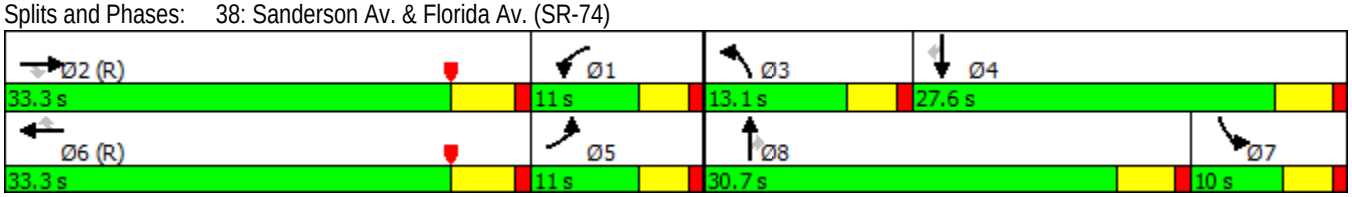
Intersection Summary	
HCM 2010 Ctrl Delay	11.5
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	228	820	102	166	691	131	328	888	168	197	745	206
Future Volume (vph)	228	820	102	166	691	131	328	888	168	197	745	206
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	11.0	33.3	33.3	11.0	33.3	33.3	13.1	30.7	30.7	10.0	27.6	27.6
Total Split (%)	12.9%	39.2%	39.2%	12.9%	39.2%	39.2%	15.4%	36.1%	36.1%	11.8%	32.5%	32.5%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	6.8	28.2	28.2	6.8	28.2	28.2	8.9	26.0	26.0	5.8	22.9	22.9
Actuated g/C Ratio	0.08	0.33	0.33	0.08	0.33	0.33	0.10	0.31	0.31	0.07	0.27	0.27
v/c Ratio	1.78	0.77	0.17	1.29	0.65	0.22	1.95	0.90	0.31	1.80	0.86	0.39
Control Delay	379.8	22.6	2.7	208.7	27.3	2.3	469.9	41.3	5.1	418.3	40.3	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	379.8	22.6	2.7	208.7	27.3	2.3	469.9	41.3	5.1	418.3	40.3	7.5
LOS	F	C	A	F	C	A	F	D	A	F	D	A
Approach Delay		91.8			54.4			138.3			99.2	
Approach LOS		F			D			F			F	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 81 (95%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.95	
Intersection Signal Delay: 99.5	Intersection LOS: F
Intersection Capacity Utilization 89.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	820	102	166	691	131	328	888	168	197	745	206
Future Volume (veh/h)	228	820	102	166	691	131	328	888	168	197	745	206
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	251	901	83	182	759	85	360	976	75	216	819	174
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	486	1174	516	486	1174	516	186	1083	469	121	974	436
Arrive On Green	0.27	0.33	0.33	0.27	0.33	0.33	0.10	0.31	0.31	0.07	0.28	0.28
Sat Flow, veh/h	1774	3539	1556	1774	3539	1555	1774	3539	1535	1774	3539	1583
Grp Volume(v), veh/h	251	901	83	182	759	85	360	976	75	216	819	174
Grp Sat Flow(s),veh/h/ln	1774	1770	1556	1774	1770	1555	1774	1770	1535	1774	1770	1583
Q Serve(g_s), s	10.2	19.4	3.1	7.1	15.5	3.3	8.9	22.5	3.0	5.8	18.5	5.7
Cycle Q Clear(g_c), s	10.2	19.4	3.1	7.1	15.5	3.3	8.9	22.5	3.0	5.8	18.5	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	486	1174	516	486	1174	516	186	1083	469	121	974	436
V/C Ratio(X)	0.52	0.77	0.16	0.37	0.65	0.16	1.94	0.90	0.16	1.78	0.84	0.40
Avail Cap(c_a), veh/h	486	1174	516	486	1174	516	186	1083	469	121	974	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	25.5	19.2	25.0	24.2	20.1	38.0	28.3	21.5	39.6	29.0	14.2
Incr Delay (d2), s/veh	0.4	4.8	0.7	0.2	2.8	0.7	441.3	12.0	0.7	384.0	8.7	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	10.2	1.4	3.5	8.0	1.5	27.1	12.8	1.4	15.7	10.2	2.8
LnGrp Delay(d),s/veh	26.5	30.3	19.9	25.1	26.9	20.8	479.3	40.3	22.3	423.6	37.7	16.9
LnGrp LOS	C	C	B	C	C	C	F	D	C	F	D	B
Approach Vol, veh/h		1235			1026			1411			1209	
Approach Delay, s/veh		28.8			26.1			151.3			103.7	
Approach LOS		C			C			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	33.3	13.1	28.1	28.0	33.3	10.5	30.7
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.7	* 4.7
Max Green Setting (Gmax), s	6.8	* 28	* 8.9	* 23	6.8	* 28	* 5.8	* 26
Max Q Clear Time (g_c+I1), s	9.1	21.4	10.9	20.5	12.2	17.5	7.8	24.5
Green Ext Time (p_c), s	0.0	4.1	0.0	1.5	0.0	5.1	0.0	1.0

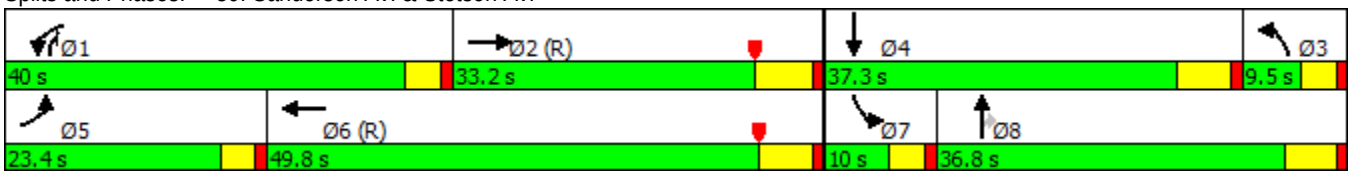
Intersection Summary	
HCM 2010 Ctrl Delay	82.2
HCM 2010 LOS	F

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	163	416	536	655	42	967	689	137	980
Future Volume (vph)	163	416	536	655	42	967	689	137	980
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	23.4	33.2	40.0	49.8	9.5	36.8	40.0	10.0	37.3
Total Split (%)	19.5%	27.7%	33.3%	41.5%	7.9%	30.7%	33.3%	8.3%	31.1%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	16.2	27.0	35.8	47.0	5.2	31.0	68.4	5.8	33.4
Actuated g/C Ratio	0.14	0.22	0.30	0.39	0.04	0.26	0.57	0.05	0.28
v/c Ratio	0.80	0.65	1.18	0.75	0.64	1.23	0.88	1.87	1.34
Control Delay	73.7	46.2	137.3	34.9	91.0	151.6	31.5	464.2	194.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.7	46.2	137.3	34.9	91.0	151.6	31.5	464.2	194.3
LOS	E	D	F	C	F	F	C	F	F
Approach Delay		53.6		73.6		101.3			223.7
Approach LOS		D		E		F			F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 77.8 (65%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.87	
Intersection Signal Delay: 118.5	Intersection LOS: F
Intersection Capacity Utilization 104.9%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	416	25	536	655	226	42	967	689	137	980	140
Future Volume (veh/h)	163	416	25	536	655	226	42	967	689	137	980	140
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	190	484	28	623	762	246	49	1124	421	159	1140	157
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	217	1281	74	529	1456	470	63	931	873	86	821	113
Arrive On Green	0.12	0.38	0.38	0.30	0.55	0.55	0.04	0.26	0.26	0.05	0.26	0.26
Sat Flow, veh/h	1774	3394	196	1774	2633	850	1774	3539	1522	1774	3127	429
Grp Volume(v), veh/h	190	252	260	623	512	496	49	1124	421	159	644	653
Grp Sat Flow(s),veh/h/ln	1774	1770	1820	1774	1770	1713	1774	1770	1522	1774	1770	1786
Q Serve(g_s), s	12.6	12.4	12.5	35.8	21.8	21.8	3.3	31.6	20.1	5.8	31.5	31.5
Cycle Q Clear(g_c), s	12.6	12.4	12.5	35.8	21.8	21.8	3.3	31.6	20.1	5.8	31.5	31.5
Prop In Lane	1.00		0.11	1.00		0.50	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	217	668	687	529	979	948	63	931	873	86	465	469
V/C Ratio(X)	0.87	0.38	0.38	1.18	0.52	0.52	0.78	1.21	0.48	1.85	1.39	1.39
Avail Cap(c_a), veh/h	284	668	687	529	979	948	78	931	873	86	465	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	27.1	27.1	42.1	16.9	16.9	57.4	44.2	16.0	57.1	44.3	44.3
Incr Delay (d2), s/veh	16.6	1.5	1.5	98.1	2.0	2.1	25.1	103.7	1.9	425.6	186.8	189.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	6.4	6.6	31.9	11.2	10.9	2.1	28.8	8.8	13.0	39.5	40.2
LnGrp Delay(d),s/veh	68.4	28.7	28.7	140.2	18.9	18.9	82.5	147.9	17.9	482.7	231.0	233.6
LnGrp LOS	E	C	C	F	B	B	F	F	B	F	F	F
Approach Vol, veh/h		702			1631			1594			1456	
Approach Delay, s/veh		39.4			65.2			111.5			259.7	
Approach LOS		D			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.0	52.0	10.1	37.3	18.9	73.1	10.0	37.4
Change Period (Y+Rc), s	* 4.2	6.2	5.8	* 5.8	* 4.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 36	27.0	5.3	* 32	* 19	* 44	* 5.8	31.0
Max Q Clear Time (g_c+I1), s	37.8	14.5	5.3	33.5	14.6	23.8	7.8	33.6
Green Ext Time (p_c), s	0.0	6.9	0.0	0.0	0.1	9.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	128.2
HCM 2010 LOS	F

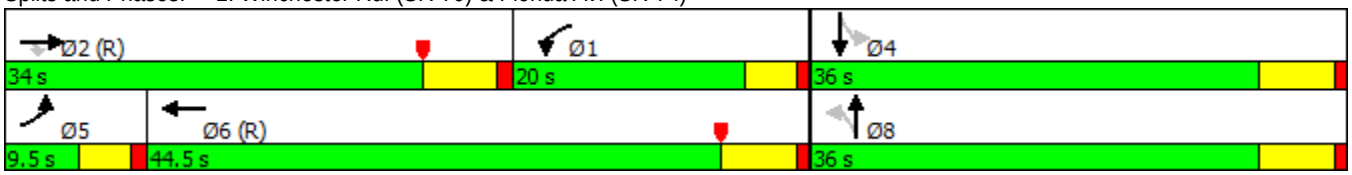
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	17	1470	127	566	1182	156	9	18	20
Future Volume (vph)	17	1470	127	566	1182	156	9	18	20
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	28.0	28.0	15.5	44.2	30.0	30.0	30.0	30.0
Actuated g/C Ratio	0.06	0.31	0.31	0.17	0.49	0.33	0.33	0.33	0.33
v/c Ratio	0.19	1.52	0.25	2.12	0.80	0.39	0.92	0.24	0.05
Control Delay	45.4	264.2	8.8	536.1	25.0	26.1	31.7	31.1	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.4	264.2	8.8	536.1	25.0	26.1	31.7	31.1	16.8
LOS	D	F	A	F	C	C	C	C	B
Approach Delay		241.9			186.6		30.6		22.4
Approach LOS		F			F		C		C

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.12
Intersection Signal Delay: 176.3 — Intersection LOS: F
Intersection Capacity Utilization 125.9% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	1470	127	566	1182	42	156	9	641	18	20	7
Future Volume (veh/h)	17	1470	127	566	1182	42	156	9	641	18	20	7
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	19	1670	97	643	1343	42	177	10	520	20	23	3
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	1101	493	1281	3605	113	524	10	519	80	538	70
Arrive On Green	0.02	0.31	0.31	0.72	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3504	109	1373	30	1558	870	1614	211
Grp Volume(v), veh/h	19	1670	97	643	678	707	177	0	530	20	0	26
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1843	1373	0	1588	870	0	1824
Q Serve(g_s), s	1.0	28.0	4.0	14.2	0.0	0.0	9.0	0.0	30.0	0.0	0.0	0.9
Cycle Q Clear(g_c), s	1.0	28.0	4.0	14.2	0.0	0.0	9.9	0.0	30.0	30.0	0.0	0.9
Prop In Lane	1.00		1.00	1.00		0.06	1.00		0.98	1.00		0.12
Lane Grp Cap(c), veh/h	37	1101	493	1281	1821	1897	524	0	529	80	0	608
V/C Ratio(X)	0.51	1.52	0.20	0.50	0.37	0.37	0.34	0.00	1.00	0.25	0.00	0.04
Avail Cap(c_a), veh/h	99	1101	493	1281	1821	1897	524	0	529	80	0	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.6	31.0	22.7	5.4	0.0	0.0	23.6	0.0	30.0	45.0	0.0	20.3
Incr Delay (d2), s/veh	4.0	237.2	0.9	0.1	0.6	0.6	1.7	0.0	39.5	7.3	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	49.9	1.9	6.8	0.3	0.3	3.6	0.0	18.9	0.7	0.0	0.5
LnGrp Delay(d),s/veh	47.6	268.2	23.6	5.6	0.6	0.6	25.4	0.0	69.5	52.3	0.0	20.4
LnGrp LOS	D	F	C	A	A	A	C		F	D		C
Approach Vol, veh/h		1786			2028			707			46	
Approach Delay, s/veh		252.6			2.2			58.4			34.3	
Approach LOS		F			A			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	72.5	34.0		36.0	6.4	100.1		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	16.2	30.0		32.0	3.0	2.0		32.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	7.4		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		109.1
HCM 2010 LOS		F

Notes

Intersection	
Int Delay, s/veh	107

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	1	47	2	1	3	52	849	1	3	701	52
Future Vol, veh/h	51	1	47	2	1	3	52	849	1	3	701	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	1	50	2	1	3	55	903	1	3	746	55

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1797	1796	774	1794	1822	904	802	0	0	904	0	0
Stage 1	781	781	-	1014	1014	-	-	-	-	-	-	-
Stage 2	1016	1015	-	780	808	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 9	14	398	10	12	*391	822	-	-	*586	-	-
Stage 1	388	405	-	306	278	-	-	-	-	-	-	-
Stage 2	304	277	-	388	394	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	~ 8	13	398	8	11	*391	822	-	-	*586	-	-
Mov Cap-2 Maneuver	~ 8	13	-	8	11	-	-	-	-	-	-	-
Stage 1	362	403	-	286	259	-	-	-	-	-	-	-
Stage 2	280	259	-	337	392	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 1880.7	$ 311.9	0.6	0
HCM LOS	F	F		

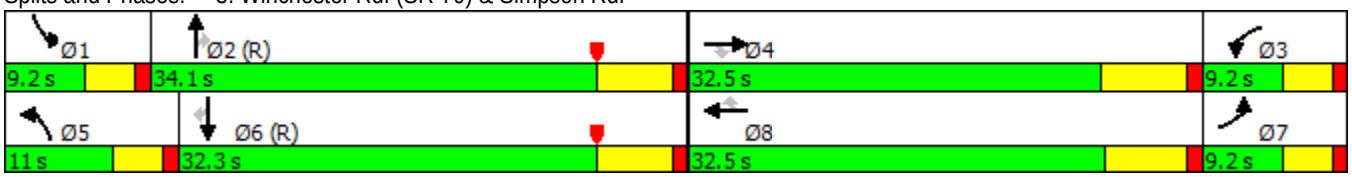
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	822	-	-	8	398	17	* 586	-	-
HCM Lane V/C Ratio	0.067	-	-	6.915	0.126	0.375	0.005	-	-
HCM Control Delay (s)	9.7	-	-	$ 3566.7	15.3	$ 311.9	11.2	-	-
HCM Lane LOS	A	-	-	F	C	F	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	8.4	0.4	1	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	201	68	68	148	44	81	814	141	35	565	129
Future Volume (vph)	77	201	68	68	148	44	81	814	141	35	565	129
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	9.2	32.5	32.5	9.2	32.5	32.5	11.0	34.1	34.1	9.2	32.3	32.3
Total Split (%)	10.8%	38.2%	38.2%	10.8%	38.2%	38.2%	12.9%	40.1%	40.1%	10.8%	38.0%	38.0%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	8.9	16.2	16.2	7.0	14.7	14.7	7.6	41.0	41.0	5.7	37.2	37.2
Actuated g/C Ratio	0.10	0.19	0.19	0.08	0.17	0.17	0.09	0.48	0.48	0.07	0.44	0.44
v/c Ratio	0.44	0.60	0.17	0.49	0.48	0.12	0.54	0.50	0.18	0.31	0.38	0.18
Control Delay	45.6	37.5	0.9	51.2	35.5	0.6	50.8	19.7	4.0	44.9	20.2	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.6	37.5	0.9	51.2	35.5	0.6	50.8	19.7	4.0	44.9	20.2	3.7
LOS	D	D	A	D	D	A	D	B	A	D	C	A
Approach Delay		32.1			33.8			20.0			18.5	
Approach LOS		C			C			B			B	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 22.8	Intersection LOS: C
Intersection Capacity Utilization 58.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	201	68	68	148	44	81	814	141	35	565	129
Future Volume (veh/h)	77	201	68	68	148	44	81	814	141	35	565	129
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	81	212	51	72	156	32	85	857	95	37	595	109
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	272	228	92	223	189	109	1855	830	61	1759	786
Arrive On Green	0.08	0.15	0.15	0.05	0.12	0.12	0.06	0.52	0.52	0.03	0.50	0.50
Sat Flow, veh/h	1774	1863	1562	1774	1863	1577	1774	3539	1583	1774	3539	1582
Grp Volume(v), veh/h	81	212	51	72	156	32	85	857	95	37	595	109
Grp Sat Flow(s),veh/h/ln	1774	1863	1562	1774	1863	1577	1774	1770	1583	1774	1770	1582
Q Serve(g_s), s	3.7	9.3	1.9	3.4	6.8	1.3	4.0	12.9	1.7	1.7	8.6	1.9
Cycle Q Clear(g_c), s	3.7	9.3	1.9	3.4	6.8	1.3	4.0	12.9	1.7	1.7	8.6	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	272	228	92	223	189	109	1855	830	61	1759	786
V/C Ratio(X)	0.56	0.78	0.22	0.78	0.70	0.17	0.78	0.46	0.11	0.61	0.34	0.14
Avail Cap(c_a), veh/h	145	570	478	104	576	488	142	1855	830	104	1759	786
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	35.0	19.5	39.8	35.9	22.7	39.3	12.7	4.2	40.5	12.9	4.2
Incr Delay (d2), s/veh	2.9	4.8	0.5	24.0	3.9	0.4	11.3	0.7	0.2	3.6	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	5.1	0.8	2.3	3.8	0.6	2.3	6.5	0.8	0.9	4.3	0.9
LnGrp Delay(d),s/veh	40.4	39.8	20.0	63.8	39.8	23.1	50.7	13.4	4.5	44.1	13.4	4.6
LnGrp LOS	D	D	C	E	D	C	D	B	A	D	B	A
Approach Vol, veh/h		344			260			1037			741	
Approach Delay, s/veh		37.0			44.4			15.6			13.7	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	50.3	8.6	18.9	9.4	48.0	11.2	16.4
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 5	28.3	5.0	* 26	* 6.8	26.5	5.0	* 26
Max Q Clear Time (g_c+I1), s	3.7	14.9	5.4	11.3	6.0	10.6	5.7	8.8
Green Ext Time (p_c), s	0.0	9.7	0.0	0.9	0.0	11.0	0.0	0.7

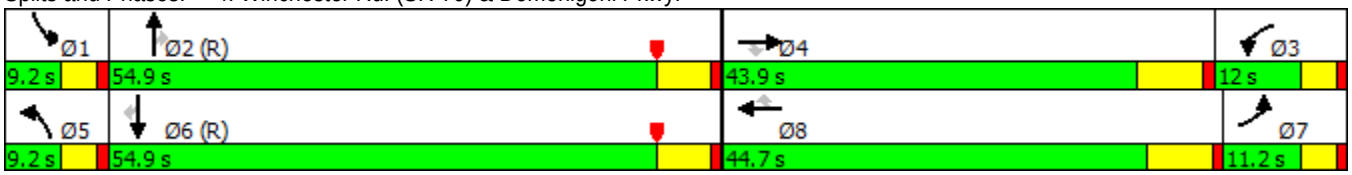
Intersection Summary	
HCM 2010 Ctrl Delay	21.2
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	258	888	79	702	947	48	91	740	1049	39	424	199
Future Volume (vph)	258	888	79	702	947	48	91	740	1049	39	424	199
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	11.2	43.9	43.9	12.0	44.7	44.7	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.3%	36.6%	36.6%	10.0%	37.3%	37.3%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.5	35.7	35.7	9.1	31.3	31.3	5.0	50.9	50.9	5.0	49.1	49.1
Actuated g/C Ratio	0.11	0.30	0.30	0.08	0.26	0.26	0.04	0.42	0.42	0.04	0.41	0.41
v/c Ratio	0.71	0.90	0.15	2.86	0.76	0.10	1.33	0.52	1.42	0.56	0.31	0.28
Control Delay	63.3	52.5	4.4	870.7	44.6	0.4	260.0	27.6	221.5	84.8	24.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.3	52.5	4.4	870.7	44.6	0.4	260.0	27.6	221.5	84.8	24.8	6.7
LOS	E	D	A	F	D	A	F	C	F	F	C	A
Approach Delay		51.7			385.2			147.0			22.8	
Approach LOS		D			F			F			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.86	
Intersection Signal Delay: 184.6	Intersection LOS: F
Intersection Capacity Utilization 107.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	888	79	702	947	48	91	740	1049	39	424	199
Future Volume (veh/h)	258	888	79	702	947	48	91	740	1049	39	424	199
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	274	945	53	747	1007	41	97	787	701	41	451	103
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	383	1034	463	224	1251	390	74	1543	690	55	1505	673
Arrive On Green	0.11	0.29	0.29	0.07	0.25	0.25	0.04	0.44	0.44	0.03	0.43	0.43
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	274	945	53	747	1007	41	97	787	701	41	451	103
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	9.2	30.9	2.4	7.8	22.3	2.0	5.0	19.4	38.6	2.8	10.1	3.2
Cycle Q Clear(g_c), s	9.2	30.9	2.4	7.8	22.3	2.0	5.0	19.4	38.6	2.8	10.1	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	383	1034	463	224	1251	390	74	1543	690	55	1505	673
V/C Ratio(X)	0.72	0.91	0.11	3.34	0.80	0.11	1.31	0.51	1.02	0.74	0.30	0.15
Avail Cap(c_a), veh/h	383	1091	488	224	1602	499	74	1543	690	74	1505	673
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	51.5	41.0	20.4	56.1	42.5	24.5	57.5	24.6	18.4	57.7	22.7	9.3
Incr Delay (d2), s/veh	5.4	11.3	0.1	1064.0	2.4	0.1	209.2	1.2	38.2	14.3	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	16.7	1.1	36.8	10.7	0.9	6.7	9.7	24.0	1.6	5.0	1.5
LnGrp Delay(d),s/veh	56.9	52.3	20.5	1120.1	44.9	24.6	266.7	25.8	56.6	72.0	23.2	9.7
LnGrp LOS	E	D	C	F	D	C	F	C	F	E	C	A
Approach Vol, veh/h		1272			1795			1585			595	
Approach Delay, s/veh		52.0			491.9			54.2			24.2	
Approach LOS		D			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	58.1	12.0	42.0	9.2	56.8	17.5	36.4
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.9	* 4.2	5.8	4.2	* 6.9
Max Green Setting (Gmax), s	* 5	49.1	7.8	* 37	* 5	49.1	7.0	* 38
Max Q Clear Time (g_c+I1), s	4.8	40.6	9.8	32.9	7.0	12.1	11.2	24.3
Green Ext Time (p_c), s	0.0	7.2	0.0	2.1	0.0	22.5	0.0	5.2

Intersection Summary		
HCM 2010 Ctrl Delay		200.0
HCM 2010 LOS		F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1971	3	0	1697	0	0	0	0	0	0	0
Future Vol, veh/h	0	1971	3	0	1697	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1991	3	0	1714	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	997	-	-	857
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*291	0	0	301
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*291	-	-	301
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	-	0
HCM Lane LOS	A	-	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	137	6	2	10	10	103
Future Vol, veh/h	137	6	2	10	10	103
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	163	7	2	12	12	123

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	29	12	12	0	-	0
Stage 1	12	-	-	-	-	-
Stage 2	17	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	986	1069	1607	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	1006	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	985	1069	1607	-	-	-
Mov Cap-2 Maneuver	985	-	-	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	1005	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1607	-	988	-	-
HCM Lane V/C Ratio	0.001	-	0.172	-	-
HCM Control Delay (s)	7.2	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	234	2	2	169	0	1	1	2	1	2	2
Future Vol, veh/h	2	234	2	2	169	0	1	1	2	1	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	266	2	2	192	0	1	1	2	1	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	192	0	0	268	0	0	471	469	267	470	470	192
Stage 1	-	-	-	-	-	-	272	272	-	197	197	-
Stage 2	-	-	-	-	-	-	199	197	-	273	273	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1381	-	-	1296	-	-	503	492	772	504	492	850
Stage 1	-	-	-	-	-	-	734	685	-	805	738	-
Stage 2	-	-	-	-	-	-	803	738	-	733	684	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1381	-	-	1296	-	-	498	490	772	500	490	850
Mov Cap-2 Maneuver	-	-	-	-	-	-	498	490	-	500	490	-
Stage 1	-	-	-	-	-	-	733	684	-	803	737	-
Stage 2	-	-	-	-	-	-	797	737	-	728	683	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	11	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	602	1381	-	-	1296	-	-	593
HCM Lane V/C Ratio	0.008	0.002	-	-	0.002	-	-	0.01
HCM Control Delay (s)	11	7.6	0	-	7.8	0	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Intersection Delay, s/veh	246.2
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	16	29	8	0	170	45	92	0	7	655	257
Future Vol, veh/h	0	16	29	8	0	170	45	92	0	7	655	257
Peak Hour Factor	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	16	29	8	0	172	45	93	0	7	662	260
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	15.9	25.6	310.4
HCM LOS	C	D	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	30%	55%	19%
Vol Thru, %	71%	55%	15%	76%
Vol Right, %	28%	15%	30%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	919	53	307	844
LT Vol	7	16	170	157
Through Vol	655	29	45	640
RT Vol	257	8	92	47
Lane Flow Rate	928	54	310	853
Geometry Grp	1	1	1	1
Degree of Util (X)	1.629	0.128	0.623	1.536
Departure Headway (Hd)	7.081	11.249	8.93	7.371
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	520	321	409	503
Service Time	5.081	9.249	6.93	5.371
HCM Lane V/C Ratio	1.785	0.168	0.758	1.696
HCM Control Delay	310.4	15.9	25.6	271.1
HCM Lane LOS	F	C	D	F
HCM 95th-tile Q	46.6	0.4	4.1	39.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	157	640	47
Future Vol, veh/h	0	157	640	47
Peak Hour Factor	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	159	646	47
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	271.1
HCM LOS	F

Intersection	
Intersection Delay, s/veh	113.3
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	228	315	25	0	133	347	76	0	36	616	192	0	96	563	159
Future Vol, veh/h	0	228	315	25	0	133	347	76	0	36	616	192	0	96	563	159
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	238	328	26	0	139	361	79	0	38	642	200	0	100	586	166
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0

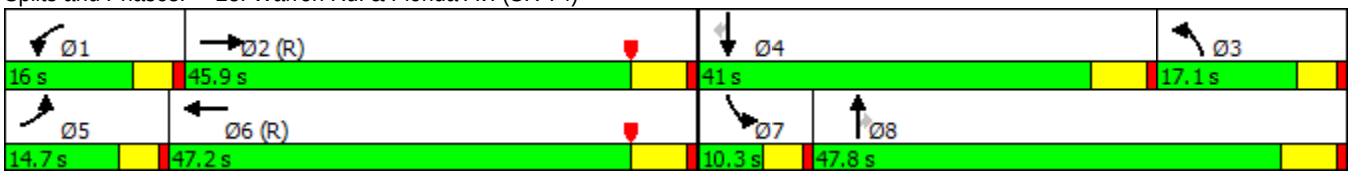
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	327.6	308.1	340.2	619.8
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	0%	40%	24%	12%
Vol Thru, %	94%	0%	55%	62%	69%
Vol Right, %	0%	100%	4%	14%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	652	192	568	556	818
LT Vol	36	0	228	133	96
Through Vol	616	0	315	347	563
RT Vol	0	192	25	76	159
Lane Flow Rate	679	200	592	579	852
Geometry Grp	7	7	2	2	5
Degree of Util (X)	1.841	0.502	1.591	1.543	2.281
Departure Headway (Hd)	16.403	15.624	17.603	17.774	14.918
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	231	234	213	208	256
Service Time	14.103	13.324	15.603	15.774	12.918
HCM Lane V/C Ratio	2.939	0.855	2.779	2.784	3.328
HCM Control Delay	430.6	33.1	327.6	308.1	619.8
HCM Lane LOS	F	D	F	F	F
HCM 95th-tile Q	28.4	2.6	20.9	19.7	43.4

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	234	1377	280	1258	250	529	398	100	388	217
Future Volume (vph)	234	1377	280	1258	250	529	398	100	388	217
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	14.7	45.9	16.0	47.2	17.1	47.8	47.8	10.3	41.0	41.0
Total Split (%)	12.3%	38.3%	13.3%	39.3%	14.3%	39.8%	39.8%	8.6%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	10.1	39.9	11.4	41.2	12.5	41.8	41.8	5.7	35.0	35.0
Actuated g/C Ratio	0.08	0.33	0.10	0.34	0.10	0.35	0.35	0.05	0.29	0.29
v/c Ratio	1.66	1.43	1.76	1.18	1.43	0.45	0.61	1.25	0.40	0.38
Control Delay	360.1	229.3	395.8	127.3	260.5	31.7	20.2	225.9	35.4	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	360.1	229.3	395.8	127.3	260.5	31.7	20.2	225.9	35.4	9.4
LOS	F	F	F	F	F	C	C	F	D	A
Approach Delay		246.2		173.3		76.4			54.4	
Approach LOS		F		F		E			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.76	
Intersection Signal Delay: 161.0	Intersection LOS: F
Intersection Capacity Utilization 102.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	1377	200	280	1258	99	250	529	398	100	388	217
Future Volume (veh/h)	234	1377	200	280	1258	99	250	529	398	100	388	217
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	246	1449	146	295	1324	98	263	557	303	105	408	160
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	2332	233	169	2434	180	185	1274	570	84	1032	462
Arrive On Green	0.08	0.72	0.72	0.09	0.73	0.73	0.10	0.36	0.36	0.05	0.29	0.29
Sat Flow, veh/h	1774	3250	325	1774	3342	247	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	246	784	811	295	699	723	263	557	303	105	408	160
Grp Sat Flow(s),veh/h/ln	1774	1770	1805	1774	1770	1819	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	10.1	27.0	27.6	11.4	21.3	21.5	12.5	14.3	18.2	5.7	11.1	12.6
Cycle Q Clear(g_c), s	10.1	27.0	27.6	11.4	21.3	21.5	12.5	14.3	18.2	5.7	11.1	12.6
Prop In Lane	1.00		0.18	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	1270	1295	169	1289	1325	185	1274	570	84	1032	462
V/C Ratio(X)	1.65	0.62	0.63	1.75	0.54	0.55	1.42	0.44	0.53	1.25	0.40	0.35
Avail Cap(c_a), veh/h	149	1270	1295	169	1289	1325	185	1274	570	84	1032	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	8.6	8.7	54.3	7.3	7.3	53.8	29.2	30.4	57.2	34.0	58.0
Incr Delay (d2), s/veh	319.4	2.3	2.3	361.0	1.6	1.6	218.9	1.1	3.5	178.0	1.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.2	13.9	14.3	22.5	10.9	11.2	17.3	7.2	8.5	7.0	5.5	5.8
LnGrp Delay(d),s/veh	374.3	10.9	11.0	415.3	9.0	9.0	272.7	30.3	33.9	235.2	35.2	60.1
LnGrp LOS	F	B	B	F	A	A	F	C	C	F	D	E
Approach Vol, veh/h		1841			1717			1123			673	
Approach Delay, s/veh		59.5			78.8			88.0			72.3	
Approach LOS		E			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	93.5	18.5	41.0	14.7	94.8	10.3	49.2
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	11.4	39.9	12.5	* 35	10.1	41.2	5.7	41.8
Max Q Clear Time (g_c+I1), s	13.4	29.6	14.5	14.6	12.1	23.5	7.7	20.2
Green Ext Time (p_c), s	0.0	8.0	0.0	1.6	0.0	12.1	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	73.3
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	58.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	76	250	950	60	116	766
Future Vol, veh/h	76	250	950	60	116	766
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	88	291	1105	70	135	891

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2265	1105	0	0	1105	0
Stage 1	1105	-	-	-	-	-
Stage 2	1160	-	-	-	-	-
Critical Hdwy	7.12	6.22	-	-	4.12	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 29	~ 256	-	-	632	-
Stage 1	256	-	-	-	-	-
Stage 2	238	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 24	~ 256	-	-	632	-
Mov Cap-2 Maneuver	143	-	-	-	-	-
Stage 1	256	-	-	-	-	-
Stage 2	187	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 396.5	0	1.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	216	632	-
HCM Lane V/C Ratio	-	-	1.755	0.213	-
HCM Control Delay (s)	-	-	$ 396.5	12.2	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	25.9	0.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	49	1015	3	35	953
Future Vol, veh/h	3	49	1015	3	35	953
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	53	1103	3	38	1036

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2217	1105	0	0	1107	0
Stage 1	1105	-	-	-	-	-
Stage 2	1112	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	48	256	-	-	631	-
Stage 1	317	-	-	-	-	-
Stage 2	315	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	45	256	-	-	631	-
Mov Cap-2 Maneuver	208	-	-	-	-	-
Stage 1	317	-	-	-	-	-
Stage 2	296	-	-	-	-	-

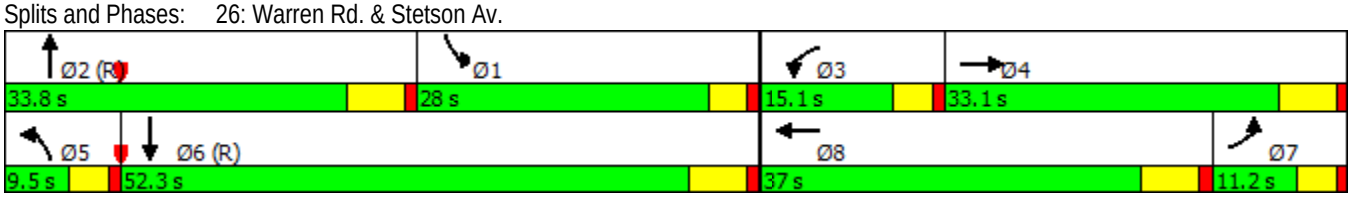
Approach	WB	NB	SB
HCM Control Delay, s	23.3	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	253	631	-
HCM Lane V/C Ratio	-	-	0.223	0.06	-
HCM Control Delay (s)	-	-	23.3	11.1	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.8	0.2	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	65	126	118	132	8	625	302	605
Future Volume (vph)	65	126	118	132	8	625	302	605
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	32.8	9.5	32.8
Total Split (s)	11.2	33.1	15.1	37.0	9.5	33.8	28.0	52.3
Total Split (%)	10.2%	30.1%	13.7%	33.6%	8.6%	30.7%	25.5%	47.5%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.7	23.1	10.0	28.2	5.1	33.1	23.8	59.2
Actuated g/C Ratio	0.06	0.21	0.09	0.26	0.05	0.30	0.22	0.54
v/c Ratio	0.61	0.36	0.75	0.90	0.10	0.69	0.81	0.36
Control Delay	74.2	37.2	75.6	51.9	52.8	39.1	58.3	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.2	37.2	75.6	51.9	52.8	39.1	58.3	16.8
LOS	E	D	E	D	D	D	E	B
Approach Delay		49.1		56.8		39.2		29.6
Approach LOS		D		E		D		C

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 40.3	Intersection LOS: D
Intersection Capacity Utilization 84.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	126	11	118	132	317	8	625	90	302	605	68
Future Volume (veh/h)	65	126	11	118	132	317	8	625	90	302	605	68
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	66	129	11	120	135	323	8	638	92	308	617	69
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	446	38	147	138	331	17	791	114	360	1485	166
Arrive On Green	0.05	0.26	0.26	0.08	0.28	0.28	0.01	0.25	0.25	0.20	0.46	0.46
Sat Flow, veh/h	1774	1693	144	1774	488	1168	1774	3106	447	1774	3211	358
Grp Volume(v), veh/h	66	0	140	120	0	458	8	363	367	308	340	346
Grp Sat Flow(s),veh/h/ln	1774	0	1837	1774	0	1657	1774	1770	1784	1774	1770	1799
Q Serve(g_s), s	4.0	0.0	6.7	7.3	0.0	30.1	0.5	21.2	21.2	18.4	14.0	14.1
Cycle Q Clear(g_c), s	4.0	0.0	6.7	7.3	0.0	30.1	0.5	21.2	21.2	18.4	14.0	14.1
Prop In Lane	1.00		0.08	1.00		0.71	1.00		0.25	1.00		0.20
Lane Grp Cap(c), veh/h	85	0	484	147	0	470	17	450	454	360	818	832
V/C Ratio(X)	0.78	0.00	0.29	0.82	0.00	0.97	0.46	0.81	0.81	0.85	0.42	0.42
Avail Cap(c_a), veh/h	113	0	484	176	0	470	85	450	454	384	818	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	0.0	32.3	49.6	0.0	39.0	54.2	38.5	38.5	42.3	19.7	19.7
Incr Delay (d2), s/veh	15.3	0.0	0.3	18.6	0.0	34.9	6.1	12.9	13.0	15.2	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	3.4	4.4	0.0	18.3	0.3	11.9	12.0	10.5	7.2	7.4
LnGrp Delay(d),s/veh	67.1	0.0	32.6	68.3	0.0	73.9	60.2	51.4	51.4	57.4	21.2	21.2
LnGrp LOS	E		C	E		E	E	D	D	E	C	C
Approach Vol, veh/h		206			578			738			994	
Approach Delay, s/veh		43.7			72.7			51.5			32.4	
Approach LOS		D			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.1	33.8	13.3	34.8	5.3	56.7	11.1	37.0
Change Period (Y+Rc), s	5.8	* 5.8	* 4.2	5.8	* 4.2	5.8	5.8	* 5.8
Max Green Setting (Gmax), s	23.8	* 28	* 11	27.3	* 5.3	46.5	7.0	* 31
Max Q Clear Time (g_c+I1), s	20.4	23.2	9.3	8.7	2.5	16.1	6.0	32.1
Green Ext Time (p_c), s	0.5	2.2	0.0	0.6	0.0	5.8	0.0	0.0

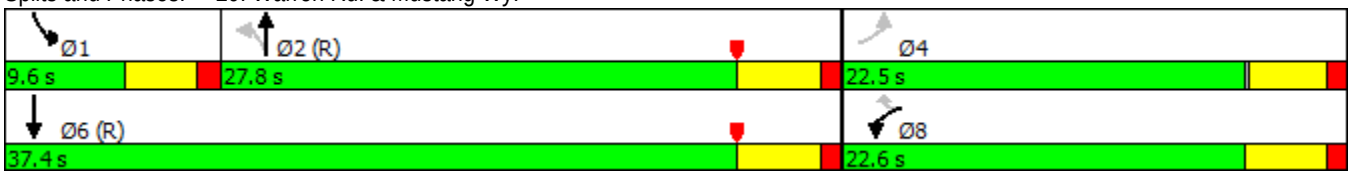
Intersection Summary	
HCM 2010 Ctrl Delay	48.2
HCM 2010 LOS	D

Notes

Lane Group	EBT	WBL	WBR	NBL	NBT	SBL	SBT	Ø4
Lane Configurations								
Traffic Volume (vph)	0	140	100	32	598	138	552	
Future Volume (vph)	0	140	100	32	598	138	552	
Turn Type		Prot	Perm	Perm	NA	Prot	NA	
Protected Phases		8			2	1	6	4
Permitted Phases			8	2				
Detector Phase		8	8	2	2	1	6	
Switch Phase								
Minimum Initial (s)		10.0	10.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)		22.5	22.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)		22.6	22.6	27.8	27.8	9.6	37.4	22.5
Total Split (%)		37.7%	37.7%	46.3%	46.3%	16.0%	62.3%	38%
Yellow Time (s)		3.6	3.6	3.7	3.7	3.2	3.7	3.5
All-Red Time (s)		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.7	4.2	4.7	
Lead/Lag				Lag	Lag	Lead		
Lead-Lag Optimize?				Yes	Yes	Yes		
Recall Mode		None	None	C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	0.0	11.8	11.8		28.7	9.0	42.8	
Actuated g/C Ratio	0.00	0.20	0.20		0.48	0.15	0.71	
v/c Ratio	0.24	0.41	0.26		1.07	0.53	0.46	
Control Delay	0.0	24.2	6.0		75.5	34.8	7.1	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	0.0	24.2	6.0		75.5	34.8	7.1	
LOS	A	C	A		E	C	A	
Approach Delay					75.5		12.3	
Approach LOS					E		B	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 42.0	Intersection LOS: D
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	0	18	140	0	100	32	598	258	138	552	45
Future Volume (veh/h)	26	0	18	140	0	100	32	598	258	138	552	45
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h				143	0	75	33	610	239	141	563	46
Adj No. of Lanes				1	0	1	0	1	0	1	1	0
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	2
Cap, veh/h				288	0	257	79	645	246	160	1160	95
Arrive On Green				0.16	0.00	0.16	0.52	0.52	0.52	0.09	0.68	0.68
Sat Flow, veh/h				1774	0	1583	32	1234	471	1774	1699	139
Grp Volume(v), veh/h				143	0	75	882	0	0	141	0	609
Grp Sat Flow(s),veh/h/ln				1774	0	1583	1737	0	0	1774	0	1838
Q Serve(g_s), s				4.4	0.0	2.5	14.1	0.0	0.0	4.7	0.0	9.4
Cycle Q Clear(g_c), s				4.4	0.0	2.5	29.5	0.0	0.0	4.7	0.0	9.4
Prop In Lane				1.00		1.00	0.04		0.27	1.00		0.08
Lane Grp Cap(c), veh/h				288	0	257	970	0	0	160	0	1255
V/C Ratio(X)				0.50	0.00	0.29	0.91	0.00	0.00	0.88	0.00	0.49
Avail Cap(c_a), veh/h				532	0	475	970	0	0	160	0	1255
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh				22.9	0.0	22.1	13.7	0.0	0.0	27.0	0.0	4.5
Incr Delay (d2), s/veh				1.3	0.0	0.6	13.9	0.0	0.0	38.6	0.0	1.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.3	0.0	1.1	17.7	0.0	0.0	4.0	0.0	5.2
LnGrp Delay(d),s/veh				24.2	0.0	22.7	27.6	0.0	0.0	65.6	0.0	5.9
LnGrp LOS				C		C	C			E		A
Approach Vol, veh/h					218			882			750	
Approach Delay, s/veh					23.7			27.6			17.1	
Approach LOS					C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.6	36.1				45.7		14.3
Change Period (Y+Rc), s	* 4.2	* 4.7				* 4.7		4.6
Max Green Setting (Gmax), s	* 5.4	* 23				* 33		18.0
Max Q Clear Time (g_c+I1), s	6.7	31.5				11.4		6.4
Green Ext Time (p_c), s	0.0	0.0				15.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

Notes

Intersection	
Intersection Delay, s/veh	91.4
Intersection LOS	F

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	265	37	0	525	201	0	26	608
Future Vol, veh/h	0	265	37	0	525	201	0	26	608
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	279	39	0	553	212	0	27	640
Number of Lanes	0	1	0	0	1	1	0	1	1

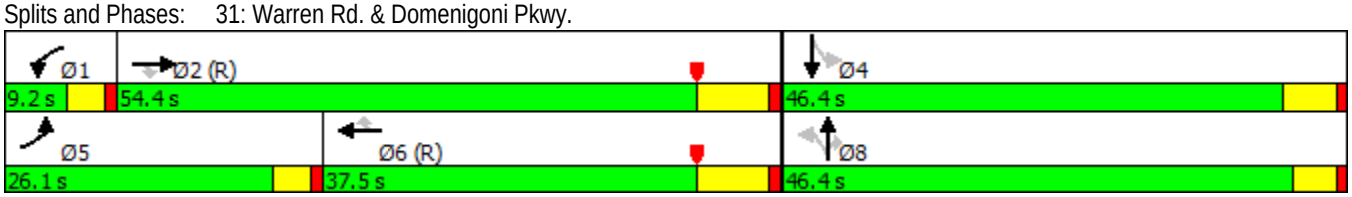
Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	25.2	96.6	116.9
HCM LOS	D	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	88%	0%	100%
Vol Right, %	0%	100%	12%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	26	608	302	525	201
LT Vol	26	0	0	525	0
Through Vol	0	0	265	0	201
RT Vol	0	608	37	0	0
Lane Flow Rate	27	640	318	553	212
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.06	1.175	0.657	1.175	0.42
Departure Headway (Hd)	8.198	6.966	8.057	8.291	7.776
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	440	525	451	442	465
Service Time	5.898	4.666	6.057	5.991	5.476
HCM Lane V/C Ratio	0.061	1.219	0.705	1.251	0.456
HCM Control Delay	11.4	121.4	25.2	127.4	16
HCM Lane LOS	B	F	D	F	C
HCM 95th-tile Q	0.2	21.8	4.6	19.4	2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	543	1736	7	3	1441	83	3	6	1	80	6
Future Volume (vph)	543	1736	7	3	1441	83	3	6	1	80	6
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	31.9	64.9	64.9	5.0	30.6	30.6		31.8	31.8		31.0
Actuated g/C Ratio	0.29	0.59	0.59	0.05	0.28	0.28		0.29	0.29		0.28
v/c Ratio	1.13	0.89	0.01	0.04	1.56	0.17		0.02	0.00		0.93
Control Delay	117.2	28.4	0.0	51.3	286.2	4.7		22.8	0.0		40.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	117.2	28.4	0.0	51.3	286.2	4.7		22.8	0.0		40.8
LOS	F	C	A	D	F	A		C	A		D
Approach Delay		49.4			270.5			20.5			40.8
Approach LOS		D			F			C			D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.56	
Intersection Signal Delay: 125.0	Intersection LOS: F
Intersection Capacity Utilization 125.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	543	1736	7	3	1441	83	3	6	1	80	6	490
Future Volume (veh/h)	543	1736	7	3	1441	83	3	6	1	80	6	490
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	578	1847	5	3	1533	81	3	6	1	85	6	307
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	2012	900	7	1321	591	128	236	440	118	20	334
Arrive On Green	0.20	0.57	0.57	0.00	0.37	0.37	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	303	849	1583	283	74	1202
Grp Volume(v), veh/h	578	1847	5	3	1533	81	9	0	1	398	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1152	0	1583	1558	0	0
Q Serve(g_s), s	21.9	51.8	0.2	0.2	41.1	3.7	0.0	0.0	0.1	22.9	0.0	0.0
Cycle Q Clear(g_c), s	21.9	51.8	0.2	0.2	41.1	3.7	0.4	0.0	0.1	27.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.33		1.00	0.21		0.77
Lane Grp Cap(c), veh/h	353	2012	900	7	1321	591	363	0	440	472	0	0
V/C Ratio(X)	1.64	0.92	0.01	0.42	1.16	0.14	0.02	0.00	0.00	0.84	0.00	0.00
Avail Cap(c_a), veh/h	353	2012	900	81	1321	591	516	0	602	619	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	21.4	10.3	54.7	34.5	22.8	28.8	0.0	28.7	38.4	0.0	0.0
Incr Delay (d2), s/veh	299.0	8.2	0.0	14.3	80.9	0.5	0.0	0.0	0.0	6.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	40.0	27.4	0.1	0.1	34.8	1.7	0.2	0.0	0.0	12.6	0.0	0.0
LnGrp Delay(d),s/veh	343.0	29.6	10.3	69.0	115.4	23.2	28.9	0.0	28.7	44.9	0.0	0.0
LnGrp LOS	F	C	B	E	F	C	C		C	D		
Approach Vol, veh/h		2430			1617			10			398	
Approach Delay, s/veh		104.1			110.7			28.8			44.9	
Approach LOS		F			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.6	69.4		35.9	26.1	48.0		35.9
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.2	53.8		29.2	23.9	43.1		2.4
Green Ext Time (p_c), s	0.0	0.0		1.3	0.0	0.0		1.7

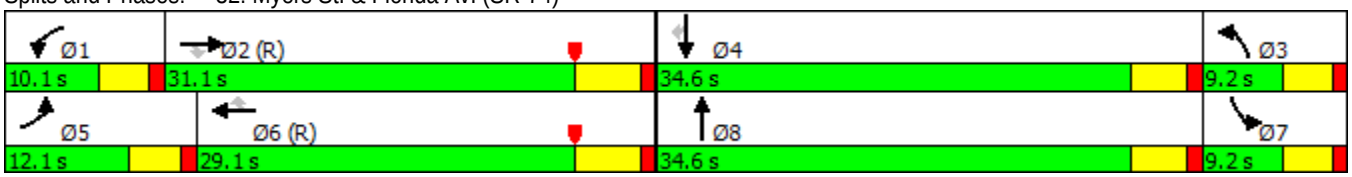
Intersection Summary		
HCM 2010 Ctrl Delay		101.0
HCM 2010 LOS		F

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	306	1488	22	55	1429	70	6	50	118	36	156
Future Volume (vph)	306	1488	22	55	1429	70	6	50	118	36	156
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.1	31.1	31.1	10.1	29.1	29.1	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.2%	36.6%	36.6%	11.9%	34.2%	34.2%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.9	28.0	28.0	5.7	24.0	24.0	5.0	30.0	5.0	37.4	37.4
Actuated g/C Ratio	0.09	0.33	0.33	0.07	0.28	0.28	0.06	0.35	0.06	0.44	0.44
v/c Ratio	2.01	1.37	0.04	0.50	1.54	0.14	0.06	0.15	1.22	0.05	0.21
Control Delay	498.2	200.2	0.1	52.2	264.8	0.8	39.0	12.1	197.1	15.4	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	498.2	200.2	0.1	52.2	264.8	0.8	39.0	12.1	197.1	15.4	3.8
LOS	F	F	A	D	F	A	D	B	F	B	A
Approach Delay		247.9			245.4			13.7		78.6	
Approach LOS		F			F			B		E	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 80.1 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.01	
Intersection Signal Delay: 227.0	Intersection LOS: F
Intersection Capacity Utilization 81.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	306	1488	22	55	1429	70	6	50	40	118	36	156
Future Volume (veh/h)	306	1488	22	55	1429	70	6	50	40	118	36	156
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	329	1600	14	59	1537	69	6	54	20	127	39	116
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1172	524	78	999	447	104	458	170	104	657	559
Arrive On Green	0.09	0.33	0.33	0.03	0.19	0.19	0.06	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	1297	481	1774	1863	1583
Grp Volume(v), veh/h	329	1600	14	59	1537	69	6	0	74	127	39	116
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	0	1778	1774	1863	1583
Q Serve(g_s), s	7.9	28.1	0.4	2.8	24.0	2.4	0.3	0.0	2.4	5.0	1.2	3.0
Cycle Q Clear(g_c), s	7.9	28.1	0.4	2.8	24.0	2.4	0.3	0.0	2.4	5.0	1.2	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	165	1172	524	78	999	447	104	0	628	104	657	559
V/C Ratio(X)	2.00	1.37	0.03	0.75	1.54	0.15	0.06	0.00	0.12	1.22	0.06	0.21
Avail Cap(c_a), veh/h	165	1172	524	123	999	447	104	0	628	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	28.4	10.7	40.8	34.5	15.2	37.8	0.0	18.6	40.0	18.2	9.3
Incr Delay (d2), s/veh	468.8	170.0	0.1	5.3	247.2	0.7	0.1	0.0	0.4	157.6	0.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.3	41.3	0.2	1.5	46.0	1.1	0.1	0.0	1.2	7.0	0.6	1.4
LnGrp Delay(d),s/veh	507.4	198.4	10.8	46.1	281.6	16.0	37.9	0.0	19.0	197.6	18.3	10.2
LnGrp LOS	F	F	B	D	F	B	D		B	F	B	B
Approach Vol, veh/h		1943			1665			80			282	
Approach Delay, s/veh		249.4			262.3			20.4			95.7	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	33.2	9.2	34.6	12.1	29.1	9.2	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.9	26.0	5.0	* 30	* 7.9	24.0	5.0	* 30
Max Q Clear Time (g_c+I1), s	4.8	30.1	2.3	5.0	9.9	26.0	7.0	4.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	239.3
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1383	448	1	1729	0	2
Future Vol, veh/h	1383	448	1	1729	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1471	477	1	1839	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1471	0	-	736
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*794	-	0	*531
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*794	-	-	*531
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.8
HCM LOS			B

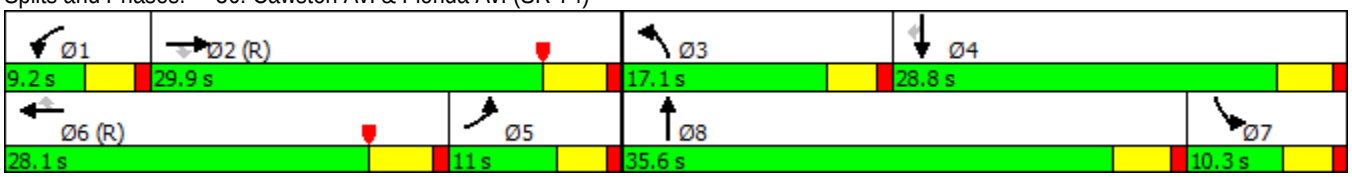
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	531	-	-	* 794	-
HCM Lane V/C Ratio	0.004	-	-	0.001	-
HCM Control Delay (s)	11.8	-	-	9.5	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	181	1192	13	70	1328	244	255	117	204	133	146
Future Volume (vph)	181	1192	13	70	1328	244	255	117	204	133	146
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	11.0	29.9	29.9	9.2	28.1	28.1	17.1	35.6	10.3	28.8	28.8
Total Split (%)	12.9%	35.2%	35.2%	10.8%	33.1%	33.1%	20.1%	41.9%	12.1%	33.9%	33.9%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	6.8	26.6	26.6	5.0	23.0	23.0	12.9	31.0	6.1	24.2	24.2
Actuated g/C Ratio	0.08	0.31	0.31	0.06	0.27	0.27	0.15	0.36	0.07	0.28	0.28
v/c Ratio	1.34	1.12	0.02	0.70	1.45	0.44	0.99	0.16	1.68	0.26	0.26
Control Delay	181.7	72.7	0.0	74.6	233.9	7.9	92.0	11.6	365.3	25.2	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	181.7	72.7	0.0	74.6	233.9	7.9	92.0	11.6	365.3	25.2	2.7
LOS	F	E	A	E	F	A	F	B	F	C	A
Approach Delay		86.2			193.5			58.0		162.1	
Approach LOS		F			F			E		F	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 35 (41%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.68	
Intersection Signal Delay: 136.9	Intersection LOS: F
Intersection Capacity Utilization 99.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	181	1192	13	70	1328	244	255	117	70	204	133	146
Future Volume (veh/h)	181	1192	13	70	1328	244	255	117	70	204	133	146
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	189	1242	12	73	1383	210	266	122	67	212	139	88
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	622	2050	917	94	958	426	269	819	422	127	539	458
Arrive On Green	0.70	1.00	1.00	0.05	0.27	0.27	0.15	0.36	0.36	0.07	0.29	0.29
Sat Flow, veh/h	1774	3539	1583	1774	3539	1575	1774	2247	1156	1774	1863	1583
Grp Volume(v), veh/h	189	1242	12	73	1383	210	266	94	95	212	139	88
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1575	1774	1770	1633	1774	1863	1583
Q Serve(g_s), s	3.4	0.0	0.0	3.5	23.0	9.5	12.7	3.0	3.3	6.1	4.9	2.7
Cycle Q Clear(g_c), s	3.4	0.0	0.0	3.5	23.0	9.5	12.7	3.0	3.3	6.1	4.9	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.71	1.00		1.00
Lane Grp Cap(c), veh/h	622	2050	917	94	958	426	269	645	596	127	539	458
V/C Ratio(X)	0.30	0.61	0.01	0.78	1.44	0.49	0.99	0.15	0.16	1.67	0.26	0.19
Avail Cap(c_a), veh/h	622	2050	917	104	958	426	269	645	596	127	539	458
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.7	0.0	0.0	39.8	31.0	26.1	36.0	18.1	18.2	39.4	23.2	12.7
Incr Delay (d2), s/veh	0.1	1.3	0.0	24.5	205.8	4.0	51.3	0.5	0.6	331.3	1.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.4	0.0	2.3	38.5	4.6	10.0	1.6	1.6	14.7	2.7	1.3
LnGrp Delay(d),s/veh	8.8	1.3	0.0	64.3	236.8	30.1	87.2	18.6	18.8	370.8	24.3	13.7
LnGrp LOS	A	A	A	E	F	C	F	B	B	F	C	B
Approach Vol, veh/h		1443			1666			455			439	
Approach Delay, s/veh		2.3			203.2			58.8			189.5	
Approach LOS		A			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	54.4	17.1	29.2	34.9	28.1	10.7	35.6
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	5.1	* 5.1	4.6	* 4.6
Max Green Setting (Gmax), s	* 5	24.8	* 13	24.2	6.8	* 23	6.1	* 31
Max Q Clear Time (g_c+I1), s	5.5	2.0	14.7	6.9	5.4	25.0	8.1	5.3
Green Ext Time (p_c), s	0.0	12.9	0.0	1.3	0.2	0.0	0.0	1.1

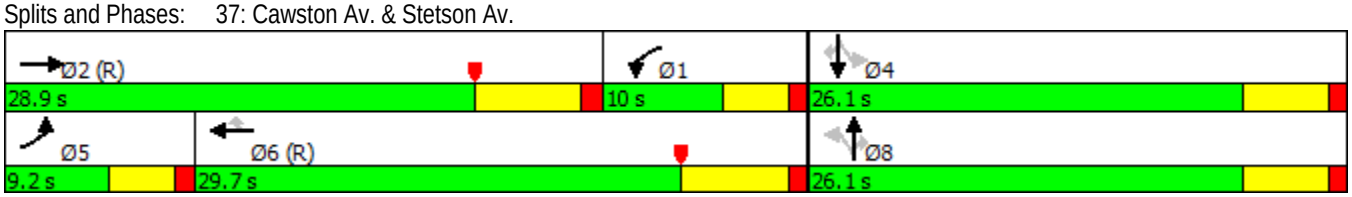
Intersection Summary		
HCM 2010 Ctrl Delay		112.9
HCM 2010 LOS		F

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	25	357	167	307	21	47	108	168	18	155	57
Future Volume (vph)	25	357	167	307	21	47	108	168	18	155	57
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.2	28.9	10.0	29.7	29.7	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.2%	44.5%	15.4%	45.7%	45.7%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	22.7	5.8	29.0	29.0	21.0	21.0	21.0	21.0	21.0	21.0
Actuated g/C Ratio	0.08	0.35	0.09	0.45	0.45	0.32	0.32	0.32	0.32	0.32	0.32
v/c Ratio	0.19	0.35	1.12	0.39	0.03	0.12	0.19	0.27	0.05	0.27	0.09
Control Delay	31.7	15.6	141.5	15.2	0.0	16.7	17.0	2.4	15.7	17.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.7	15.6	141.5	15.2	0.0	16.7	17.0	2.4	15.7	17.9	0.3
LOS	C	B	F	B	A	B	B	A	B	B	A
Approach Delay		16.5		57.2			9.3			13.3	
Approach LOS		B		E			A			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay: 28.0	Intersection LOS: C
Intersection Capacity Utilization 54.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	357	56	167	307	21	47	108	168	18	155	57
Future Volume (veh/h)	25	357	56	167	307	21	47	108	168	18	155	57
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	26	376	45	176	323	19	49	114	88	19	163	33
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	51	1113	132	1383	2106	1790	416	602	512	439	602	512
Arrive On Green	0.03	0.35	0.35	0.78	1.00	1.00	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	3187	379	1774	1863	1583	1182	1863	1583	1175	1863	1583
Grp Volume(v), veh/h	26	208	213	176	323	19	49	114	88	19	163	33
Grp Sat Flow(s),veh/h/ln	1774	1770	1796	1774	1863	1583	1182	1863	1583	1175	1863	1583
Q Serve(g_s), s	0.9	5.6	5.7	1.6	0.0	0.0	2.1	2.9	2.6	0.8	4.2	0.9
Cycle Q Clear(g_c), s	0.9	5.6	5.7	1.6	0.0	0.0	6.3	2.9	2.6	3.6	4.2	0.9
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	51	618	627	1383	2106	1790	416	602	512	439	602	512
V/C Ratio(X)	0.51	0.34	0.34	0.13	0.15	0.01	0.12	0.19	0.17	0.04	0.27	0.06
Avail Cap(c_a), veh/h	136	618	627	1383	2106	1790	416	602	512	439	602	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	15.6	15.6	1.8	0.0	0.0	18.7	15.9	15.8	17.2	16.3	15.2
Incr Delay (d2), s/veh	2.3	1.2	1.2	0.0	0.1	0.0	0.6	0.7	0.7	0.2	1.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.9	3.0	0.7	0.1	0.0	0.7	1.6	1.2	0.3	2.4	0.4
LnGrp Delay(d),s/veh	33.4	16.8	16.8	1.8	0.1	0.0	19.2	16.6	16.5	17.4	17.4	15.5
LnGrp LOS	C	B	B	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		447			518			251			215	
Approach Delay, s/veh		17.7			0.7			17.1			17.1	
Approach LOS		B			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	57.6	28.9		26.1	6.1	80.5		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.8	* 23		21.0	* 5	23.5		21.0
Max Q Clear Time (g_c+I1), s	3.6	7.7		6.2	2.9	2.0		8.3
Green Ext Time (p_c), s	0.1	1.1		1.1	0.0	1.2		1.1

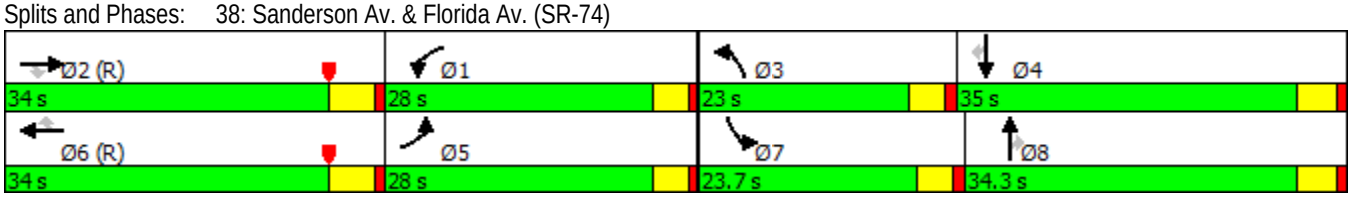
Intersection Summary	
HCM 2010 Ctrl Delay	11.4
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	385	1059	145	264	956	225	472	971	246	241	985	265
Future Volume (vph)	385	1059	145	264	956	225	472	971	246	241	985	265
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	28.0	34.0	34.0	28.0	34.0	34.0	23.0	34.3	34.3	23.7	35.0	35.0
Total Split (%)	23.3%	28.3%	28.3%	23.3%	28.3%	28.3%	19.2%	28.6%	28.6%	19.8%	29.2%	29.2%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	23.8	28.9	28.9	23.8	28.9	28.9	18.8	30.6	30.6	18.5	30.3	30.3
Actuated g/C Ratio	0.20	0.24	0.24	0.20	0.24	0.24	0.16	0.26	0.26	0.15	0.25	0.25
v/c Ratio	1.11	1.26	0.32	0.76	1.13	0.44	1.72	1.09	0.45	0.89	1.11	0.48
Control Delay	125.1	163.3	12.9	60.6	116.3	10.8	371.4	99.5	10.6	82.5	108.3	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	125.1	163.3	12.9	60.6	116.3	10.8	371.4	99.5	10.6	82.5	108.3	10.8
LOS	F	F	B	E	F	B	F	F	B	F	F	B
Approach Delay		140.4			89.7			162.6			86.8	
Approach LOS		F			F			F			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.72	
Intersection Signal Delay: 121.8	Intersection LOS: F
Intersection Capacity Utilization 116.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	385	1059	145	264	956	225	472	971	246	241	985	265
Future Volume (veh/h)	385	1059	145	264	956	225	472	971	246	241	985	265
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	389	1070	106	267	966	170	477	981	162	243	995	210
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	852	374	352	852	375	278	911	399	269	894	394
Arrive On Green	0.20	0.24	0.24	0.20	0.24	0.24	0.16	0.26	0.26	0.15	0.25	0.25
Sat Flow, veh/h	1774	3539	1554	1774	3539	1555	1774	3539	1551	1774	3539	1559
Grp Volume(v), veh/h	389	1070	106	267	966	170	477	981	162	243	995	210
Grp Sat Flow(s),veh/h/ln	1774	1770	1554	1774	1770	1555	1774	1770	1551	1774	1770	1559
Q Serve(g_s), s	23.8	28.9	4.6	17.0	28.9	7.8	18.8	30.9	6.6	16.2	30.3	8.9
Cycle Q Clear(g_c), s	23.8	28.9	4.6	17.0	28.9	7.8	18.8	30.9	6.6	16.2	30.3	8.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	852	374	352	852	375	278	911	399	269	894	394
V/C Ratio(X)	1.11	1.26	0.28	0.76	1.13	0.45	1.72	1.08	0.41	0.90	1.11	0.53
Avail Cap(c_a), veh/h	352	852	374	352	852	375	278	911	399	288	894	394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	45.5	17.7	45.4	45.5	18.9	50.6	44.6	14.8	50.0	44.8	15.6
Incr Delay (d2), s/veh	79.5	124.5	1.9	8.3	74.5	3.9	337.1	52.7	3.0	27.2	66.3	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.4	28.8	2.2	9.2	22.9	3.7	35.2	21.7	3.1	9.9	23.0	4.3
LnGrp Delay(d),s/veh	127.6	170.0	19.6	53.7	120.0	22.8	387.7	97.2	17.8	77.2	111.1	20.7
LnGrp LOS	F	F	B	D	F	C	F	F	B	E	F	C
Approach Vol, veh/h		1565			1403			1620			1448	
Approach Delay, s/veh		149.3			95.6			174.8			92.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	34.0	23.0	35.0	28.0	34.0	22.4	35.6
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	23.8	* 29	* 19	* 30	23.8	* 29	* 20	* 30
Max Q Clear Time (g_c+I1), s	19.0	30.9	20.8	32.3	25.8	30.9	18.2	32.9
Green Ext Time (p_c), s	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0

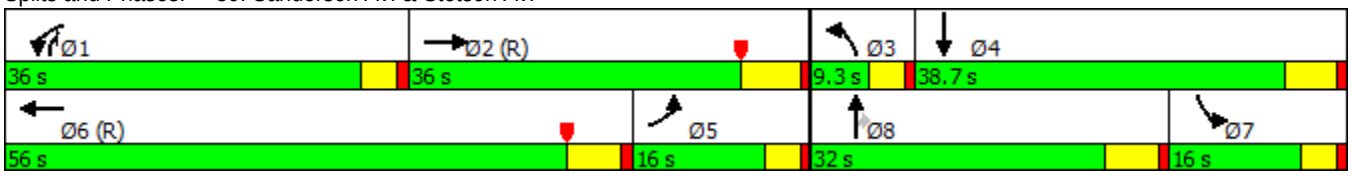
Intersection Summary		
HCM 2010 Ctrl Delay		130.0
HCM 2010 LOS		F

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	299	590	499	541	37	1000	515	333	1152
Future Volume (vph)	299	590	499	541	37	1000	515	333	1152
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	16.0	36.0	36.0	56.0	9.3	32.0	36.0	16.0	38.7
Total Split (%)	13.3%	30.0%	30.0%	46.7%	7.8%	26.7%	30.0%	13.3%	32.3%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	11.8	29.8	31.8	50.2	5.1	26.2	59.6	11.8	34.8
Actuated g/C Ratio	0.10	0.25	0.26	0.42	0.04	0.22	0.50	0.10	0.29
v/c Ratio	1.77	0.75	1.10	0.59	0.51	1.34	0.63	1.97	1.41
Control Delay	400.9	47.7	111.8	25.3	79.6	197.3	12.6	486.1	224.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	400.9	47.7	111.8	25.3	79.6	197.3	12.6	486.1	224.1
LOS	F	D	F	C	E	F	B	F	F
Approach Delay		160.5		57.6		133.2			274.8
Approach LOS		F		E		F			F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 21.4 (18%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.97	
Intersection Signal Delay: 163.5	Intersection LOS: F
Intersection Capacity Utilization 113.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	299	590	47	499	541	298	37	1000	515	333	1152	233
Future Volume (veh/h)	299	590	47	499	541	298	37	1000	515	333	1152	233
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	308	608	46	514	558	286	38	1031	162	343	1188	229
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1534	3436	260	470	948	485	53	773	758	174	890	170
Arrive On Green	0.86	1.00	1.00	0.27	0.42	0.42	0.03	0.22	0.22	0.10	0.30	0.30
Sat Flow, veh/h	1774	3331	252	1774	2267	1160	1774	3539	1548	1774	2965	568
Grp Volume(v), veh/h	308	323	331	514	435	409	38	1031	162	343	706	711
Grp Sat Flow(s),veh/h/ln	1774	1770	1813	1774	1770	1657	1774	1770	1548	1774	1770	1763
Q Serve(g_s), s	3.4	0.0	0.0	31.8	22.8	22.8	2.5	26.2	15.2	11.8	36.0	36.0
Cycle Q Clear(g_c), s	3.4	0.0	0.0	31.8	22.8	22.8	2.5	26.2	15.2	11.8	36.0	36.0
Prop In Lane	1.00		0.14	1.00		0.70	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	1534	1825	1870	470	740	693	53	773	758	174	531	529
V/C Ratio(X)	0.20	0.18	0.18	1.09	0.59	0.59	0.72	1.33	0.21	1.97	1.33	1.34
Avail Cap(c_a), veh/h	1534	1825	1870	470	740	693	75	773	758	174	531	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.3	0.0	0.0	44.1	26.9	26.9	57.7	46.9	80.0	54.1	42.0	42.0
Incr Delay (d2), s/veh	0.0	0.2	0.2	69.2	3.4	3.7	7.1	159.2	0.6	454.9	160.8	167.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.1	0.1	24.6	11.8	11.1	1.4	29.9	6.7	27.8	41.3	42.1
LnGrp Delay(d),s/veh	1.4	0.2	0.2	113.3	30.3	30.6	64.8	206.1	80.7	509.0	202.8	209.3
LnGrp LOS	A	A	A	F	C	C	E	F	F	F	F	F
Approach Vol, veh/h		962			1358			1231			1760	
Approach Delay, s/veh		0.6			61.8			185.2			265.1	
Approach LOS		A			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.0	131.6	7.8	41.8	111.6	56.0	17.6	32.0
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	6.2	* 5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 32	29.8	* 5.1	32.9	11.8	* 50	11.8	* 26
Max Q Clear Time (g_c+I1), s	33.8	2.0	4.5	38.0	5.4	24.8	13.8	28.2
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	2.2	5.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	146.7
HCM 2010 LOS	F

Notes

APPENDIX 6.2:

OPENING YEAR CUMULATIVE (2024) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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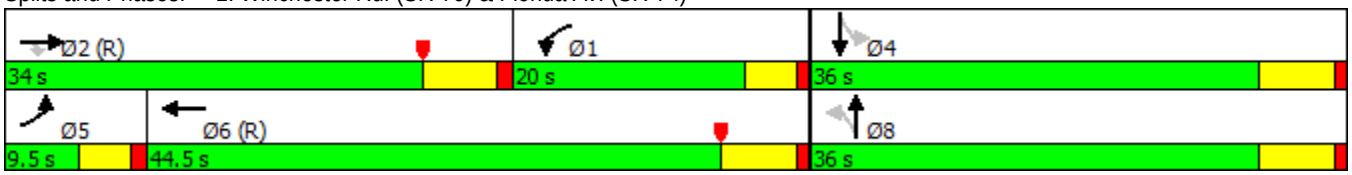
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	18	836	126	434	837	122	11	22	30
Future Volume (vph)	18	836	126	434	837	122	11	22	30
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	28.0	28.0	15.5	44.2	30.0	30.0	30.0	30.0
Actuated g/C Ratio	0.06	0.31	0.31	0.17	0.49	0.33	0.33	0.33	0.33
v/c Ratio	0.19	0.81	0.22	1.47	0.52	0.28	0.57	0.14	0.06
Control Delay	45.4	35.7	5.4	259.2	17.7	24.1	6.4	23.9	18.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.4	35.7	5.4	259.2	17.7	24.1	6.4	23.9	18.7
LOS	D	D	A	F	B	C	A	C	B
Approach Delay		32.0			98.0		10.2		20.7
Approach LOS		C			F		B		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.47	
Intersection Signal Delay: 57.2	Intersection LOS: E
Intersection Capacity Utilization 88.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	836	126	434	837	34	122	11	432	22	30	5
Future Volume (veh/h)	18	836	126	434	837	34	122	11	432	22	30	5
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	19	862	91	447	863	33	126	11	265	23	31	5
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	1066	493	1085	3193	122	517	21	509	292	522	84
Arrive On Green	0.02	0.31	0.31	0.61	0.92	0.92	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1774	3427	1583	1774	3476	133	1365	63	1528	1098	1565	252
Grp Volume(v), veh/h	19	862	91	447	439	457	126	0	276	23	0	36
Grp Sat Flow(s),veh/h/ln	1774	1714	1583	1774	1770	1839	1365	0	1591	1098	0	1818
Q Serve(g_s), s	1.0	20.8	3.8	11.8	2.4	2.4	6.2	0.0	12.6	1.6	0.0	1.2
Cycle Q Clear(g_c), s	1.0	20.8	3.8	11.8	2.4	2.4	7.4	0.0	12.6	14.1	0.0	1.2
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.96	1.00		0.14
Lane Grp Cap(c), veh/h	37	1066	493	1085	1625	1689	517	0	530	292	0	606
V/C Ratio(X)	0.51	0.81	0.18	0.41	0.27	0.27	0.24	0.00	0.52	0.08	0.00	0.06
Avail Cap(c_a), veh/h	99	1066	493	1085	1625	1689	517	0	530	292	0	606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.6	28.5	22.7	9.1	0.4	0.4	22.9	0.0	24.2	29.9	0.0	20.4
Incr Delay (d2), s/veh	4.0	6.6	0.8	0.1	0.4	0.4	1.1	0.0	3.6	0.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	10.8	1.8	5.7	1.3	1.3	2.5	0.0	6.1	0.5	0.0	0.6
LnGrp Delay(d),s/veh	47.6	35.1	23.5	9.2	0.8	0.8	24.1	0.0	27.8	30.4	0.0	20.6
LnGrp LOS	D	D	C	A	A	A	C		C	C		C
Approach Vol, veh/h		972			1343			402			59	
Approach Delay, s/veh		34.3			3.6			26.6			24.4	
Approach LOS		C			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	61.1	34.0		36.0	6.4	88.7		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	13.8	22.8		16.1	3.0	4.4		14.6
Green Ext Time (p_c), s	0.3	1.8		1.1	0.0	3.8		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	18.1
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	8.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	1	39	0	0	3	28	541	1	3	802	37
Future Vol, veh/h	47	1	39	0	0	3	28	541	1	3	802	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	1	42	0	0	3	30	582	1	3	862	40

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1533	1532	882	1531	1551	582	902	0	0	583	0	0
Stage 1	889	889	-	642	642	-	-	-	-	-	-	-
Stage 2	644	643	-	889	909	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	55	67	345	55	64	*644	754	-	-	*964	-	-
Stage 1	338	361	-	568	504	-	-	-	-	-	-	-
Stage 2	566	503	-	338	354	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	53	64	345	46	61	*644	754	-	-	*964	-	-
Mov Cap-2 Maneuver	53	64	-	46	61	-	-	-	-	-	-	-
Stage 1	325	360	-	545	484	-	-	-	-	-	-	-
Stage 2	540	483	-	295	353	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	139.8	10.6	0.5	0
HCM LOS	F	B		

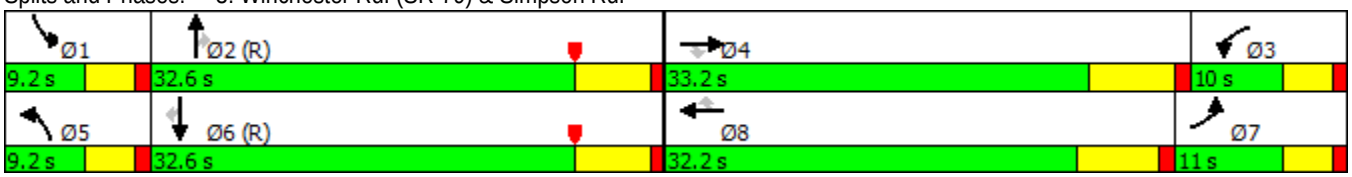
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	754	-	-	53	345	644	* 964	-	-
HCM Lane V/C Ratio	0.04	-	-	0.974	0.122	0.005	0.003	-	-
HCM Control Delay (s)	10	-	-	239.7	16.9	10.6	8.7	-	-
HCM Lane LOS	A	-	-	F	C	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	4.3	0.4	0	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	163	75	103	223	56	34	392	44	27	669	128
Future Volume (vph)	132	163	75	103	223	56	34	392	44	27	669	128
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	11.0	33.2	33.2	10.0	32.2	32.2	9.2	32.6	32.6	9.2	32.6	32.6
Total Split (%)	12.9%	39.1%	39.1%	11.8%	37.9%	37.9%	10.8%	38.4%	38.4%	10.8%	38.4%	38.4%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	11.7	15.2	15.2	13.3	17.1	17.1	5.3	36.3	36.3	5.2	34.2	34.2
Actuated g/C Ratio	0.14	0.18	0.18	0.16	0.20	0.20	0.06	0.43	0.43	0.06	0.40	0.40
v/c Ratio	0.59	0.53	0.21	0.41	0.65	0.14	0.34	0.28	0.07	0.27	0.51	0.20
Control Delay	47.8	36.3	1.9	40.1	38.6	0.7	46.9	18.5	0.2	44.8	22.7	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.8	36.3	1.9	40.1	38.6	0.7	46.9	18.5	0.2	44.8	22.7	4.2
LOS	D	D	A	D	D	A	D	B	A	D	C	A
Approach Delay		33.4			33.4			18.8			20.5	
Approach LOS		C			C			B			C	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 24.9	Intersection LOS: C
Intersection Capacity Utilization 62.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	163	75	103	223	56	34	392	44	27	669	128
Future Volume (veh/h)	132	163	75	103	223	56	34	392	44	27	669	128
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	143	177	57	112	242	44	37	426	36	29	727	94
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	265	220	192	325	273	61	1687	743	52	1669	739
Arrive On Green	0.08	0.14	0.14	0.11	0.17	0.17	0.03	0.48	0.48	0.03	0.47	0.47
Sat Flow, veh/h	1774	1863	1546	1774	1863	1565	1774	3539	1558	1774	3539	1568
Grp Volume(v), veh/h	143	177	57	112	242	44	37	426	36	29	727	94
Grp Sat Flow(s),veh/h/ln	1774	1863	1546	1774	1863	1565	1774	1770	1558	1774	1770	1568
Q Serve(g_s), s	6.8	7.7	2.3	5.1	10.5	1.7	1.7	6.1	0.6	1.4	11.6	1.8
Cycle Q Clear(g_c), s	6.8	7.7	2.3	5.1	10.5	1.7	1.7	6.1	0.6	1.4	11.6	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	142	265	220	192	325	273	61	1687	743	52	1669	739
V/C Ratio(X)	1.01	0.67	0.26	0.58	0.75	0.16	0.61	0.25	0.05	0.56	0.44	0.13
Avail Cap(c_a), veh/h	142	585	485	192	570	479	104	1687	743	104	1669	739
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	34.5	21.5	36.1	33.3	19.9	40.5	13.2	3.8	40.7	14.9	5.0
Incr Delay (d2), s/veh	77.6	2.9	0.6	3.0	3.4	0.3	3.4	0.3	0.1	3.5	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	4.1	1.0	2.6	5.7	0.7	0.9	3.0	0.3	0.7	5.8	0.8
LnGrp Delay(d),s/veh	116.7	37.4	22.1	39.0	36.7	20.2	43.8	13.6	4.0	44.2	15.8	5.3
LnGrp LOS	F	D	C	D	D	C	D	B	A	D	B	A
Approach Vol, veh/h		377			398			499			850	
Approach Delay, s/veh		65.2			35.5			15.1			15.6	
Approach LOS		E			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	46.3	13.4	18.6	7.1	45.9	11.0	21.0
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 5	26.8	5.8	* 27	* 5	26.8	6.8	* 26
Max Q Clear Time (g_c+I1), s	3.4	8.1	7.1	9.7	3.7	13.6	8.8	12.5
Green Ext Time (p_c), s	0.0	10.0	0.0	0.9	0.0	7.9	0.0	1.1

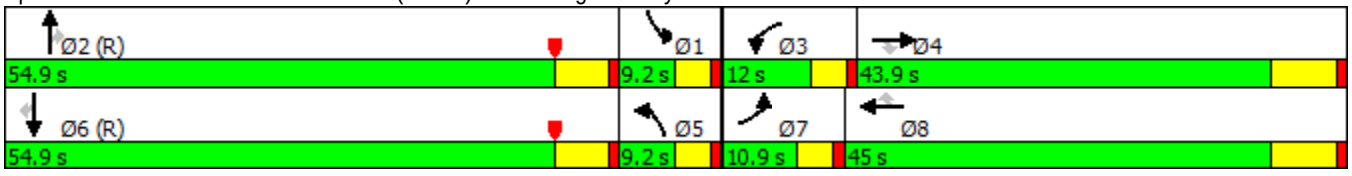
Intersection Summary	
HCM 2010 Ctrl Delay	28.0
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	147	921	77	840	925	37	46	319	666	48	586	212
Future Volume (vph)	147	921	77	840	925	37	46	319	666	48	586	212
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	10.9	43.9	43.9	12.0	45.0	45.0	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.1%	36.6%	36.6%	10.0%	37.5%	37.5%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	6.9	36.4	36.4	9.6	39.1	39.1	5.0	49.7	49.7	5.0	49.7	49.7
Actuated g/C Ratio	0.06	0.30	0.30	0.08	0.33	0.33	0.04	0.41	0.41	0.04	0.41	0.41
v/c Ratio	0.82	0.93	0.15	3.31	0.61	0.07	0.68	0.24	0.95	0.71	0.43	0.30
Control Delay	86.2	56.4	4.4	1067.6	36.1	0.2	98.8	23.5	48.9	102.7	26.4	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.2	56.4	4.4	1067.6	36.1	0.2	98.8	23.5	48.9	102.7	26.4	6.8
LOS	F	E	A	F	D	A	F	C	D	F	C	A
Approach Delay		56.7			516.4			43.2			25.8	
Approach LOS		E			F			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.31	
Intersection Signal Delay: 220.1	Intersection LOS: F
Intersection Capacity Utilization 87.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	921	77	840	925	37	46	319	666	48	586	212
Future Volume (veh/h)	147	921	77	840	925	37	46	319	666	48	586	212
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	160	1001	47	913	1005	28	50	347	462	52	637	131
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	1083	484	224	1603	499	78	1448	648	78	1448	648
Arrive On Green	0.06	0.31	0.31	0.07	0.32	0.32	0.04	0.41	0.41	0.04	0.41	0.41
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	160	1001	47	913	1005	28	50	347	462	52	637	131
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	5.5	32.8	2.0	7.8	20.2	1.2	3.3	7.7	21.9	3.5	15.6	4.9
Cycle Q Clear(g_c), s	5.5	32.8	2.0	7.8	20.2	1.2	3.3	7.7	21.9	3.5	15.6	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	1083	484	224	1603	499	78	1448	648	78	1448	648
V/C Ratio(X)	0.83	0.92	0.10	4.08	0.63	0.06	0.64	0.24	0.71	0.67	0.44	0.20
Avail Cap(c_a), veh/h	192	1091	488	224	1615	503	78	1448	648	78	1448	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	56.1	40.3	19.2	56.1	35.1	18.4	56.4	23.2	16.6	56.5	25.5	13.3
Incr Delay (d2), s/veh	24.4	12.8	0.1	1397.1	0.8	0.0	12.9	0.4	6.6	14.2	0.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	17.9	0.9	47.1	9.6	0.5	1.9	3.8	10.7	2.0	7.8	2.2
LnGrp Delay(d),s/veh	80.5	53.1	19.3	1453.2	35.8	18.4	69.3	23.6	23.2	70.7	26.4	14.0
LnGrp LOS	F	D	B	F	D	B	E	C	C	E	C	B
Approach Vol, veh/h		1208			1946			859			820	
Approach Delay, s/veh		55.4			700.6			26.0			27.2	
Approach LOS		E			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	54.9	12.0	43.6	9.5	54.9	10.9	44.7
Change Period (Y+Rc), s	4.2	* 5.8	* 4.2	6.9	4.2	* 5.8	* 4.2	6.9
Max Green Setting (Gmax), s	5.0	* 49	* 7.8	37.0	5.0	* 49	* 6.7	38.1
Max Q Clear Time (g_c+I1), s	5.5	23.9	9.8	34.8	5.3	17.6	7.5	22.2
Green Ext Time (p_c), s	0.0	5.9	0.0	1.9	0.0	7.0	0.0	10.8

Intersection Summary	
HCM 2010 Ctrl Delay	305.2
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1660	0	0	1839	1	0	0	0	0	0	1
Future Vol, veh/h	0	1660	0	0	1839	1	0	0	0	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1844	0	0	2043	1	0	0	0	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	922	-	-	1022
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*414	0	0	233
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*414	-	-	233
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	20.5
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	233
HCM Lane V/C Ratio	-	-	-	-	-	0.005
HCM Control Delay (s)	0	-	-	-	-	20.5
HCM Lane LOS	A	-	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	95	0	3	3	5	111
Future Vol, veh/h	95	0	3	3	5	111
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	0	4	4	6	135

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	17	6	6	0	-	0
Stage 1	6	-	-	-	-	-
Stage 2	11	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1001	1077	1615	-	-	-
Stage 1	1017	-	-	-	-	-
Stage 2	1012	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	999	1077	1615	-	-	-
Mov Cap-2 Maneuver	999	-	-	-	-	-
Stage 1	1017	-	-	-	-	-
Stage 2	1010	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	3.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1615	-	999	-	-
HCM Lane V/C Ratio	0.002	-	0.116	-	-
HCM Control Delay (s)	7.2	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	194	0	0	252	1	2	1	0	2	1	5
Future Vol, veh/h	2	194	0	0	252	1	2	1	0	2	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	213	0	0	277	1	2	1	0	2	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	278	0	0	213	0	0	499	496	213	495	495	277
Stage 1	-	-	-	-	-	-	218	218	-	277	277	-
Stage 2	-	-	-	-	-	-	281	278	-	218	218	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1285	-	-	1357	-	-	482	475	827	485	476	762
Stage 1	-	-	-	-	-	-	784	723	-	729	681	-
Stage 2	-	-	-	-	-	-	726	680	-	784	723	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1285	-	-	1357	-	-	477	474	827	483	475	762
Mov Cap-2 Maneuver	-	-	-	-	-	-	477	474	-	483	475	-
Stage 1	-	-	-	-	-	-	782	722	-	728	681	-
Stage 2	-	-	-	-	-	-	720	680	-	781	722	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	12.6	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	476	1285	-	-	1357	-	-	625
HCM Lane V/C Ratio	0.007	0.002	-	-	-	-	-	0.014
HCM Control Delay (s)	12.6	7.8	0	-	0	-	-	10.8
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	7.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	11	0	0	33
Future Vol, veh/h	0	0	11	0	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	12	0	0	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1	0	25	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	24	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1622	-	991	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	999	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1622	-	984	1084
Mov Cap-2 Maneuver	-	-	-	-	984	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	992	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.2	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1084	-	-	1622	-
HCM Lane V/C Ratio	0.033	-	-	0.007	-
HCM Control Delay (s)	8.4	-	-	7.2	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	5.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	33	0	22	11	0	66
Future Vol, veh/h	33	0	22	11	0	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	0	24	12	0	72

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	36	0	96	36
Stage 1	-	-	-	-	36	-
Stage 2	-	-	-	-	60	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1575	-	903	1037
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	963	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1575	-	889	1037
Mov Cap-2 Maneuver	-	-	-	-	889	-
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	948	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.9	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1037	-	-	1575	-
HCM Lane V/C Ratio	0.069	-	-	0.015	-
HCM Control Delay (s)	8.7	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	99	0	11	34	0	33
Future Vol, veh/h	99	0	11	34	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	108	0	12	37	0	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	108	0	169	108
Stage 1	-	-	-	-	108	-
Stage 2	-	-	-	-	61	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1483	-	821	946
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	962	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1483	-	814	946
Mov Cap-2 Maneuver	-	-	-	-	814	-
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	954	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	946	-	-	1483	-
HCM Lane V/C Ratio	0.038	-	-	0.008	-
HCM Control Delay (s)	9	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	314.8
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	29	36	23	0	258	17	111	0	19	722	249
Future Vol, veh/h	0	29	36	23	0	258	17	111	0	19	722	249
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	31	38	24	0	274	18	118	0	20	768	265
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	20	51.7	516.8
HCM LOS	C	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	33%	67%	9%
Vol Thru, %	73%	41%	4%	89%
Vol Right, %	25%	26%	29%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	990	88	386	624
LT Vol	19	29	258	59
Through Vol	722	36	17	557
RT Vol	249	23	111	8
Lane Flow Rate	1053	94	411	664
Geometry Grp	1	1	1	1
Degree of Util (X)	2.092	0.238	0.866	1.348
Departure Headway (Hd)	7.843	12.99	9.888	9.133
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	474	279	370	405
Service Time	5.843	10.99	7.888	7.133
HCM Lane V/C Ratio	2.222	0.337	1.111	1.64
HCM Control Delay	516.8	20	51.7	198.5
HCM Lane LOS	F	C	F	F
HCM 95th-tile Q	68	0.9	8.2	25.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	59	557	8
Future Vol, veh/h	0	59	557	8
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	63	593	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	198.5
HCM LOS	F

Intersection	
Intersection Delay, s/veh	475.1
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	243	239	25	0	185	377	148	0	15	599	105	0	152	526	161
Future Vol, veh/h	0	243	239	25	0	185	377	148	0	15	599	105	0	152	526	161
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	259	254	27	0	197	401	157	0	16	637	112	0	162	560	171
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0

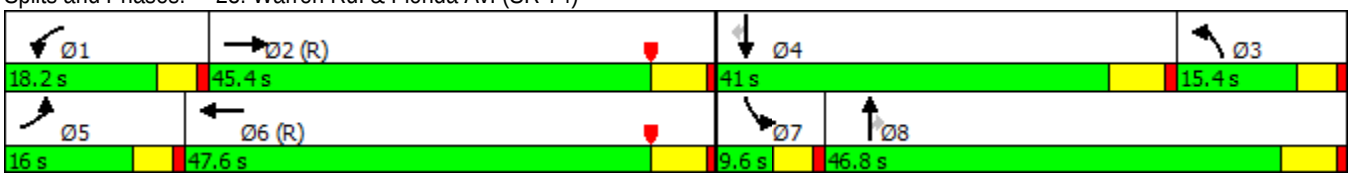
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	282.6	506.5	348.1	673.8
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	0%	48%	26%	18%
Vol Thru, %	98%	0%	47%	53%	63%
Vol Right, %	0%	100%	5%	21%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	614	105	507	710	839
LT Vol	15	0	243	185	152
Through Vol	599	0	239	377	526
RT Vol	0	105	25	148	161
Lane Flow Rate	653	112	539	755	893
Geometry Grp	7	7	2	2	5
Degree of Util (X)	1.768	0.28	1.453	2.005	2.392
Departure Headway (Hd)	17.804	17.04	21.451	17.943	16.776
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	209	213	178	211	232
Service Time	15.504	14.74	19.451	15.943	14.776
HCM Lane V/C Ratio	3.124	0.526	3.028	3.578	3.849
HCM Control Delay	403.1	26.2	282.6	506.5	673.8
HCM Lane LOS	F	D	F	F	F
HCM 95th-tile Q	24.8	1.1	15.4	30.2	41.9

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	179	1070	368	904	219	526	297	100	472	185
Future Volume (vph)	179	1070	368	904	219	526	297	100	472	185
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	16.0	45.4	18.2	47.6	15.4	46.8	46.8	9.6	41.0	41.0
Total Split (%)	13.3%	37.8%	15.2%	39.7%	12.8%	39.0%	39.0%	8.0%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	11.4	39.4	13.6	41.6	10.8	40.8	40.8	5.0	35.0	35.0
Actuated g/C Ratio	0.10	0.33	0.11	0.35	0.09	0.34	0.34	0.04	0.29	0.29
v/c Ratio	1.09	1.16	1.88	0.79	1.40	0.45	0.44	1.40	0.47	0.32
Control Delay	145.8	118.0	444.4	40.8	254.5	32.3	9.8	284.4	36.7	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	145.8	118.0	444.4	40.8	254.5	32.3	9.8	284.4	36.7	6.1
LOS	F	F	F	D	F	C	A	F	D	A
Approach Delay		121.4		154.0		72.5			61.9	
Approach LOS		F		F		E			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 18.2 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.88	
Intersection Signal Delay: 109.8	Intersection LOS: F
Intersection Capacity Utilization 116.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	1070	231	368	904	41	219	526	297	100	472	185
Future Volume (veh/h)	179	1070	231	368	904	41	219	526	297	100	472	185
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	183	1092	173	376	922	38	223	537	258	102	482	125
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	2185	345	201	2535	104	160	1245	556	74	1032	460
Arrive On Green	0.09	0.71	0.71	0.11	0.73	0.73	0.09	0.35	0.35	0.04	0.29	0.29
Sat Flow, veh/h	1774	3063	484	1774	3464	143	1774	3539	1581	1774	3539	1578
Grp Volume(v), veh/h	183	630	635	376	471	489	223	537	258	102	482	125
Grp Sat Flow(s),veh/h/ln	1774	1770	1777	1774	1770	1837	1774	1770	1581	1774	1770	1578
Q Serve(g_s), s	11.4	19.0	19.1	13.6	11.7	11.7	10.8	13.9	15.2	5.0	13.4	9.5
Cycle Q Clear(g_c), s	11.4	19.0	19.1	13.6	11.7	11.7	10.8	13.9	15.2	5.0	13.4	9.5
Prop In Lane	1.00		0.27	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	1262	1268	201	1295	1344	160	1245	556	74	1032	460
V/C Ratio(X)	1.09	0.50	0.50	1.87	0.36	0.36	1.40	0.43	0.46	1.38	0.47	0.27
Avail Cap(c_a), veh/h	169	1262	1268	201	1295	1344	160	1245	556	74	1032	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.3	7.7	7.7	53.2	5.9	5.9	54.6	29.7	30.1	57.5	34.9	55.4
Incr Delay (d2), s/veh	94.1	1.4	1.4	409.9	0.8	0.8	211.9	1.1	2.8	235.2	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	9.6	9.7	29.5	5.9	6.1	14.7	7.0	7.0	7.3	6.8	4.3
LnGrp Delay(d),s/veh	148.4	9.1	9.1	463.1	6.7	6.7	266.5	30.8	32.9	292.7	36.4	56.8
LnGrp LOS	F	A	A	F	A	A	F	C	C	F	D	E
Approach Vol, veh/h		1448			1336			1018			709	
Approach Delay, s/veh		26.7			135.1			83.0			76.9	
Approach LOS		C			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.2	93.0	16.8	41.0	16.0	95.2	9.6	48.2
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	13.6	39.4	10.8	* 35	11.4	41.6	5.0	40.8
Max Q Clear Time (g_c+I1), s	15.6	21.1	12.8	15.4	13.4	13.7	7.0	17.2
Green Ext Time (p_c), s	0.0	8.5	0.0	1.8	0.0	10.1	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	79.4
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	60	977	108	248	778
Future Vol, veh/h	16	60	977	108	248	778
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	64	1039	115	264	828

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2395	1040	0	0	1040	0
Stage 1	1040	-	-	-	-	-
Stage 2	1355	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	37	280	-	-	669	-
Stage 1	341	-	-	-	-	-
Stage 2	240	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	22	280	-	-	669	-
Mov Cap-2 Maneuver	126	-	-	-	-	-
Stage 1	341	-	-	-	-	-
Stage 2	145	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30	0	3.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	223	669	-
HCM Lane V/C Ratio	-	-	0.363	0.394	-
HCM Control Delay (s)	-	-	30	13.8	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	1.6	1.9	-

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	53	1105	3	22	798
Future Vol, veh/h	0	53	1105	3	22	798
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	55	1139	3	23	823

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2009	1141	0	0	1142	0
Stage 1	1141	-	-	-	-	-
Stage 2	868	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	65	244	-	-	612	-
Stage 1	305	-	-	-	-	-
Stage 2	411	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	63	244	-	-	612	-
Mov Cap-2 Maneuver	236	-	-	-	-	-
Stage 1	305	-	-	-	-	-
Stage 2	396	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24	0	0.3
HCM LOS	C		

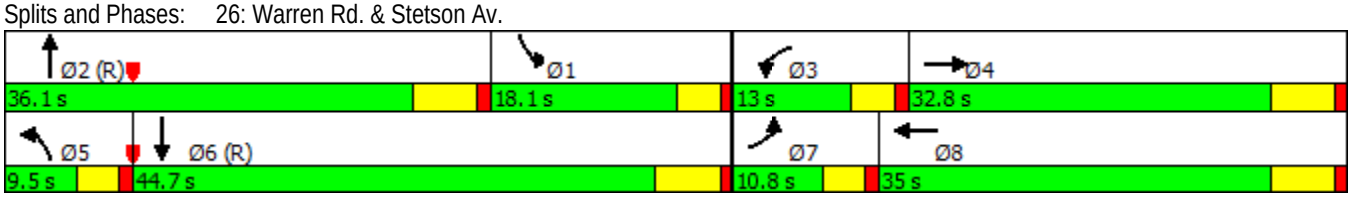
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	244	612	-
HCM Lane V/C Ratio	-	-	0.224	0.037	-
HCM Control Delay (s)	-	-	24	11.1	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.8	0.1	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	64	99	127	91	5	769	217	557
Future Volume (vph)	64	99	127	91	5	769	217	557
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	32.8	9.5	32.8
Total Split (s)	10.8	32.8	13.0	35.0	9.5	36.1	18.1	44.7
Total Split (%)	10.8%	32.8%	13.0%	35.0%	9.5%	36.1%	18.1%	44.7%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.3	18.5	8.7	22.8	5.1	38.9	13.9	55.1
Actuated g/C Ratio	0.06	0.18	0.09	0.23	0.05	0.39	0.14	0.55
v/c Ratio	0.61	0.34	0.86	0.78	0.06	0.73	0.92	0.32
Control Delay	68.8	34.1	89.5	32.5	46.6	30.7	83.8	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.8	34.1	89.5	32.5	46.6	30.7	83.8	14.5
LOS	E	C	F	C	D	C	F	B
Approach Delay		46.7		47.0		30.7		33.0
Approach LOS		D		D		C		C

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 36.0 — Intersection LOS: D
Intersection Capacity Utilization 81.7% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	99	14	127	91	279	5	769	175	217	557	39
Future Volume (veh/h)	64	99	14	127	91	279	5	769	175	217	557	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	67	103	15	132	95	291	5	801	182	226	580	41
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	86	349	51	156	105	321	12	868	197	308	1630	115
Arrive On Green	0.05	0.22	0.22	0.09	0.26	0.26	0.01	0.30	0.30	0.17	0.49	0.49
Sat Flow, veh/h	1774	1590	232	1774	405	1239	1774	2866	651	1774	3354	237
Grp Volume(v), veh/h	67	0	118	132	0	386	5	495	488	226	306	315
Grp Sat Flow(s),veh/h/ln	1774	0	1822	1774	0	1644	1774	1770	1748	1774	1770	1821
Q Serve(g_s), s	3.7	0.0	5.4	7.3	0.0	22.7	0.3	27.0	27.0	12.1	10.7	10.8
Cycle Q Clear(g_c), s	3.7	0.0	5.4	7.3	0.0	22.7	0.3	27.0	27.0	12.1	10.7	10.8
Prop In Lane	1.00		0.13	1.00		0.75	1.00		0.37	1.00		0.13
Lane Grp Cap(c), veh/h	86	0	400	156	0	426	12	536	530	308	860	885
V/C Ratio(X)	0.78	0.00	0.30	0.85	0.00	0.91	0.43	0.92	0.92	0.73	0.36	0.36
Avail Cap(c_a), veh/h	117	0	492	156	0	480	94	536	530	308	860	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	0.0	32.6	44.9	0.0	35.9	49.5	33.7	33.7	39.1	16.0	16.0
Incr Delay (d2), s/veh	13.8	0.0	0.4	31.2	0.0	19.4	6.9	19.0	19.2	7.7	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	2.8	4.9	0.0	12.6	0.2	16.0	15.9	6.6	5.5	5.6
LnGrp Delay(d),s/veh	60.9	0.0	33.0	76.1	0.0	55.3	56.4	52.7	52.9	46.9	17.1	17.1
LnGrp LOS	E		C	E		E	E	D	D	D	B	B
Approach Vol, veh/h		185			518			988			847	
Approach Delay, s/veh		43.1			60.6			52.9			25.0	
Approach LOS		D			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.2	36.1	13.0	27.7	4.8	54.4	9.0	31.7
Change Period (Y+Rc), s	5.8	* 5.8	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8
Max Green Setting (Gmax), s	13.9	* 30	* 8.8	27.0	* 5.3	38.9	* 6.6	29.2
Max Q Clear Time (g_c+I1), s	14.1	29.0	9.3	7.4	2.3	12.8	5.7	24.7
Green Ext Time (p_c), s	0.0	0.9	0.0	2.7	0.0	4.9	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	44.4
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	99	33	11	844	656
Future Volume (vph)	99	33	11	844	656
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	34.8	34.8	9.2	15.8	34.8
Total Split (s)	35.0	35.0	9.2	49.1	39.9
Total Split (%)	41.6%	41.6%	10.9%	58.4%	47.4%
Yellow Time (s)	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	14.0	14.0	5.2	62.8	60.9
Actuated g/C Ratio	0.17	0.17	0.06	0.75	0.72
v/c Ratio	0.37	0.13	0.11	0.66	0.56
Control Delay	32.7	9.2	39.6	12.9	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	9.2	39.6	12.9	13.3
LOS	C	A	D	B	B
Approach Delay	26.8			13.3	13.3
Approach LOS	C			B	B

Intersection Summary	
Cycle Length: 84.1	
Actuated Cycle Length: 84.1	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 14.3	Intersection LOS: B
Intersection Capacity Utilization 63.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 27: Warren Rd. & New Stetson Av.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	99	33	11	844	656	34
Future Volume (veh/h)	99	33	11	844	656	34
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	108	36	12	917	713	37
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	204	182	26	1391	1198	62
Arrive On Green	0.11	0.11	0.01	0.75	0.68	0.68
Sat Flow, veh/h	1774	1583	1774	1863	1756	91
Grp Volume(v), veh/h	108	36	12	917	0	750
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	0	1847
Q Serve(g_s), s	4.8	1.7	0.6	20.6	0.0	18.2
Cycle Q Clear(g_c), s	4.8	1.7	0.6	20.6	0.0	18.2
Prop In Lane	1.00	1.00	1.00			0.05
Lane Grp Cap(c), veh/h	204	182	26	1391	0	1260
V/C Ratio(X)	0.53	0.20	0.47	0.66	0.00	0.60
Avail Cap(c_a), veh/h	617	550	106	1391	0	1260
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.89
Uniform Delay (d), s/veh	35.0	33.7	41.1	5.3	0.0	7.1
Incr Delay (d2), s/veh	0.8	0.2	4.8	2.5	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.6	0.3	11.1	0.0	9.8
LnGrp Delay(d),s/veh	35.8	33.9	45.8	7.8	0.0	9.0
LnGrp LOS	D	C	D	A		A
Approach Vol, veh/h	144			929	750	
Approach Delay, s/veh	35.3			8.2	9.0	
Approach LOS	D			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		68.5		15.5	5.4	63.1		
Change Period (Y+Rc), s		5.8		5.8	* 4.2	5.8		
Max Green Setting (Gmax), s		43.3		29.2	* 5	34.1		
Max Q Clear Time (g_c+I1), s		22.6		6.8	2.6	20.2		
Green Ext Time (p_c), s		7.6		0.2	0.0	6.3		

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Notes

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	33	6	822	678
Future Volume (vph)	33	6	822	678
Turn Type	Prot	Prot	NA	NA
Protected Phases	4	5	2	6
Permitted Phases				
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	10.8	23.8
Total Split (s)	13.0	10.0	47.0	37.0
Total Split (%)	21.7%	16.7%	78.3%	61.7%
Yellow Time (s)	3.6	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Min	C-Min
Act Effct Green (s)	6.1	5.1	49.7	47.6
Actuated g/C Ratio	0.10	0.08	0.83	0.79
v/c Ratio	0.28	0.05	0.58	0.51
Control Delay	22.2	35.2	2.1	7.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	22.2	35.2	2.1	7.5
LOS	C	D	A	A
Approach Delay	22.2		2.4	7.5
Approach LOS	C		A	A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 5.2	Intersection LOS: A
Intersection Capacity Utilization 56.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 28: Warren Rd. & Street D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	33	16	6	822	678	11
Future Volume (veh/h)	33	16	6	822	678	11
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	36	17	7	893	737	12
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	56	27	16	1448	1264	21
Arrive On Green	0.05	0.05	0.02	1.00	0.69	0.69
Sat Flow, veh/h	1140	539	1774	1863	1828	30
Grp Volume(v), veh/h	54	0	7	893	0	749
Grp Sat Flow(s),veh/h/ln	1711	0	1774	1863	0	1857
Q Serve(g_s), s	1.9	0.0	0.2	0.0	0.0	12.5
Cycle Q Clear(g_c), s	1.9	0.0	0.2	0.0	0.0	12.5
Prop In Lane	0.67	0.31	1.00			0.02
Lane Grp Cap(c), veh/h	85	0	16	1448	0	1284
V/C Ratio(X)	0.64	0.00	0.43	0.62	0.00	0.58
Avail Cap(c_a), veh/h	239	0	160	1448	0	1284
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.27	0.27	0.00	1.00
Uniform Delay (d), s/veh	28.0	0.0	29.3	0.0	0.0	4.8
Incr Delay (d2), s/veh	3.0	0.0	1.8	0.5	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.1	0.2	0.0	6.9
LnGrp Delay(d),s/veh	30.9	0.0	31.1	0.5	0.0	6.7
LnGrp LOS	C		C	A		A
Approach Vol, veh/h	54			900	749	
Approach Delay, s/veh	30.9			0.8	6.7	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		52.4		7.6	5.2	47.3		
Change Period (Y+Rc), s		5.8		4.6	4.6	5.8		
Max Green Setting (Gmax), s		41.2		8.4	5.4	31.2		
Max Q Clear Time (g_c+I1), s		2.0		3.9	2.2	14.5		
Green Ext Time (p_c), s		22.7		0.0	0.0	12.5		

Intersection Summary	
HCM 2010 Ctrl Delay	4.4
HCM 2010 LOS	A

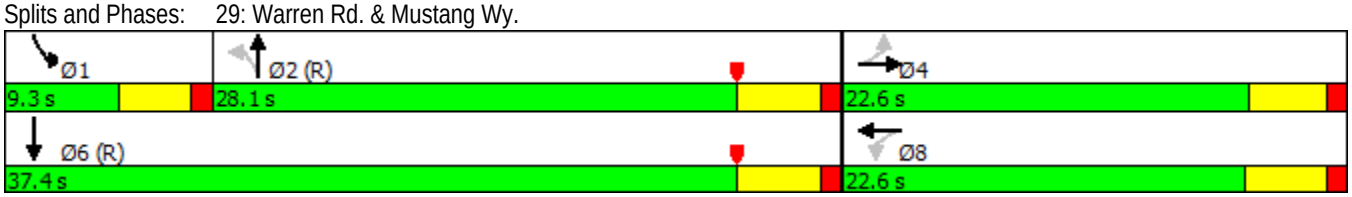
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	115	20	275	7	27	573	91	569
Future Volume (vph)	115	20	275	7	27	573	91	569
Turn Type	Perm	NA	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2			
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.5	22.5	21.6	21.6	21.7	21.7	9.2	14.7
Total Split (s)	22.6	22.6	22.6	22.6	28.1	28.1	9.3	37.4
Total Split (%)	37.7%	37.7%	37.7%	37.7%	46.8%	46.8%	15.5%	62.3%
Yellow Time (s)	3.5	3.5	3.6	3.6	3.7	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.6	4.6	4.7	4.7	4.2	4.7
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	17.0	17.0	16.9	16.9	26.3	26.3	5.2	33.8
Actuated g/C Ratio	0.28	0.28	0.28	0.28	0.44	0.44	0.09	0.56
v/c Ratio	0.38	0.21	0.85	0.30	0.10	1.01	0.66	0.65
Control Delay	20.4	6.9	44.8	5.2	13.0	56.0	48.4	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	6.9	44.8	5.2	13.0	56.0	48.4	12.4
LOS	C	A	D	A	B	E	D	B
Approach Delay		14.1		30.6		54.5		17.1
Approach LOS		B		C		D		B

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 33.0 — Intersection LOS: C
Intersection Capacity Utilization 80.9% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	20	81	275	7	148	27	573	155	91	569	39
Future Volume (veh/h)	115	20	81	275	7	148	27	573	155	91	569	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	128	22	90	306	8	117	30	637	158	101	632	43
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	423	96	393	437	31	449	274	579	144	130	940	64
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.02	0.18	0.18
Sat Flow, veh/h	1261	320	1311	1276	102	1496	761	1442	358	1774	1725	117
Grp Volume(v), veh/h	128	0	112	306	0	125	30	0	795	101	0	675
Grp Sat Flow(s),veh/h/ln	1261	0	1631	1276	0	1599	761	0	1800	1774	0	1842
Q Serve(g_s), s	5.1	0.0	3.1	14.2	0.0	3.6	2.0	0.0	24.1	3.4	0.0	20.5
Cycle Q Clear(g_c), s	8.7	0.0	3.1	17.3	0.0	3.6	13.9	0.0	24.1	3.4	0.0	20.5
Prop In Lane	1.00		0.80	1.00		0.94	1.00		0.20	1.00		0.06
Lane Grp Cap(c), veh/h	423	0	489	437	0	480	274	0	723	130	0	1004
V/C Ratio(X)	0.30	0.00	0.23	0.70	0.00	0.26	0.11	0.00	1.10	0.78	0.00	0.67
Avail Cap(c_a), veh/h	425	0	492	437	0	480	274	0	723	151	0	1004
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.85	0.00	0.85
Uniform Delay (d), s/veh	19.3	0.0	15.8	22.3	0.0	15.9	19.8	0.0	17.9	28.8	0.0	19.6
Incr Delay (d2), s/veh	0.4	0.0	0.2	4.9	0.0	0.3	0.8	0.0	64.0	14.2	0.0	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	1.4	5.6	0.0	1.6	0.5	0.0	24.7	2.2	0.0	11.3
LnGrp Delay(d),s/veh	19.7	0.0	16.0	27.2	0.0	16.2	20.6	0.0	82.0	43.0	0.0	22.7
LnGrp LOS	B		B	C		B	C		F	D		C
Approach Vol, veh/h		240			431			825			776	
Approach Delay, s/veh		18.0			24.0			79.8			25.3	
Approach LOS		B			C			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	8.6	28.8		22.6		37.4		22.6
Change Period (Y+Rc), s	* 4.2	* 4.7		* 4.6		* 4.7		4.6
Max Green Setting (Gmax), s	* 5.1	* 23		* 18		* 33		18.0
Max Q Clear Time (g_c+I1), s	5.4	26.1		10.7		22.5		19.3
Green Ext Time (p_c), s	0.0	0.0		1.9		8.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	44.1
HCM 2010 LOS	D

Notes

Intersection	
Intersection Delay, s/veh	156.5
Intersection LOS	F

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	199	32	0	661	257	0	44	537
Future Vol, veh/h	0	199	32	0	661	257	0	44	537
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	229	37	0	760	295	0	51	617
Number of Lanes	0	1	0	0	1	1	0	1	1

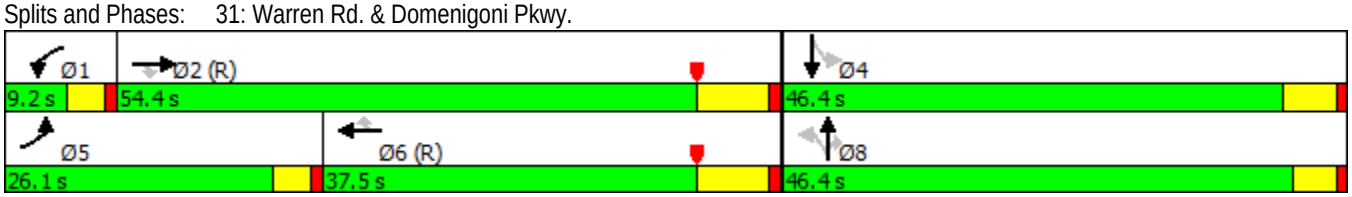
Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	20.4	224.7	103
HCM LOS	C	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	86%	0%	100%
Vol Right, %	0%	100%	14%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	44	537	231	661	257
LT Vol	44	0	0	661	0
Through Vol	0	0	199	0	257
RT Vol	0	537	32	0	0
Lane Flow Rate	51	617	266	760	295
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.11	1.14	0.541	1.608	0.583
Departure Headway (Hd)	8.541	7.31	8.153	8.061	7.547
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	422	500	446	456	482
Service Time	6.241	5.01	6.153	5.761	5.247
HCM Lane V/C Ratio	0.121	1.234	0.596	1.667	0.612
HCM Control Delay	12.3	110.4	20.4	304.2	20.3
HCM Lane LOS	B	F	C	F	C
HCM 95th-tile Q	0.4	19.4	3.1	40.6	3.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	480	1294	2	2	1543	97	3	14	1	126	9
Future Volume (vph)	480	1294	2	2	1543	97	3	14	1	126	9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	21.9	54.9	54.9	5.0	30.6	30.6		41.8	41.8		41.0
Actuated g/C Ratio	0.20	0.50	0.50	0.05	0.28	0.28		0.38	0.38		0.37
v/c Ratio	1.50	0.81	0.00	0.03	1.72	0.21		0.03	0.00		1.07
Control Delay	271.1	28.3	0.0	51.0	357.9	6.9		21.6	0.0		78.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	271.1	28.3	0.0	51.0	357.9	6.9		21.6	0.0		78.5
LOS	F	C	A	D	F	A		C	A		E
Approach Delay		93.8			336.7			20.5			78.5
Approach LOS		F			F			C			E

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.72	
Intersection Signal Delay: 187.7	Intersection LOS: F
Intersection Capacity Utilization 131.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	480	1294	2	2	1543	97	3	14	1	126	9	556
Future Volume (veh/h)	480	1294	2	2	1543	97	3	14	1	126	9	556
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	527	1422	2	2	1696	97	3	15	0	138	10	466
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	1680	736	5	985	431	97	460	590	160	19	438
Arrive On Green	0.20	0.47	0.47	0.00	0.28	0.28	0.37	0.37	0.00	0.37	0.37	0.37
Sat Flow, veh/h	1774	3539	1550	1774	3539	1550	158	1235	1583	322	51	1174
Grp Volume(v), veh/h	527	1422	2	2	1696	97	18	0	0	614	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1550	1394	0	1583	1547	0	0
Q Serve(g_s), s	21.9	38.8	0.1	0.1	30.6	5.3	0.0	0.0	0.0	38.1	0.0	0.0
Cycle Q Clear(g_c), s	21.9	38.8	0.1	0.1	30.6	5.3	0.7	0.0	0.0	41.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.17		1.00	0.22		0.76
Lane Grp Cap(c), veh/h	353	1680	736	5	985	431	558	0	590	617	0	0
V/C Ratio(X)	1.49	0.85	0.00	0.42	1.72	0.23	0.03	0.00	0.00	1.00	0.00	0.00
Avail Cap(c_a), veh/h	353	1680	736	81	985	431	569	0	602	617	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	25.4	15.2	54.8	39.7	30.6	21.9	0.0	0.0	35.7	0.0	0.0
Incr Delay (d2), s/veh	235.9	5.5	0.0	20.2	329.5	1.2	0.0	0.0	0.0	35.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	33.8	20.0	0.0	0.1	60.0	2.4	0.3	0.0	0.0	24.6	0.0	0.0
LnGrp Delay(d),s/veh	280.0	30.9	15.2	74.9	369.2	31.8	21.9	0.0	0.0	70.7	0.0	0.0
LnGrp LOS	F	C	B	E	F	C	C			E		
Approach Vol, veh/h		1951			1795			18			614	
Approach Delay, s/veh		98.1			350.6			21.9			70.7	
Approach LOS		F			F			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	59.1		46.4	26.1	37.5		46.4
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.1	40.8		43.0	23.9	32.6		2.7
Green Ext Time (p_c), s	0.0	5.8		0.0	0.0	0.0		3.0

Intersection Summary		
HCM 2010 Ctrl Delay		197.5
HCM 2010 LOS		F

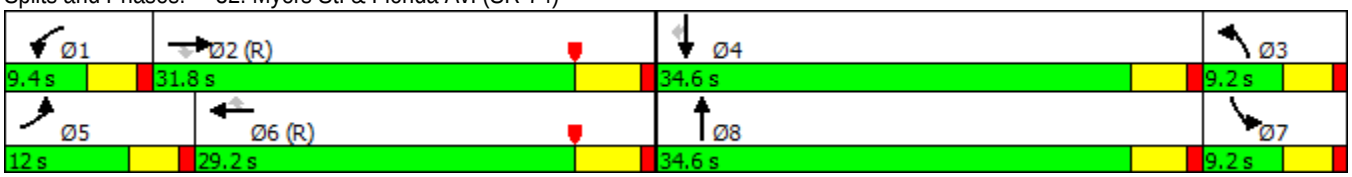
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	161	1206	5	17	981	144	24	69	147	52	193
Future Volume (vph)	161	1206	5	17	981	144	24	69	147	52	193
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.0	31.8	31.8	9.4	29.2	29.2	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.1%	37.4%	37.4%	11.1%	34.4%	34.4%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.8	32.3	32.3	5.1	24.1	24.1	5.0	30.0	5.0	35.5	35.5
Actuated g/C Ratio	0.09	0.38	0.38	0.06	0.28	0.28	0.06	0.35	0.06	0.42	0.42
v/c Ratio	1.01	0.91	0.01	0.16	1.00	0.27	0.23	0.17	1.44	0.07	0.25
Control Delay	115.8	38.9	0.0	51.7	28.5	1.2	43.8	13.5	277.9	17.1	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.8	38.9	0.0	51.7	28.5	1.2	43.8	13.5	277.9	17.1	4.0
LOS	F	D	A	D	C	A	D	B	F	B	A
Approach Delay		47.8			25.4			18.9		108.4	
Approach LOS		D			C			B		F	

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.44
Intersection Signal Delay: 45.9 — Intersection LOS: D
Intersection Capacity Utilization 63.9% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	1206	5	17	981	144	24	69	41	147	52	193
Future Volume (veh/h)	161	1206	5	17	981	144	24	69	41	147	52	193
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	164	1231	5	17	1001	147	24	70	18	150	53	142
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	1259	552	35	1003	447	104	505	130	104	657	559
Arrive On Green	0.09	0.36	0.36	0.04	0.57	0.57	0.06	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	1774	3539	1550	1774	3539	1575	1774	1430	368	1774	1863	1583
Grp Volume(v), veh/h	164	1231	5	17	1001	147	24	0	88	150	53	142
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1575	1774	0	1798	1774	1863	1583
Q Serve(g_s), s	7.8	29.2	0.1	0.8	24.0	3.2	1.1	0.0	2.8	5.0	1.6	3.8
Cycle Q Clear(g_c), s	7.8	29.2	0.1	0.8	24.0	3.2	1.1	0.0	2.8	5.0	1.6	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	163	1259	552	35	1003	447	104	0	635	104	657	559
V/C Ratio(X)	1.01	0.98	0.01	0.49	1.00	0.33	0.23	0.00	0.14	1.44	0.08	0.25
Avail Cap(c_a), veh/h	163	1259	552	109	1003	447	104	0	635	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	27.0	9.7	40.4	18.4	8.3	38.2	0.0	18.7	40.0	18.3	9.5
Incr Delay (d2), s/veh	72.5	20.5	0.0	4.0	27.8	2.0	0.4	0.0	0.5	242.8	0.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	17.8	0.1	0.4	15.1	1.6	0.6	0.0	1.5	9.5	0.9	1.8
LnGrp Delay(d),s/veh	111.1	47.5	9.7	44.4	46.2	10.2	38.6	0.0	19.2	282.8	18.6	10.6
LnGrp LOS	F	D	A	D	D	B	D		B	F	B	B
Approach Vol, veh/h		1400			1165			112			345	
Approach Delay, s/veh		54.9			41.6			23.3			130.2	
Approach LOS		D			D			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	35.3	9.2	34.6	12.0	29.2	9.2	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.2	26.7	5.0	* 30	* 7.8	24.1	5.0	* 30
Max Q Clear Time (g_c+I1), s	2.8	31.2	3.1	5.8	9.8	26.0	7.0	4.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	57.2
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1185	322	0	1299	0	0
Future Vol, veh/h	1185	322	0	1299	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1261	343	0	1382	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1261	0	-	630
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*902	-	0	*603
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*902	-	-	*603
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	* 902	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

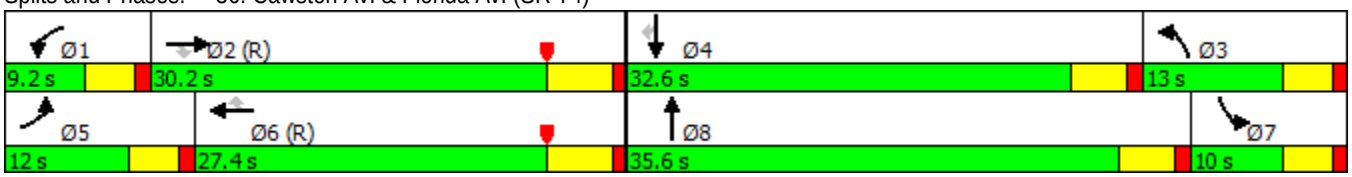
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	114	1060	12	31	1052	89	129	66	188	79	118
Future Volume (vph)	114	1060	12	31	1052	89	129	66	188	79	118
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	12.0	30.2	30.2	9.2	27.4	27.4	13.0	35.6	10.0	32.6	32.6
Total Split (%)	14.1%	35.5%	35.5%	10.8%	32.2%	32.2%	15.3%	41.9%	11.8%	38.4%	38.4%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.5	28.8	28.8	5.0	22.6	22.6	8.8	31.0	5.8	28.0	28.0
Actuated g/C Ratio	0.09	0.34	0.34	0.06	0.27	0.27	0.10	0.36	0.07	0.33	0.33
v/c Ratio	0.76	0.91	0.02	0.31	1.15	0.18	0.73	0.07	1.62	0.13	0.20
Control Delay	66.8	32.5	0.0	45.8	98.6	3.6	61.0	13.7	342.2	20.8	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.8	32.5	0.0	45.8	98.6	3.6	61.0	13.7	342.2	20.8	4.1
LOS	E	C	A	D	F	A	E	B	F	C	A
Approach Delay		35.5			90.0			41.6		172.7	
Approach LOS		D			F			D		F	

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 38 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.62
Intersection Signal Delay: 75.3 — Intersection LOS: E
Intersection Capacity Utilization 72.8% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	1060	12	31	1052	89	129	66	23	188	79	118
Future Volume (veh/h)	114	1060	12	31	1052	89	129	66	23	188	79	118
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	118	1093	11	32	1085	76	133	68	21	194	81	54
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	1143	511	55	959	429	184	982	291	121	614	522
Arrive On Green	0.11	0.43	0.43	0.03	0.27	0.27	0.10	0.36	0.36	0.07	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	2693	798	1774	1863	1583
Grp Volume(v), veh/h	118	1093	11	32	1085	76	133	44	45	194	81	54
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1721	1774	1863	1583
Q Serve(g_s), s	5.5	25.4	0.2	1.5	23.0	2.4	6.2	1.4	1.5	5.8	2.6	1.5
Cycle Q Clear(g_c), s	5.5	25.4	0.2	1.5	23.0	2.4	6.2	1.4	1.5	5.8	2.6	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.46	1.00		1.00
Lane Grp Cap(c), veh/h	147	1143	511	55	959	429	184	645	628	121	614	522
V/C Ratio(X)	0.80	0.96	0.02	0.58	1.13	0.18	0.72	0.07	0.07	1.60	0.13	0.10
Avail Cap(c_a), veh/h	163	1143	511	104	959	429	184	645	628	121	614	522
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	23.7	7.8	40.6	31.0	13.6	36.9	17.6	17.6	39.6	20.0	10.3
Incr Delay (d2), s/veh	19.9	18.0	0.1	3.5	72.1	0.9	11.6	0.2	0.2	306.2	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	15.2	0.1	0.8	20.8	1.1	3.6	0.7	0.7	13.1	1.4	0.7
LnGrp Delay(d),s/veh	57.0	41.7	7.8	44.1	103.1	14.5	48.5	17.8	17.8	345.8	20.4	10.7
LnGrp LOS	E	D	A	D	F	B	D	B	B	F	C	B
Approach Vol, veh/h		1222			1193			222			329	
Approach Delay, s/veh		42.8			95.9			36.2			210.7	
Approach LOS		D			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	32.5	13.0	32.6	11.3	28.1	10.0	35.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5	25.1	8.8	* 28	* 7.8	22.3	5.8	* 31
Max Q Clear Time (g_c+I1), s	3.5	27.4	8.2	4.6	7.5	25.0	7.8	3.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.5

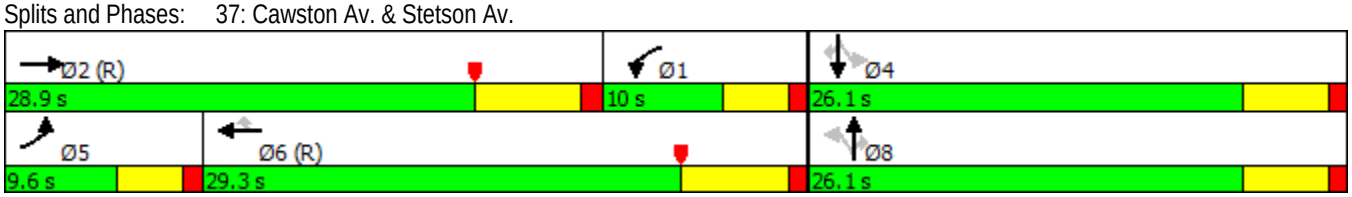
Intersection Summary	
HCM 2010 Ctrl Delay	82.3
HCM 2010 LOS	F

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	40	290	180	314	23	69	167	252	20	119	22
Future Volume (vph)	40	290	180	314	23	69	167	252	20	119	22
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.6	28.9	10.0	29.3	29.3	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.8%	44.5%	15.4%	45.1%	45.1%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.3	22.7	5.8	26.9	26.9	21.0	21.0	21.0	21.0	21.0	21.0
Actuated g/C Ratio	0.08	0.35	0.09	0.41	0.41	0.32	0.32	0.32	0.32	0.32	0.32
v/c Ratio	0.34	0.32	1.40	0.50	0.04	0.21	0.34	0.43	0.07	0.24	0.04
Control Delay	35.0	15.6	243.1	18.2	0.1	17.8	18.7	4.4	15.9	17.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	15.6	243.1	18.2	0.1	17.8	18.7	4.4	15.9	17.5	0.1
LOS	D	B	F	B	A	B	B	A	B	B	A
Approach Delay		17.8		95.8			11.2			14.9	
Approach LOS		B		F			B			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.40	
Intersection Signal Delay: 41.9	Intersection LOS: D
Intersection Capacity Utilization 50.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	290	28	180	314	23	69	167	252	20	119	22
Future Volume (veh/h)	40	290	28	180	314	23	69	167	252	20	119	22
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	49	354	32	220	383	21	84	204	168	24	145	10
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	1147	103	1521	2221	1888	437	602	512	352	602	505
Arrive On Green	0.05	0.35	0.35	0.86	1.00	1.00	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	3285	295	1774	1863	1583	1227	1863	1583	1006	1863	1563
Grp Volume(v), veh/h	49	190	196	220	383	21	84	204	168	24	145	10
Grp Sat Flow(s),veh/h/ln	1774	1770	1811	1774	1863	1583	1227	1863	1583	1006	1863	1563
Q Serve(g_s), s	1.8	5.1	5.1	1.3	0.0	0.0	3.5	5.4	5.2	1.2	3.7	0.3
Cycle Q Clear(g_c), s	1.8	5.1	5.1	1.3	0.0	0.0	7.2	5.4	5.2	6.6	3.7	0.3
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	80	618	632	1521	2221	1888	437	602	512	352	602	505
V/C Ratio(X)	0.61	0.31	0.31	0.14	0.17	0.01	0.19	0.34	0.33	0.07	0.24	0.02
Avail Cap(c_a), veh/h	147	618	632	1521	2221	1888	437	602	512	352	602	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	0.54	0.54	0.54	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	15.4	15.4	0.8	0.0	0.0	18.8	16.7	16.7	19.2	16.1	15.0
Incr Delay (d2), s/veh	2.5	1.1	1.1	0.0	0.1	0.0	1.0	1.5	1.7	0.4	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.7	2.8	0.6	0.1	0.0	1.3	3.0	2.5	0.4	2.1	0.1
LnGrp Delay(d),s/veh	32.9	16.6	16.6	0.8	0.1	0.0	19.8	18.2	18.4	19.6	17.1	15.1
LnGrp LOS	C	B	B	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		435			624			456			179	
Approach Delay, s/veh		18.4			0.3			18.6			17.3	
Approach LOS		B			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	62.7	28.9		26.1	7.1	84.5		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.8	* 23		21.0	* 5.4	23.1		21.0
Max Q Clear Time (g_c+I1), s	3.3	7.1		8.6	3.8	2.0		9.2
Green Ext Time (p_c), s	0.2	1.0		1.5	0.0	1.5		1.5

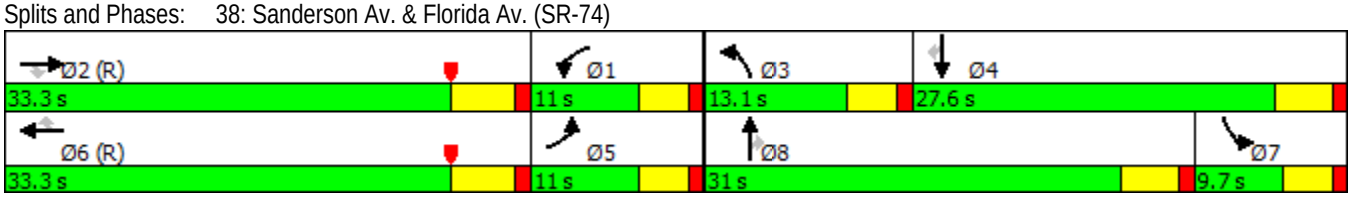
Intersection Summary	
HCM 2010 Ctrl Delay	11.7
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	238	843	102	166	699	131	328	901	168	197	749	209
Future Volume (vph)	238	843	102	166	699	131	328	901	168	197	749	209
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	11.0	33.3	33.3	11.0	33.3	33.3	13.1	31.0	31.0	9.7	27.6	27.6
Total Split (%)	12.9%	39.2%	39.2%	12.9%	39.2%	39.2%	15.4%	36.5%	36.5%	11.4%	32.5%	32.5%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	6.8	28.2	28.2	6.8	28.2	28.2	8.9	26.3	26.3	5.5	22.9	22.9
Actuated g/C Ratio	0.08	0.33	0.33	0.08	0.33	0.33	0.10	0.31	0.31	0.06	0.27	0.27
v/c Ratio	1.86	0.79	0.17	1.29	0.65	0.22	1.95	0.90	0.31	1.89	0.86	0.40
Control Delay	412.3	22.7	2.7	208.7	27.4	2.3	469.9	41.2	5.1	459.9	40.7	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	412.3	22.7	2.7	208.7	27.4	2.3	469.9	41.2	5.1	459.9	40.7	7.8
LOS	F	C	A	F	C	A	F	D	A	F	D	A
Approach Delay		99.5			54.3			137.4			106.1	
Approach LOS		F			D			F			F	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 81 (95%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.95	
Intersection Signal Delay: 102.8	Intersection LOS: F
Intersection Capacity Utilization 89.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	238	843	102	166	699	131	328	901	168	197	749	209
Future Volume (veh/h)	238	843	102	166	699	131	328	901	168	197	749	209
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	262	926	83	182	768	85	360	990	75	216	823	178
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	486	1174	516	486	1174	516	186	1095	475	115	974	436
Arrive On Green	0.27	0.33	0.33	0.27	0.33	0.33	0.10	0.31	0.31	0.06	0.28	0.28
Sat Flow, veh/h	1774	3539	1556	1774	3539	1555	1774	3539	1535	1774	3539	1583
Grp Volume(v), veh/h	262	926	83	182	768	85	360	990	75	216	823	178
Grp Sat Flow(s),veh/h/ln	1774	1770	1556	1774	1770	1555	1774	1770	1535	1774	1770	1583
Q Serve(g_s), s	10.7	20.1	3.1	7.1	15.7	3.3	8.9	22.8	3.0	5.5	18.7	5.9
Cycle Q Clear(g_c), s	10.7	20.1	3.1	7.1	15.7	3.3	8.9	22.8	3.0	5.5	18.7	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	486	1174	516	486	1174	516	186	1095	475	115	974	436
V/C Ratio(X)	0.54	0.79	0.16	0.37	0.65	0.16	1.94	0.90	0.16	1.88	0.84	0.41
Avail Cap(c_a), veh/h	486	1174	516	486	1174	516	186	1095	475	115	974	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.3	25.7	19.2	25.0	24.2	20.1	38.0	28.1	21.3	39.8	29.1	14.3
Incr Delay (d2), s/veh	0.7	5.4	0.7	0.2	2.8	0.7	441.3	12.1	0.7	427.8	8.9	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	10.7	1.4	3.5	8.1	1.5	27.1	13.0	1.4	16.3	10.2	2.9
LnGrp Delay(d),s/veh	26.9	31.1	19.9	25.1	27.1	20.8	479.3	40.2	22.0	467.5	38.0	17.1
LnGrp LOS	C	C	B	C	C	C	F	D	C	F	D	B
Approach Vol, veh/h		1271			1035			1425			1217	
Approach Delay, s/veh		29.5			26.2			150.2			111.2	
Approach LOS		C			C			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	33.3	13.1	28.1	28.0	33.3	10.2	31.0
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.7	* 4.7
Max Green Setting (Gmax), s	6.8	* 28	* 8.9	* 23	6.8	* 28	* 5.5	* 26
Max Q Clear Time (g_c+I1), s	9.1	22.1	10.9	20.7	12.7	17.7	7.5	24.8
Green Ext Time (p_c), s	0.0	3.8	0.0	1.4	0.0	5.0	0.0	1.0

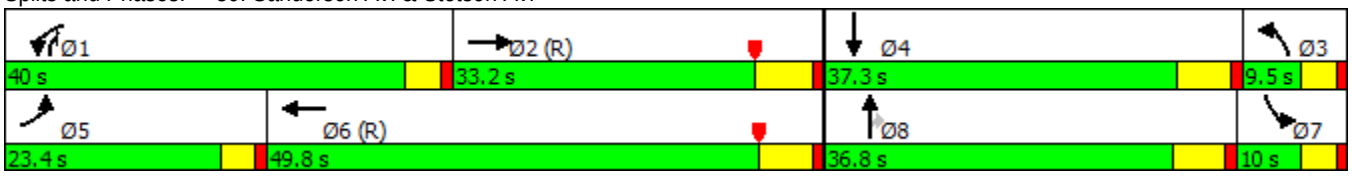
Intersection Summary	
HCM 2010 Ctrl Delay	83.7
HCM 2010 LOS	F

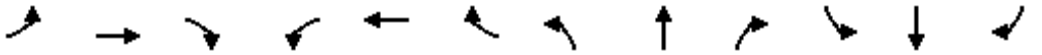
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	186	439	536	663	48	967	689	137	980
Future Volume (vph)	186	439	536	663	48	967	689	137	980
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	23.4	33.2	40.0	49.8	9.5	36.8	40.0	10.0	37.3
Total Split (%)	19.5%	27.7%	33.3%	41.5%	7.9%	30.7%	33.3%	8.3%	31.1%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	17.4	27.0	35.8	45.8	5.3	31.0	68.4	5.8	33.4
Actuated g/C Ratio	0.14	0.22	0.30	0.38	0.04	0.26	0.57	0.05	0.28
v/c Ratio	0.84	0.71	1.18	0.78	0.72	1.23	0.88	1.87	1.35
Control Delay	77.3	47.9	137.3	36.6	101.0	151.6	27.1	464.2	198.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.3	47.9	137.3	36.6	101.0	151.6	27.1	464.2	198.8
LOS	E	D	F	D	F	F	C	F	F
Approach Delay		56.1		74.4		99.8			227.5
Approach LOS		E		E		F			F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 77.8 (65%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.87	
Intersection Signal Delay: 118.8	Intersection LOS: F
Intersection Capacity Utilization 105.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 39: Sanderson Av. & Stetson Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	439	41	536	663	226	48	967	689	137	980	148
Future Volume (veh/h)	186	439	41	536	663	226	48	967	689	137	980	148
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	216	510	47	623	771	246	56	1124	421	159	1140	166
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	243	734	67	529	1021	326	78	914	865	86	814	118
Arrive On Green	0.14	0.22	0.22	0.30	0.39	0.39	0.04	0.26	0.26	0.05	0.26	0.26
Sat Flow, veh/h	1774	3263	300	1774	2641	843	1774	3539	1521	1774	3102	450
Grp Volume(v), veh/h	216	276	281	623	517	500	56	1124	421	159	649	657
Grp Sat Flow(s),veh/h/ln	1774	1770	1793	1774	1770	1714	1774	1770	1521	1774	1770	1783
Q Serve(g_s), s	14.4	17.2	17.3	35.8	30.4	30.4	3.7	31.0	12.7	5.8	31.5	31.5
Cycle Q Clear(g_c), s	14.4	17.2	17.3	35.8	30.4	30.4	3.7	31.0	12.7	5.8	31.5	31.5
Prop In Lane	1.00		0.17	1.00		0.49	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	243	398	403	529	684	662	78	914	865	86	465	468
V/C Ratio(X)	0.89	0.69	0.70	1.18	0.76	0.76	0.71	1.23	0.49	1.85	1.40	1.40
Avail Cap(c_a), veh/h	284	398	403	529	684	662	78	914	865	86	465	468
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.9	42.7	42.7	42.1	31.9	31.9	56.6	44.5	6.9	57.1	44.3	44.3
Incr Delay (d2), s/veh	21.9	9.0	9.1	98.1	7.6	7.8	23.2	112.9	2.0	425.6	191.4	194.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	9.3	9.6	31.9	16.2	15.8	2.3	29.4	5.8	13.0	40.1	40.7
LnGrp Delay(d),s/veh	72.8	51.7	51.8	140.2	39.5	39.7	79.8	157.4	8.9	482.7	235.6	238.6
LnGrp LOS	E	D	D	F	D	D	E	F	A	F	F	F
Approach Vol, veh/h		773			1640			1601			1465	
Approach Delay, s/veh		57.6			77.8			115.6			263.8	
Approach LOS		E			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.0	33.2	9.5	37.3	20.6	52.6	10.0	36.8
Change Period (Y+Rc), s	* 4.2	6.2	4.2	* 5.8	* 4.2	* 6.2	4.2	* 5.8
Max Green Setting (Gmax), s	* 36	27.0	5.3	* 32	* 19	* 44	5.8	* 31
Max Q Clear Time (g_c+I1), s	37.8	19.3	5.7	33.5	16.4	32.4	7.8	33.0
Green Ext Time (p_c), s	0.0	5.0	0.0	0.0	0.1	6.8	0.0	0.0

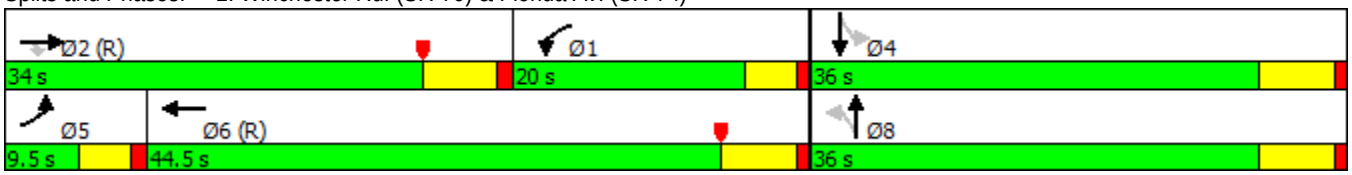
Intersection Summary	
HCM 2010 Ctrl Delay	135.7
HCM 2010 LOS	F

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	17	1485	138	566	1191	163	9	18	20
Future Volume (vph)	17	1485	138	566	1191	163	9	18	20
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	28.0	28.0	15.5	44.2	30.0	30.0	30.0	30.0
Actuated g/C Ratio	0.06	0.31	0.31	0.17	0.49	0.33	0.33	0.33	0.33
v/c Ratio	0.19	1.53	0.28	2.12	0.81	0.40	0.92	0.24	0.05
Control Delay	45.4	271.3	9.4	536.1	25.3	26.4	31.7	31.1	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.4	271.3	9.4	536.1	25.3	26.4	31.7	31.1	16.8
LOS	D	F	A	F	C	C	C	C	B
Approach Delay		246.9			186.0		30.7		22.4
Approach LOS		F			F		C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.12	
Intersection Signal Delay: 178.2	Intersection LOS: F
Intersection Capacity Utilization 126.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	1485	138	566	1191	42	163	9	641	18	20	7
Future Volume (veh/h)	17	1485	138	566	1191	42	163	9	641	18	20	7
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	19	1688	110	643	1353	42	185	10	520	20	23	3
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	1101	493	1281	3606	112	524	10	519	80	538	70
Arrive On Green	0.02	0.31	0.31	0.72	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3504	109	1373	30	1558	870	1614	211
Grp Volume(v), veh/h	19	1688	110	643	683	712	185	0	530	20	0	26
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1844	1373	0	1588	870	0	1824
Q Serve(g_s), s	1.0	28.0	4.6	14.2	0.0	0.0	9.5	0.0	30.0	0.0	0.0	0.9
Cycle Q Clear(g_c), s	1.0	28.0	4.6	14.2	0.0	0.0	10.3	0.0	30.0	30.0	0.0	0.9
Prop In Lane	1.00		1.00	1.00		0.06	1.00		0.98	1.00		0.12
Lane Grp Cap(c), veh/h	37	1101	493	1281	1821	1897	524	0	529	80	0	608
V/C Ratio(X)	0.51	1.53	0.22	0.50	0.37	0.38	0.35	0.00	1.00	0.25	0.00	0.04
Avail Cap(c_a), veh/h	99	1101	493	1281	1821	1897	524	0	529	80	0	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.6	31.0	22.9	5.4	0.0	0.0	23.8	0.0	30.0	45.0	0.0	20.3
Incr Delay (d2), s/veh	4.0	244.5	1.0	0.1	0.6	0.6	1.9	0.0	39.5	7.3	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	51.0	2.2	6.8	0.3	0.3	3.9	0.0	18.9	0.7	0.0	0.5
LnGrp Delay(d),s/veh	47.6	275.5	24.0	5.6	0.6	0.6	25.6	0.0	69.5	52.3	0.0	20.4
LnGrp LOS	D	F	C	A	A	A	C		F	D		C
Approach Vol, veh/h		1817			2038			715			46	
Approach Delay, s/veh		257.9			2.2			58.1			34.3	
Approach LOS		F			A			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	72.5	34.0		36.0	6.4	100.1		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	16.2	30.0		32.0	3.0	2.0		32.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	7.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	111.8
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	122.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	1	47	2	1	3	52	856	1	3	712	52
Future Vol, veh/h	51	1	47	2	1	3	52	856	1	3	712	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	1	50	2	1	3	55	911	1	3	757	55

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1816	1814	786	1814	1842	911	814	0	0	912	0	0
Stage 1	792	792	-	1022	1022	-	-	-	-	-	-	-
Stage 2	1024	1022	-	792	820	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 9	13	392	9	11	*391	813	-	-	*586	-	-
Stage 1	382	401	-	298	272	-	-	-	-	-	-	-
Stage 2	296	272	-	382	389	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	~ 7	12	392	7	10	*391	813	-	-	*586	-	-
Mov Cap-2 Maneuver	~ 7	12	-	7	10	-	-	-	-	-	-	-
Stage 1	356	399	-	278	254	-	-	-	-	-	-	-
Stage 2	273	254	-	331	387	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 2177.6	$ 366.1	0.6	0
HCM LOS	F	F		

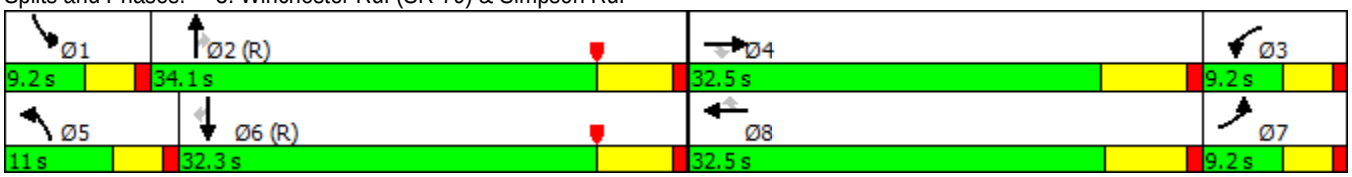
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	813	-	-	7	392	15	* 586	-	-
HCM Lane V/C Ratio	0.068	-	-	7.903	0.128	0.426	0.005	-	-
HCM Control Delay (s)	9.8	-	-	$ 4131.8	15.5	$ 366.1	11.2	-	-
HCM Lane LOS	A	-	-	F	C	F	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	8.5	0.4	1.1	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	227	68	68	163	51	81	814	141	46	565	129
Future Volume (vph)	77	227	68	68	163	51	81	814	141	46	565	129
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	9.2	32.5	32.5	9.2	32.5	32.5	11.0	34.1	34.1	9.2	32.3	32.3
Total Split (%)	10.8%	38.2%	38.2%	10.8%	38.2%	38.2%	12.9%	40.1%	40.1%	10.8%	38.0%	38.0%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.2	17.0	17.0	7.0	15.2	15.2	7.5	39.9	39.9	6.0	36.5	36.5
Actuated g/C Ratio	0.11	0.20	0.20	0.08	0.18	0.18	0.09	0.47	0.47	0.07	0.43	0.43
v/c Ratio	0.42	0.64	0.17	0.49	0.52	0.14	0.55	0.52	0.18	0.38	0.39	0.18
Control Delay	44.7	38.4	0.9	51.2	35.9	0.7	51.4	20.5	4.1	47.0	20.8	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	38.4	0.9	51.2	35.9	0.7	51.4	20.5	4.1	47.0	20.8	3.7
LOS	D	D	A	D	D	A	D	C	A	D	C	A
Approach Delay		32.8			33.2			20.7			19.4	
Approach LOS		C			C			C			B	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 23.6	Intersection LOS: C
Intersection Capacity Utilization 60.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	227	68	68	163	51	81	814	141	46	565	129
Future Volume (veh/h)	77	227	68	68	163	51	81	814	141	46	565	129
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	81	239	51	72	172	40	85	857	95	48	595	109
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	300	251	92	231	196	109	1783	798	71	1707	763
Arrive On Green	0.09	0.16	0.16	0.05	0.12	0.12	0.06	0.50	0.50	0.04	0.48	0.48
Sat Flow, veh/h	1774	1863	1562	1774	1863	1577	1774	3539	1583	1774	3539	1582
Grp Volume(v), veh/h	81	239	51	72	172	40	85	857	95	48	595	109
Grp Sat Flow(s),veh/h/ln	1774	1863	1562	1774	1863	1577	1774	1770	1583	1774	1770	1582
Q Serve(g_s), s	3.7	10.5	1.9	3.4	7.6	1.6	4.0	13.5	1.8	2.3	8.9	1.9
Cycle Q Clear(g_c), s	3.7	10.5	1.9	3.4	7.6	1.6	4.0	13.5	1.8	2.3	8.9	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	300	251	92	231	196	109	1783	798	71	1707	763
V/C Ratio(X)	0.49	0.80	0.20	0.78	0.74	0.20	0.78	0.48	0.12	0.68	0.35	0.14
Avail Cap(c_a), veh/h	164	570	478	104	576	488	142	1783	798	104	1707	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	34.3	18.7	39.8	35.9	22.2	39.3	13.8	4.8	40.3	13.7	4.3
Incr Delay (d2), s/veh	0.9	4.9	0.4	24.0	4.7	0.5	11.3	0.8	0.2	4.2	0.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	5.8	0.8	2.3	4.2	0.7	2.3	6.7	0.8	1.2	4.4	0.9
LnGrp Delay(d),s/veh	37.5	39.2	19.1	63.8	40.6	22.7	50.6	14.6	5.1	44.5	14.3	4.7
LnGrp LOS	D	D	B	E	D	C	D	B	A	D	B	A
Approach Vol, veh/h		371			284			1037			752	
Approach Delay, s/veh		36.1			44.0			16.7			14.8	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	48.6	8.6	20.2	9.4	46.8	12.0	16.7
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 5	28.3	5.0	* 26	* 6.8	26.5	5.0	* 26
Max Q Clear Time (g_c+I1), s	4.3	15.5	5.4	12.5	6.0	10.9	5.7	9.6
Green Ext Time (p_c), s	0.0	9.4	0.0	1.0	0.0	10.9	0.0	0.8

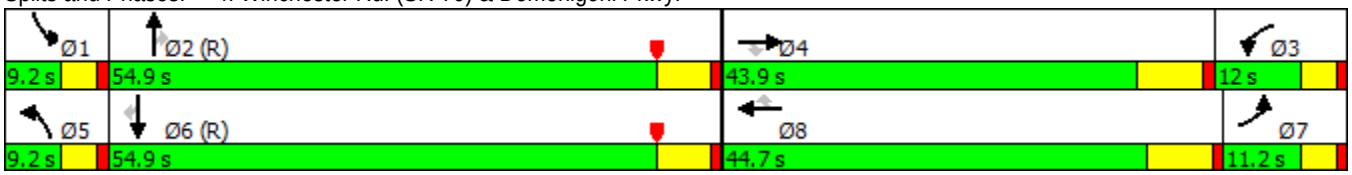
Intersection Summary	
HCM 2010 Ctrl Delay	22.2
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	258	914	79	717	962	48	91	740	1075	39	424	199
Future Volume (vph)	258	914	79	717	962	48	91	740	1075	39	424	199
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	11.2	43.9	43.9	12.0	44.7	44.7	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.3%	36.6%	36.6%	10.0%	37.3%	37.3%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.2	36.1	36.1	8.7	31.6	31.6	5.0	50.9	50.9	5.0	49.1	49.1
Actuated g/C Ratio	0.11	0.30	0.30	0.07	0.26	0.26	0.04	0.42	0.42	0.04	0.41	0.41
v/c Ratio	0.73	0.91	0.15	3.06	0.76	0.10	1.33	0.52	1.46	0.56	0.31	0.28
Control Delay	64.7	54.0	4.4	957.5	44.5	0.4	260.0	27.6	237.7	84.8	24.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.7	54.0	4.4	957.5	44.5	0.4	260.0	27.6	237.7	84.8	24.8	6.7
LOS	E	D	A	F	D	A	F	C	F	F	C	A
Approach Delay		53.0			422.5			157.2			22.8	
Approach LOS		D			F			F			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.06	
Intersection Signal Delay: 200.3	Intersection LOS: F
Intersection Capacity Utilization 110.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	914	79	717	962	48	91	740	1075	39	424	199
Future Volume (veh/h)	258	914	79	717	962	48	91	740	1075	39	424	199
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	274	972	53	763	1023	41	97	787	729	41	451	103
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	389	1051	470	224	1267	394	74	1526	682	55	1488	666
Arrive On Green	0.11	0.30	0.30	0.07	0.25	0.25	0.04	0.43	0.43	0.03	0.42	0.42
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	274	972	53	763	1023	41	97	787	729	41	451	103
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	9.2	31.9	2.4	7.8	22.7	2.0	5.0	19.5	38.2	2.8	10.2	3.2
Cycle Q Clear(g_c), s	9.2	31.9	2.4	7.8	22.7	2.0	5.0	19.5	38.2	2.8	10.2	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	389	1051	470	224	1267	394	74	1526	682	55	1488	666
V/C Ratio(X)	0.70	0.92	0.11	3.41	0.81	0.10	1.31	0.52	1.07	0.74	0.30	0.15
Avail Cap(c_a), veh/h	389	1091	488	224	1602	499	74	1526	682	74	1488	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	51.3	40.9	20.1	56.1	42.4	24.2	57.5	25.0	18.7	57.7	23.1	9.4
Incr Delay (d2), s/veh	4.9	12.7	0.1	1096.1	2.5	0.1	209.2	1.3	54.1	14.3	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	17.4	1.0	37.8	10.9	0.9	6.7	9.8	26.8	1.6	5.0	1.5
LnGrp Delay(d),s/veh	56.1	53.5	20.2	1152.2	44.9	24.4	266.7	26.2	72.8	71.9	23.6	9.9
LnGrp LOS	E	D	C	F	D	C	F	C	F	E	C	A
Approach Vol, veh/h		1299			1827			1613			595	
Approach Delay, s/veh		52.7			506.9			61.7			24.5	
Approach LOS		D			F			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	57.5	12.0	42.5	9.2	56.3	17.8	36.8
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.9	* 4.2	5.8	4.2	* 6.9
Max Green Setting (Gmax), s	* 5	49.1	7.8	* 37	* 5	49.1	7.0	* 38
Max Q Clear Time (g_c+I1), s	4.8	40.2	9.8	33.9	7.0	12.2	11.2	24.7
Green Ext Time (p_c), s	0.0	7.5	0.0	1.7	0.0	22.9	0.0	5.2

Intersection Summary			
HCM 2010 Ctrl Delay		207.8	
HCM 2010 LOS		F	

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2023	3	0	1728	0	0	0	0	0	0	0
Future Vol, veh/h	0	2023	3	0	1728	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2043	3	0	1745	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	1023	-	-	873
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*266	0	0	293
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*266	-	-	293
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	-	0
HCM Lane LOS	A	-	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	137	6	2	10	10	103
Future Vol, veh/h	137	6	2	10	10	103
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	163	7	2	12	12	123

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	29	12	12	0	-	0
Stage 1	12	-	-	-	-	-
Stage 2	17	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	986	1069	1607	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	1006	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	985	1069	1607	-	-	-
Mov Cap-2 Maneuver	985	-	-	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	1005	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1607	-	988	-	-
HCM Lane V/C Ratio	0.001	-	0.172	-	-
HCM Control Delay (s)	7.2	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	271	2	2	191	0	1	1	2	1	2	2
Future Vol, veh/h	2	271	2	2	191	0	1	1	2	1	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	308	2	2	217	0	1	1	2	1	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	217	0	0	310	0	0	538	536	309	537	537	217
Stage 1	-	-	-	-	-	-	314	314	-	222	222	-
Stage 2	-	-	-	-	-	-	224	222	-	315	315	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1353	-	-	1250	-	-	454	451	731	455	450	823
Stage 1	-	-	-	-	-	-	697	656	-	780	720	-
Stage 2	-	-	-	-	-	-	779	720	-	696	656	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1353	-	-	1250	-	-	450	449	731	451	448	823
Mov Cap-2 Maneuver	-	-	-	-	-	-	450	449	-	451	448	-
Stage 1	-	-	-	-	-	-	696	655	-	778	719	-
Stage 2	-	-	-	-	-	-	773	719	-	691	655	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	11.5	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	557	1353	-	-	1250	-	-	549
HCM Lane V/C Ratio	0.008	0.002	-	-	0.002	-	-	0.01
HCM Control Delay (s)	11.5	7.7	0	-	7.9	0	-	11.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	7.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	37	0	0	22
Future Vol, veh/h	0	0	37	0	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	40	0	0	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1	0	81	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	80	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1622	-	921	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	943	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1622	-	898	1084
Mov Cap-2 Maneuver	-	-	-	-	898	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	920	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.3	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1084	-	-	1622	-
HCM Lane V/C Ratio	0.022	-	-	0.025	-
HCM Control Delay (s)	8.4	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	22	0	74	37	0	44
Future Vol, veh/h	22	0	74	37	0	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	0	80	40	0	48

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	24	0	225	24
Stage 1	-	-	-	-	24	-
Stage 2	-	-	-	-	201	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1591	-	763	1052
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	833	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1591	-	725	1052
Mov Cap-2 Maneuver	-	-	-	-	725	-
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	791	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.9	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1052	-	-	1591	-
HCM Lane V/C Ratio	0.045	-	-	0.051	-
HCM Control Delay (s)	8.6	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-

Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	65	0	37	111	0	22
Future Vol, veh/h	65	0	37	111	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	0	40	121	0	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	71	0	272	71
Stage 1	-	-	-	-	71	-
Stage 2	-	-	-	-	201	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1529	-	717	991
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	833	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1529	-	698	991
Mov Cap-2 Maneuver	-	-	-	-	698	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	811	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.9	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	991	-	-	1529	-
HCM Lane V/C Ratio	0.024	-	-	0.026	-
HCM Control Delay (s)	8.7	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Intersection Delay, s/veh	276.5
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	16	29	8	0	196	45	92	0	7	670	272
Future Vol, veh/h	0	16	29	8	0	196	45	92	0	7	670	272
Peak Hour Factor	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	16	29	8	0	198	45	93	0	7	677	275
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	16.6	29.4	349.7
HCM LOS	C	D	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	30%	59%	18%
Vol Thru, %	71%	55%	14%	77%
Vol Right, %	29%	15%	28%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	949	53	333	870
LT Vol	7	16	196	157
Through Vol	670	29	45	666
RT Vol	272	8	92	47
Lane Flow Rate	959	54	336	879
Geometry Grp	1	1	1	1
Degree of Util (X)	1.717	0.13	0.679	1.617
Departure Headway (Hd)	7.338	11.877	9.147	7.646
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	508	304	400	483
Service Time	5.338	9.877	7.147	5.646
HCM Lane V/C Ratio	1.888	0.178	0.84	1.82
HCM Control Delay	349.7	16.6	29.4	307.1
HCM Lane LOS	F	C	D	F
HCM 95th-tile Q	50.3	0.4	4.9	43

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	157	666	47
Future Vol, veh/h	0	157	666	47
Peak Hour Factor	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	159	673	47
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	307.1
HCM LOS	F

Intersection	
Intersection Delay, s/veh	448.8
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	228	315	29	0	133	347	76	0	38	647	192	0	96	615	159
Future Vol, veh/h	0	228	315	29	0	133	347	76	0	38	647	192	0	96	615	159
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	238	328	30	0	139	361	79	0	40	674	200	0	100	641	166
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0

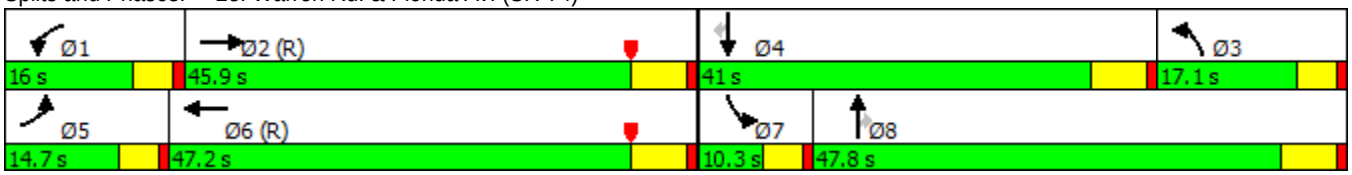
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	334.5	310.7	376.4	685.2
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	0%	40%	24%	11%
Vol Thru, %	94%	0%	55%	62%	71%
Vol Right, %	0%	100%	5%	14%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	685	192	572	556	870
LT Vol	38	0	228	133	96
Through Vol	647	0	315	347	615
RT Vol	0	192	29	76	159
Lane Flow Rate	714	200	596	579	906
Geometry Grp	7	7	2	2	5
Degree of Util (X)	1.934	0.502	1.602	1.543	2.427
Departure Headway (Hd)	16.91	16.13	18.358	18.617	15.177
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	221	226	203	203	254
Service Time	14.61	13.83	16.358	16.617	13.177
HCM Lane V/C Ratio	3.231	0.885	2.936	2.852	3.567
HCM Control Delay	472.4	34.1	334.5	310.7	685.2
HCM Lane LOS	F	D	F	F	F
HCM 95th-tile Q	30	2.6	20.5	19	46.9

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	234	1377	358	1258	259	562	444	100	444	217
Future Volume (vph)	234	1377	358	1258	259	562	444	100	444	217
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	14.7	45.9	16.0	47.2	17.1	47.8	47.8	10.3	41.0	41.0
Total Split (%)	12.3%	38.3%	13.3%	39.3%	14.3%	39.8%	39.8%	8.6%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	10.1	39.9	11.4	41.2	12.5	41.8	41.8	5.7	35.0	35.0
Actuated g/C Ratio	0.08	0.33	0.10	0.34	0.10	0.35	0.35	0.05	0.29	0.29
v/c Ratio	1.66	1.44	2.24	1.18	1.48	0.48	0.68	1.25	0.45	0.38
Control Delay	360.1	234.8	604.1	127.3	282.0	32.2	23.9	225.9	36.4	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	360.1	234.8	604.1	127.3	282.0	32.2	23.9	225.9	36.4	9.5
LOS	F	F	F	F	F	C	C	F	D	A
Approach Delay		250.9		226.9		80.5			53.6	
Approach LOS		F		F		F			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.24	
Intersection Signal Delay: 177.8	Intersection LOS: F
Intersection Capacity Utilization 109.0%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	1377	215	358	1258	99	259	562	444	100	444	217
Future Volume (veh/h)	234	1377	215	358	1258	99	259	562	444	100	444	217
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	246	1449	161	377	1324	98	273	592	351	105	467	160
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	2307	254	169	2434	180	185	1274	570	84	1032	462
Arrive On Green	0.08	0.72	0.72	0.09	0.73	0.73	0.10	0.36	0.36	0.05	0.29	0.29
Sat Flow, veh/h	1774	3215	354	1774	3342	247	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	246	792	818	377	699	723	273	592	351	105	467	160
Grp Sat Flow(s),veh/h/ln	1774	1770	1800	1774	1770	1819	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	10.1	27.5	28.2	11.4	21.3	21.5	12.5	15.4	21.9	5.7	12.9	12.6
Cycle Q Clear(g_c), s	10.1	27.5	28.2	11.4	21.3	21.5	12.5	15.4	21.9	5.7	12.9	12.6
Prop In Lane	1.00		0.20	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	1270	1292	169	1289	1325	185	1274	570	84	1032	462
V/C Ratio(X)	1.65	0.62	0.63	2.24	0.54	0.55	1.48	0.46	0.62	1.25	0.45	0.35
Avail Cap(c_a), veh/h	149	1270	1292	169	1289	1325	185	1274	570	84	1032	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	8.7	8.8	54.3	7.3	7.3	53.8	29.5	31.6	57.2	34.7	58.0
Incr Delay (d2), s/veh	319.4	2.3	2.4	575.3	1.6	1.6	241.6	1.2	4.9	178.0	1.4	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.2	14.0	14.7	32.5	10.9	11.2	18.5	7.8	10.3	7.0	6.5	5.8
LnGrp Delay(d),s/veh	374.3	11.0	11.1	629.6	9.0	9.0	295.3	30.7	36.5	235.2	36.1	60.1
LnGrp LOS	F	B	B	F	A	A	F	C	D	F	D	E
Approach Vol, veh/h		1856			1799			1216			732	
Approach Delay, s/veh		59.2			139.0			91.8			69.9	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	93.5	18.5	41.0	14.7	94.8	10.3	49.2
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	11.4	39.9	12.5	* 35	10.1	41.2	5.7	41.8
Max Q Clear Time (g_c+I1), s	13.4	30.2	14.5	14.9	12.1	23.5	7.7	23.9
Green Ext Time (p_c), s	0.0	7.6	0.0	1.8	0.0	12.2	0.0	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	93.3
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	65.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	83	250	1037	64	116	914
Future Vol, veh/h	83	250	1037	64	116	914
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	97	291	1206	74	135	1063

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2539	1206	0	0	1206	0
Stage 1	1206	-	-	-	-	-
Stage 2	1333	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 30	~ 224	-	-	579	-
Stage 1	283	-	-	-	-	-
Stage 2	246	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 23	~ 224	-	-	579	-
Mov Cap-2 Maneuver	148	-	-	-	-	-
Stage 1	283	-	-	-	-	-
Stage 2	189	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 483.1	0	1.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	199	579	-
HCM Lane V/C Ratio	-	-	1.946	0.233	-
HCM Control Delay (s)	-	-	$ 483.1	13.1	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	28.6	0.9	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	49	1107	3	35	1108
Future Vol, veh/h	3	49	1107	3	35	1108
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	53	1203	3	38	1204

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2485	1205	0	0	1207	0
Stage 1	1205	-	-	-	-	-
Stage 2	1280	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	32	224	-	-	578	-
Stage 1	284	-	-	-	-	-
Stage 2	261	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	30	224	-	-	578	-
Mov Cap-2 Maneuver	175	-	-	-	-	-
Stage 1	284	-	-	-	-	-
Stage 2	244	-	-	-	-	-

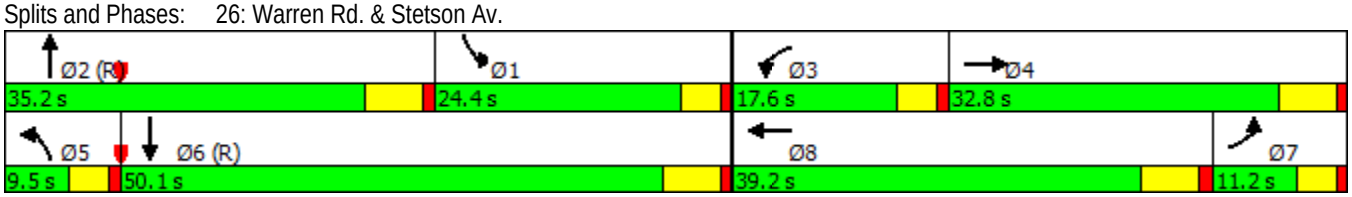
Approach	WB	NB	SB
HCM Control Delay, s	26.9	0	0.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	220	578	-
HCM Lane V/C Ratio	-	-	0.257	0.066	-
HCM Control Delay (s)	-	-	26.9	11.7	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	1	0.2	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	65	126	196	132	8	717	302	760
Future Volume (vph)	65	126	196	132	8	717	302	760
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	32.8	9.5	32.8
Total Split (s)	11.2	32.8	17.6	39.2	9.5	35.2	24.4	50.1
Total Split (%)	10.2%	29.8%	16.0%	35.6%	8.6%	32.0%	22.2%	45.5%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.0	21.8	13.4	30.1	5.1	34.6	20.2	57.1
Actuated g/C Ratio	0.06	0.20	0.12	0.27	0.05	0.31	0.18	0.52
v/c Ratio	0.59	0.38	0.93	0.85	0.10	0.79	0.95	0.46
Control Delay	71.7	38.5	94.5	44.5	52.8	41.4	83.6	19.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.7	38.5	94.5	44.5	52.8	41.4	83.6	19.3
LOS	E	D	F	D	D	D	F	B
Approach Delay		49.1		59.7		41.5		36.5
Approach LOS		D		E		D		D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 44.2	Intersection LOS: D
Intersection Capacity Utilization 88.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	126	11	196	132	317	8	717	136	302	760	68
Future Volume (veh/h)	65	126	11	196	132	317	8	717	136	302	760	68
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	66	129	11	200	135	323	8	732	139	308	776	69
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	395	34	216	143	342	17	794	151	403	1642	146
Arrive On Green	0.05	0.23	0.23	0.12	0.29	0.29	0.01	0.27	0.27	0.23	0.50	0.50
Sat Flow, veh/h	1774	1693	144	1774	488	1168	1774	2969	564	1774	3288	292
Grp Volume(v), veh/h	66	0	140	200	0	458	8	436	435	308	417	428
Grp Sat Flow(s),veh/h/ln	1774	0	1837	1774	0	1657	1774	1770	1763	1774	1770	1811
Q Serve(g_s), s	4.0	0.0	7.0	12.3	0.0	29.7	0.5	26.4	26.4	17.9	17.0	17.0
Cycle Q Clear(g_c), s	4.0	0.0	7.0	12.3	0.0	29.7	0.5	26.4	26.4	17.9	17.0	17.0
Prop In Lane	1.00		0.08	1.00		0.71	1.00		0.32	1.00		0.16
Lane Grp Cap(c), veh/h	85	0	429	216	0	485	17	473	471	403	884	904
V/C Ratio(X)	0.77	0.00	0.33	0.93	0.00	0.94	0.46	0.92	0.92	0.76	0.47	0.47
Avail Cap(c_a), veh/h	113	0	451	216	0	503	85	473	471	403	884	904
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.80	0.80	0.80	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	0.0	35.0	47.8	0.0	38.0	54.2	39.2	39.2	39.7	18.0	18.0
Incr Delay (d2), s/veh	14.7	0.0	0.4	40.4	0.0	26.4	5.4	22.1	22.2	7.6	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	3.6	8.4	0.0	17.2	0.3	15.7	15.7	9.6	8.7	8.9
LnGrp Delay(d),s/veh	66.5	0.0	35.4	88.3	0.0	64.5	59.6	61.3	61.4	47.3	19.9	19.8
LnGrp LOS	E		D	F		E	E	E	E	D	B	B
Approach Vol, veh/h		206			658			879			1153	
Approach Delay, s/veh		45.4			71.7			61.3			27.2	
Approach LOS		D			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.8	35.2	17.6	31.5	5.3	60.7	11.1	38.0
Change Period (Y+Rc), s	5.8	* 5.8	* 4.2	5.8	* 4.2	5.8	5.8	* 5.8
Max Green Setting (Gmax), s	20.2	* 29	* 13	27.0	* 5.3	44.3	7.0	* 33
Max Q Clear Time (g_c+I1), s	19.9	28.4	14.3	9.0	2.5	19.0	6.0	31.7
Green Ext Time (p_c), s	0.1	0.6	0.0	0.6	0.0	7.2	0.1	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	49.0
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	65	22	37	807	869
Future Volume (vph)	65	22	37	807	869
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	34.8	34.8	9.2	15.8	34.8
Total Split (s)	34.8	34.8	9.3	49.3	40.0
Total Split (%)	41.4%	41.4%	11.1%	58.6%	47.6%
Yellow Time (s)	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	13.8	13.8	5.7	63.0	56.8
Actuated g/C Ratio	0.16	0.16	0.07	0.75	0.68
v/c Ratio	0.23	0.08	0.32	0.60	0.81
Control Delay	30.1	10.2	44.5	11.2	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	10.2	44.5	11.2	23.1
LOS	C	B	D	B	C
Approach Delay	25.0			12.7	23.1
Approach LOS	C			B	C

Intersection Summary	
Cycle Length: 84.1	
Actuated Cycle Length: 84.1	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 18.6	Intersection LOS: B
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 27: Warren Rd. & New Stetson Av.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	65	22	37	807	869	111
Future Volume (veh/h)	65	22	37	807	869	111
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	67	23	38	832	896	114
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	185	165	62	1411	1089	139
Arrive On Green	0.10	0.10	0.03	0.76	0.67	0.67
Sat Flow, veh/h	1774	1583	1774	1863	1620	206
Grp Volume(v), veh/h	67	23	38	832	0	1010
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	0	1826
Q Serve(g_s), s	3.0	1.1	1.8	16.4	0.0	34.0
Cycle Q Clear(g_c), s	3.0	1.1	1.8	16.4	0.0	34.0
Prop In Lane	1.00	1.00	1.00			0.11
Lane Grp Cap(c), veh/h	185	165	62	1411	0	1228
V/C Ratio(X)	0.36	0.14	0.61	0.59	0.00	0.82
Avail Cap(c_a), veh/h	612	547	108	1411	0	1228
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.79
Uniform Delay (d), s/veh	35.0	34.2	40.0	4.5	0.0	10.1
Incr Delay (d2), s/veh	0.4	0.1	3.6	1.8	0.0	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.0	0.9	9.0	0.0	18.6
LnGrp Delay(d),s/veh	35.4	34.3	43.6	6.3	0.0	15.2
LnGrp LOS	D	C	D	A		B
Approach Vol, veh/h	90			870	1010	
Approach Delay, s/veh	35.2			7.9	15.2	
Approach LOS	D			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		69.4		14.6	7.1	62.3		
Change Period (Y+Rc), s		5.8		5.8	* 4.2	5.8		
Max Green Setting (Gmax), s		43.5		29.0	* 5.1	34.2		
Max Q Clear Time (g_c+I1), s		18.4		5.0	3.8	36.0		
Green Ext Time (p_c), s		9.7		0.1	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	12.9
HCM 2010 LOS	B

Notes

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	22	18	822	854
Future Volume (vph)	22	18	822	854
Turn Type	Prot	Prot	NA	NA
Protected Phases	4	5	2	6
Permitted Phases				
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	10.8	23.8
Total Split (s)	14.0	10.0	46.0	36.0
Total Split (%)	23.3%	16.7%	76.7%	60.0%
Yellow Time (s)	3.6	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Min	C-Min
Act Effct Green (s)	5.7	5.5	53.2	50.9
Actuated g/C Ratio	0.10	0.09	0.89	0.85
v/c Ratio	0.21	0.12	0.54	0.62
Control Delay	21.5	36.1	1.7	9.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	21.5	36.1	1.7	9.8
LOS	C	D	A	A
Approach Delay	21.5		2.5	9.8
Approach LOS	C		A	A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 6.5	Intersection LOS: A
Intersection Capacity Utilization 60.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 28: Warren Rd. & Street D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	11	18	822	854	37
Future Volume (veh/h)	22	11	18	822	854	37
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	24	12	20	893	928	40
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	43	21	42	1468	1220	53
Arrive On Green	0.04	0.04	0.05	1.00	0.69	0.69
Sat Flow, veh/h	1109	554	1774	1863	1773	76
Grp Volume(v), veh/h	37	0	20	893	0	968
Grp Sat Flow(s),veh/h/ln	1709	0	1774	1863	0	1849
Q Serve(g_s), s	1.3	0.0	0.7	0.0	0.0	20.6
Cycle Q Clear(g_c), s	1.3	0.0	0.7	0.0	0.0	20.6
Prop In Lane	0.65	0.32	1.00			0.04
Lane Grp Cap(c), veh/h	66	0	42	1468	0	1272
V/C Ratio(X)	0.56	0.00	0.48	0.61	0.00	0.76
Avail Cap(c_a), veh/h	268	0	160	1468	0	1272
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.09	0.09	0.00	1.00
Uniform Delay (d), s/veh	28.4	0.0	28.2	0.0	0.0	6.1
Incr Delay (d2), s/veh	2.8	0.0	0.3	0.2	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.3	0.1	0.0	11.7
LnGrp Delay(d),s/veh	31.2	0.0	28.5	0.2	0.0	10.5
LnGrp LOS	C		C	A		B
Approach Vol, veh/h	37			913	968	
Approach Delay, s/veh	31.2			0.8	10.5	
Approach LOS	C			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		53.1		6.9	6.0	47.1		
Change Period (Y+Rc), s		5.8		4.6	4.6	5.8		
Max Green Setting (Gmax), s		40.2		9.4	5.4	30.2		
Max Q Clear Time (g_c+I1), s		2.0		3.3	2.7	22.6		
Green Ext Time (p_c), s		26.6		0.0	0.0	6.8		

Intersection Summary	
HCM 2010 Ctrl Delay	6.3
HCM 2010 LOS	A

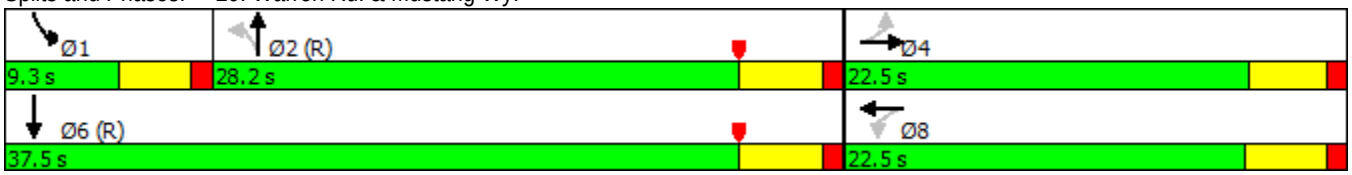
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	76	13	140	22	91	653	138	585
Future Volume (vph)	76	13	140	22	91	653	138	585
Turn Type	Perm	NA	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2			
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.5	22.5	21.6	21.6	21.7	21.7	9.2	14.7
Total Split (s)	22.5	22.5	22.5	22.5	28.2	28.2	9.3	37.5
Total Split (%)	37.5%	37.5%	37.5%	37.5%	47.0%	47.0%	15.5%	62.5%
Yellow Time (s)	3.5	3.5	3.6	3.6	3.7	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.6	4.6	4.7	4.7	4.2	4.7
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	11.8	11.8	12.6	12.6	28.2	28.2	8.6	42.0
Actuated g/C Ratio	0.20	0.20	0.21	0.21	0.47	0.47	0.14	0.70
v/c Ratio	0.32	0.18	0.51	0.29	0.27	1.09	0.55	0.57
Control Delay	22.3	8.5	27.1	8.0	15.5	80.4	36.1	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.3	8.5	27.1	8.0	15.5	80.4	36.1	6.3
LOS	C	A	C	A	B	F	D	A
Approach Delay		15.9		18.2		74.5		11.2
Approach LOS		B		B		E		B

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 40.4 — Intersection LOS: D
Intersection Capacity Utilization 85.3% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	13	53	140	22	100	91	653	258	138	585	130
Future Volume (veh/h)	76	13	53	140	22	100	91	653	258	138	585	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	78	13	54	143	22	75	93	666	239	141	597	133
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	296	59	246	323	70	238	331	658	236	151	971	216
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.50	0.50	0.50	0.03	0.22	0.22
Sat Flow, veh/h	1293	316	1314	1329	372	1267	723	1309	470	1774	1476	329
Grp Volume(v), veh/h	78	0	67	143	0	97	93	0	905	141	0	730
Grp Sat Flow(s),veh/h/ln	1293	0	1631	1329	0	1639	723	0	1779	1774	0	1805
Q Serve(g_s), s	3.3	0.0	2.1	6.1	0.0	3.1	6.3	0.0	30.2	4.8	0.0	21.9
Cycle Q Clear(g_c), s	6.4	0.0	2.1	8.2	0.0	3.1	18.9	0.0	30.2	4.8	0.0	21.9
Prop In Lane	1.00		0.81	1.00		0.77	1.00		0.26	1.00		0.18
Lane Grp Cap(c), veh/h	296	0	306	323	0	307	331	0	894	151	0	1187
V/C Ratio(X)	0.26	0.00	0.22	0.44	0.00	0.32	0.28	0.00	1.01	0.94	0.00	0.62
Avail Cap(c_a), veh/h	442	0	489	470	0	489	331	0	894	151	0	1187
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.75	0.00	0.75
Uniform Delay (d), s/veh	23.8	0.0	20.7	24.1	0.0	21.1	17.3	0.0	14.9	29.0	0.0	16.6
Incr Delay (d2), s/veh	0.5	0.0	0.4	1.0	0.0	0.6	2.1	0.0	33.1	44.9	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.0	2.3	0.0	1.4	1.4	0.0	22.9	4.2	0.0	11.6
LnGrp Delay(d),s/veh	24.3	0.0	21.0	25.1	0.0	21.6	19.4	0.0	48.0	73.9	0.0	18.4
LnGrp LOS	C		C	C		C	B		F	E		B
Approach Vol, veh/h		145			240			998			871	
Approach Delay, s/veh		22.8			23.7			45.4			27.4	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	9.3	34.9		15.8		44.2		15.8
Change Period (Y+Rc), s	* 4.2	* 4.7		* 4.6		* 4.7		4.6
Max Green Setting (Gmax), s	* 5.1	* 24		* 18		* 33		17.9
Max Q Clear Time (g_c+I1), s	6.8	32.2		8.4		23.9		10.2
Green Ext Time (p_c), s	0.0	0.0		1.2		7.7		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.7
HCM 2010 LOS	C

Notes

Intersection	
Intersection Delay, s/veh	136.4
Intersection LOS	F

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	302	37	0	571	223	0	26	686
Future Vol, veh/h	0	302	37	0	571	223	0	26	686
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	318	39	0	601	235	0	27	722
Number of Lanes	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	31.4	134.6	188.4
HCM LOS	D	F	F

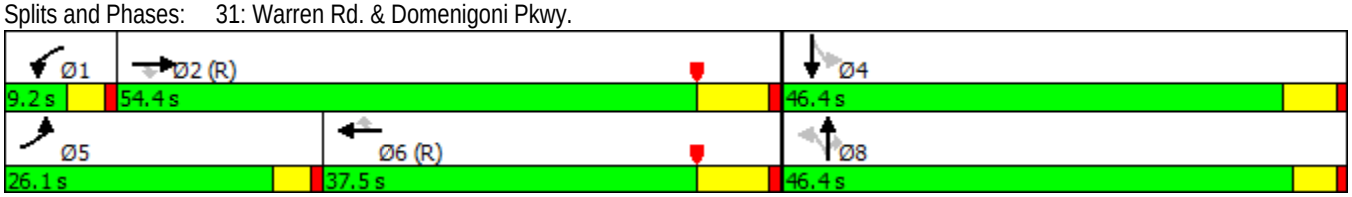
Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	89%	0%	100%
Vol Right, %	0%	100%	11%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	26	686	339	571	223
LT Vol	26	0	0	571	0
Through Vol	0	0	302	0	223
RT Vol	0	686	37	0	0
Lane Flow Rate	27	722	357	601	235
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.061	1.359	0.729	1.306	0.478
Departure Headway (Hd)	8.401	7.167	8.579	8.831	8.313
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	429	513	425	415	437
Service Time	6.101	4.867	6.579	6.531	6.013
HCM Lane V/C Ratio	0.063	1.407	0.84	1.448	0.538
HCM Control Delay	11.6	195.1	31.4	180	18.4
HCM Lane LOS	B	F	D	F	C
HCM 95th-tile Q	0.2	30.8	5.7	23.9	2.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	595	1736	7	3	1441	109	3	6	1	95	6
Future Volume (vph)	595	1736	7	3	1441	109	3	6	1	95	6
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	26.9	59.8	59.8	5.0	30.6	30.6		36.8	36.8		36.0
Actuated g/C Ratio	0.24	0.54	0.54	0.05	0.28	0.28		0.33	0.33		0.33
v/c Ratio	1.47	0.96	0.01	0.04	1.56	0.22		0.02	0.00		0.95
Control Delay	254.5	39.0	0.0	51.3	286.2	8.2		21.6	0.0		45.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	254.5	39.0	0.0	51.3	286.2	8.2		21.6	0.0		45.8
LOS	F	D	A	D	F	A		C	A		D
Approach Delay		93.7			266.3			19.5			45.8
Approach LOS		F			F			B			D

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.56
Intersection Signal Delay: 146.3 — Intersection LOS: F
Intersection Capacity Utilization 130.9% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	595	1736	7	3	1441	109	3	6	1	95	6	521
Future Volume (veh/h)	595	1736	7	3	1441	109	3	6	1	95	6	521
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	633	1847	5	3	1533	109	3	6	1	101	6	340
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	1902	851	7	1211	542	137	254	489	135	20	365
Arrive On Green	0.20	0.54	0.54	0.00	0.34	0.34	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	301	821	1583	308	64	1181
Grp Volume(v), veh/h	633	1847	5	3	1533	109	9	0	1	447	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1122	0	1583	1553	0	0
Q Serve(g_s), s	21.9	55.5	0.2	0.2	37.6	5.3	0.0	0.0	0.0	26.8	0.0	0.0
Cycle Q Clear(g_c), s	21.9	55.5	0.2	0.2	37.6	5.3	0.4	0.0	0.0	30.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.33		1.00	0.23		0.76
Lane Grp Cap(c), veh/h	353	1902	851	7	1211	542	390	0	489	520	0	0
V/C Ratio(X)	1.79	0.97	0.01	0.42	1.27	0.20	0.02	0.00	0.00	0.86	0.00	0.00
Avail Cap(c_a), veh/h	353	1902	851	81	1211	542	495	0	602	618	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	24.6	11.8	54.7	36.2	25.6	26.4	0.0	26.3	36.8	0.0	0.0
Incr Delay (d2), s/veh	367.7	14.9	0.0	14.3	126.2	0.8	0.0	0.0	0.0	9.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	46.8	30.9	0.1	0.1	39.6	2.5	0.2	0.0	0.0	14.5	0.0	0.0
LnGrp Delay(d),s/veh	411.7	39.5	11.8	69.0	162.4	26.4	26.4	0.0	26.3	45.9	0.0	0.0
LnGrp LOS	F	D	B	E	F	C	C		C	D		
Approach Vol, veh/h		2485			1645			10			447	
Approach Delay, s/veh		134.2			153.2			26.4			45.9	
Approach LOS		F			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.6	66.0		39.4	26.1	44.5		39.4
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.2	57.5		32.7	23.9	39.6		2.4
Green Ext Time (p_c), s	0.0	0.0		1.3	0.0	0.0		2.0

Intersection Summary		
HCM 2010 Ctrl Delay		132.2
HCM 2010 LOS		F

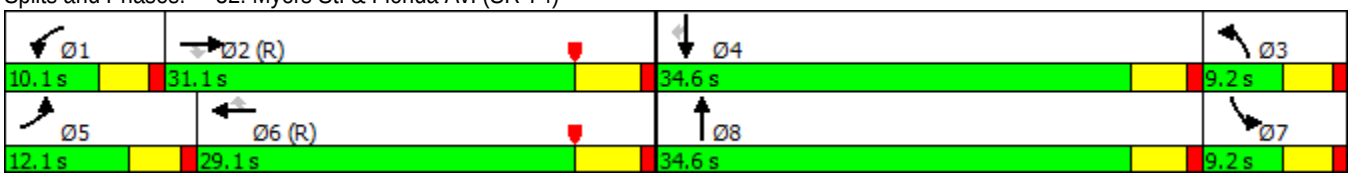
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	313	1527	22	55	1496	70	6	50	118	36	167
Future Volume (vph)	313	1527	22	55	1496	70	6	50	118	36	167
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.1	31.1	31.1	10.1	29.1	29.1	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.2%	36.6%	36.6%	11.9%	34.2%	34.2%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.9	28.0	28.0	5.7	24.0	24.0	5.0	30.0	5.0	37.4	37.4
Actuated g/C Ratio	0.09	0.33	0.33	0.07	0.28	0.28	0.06	0.35	0.06	0.44	0.44
v/c Ratio	2.05	1.41	0.04	0.50	1.61	0.14	0.06	0.15	1.22	0.05	0.23
Control Delay	519.3	215.7	0.1	52.1	296.9	0.8	39.0	12.1	197.1	15.4	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	519.3	215.7	0.1	52.1	296.9	0.8	39.0	12.1	197.1	15.4	3.7
LOS	F	F	A	D	F	A	D	B	F	B	A
Approach Delay		264.2			275.9			13.7		76.0	
Approach LOS		F			F			B		E	

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 80.1 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.05
Intersection Signal Delay: 247.4 — Intersection LOS: F
Intersection Capacity Utilization 83.5% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	313	1527	22	55	1496	70	6	50	40	118	36	167
Future Volume (veh/h)	313	1527	22	55	1496	70	6	50	40	118	36	167
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	337	1642	14	59	1609	69	6	54	20	127	39	128
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1172	524	78	999	447	104	458	170	104	657	559
Arrive On Green	0.09	0.33	0.33	0.03	0.19	0.19	0.06	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	1297	481	1774	1863	1583
Grp Volume(v), veh/h	337	1642	14	59	1609	69	6	0	74	127	39	128
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	0	1778	1774	1863	1583
Q Serve(g_s), s	7.9	28.1	0.4	2.8	24.0	2.4	0.3	0.0	2.4	5.0	1.2	3.4
Cycle Q Clear(g_c), s	7.9	28.1	0.4	2.8	24.0	2.4	0.3	0.0	2.4	5.0	1.2	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	165	1172	524	78	999	447	104	0	628	104	657	559
V/C Ratio(X)	2.04	1.40	0.03	0.75	1.61	0.15	0.06	0.00	0.12	1.22	0.06	0.23
Avail Cap(c_a), veh/h	165	1172	524	123	999	447	104	0	628	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	28.4	10.7	40.8	34.5	15.2	37.8	0.0	18.6	40.0	18.2	9.4
Incr Delay (d2), s/veh	490.2	185.8	0.1	5.3	279.2	0.7	0.1	0.0	0.4	157.6	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.3	43.9	0.2	1.5	50.5	1.1	0.1	0.0	1.2	7.0	0.6	1.6
LnGrp Delay(d),s/veh	528.8	214.2	10.8	46.1	313.7	16.0	37.9	0.0	19.0	197.6	18.3	10.3
LnGrp LOS	F	F	B	D	F	B	D		B	F	B	B
Approach Vol, veh/h		1993			1737			80			294	
Approach Delay, s/veh		266.0			292.8			20.4			92.3	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	33.2	9.2	34.6	12.1	29.1	9.2	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.9	26.0	5.0	* 30	* 7.9	24.0	5.0	* 30
Max Q Clear Time (g_c+I1), s	4.8	30.1	2.3	5.4	9.9	26.0	7.0	4.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	260.1
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1416	455	1	1796	0	2
Future Vol, veh/h	1416	455	1	1796	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1506	484	1	1911	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1506	0	-	753
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*740	-	0	*495
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*740	-	-	*495
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	495	-	-	* 740	-
HCM Lane V/C Ratio	0.004	-	-	0.001	-
HCM Control Delay (s)	12.3	-	-	9.9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

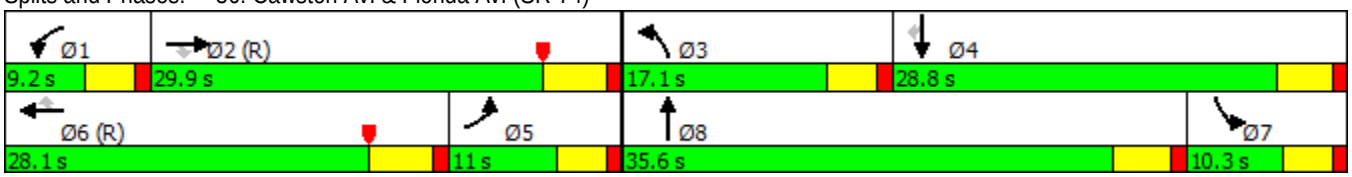
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	181	1223	15	70	1380	244	270	117	204	133	146
Future Volume (vph)	181	1223	15	70	1380	244	270	117	204	133	146
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	11.0	29.9	29.9	9.2	28.1	28.1	17.1	35.6	10.3	28.8	28.8
Total Split (%)	12.9%	35.2%	35.2%	10.8%	33.1%	33.1%	20.1%	41.9%	12.1%	33.9%	33.9%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	6.8	26.6	26.6	5.0	23.0	23.0	12.9	31.0	6.1	24.2	24.2
Actuated g/C Ratio	0.08	0.31	0.31	0.06	0.27	0.27	0.15	0.36	0.07	0.28	0.28
v/c Ratio	1.34	1.15	0.03	0.70	1.50	0.44	1.05	0.16	1.68	0.26	0.26
Control Delay	181.6	85.6	0.0	74.6	258.7	8.5	106.0	11.6	365.3	25.2	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	181.6	85.6	0.0	74.6	258.7	8.5	106.0	11.6	365.3	25.2	2.7
LOS	F	F	A	E	F	A	F	B	F	C	A
Approach Delay		97.0			215.1			67.3		162.1	
Approach LOS		F			F			E		F	

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 35 (41%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.68
Intersection Signal Delay: 150.8 — Intersection LOS: F
Intersection Capacity Utilization 100.4% — ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	181	1223	15	70	1380	244	270	117	70	204	133	146
Future Volume (veh/h)	181	1223	15	70	1380	244	270	117	70	204	133	146
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	189	1274	14	73	1438	210	281	122	67	212	139	88
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	622	2050	917	94	958	426	269	819	422	127	539	458
Arrive On Green	0.70	1.00	1.00	0.05	0.27	0.27	0.15	0.36	0.36	0.07	0.29	0.29
Sat Flow, veh/h	1774	3539	1583	1774	3539	1575	1774	2247	1156	1774	1863	1583
Grp Volume(v), veh/h	189	1274	14	73	1438	210	281	94	95	212	139	88
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1575	1774	1770	1633	1774	1863	1583
Q Serve(g_s), s	3.4	0.0	0.0	3.5	23.0	9.5	12.9	3.0	3.3	6.1	4.9	2.7
Cycle Q Clear(g_c), s	3.4	0.0	0.0	3.5	23.0	9.5	12.9	3.0	3.3	6.1	4.9	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.71	1.00		1.00
Lane Grp Cap(c), veh/h	622	2050	917	94	958	426	269	645	596	127	539	458
V/C Ratio(X)	0.30	0.62	0.02	0.78	1.50	0.49	1.04	0.15	0.16	1.67	0.26	0.19
Avail Cap(c_a), veh/h	622	2050	917	104	958	426	269	645	596	127	539	458
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.8	0.0	0.0	39.8	31.0	26.1	36.0	18.1	18.2	39.4	23.2	12.7
Incr Delay (d2), s/veh	0.1	1.4	0.0	24.5	231.2	4.0	66.7	0.5	0.6	331.3	1.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.4	0.0	2.3	41.9	4.6	11.3	1.6	1.6	14.7	2.7	1.3
LnGrp Delay(d),s/veh	8.9	1.4	0.0	64.3	262.2	30.1	102.8	18.6	18.8	370.8	24.3	13.7
LnGrp LOS	A	A	A	E	F	C	F	B	B	F	C	B
Approach Vol, veh/h		1477			1721			470			439	
Approach Delay, s/veh		2.4			225.5			69.0			189.5	
Approach LOS		A			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	54.3	17.1	29.2	34.9	28.1	10.7	35.6
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	5.1	* 5.1	4.6	* 4.6
Max Green Setting (Gmax), s	* 5	24.8	* 13	24.2	6.8	* 23	6.1	* 31
Max Q Clear Time (g_c+I1), s	5.5	2.0	14.9	6.9	5.4	25.0	8.1	5.3
Green Ext Time (p_c), s	0.0	13.3	0.0	1.3	0.2	0.0	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	123.5
HCM 2010 LOS	F

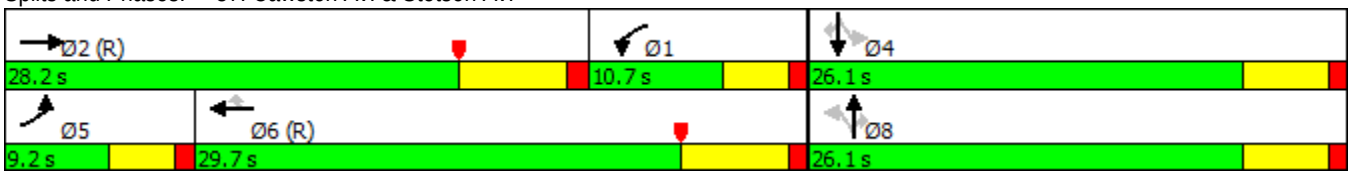
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	25	398	167	377	21	54	108	168	18	155	57
Future Volume (vph)	25	398	167	377	21	54	108	168	18	155	57
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.2	28.2	10.7	29.7	29.7	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.2%	43.4%	16.5%	45.7%	45.7%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	398	60	167	377	21	54	108	168	18	155	57
Future Volume (veh/h)	25	398	60	167	377	21	54	108	168	18	155	57
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	26	419	49	176	397	19	57	114	88	19	163	33
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	51	1081	126	1093	1782	1515	416	602	512	439	602	512
Arrive On Green	0.03	0.34	0.34	0.62	0.96	0.96	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	3195	372	1774	1863	1583	1182	1863	1583	1175	1863	1583
Grp Volume(v), veh/h	26	231	237	176	397	19	57	114	88	19	163	33
Grp Sat Flow(s),veh/h/ln	1774	1770	1797	1774	1863	1583	1182	1863	1583	1175	1863	1583
Q Serve(g_s), s	0.9	6.5	6.5	2.7	0.8	0.0	2.4	2.9	2.6	0.8	4.2	0.9
Cycle Q Clear(g_c), s	0.9	6.5	6.5	2.7	0.8	0.0	6.7	2.9	2.6	3.6	4.2	0.9
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	51	599	608	1093	1782	1515	416	602	512	439	602	512
V/C Ratio(X)	0.51	0.39	0.39	0.16	0.22	0.01	0.14	0.19	0.17	0.04	0.27	0.06
Avail Cap(c_a), veh/h	136	599	608	1093	1782	1515	416	602	512	439	602	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	16.4	16.4	5.3	0.1	0.1	18.8	15.9	15.8	17.2	16.3	15.2
Incr Delay (d2), s/veh	2.1	1.4	1.4	0.0	0.2	0.0	0.7	0.7	0.7	0.2	1.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.4	3.5	1.3	0.4	0.0	0.9	1.6	1.2	0.3	2.4	0.4
LnGrp Delay(d),s/veh	33.2	17.7	17.8	5.3	0.3	0.1	19.5	16.6	16.5	17.4	17.4	15.5
LnGrp LOS	C	B	B	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		494			592			259			215	
Approach Delay, s/veh		18.6			1.8			17.2			17.1	
Approach LOS		B			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	46.4	28.2		26.1	6.1	68.5		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	6.5	* 22		21.0	* 5	23.5		21.0
Max Q Clear Time (g_c+I1), s	4.7	8.5		6.2	2.9	2.8		8.7
Green Ext Time (p_c), s	0.1	1.2		1.2	0.0	1.4		1.1

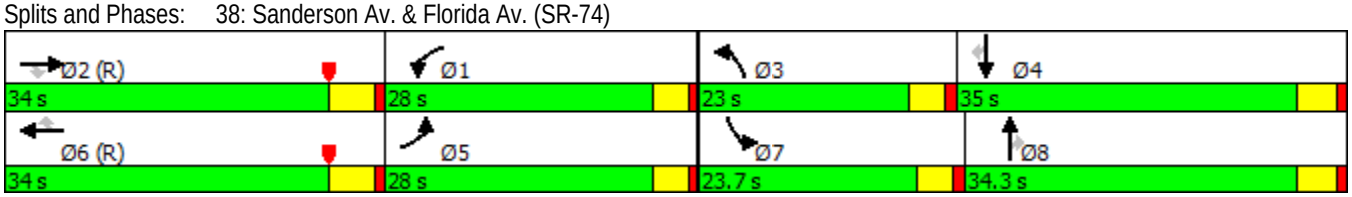
Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	392	1074	145	264	982	225	472	980	246	241	1000	276
Future Volume (vph)	392	1074	145	264	982	225	472	980	246	241	1000	276
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	28.0	34.0	34.0	28.0	34.0	34.0	23.0	34.3	34.3	23.7	35.0	35.0
Total Split (%)	23.3%	28.3%	28.3%	23.3%	28.3%	28.3%	19.2%	28.6%	28.6%	19.8%	29.2%	29.2%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	23.8	28.9	28.9	23.8	28.9	28.9	18.8	30.6	30.6	18.5	30.3	30.3
Actuated g/C Ratio	0.20	0.24	0.24	0.20	0.24	0.24	0.16	0.26	0.26	0.15	0.25	0.25
v/c Ratio	1.13	1.27	0.32	0.76	1.16	0.44	1.72	1.10	0.45	0.89	1.13	0.49
Control Delay	131.4	170.4	13.2	60.6	127.6	11.4	371.4	102.8	10.9	82.5	114.2	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	131.4	170.4	13.2	60.6	127.6	11.4	371.4	102.8	10.9	82.5	114.2	11.2
LOS	F	F	B	E	F	B	F	F	B	F	F	B
Approach Delay		146.8			97.8			164.2			90.4	
Approach LOS		F			F			F			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.72	
Intersection Signal Delay: 126.5	Intersection LOS: F
Intersection Capacity Utilization 117.8%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	392	1074	145	264	982	225	472	980	246	241	1000	276
Future Volume (veh/h)	392	1074	145	264	982	225	472	980	246	241	1000	276
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	396	1085	106	267	992	170	477	990	162	243	1010	221
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	852	374	352	852	375	278	911	399	269	894	394
Arrive On Green	0.20	0.24	0.24	0.20	0.24	0.24	0.16	0.26	0.26	0.15	0.25	0.25
Sat Flow, veh/h	1774	3539	1554	1774	3539	1555	1774	3539	1551	1774	3539	1559
Grp Volume(v), veh/h	396	1085	106	267	992	170	477	990	162	243	1010	221
Grp Sat Flow(s),veh/h/ln	1774	1770	1554	1774	1770	1555	1774	1770	1551	1774	1770	1559
Q Serve(g_s), s	23.8	28.9	4.6	17.0	28.9	7.8	18.8	30.9	6.6	16.2	30.3	9.4
Cycle Q Clear(g_c), s	23.8	28.9	4.6	17.0	28.9	7.8	18.8	30.9	6.6	16.2	30.3	9.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	852	374	352	852	375	278	911	399	269	894	394
V/C Ratio(X)	1.13	1.27	0.28	0.76	1.16	0.45	1.72	1.09	0.41	0.90	1.13	0.56
Avail Cap(c_a), veh/h	352	852	374	352	852	375	278	911	399	288	894	394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	45.5	17.7	45.4	45.5	18.9	50.6	44.6	14.8	50.0	44.8	15.8
Incr Delay (d2), s/veh	86.4	132.0	1.9	8.3	86.5	3.9	337.1	56.2	3.0	27.2	72.7	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.1	29.7	2.2	9.2	24.3	3.7	35.2	22.2	3.1	9.9	23.8	4.7
LnGrp Delay(d),s/veh	134.5	177.5	19.6	53.7	132.1	22.8	387.7	100.7	17.8	77.2	117.5	21.5
LnGrp LOS	F	F	B	D	F	C	F	F	B	E	F	C
Approach Vol, veh/h		1587			1429			1629			1474	
Approach Delay, s/veh		156.3			104.4			176.5			96.5	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	34.0	23.0	35.0	28.0	34.0	22.4	35.6
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	23.8	* 29	* 19	* 30	23.8	* 29	* 20	* 30
Max Q Clear Time (g_c+I1), s	19.0	30.9	20.8	32.3	25.8	30.9	18.2	32.9
Green Ext Time (p_c), s	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		135.1
HCM 2010 LOS		F

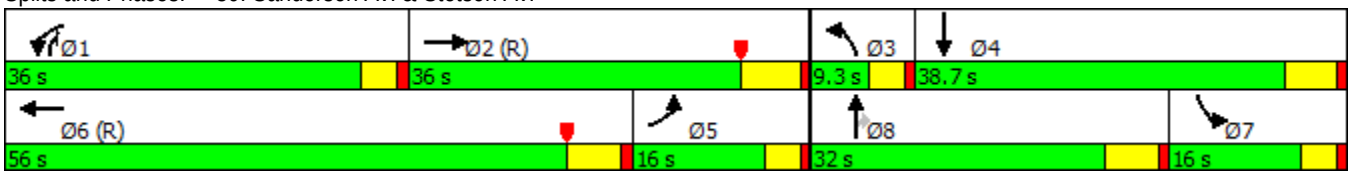
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	314	605	499	567	56	1000	515	333	1152
Future Volume (vph)	314	605	499	567	56	1000	515	333	1152
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	16.0	36.0	36.0	56.0	9.3	32.0	36.0	16.0	38.7
Total Split (%)	13.3%	30.0%	30.0%	46.7%	7.8%	26.7%	30.0%	13.3%	32.3%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 21.4 (18%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	605	58	499	567	298	56	1000	515	333	1152	259
Future Volume (veh/h)	314	605	58	499	567	298	56	1000	515	333	1152	259
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	324	624	58	514	585	286	58	1031	162	343	1188	256
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1554	3409	316	470	965	471	74	773	758	174	836	179
Arrive On Green	0.88	1.00	1.00	0.27	0.42	0.42	0.04	0.22	0.22	0.10	0.29	0.29
Sat Flow, veh/h	1774	3270	303	1774	2306	1126	1774	3539	1548	1774	2903	620
Grp Volume(v), veh/h	324	337	345	514	449	422	58	1031	162	343	720	724
Grp Sat Flow(s),veh/h/ln	1774	1770	1803	1774	1770	1663	1774	1770	1548	1774	1770	1753
Q Serve(g_s), s	3.3	0.0	0.0	31.8	23.7	23.8	3.9	26.2	15.3	11.8	34.6	34.6
Cycle Q Clear(g_c), s	3.3	0.0	0.0	31.8	23.7	23.8	3.9	26.2	15.3	11.8	34.6	34.6
Prop In Lane	1.00		0.17	1.00		0.68	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	1554	1845	1880	470	740	696	74	773	758	174	510	505
V/C Ratio(X)	0.21	0.18	0.18	1.09	0.61	0.61	0.78	1.33	0.21	1.97	1.41	1.43
Avail Cap(c_a), veh/h	1554	1845	1880	470	740	696	75	773	758	174	510	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.1	0.0	0.0	44.1	27.2	27.2	56.9	46.9	81.7	54.1	42.7	42.7
Incr Delay (d2), s/veh	0.0	0.2	0.2	69.2	3.7	3.9	36.1	159.2	0.6	454.9	197.3	206.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.1	0.1	24.6	12.3	11.7	2.6	29.9	6.7	27.8	44.8	45.6
LnGrp Delay(d),s/veh	1.2	0.2	0.2	113.3	30.9	31.1	93.0	206.1	82.3	509.0	240.0	248.7
LnGrp LOS	A	A	A	F	C	C	F	F	F	F	F	F
Approach Vol, veh/h		1006			1385			1251			1787	
Approach Delay, s/veh		0.5			61.5			184.8			295.2	
Approach LOS		A			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.0	132.9	9.2	40.4	112.9	56.0	17.6	32.0
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	6.2	* 5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 32	29.8	* 5.1	32.9	11.8	* 50	11.8	* 26
Max Q Clear Time (g_c+I1), s	33.8	2.0	5.9	36.6	5.3	25.8	13.8	28.2
Green Ext Time (p_c), s	0.0	4.1	0.0	0.0	2.3	5.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	155.5
HCM 2010 LOS	F

Notes

APPENDIX 6.3:

OPENING YEAR CUMULATIVE (2024) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

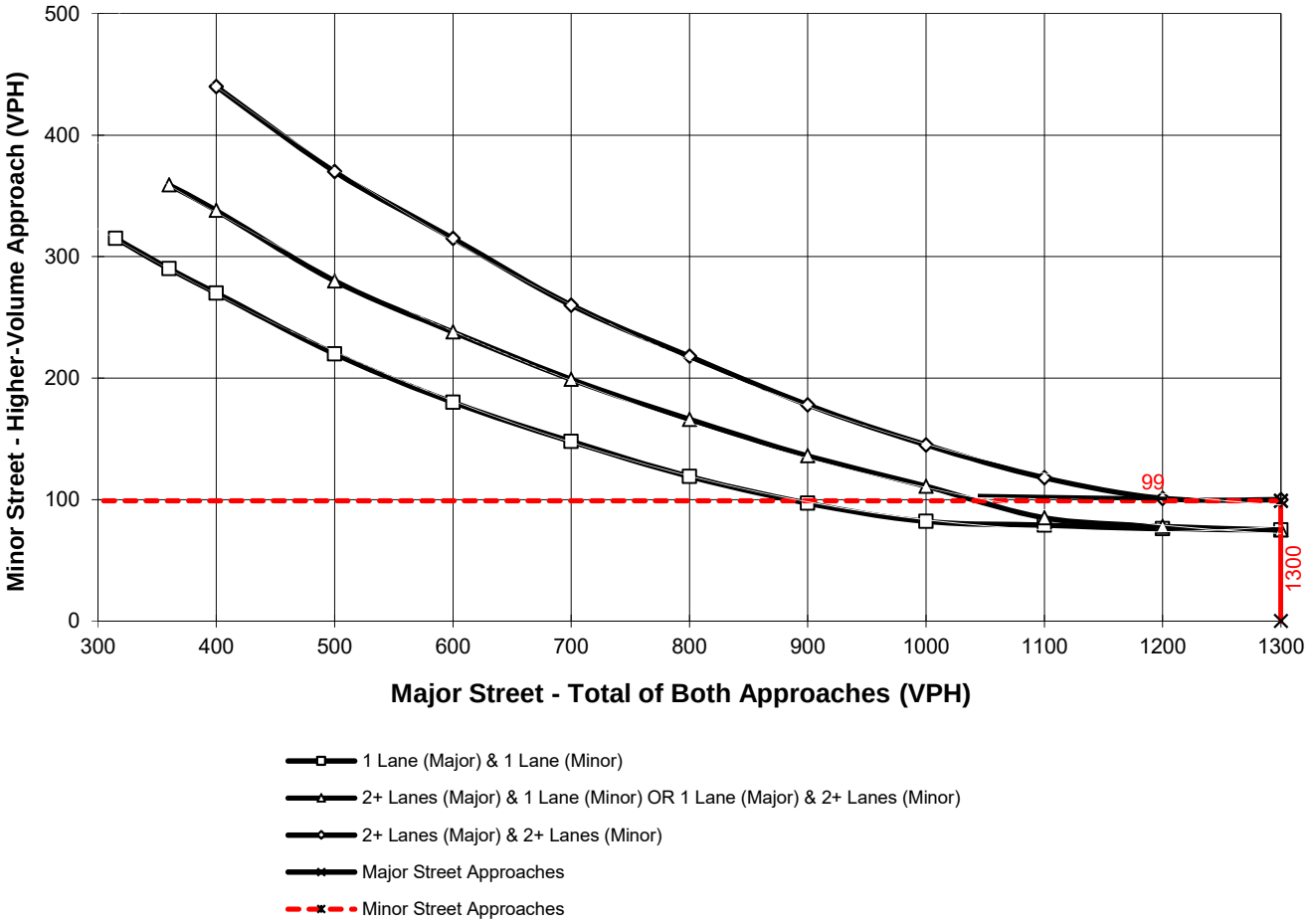
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year Cumulative (2024) Without Project Conditions - Weekday PM Peak Hou**

Major Street Name = **Winchester Road (SR-79)** Total of Both Approaches (VPH) = **1658**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **9th Street** High Volume Approach (VPH) = **99**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

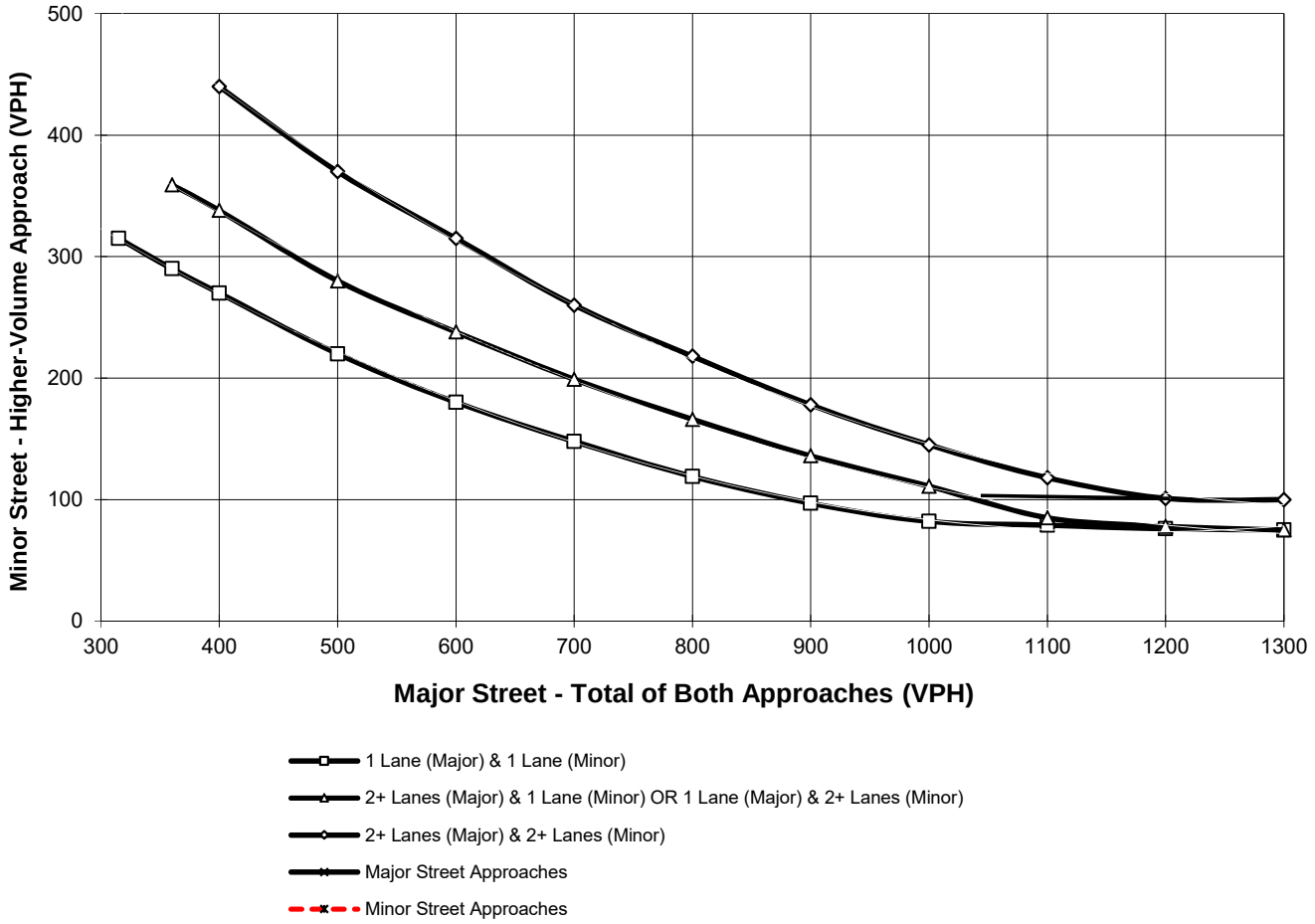
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year Cumulative (2024) Without Project Conditions - Weekday PM Peak Hou**

Major Street Name = **California Avenue**
Total of Both Approaches (VPH) = **125**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Stowe Road**
High Volume Approach (VPH) = **143**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

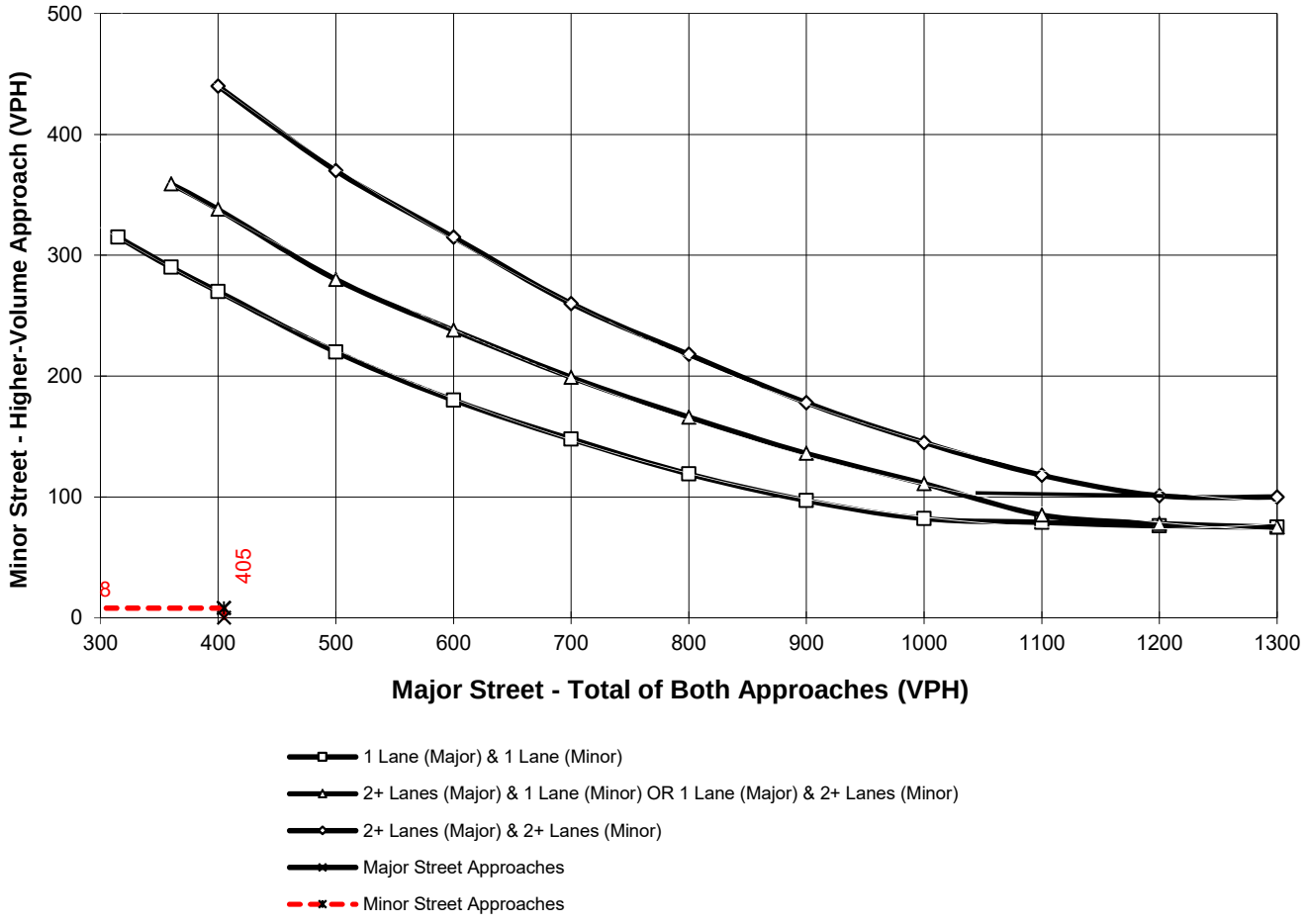
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year Cumulative (2024) Without Project Conditions - Weekday AM Peak Hou**

Major Street Name = **Simpson Road**
Total of Both Approaches (VPH) = **405**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **California Avenue**
High Volume Approach (VPH) = **8**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

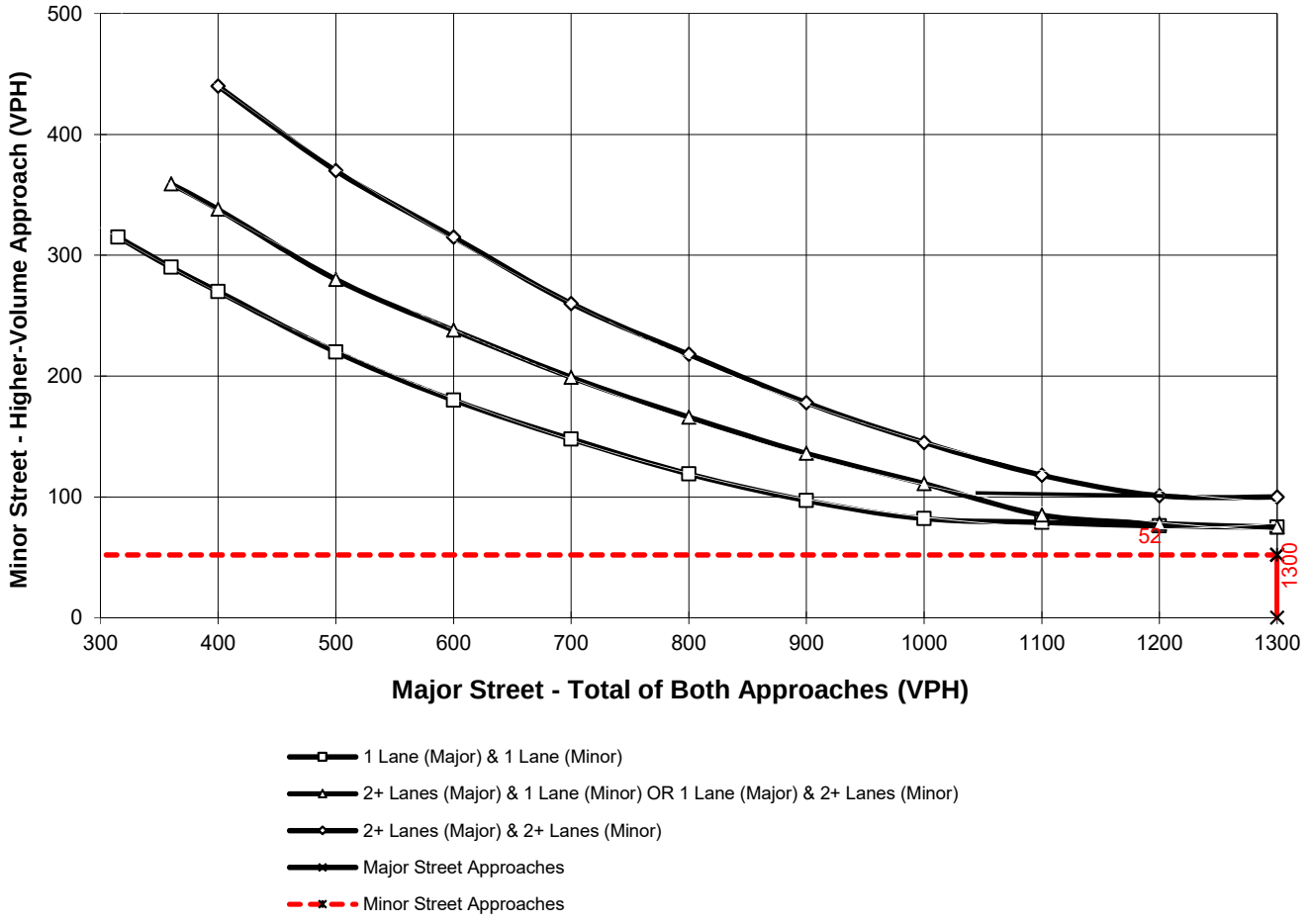
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year Cumulative (2024) Without Project Conditions - Weekday AM Peak Hou**

Major Street Name = **Warren Road** — Total of Both Approaches (VPH) = **2006**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Whittier Avenue** — High Volume Approach (VPH) = **52**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 6.4:

OPENING YEAR CUMULATIVE (2024) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

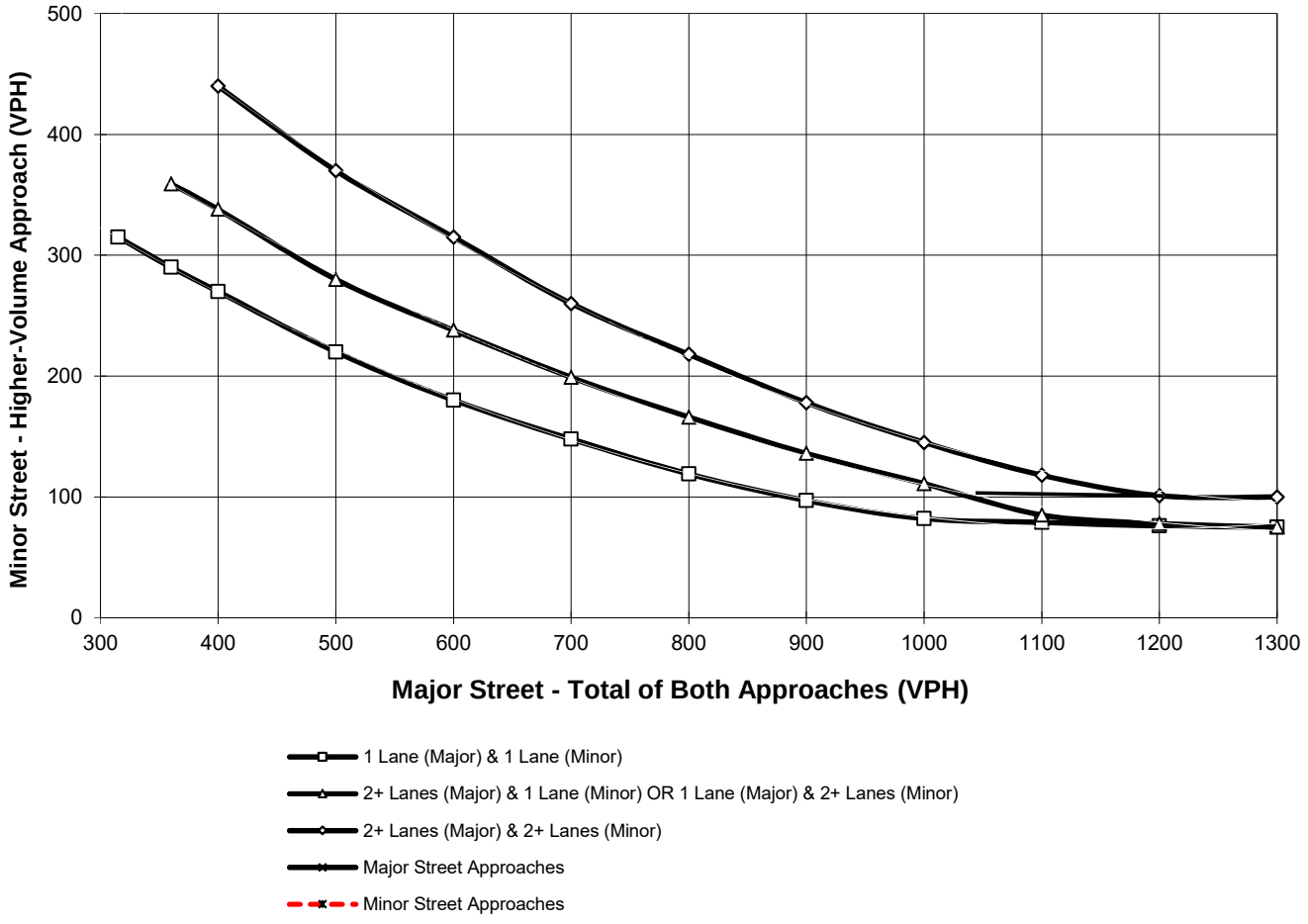
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year Cumulative (2024) With Project Conditions - Weekday PM Peak Hour**

Major Street Name = **California Avenue** — Total of Both Approaches (VPH) = **125**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Stowe Road** — High Volume Approach (VPH) = **143**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

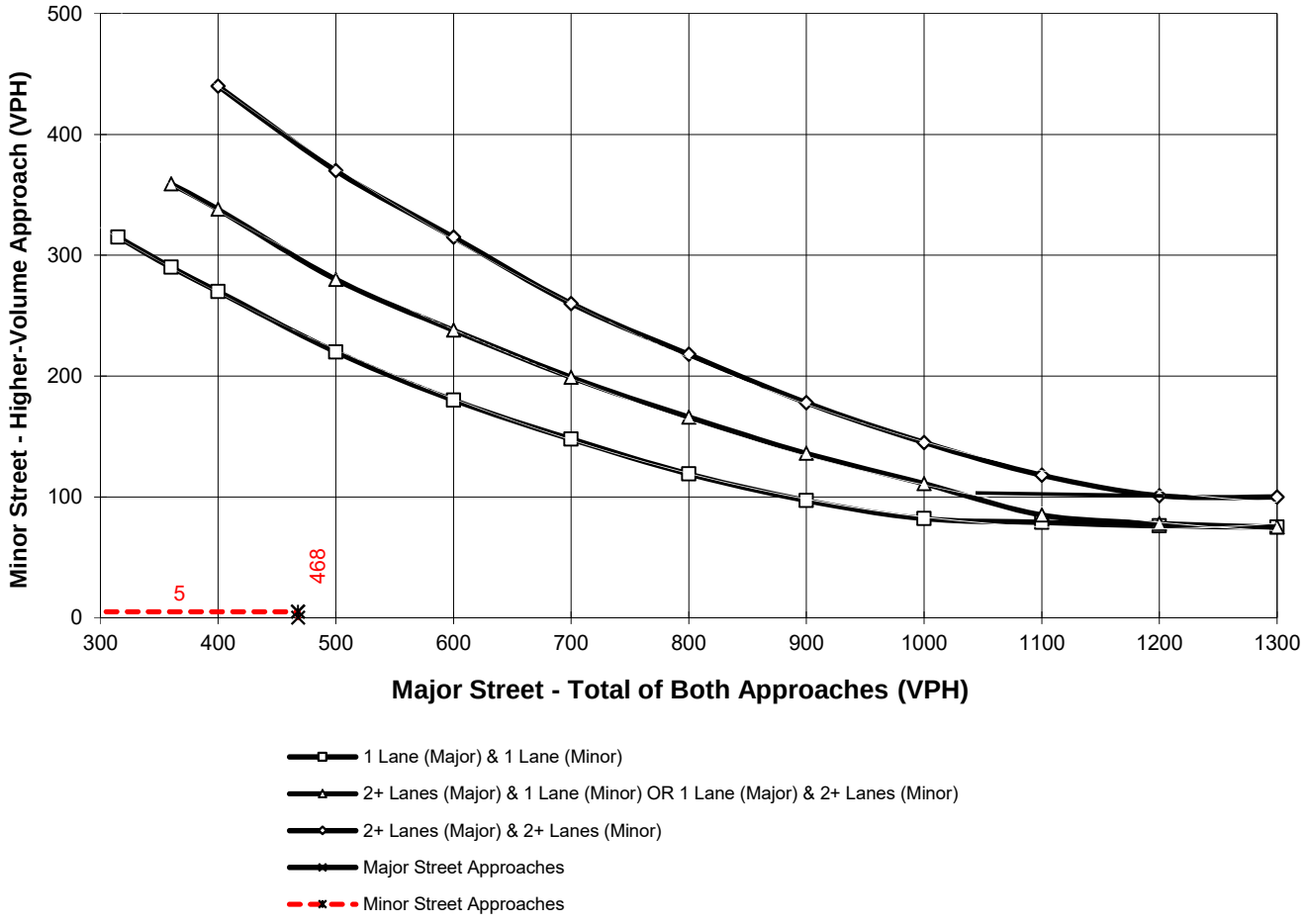
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year Cumulative (2024) With Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Simpson Road** — Total of Both Approaches (VPH) = **468**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **California Avenue** — High Volume Approach (VPH) = **5**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		2024 WP
				CALC	RV	DATE	09/21/17
Jurisdiction:	City of Hemet			CHK	CHS	DATE	09/21/17
Major Street:	New Stetson Avenue				Critical Approach Speed (Major)		45 mph
Minor Street:	Street C				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **280** vpd Minor Street Future ADT = **280** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **280**	1 **280**	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **280**	1 **280**	12,000	8,400	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A / B				
	5% / 3%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		**2024 WP**
				CALC RV	DATE	09/21/17
Jurisdiction: **City of Hemet**				CHK CHS	DATE	09/21/17
Major Street: **New Stetson Avenue**				Critical Approach Speed (Major)		45 mph
Minor Street: **Mustang Way**				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **1,120** vpd Minor Street Future ADT = **560** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1 **1,120**	*1* **560**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1 **1,120**	*1* **560**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A 20% B 13%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		2024 WP
				CALC RV	DATE	09/21/17
Jurisdiction: City of Hemet				CHK CHS	DATE	09/21/17
Major Street: New Stetson Avenue				Critical Approach Speed (Major)		45 mph
Minor Street: Street D				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **1,958** vpd Minor Street Future ADT = **280** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **1,958** / 1 **280**	8,000	5,600	2,400	1,680
2 + / 1	9,600	6,720	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **1,958** / 1 **280**	12,000	8,400	1,200	850
2 + / 1	14,400	10,080	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied (XX)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 17% B: 23%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

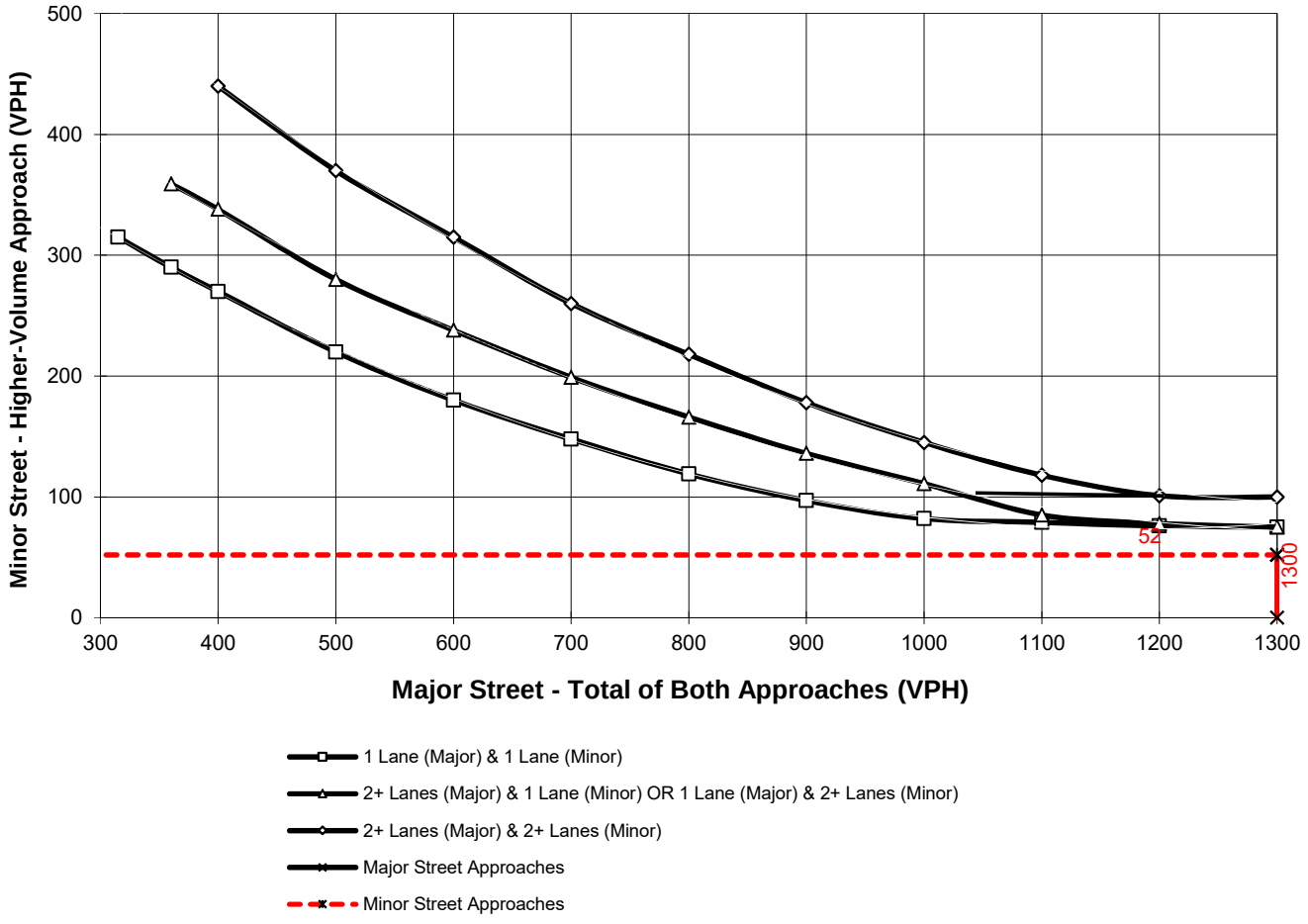
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year Cumulative (2024) With Project Conditions - Weekday AM Peak Hour**

Major Street Name = **Warren Road** — Total of Both Approaches (VPH) = **2253**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Whittier Avenue** — High Volume Approach (VPH) = **52**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 6.5:

OPENING YEAR CUMULATIVE (2024) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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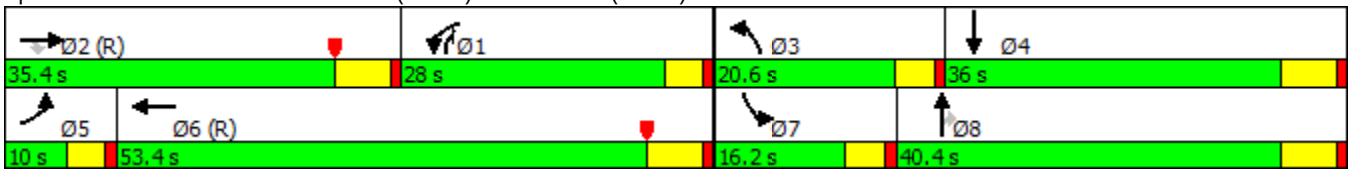
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	18	832	123	434	824	112	11	432	22	30
Future Volume (vph)	18	832	123	434	824	112	11	432	22	30
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2		1	6	3	8	1	7	4
Permitted Phases			2					8		
Detector Phase	5	2	2	1	6	3	8	1	7	4
Switch Phase										
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	5.0	25.0	5.0	5.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	16.2	31.0	9.5	16.2	36.0
Total Split (s)	10.0	35.4	35.4	28.0	53.4	20.6	40.4	28.0	16.2	36.0
Total Split (%)	8.3%	29.5%	29.5%	23.3%	44.5%	17.2%	33.7%	23.3%	13.5%	30.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.6	5.0	3.5	3.6	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	4.6	6.0	4.5	4.6	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	5.3	29.4	29.4	23.5	53.4	11.9	43.6	68.6	6.3	34.1
Actuated g/C Ratio	0.04	0.24	0.24	0.20	0.44	0.10	0.36	0.57	0.05	0.28
v/c Ratio	0.24	0.69	0.26	0.67	0.39	0.66	0.02	0.44	0.25	0.07
Control Delay	63.1	44.5	7.6	50.1	23.6	69.1	28.0	5.2	60.7	30.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	44.5	7.6	50.1	23.6	69.1	28.0	5.2	60.7	30.1
LOS	E	D	A	D	C	E	C	A	E	C
Approach Delay		40.2			32.5		18.5			42.0
Approach LOS		D			C		B			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 33.3 (28%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 32.6	Intersection LOS: C
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	832	123	434	824	34	112	11	432	22	30	5
Future Volume (veh/h)	18	832	123	434	824	34	112	11	432	22	30	5
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	19	858	88	447	849	33	115	11	265	23	31	5
Adj No. of Lanes	1	3	1	2	3	0	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	35	1246	388	817	2388	93	141	572	861	40	391	63
Arrive On Green	0.02	0.25	0.25	0.24	0.48	0.48	0.08	0.31	0.31	0.02	0.25	0.25
Sat Flow, veh/h	1774	5085	1583	3442	5023	195	1774	1863	1582	1774	1565	252
Grp Volume(v), veh/h	19	858	88	447	572	310	115	11	265	23	0	36
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1828	1774	1863	1582	1774	0	1818
Q Serve(g_s), s	1.3	18.4	4.1	13.7	12.8	12.8	7.7	0.5	1.5	1.5	0.0	1.8
Cycle Q Clear(g_c), s	1.3	18.4	4.1	13.7	12.8	12.8	7.7	0.5	1.5	1.5	0.0	1.8
Prop In Lane	1.00		1.00	1.00		0.11	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	35	1246	388	817	1612	869	141	572	861	40	0	454
V/C Ratio(X)	0.55	0.69	0.23	0.55	0.36	0.36	0.82	0.02	0.31	0.58	0.00	0.08
Avail Cap(c_a), veh/h	81	1246	388	817	1612	869	237	572	861	171	0	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.3	41.1	21.9	40.1	19.9	19.9	54.4	29.0	6.5	58.1	0.0	34.4
Incr Delay (d2), s/veh	4.9	3.1	1.4	0.4	0.6	1.1	4.4	0.1	0.9	4.9	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	8.9	2.0	6.6	6.1	6.7	3.9	0.3	3.3	0.8	0.0	1.0
LnGrp Delay(d),s/veh	63.2	44.3	23.3	40.5	20.5	21.0	58.8	29.1	7.5	63.0	0.0	34.8
LnGrp LOS	E	D	C	D	C	C	E	C	A	E		C
Approach Vol, veh/h		965			1329			391			59	
Approach Delay, s/veh		42.7			27.4			23.2			45.8	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.5	35.4	14.1	36.0	6.8	63.0	7.3	42.8
Change Period (Y+Rc), s	6.0	* 6	4.6	6.0	4.5	6.0	4.6	6.0
Max Green Setting (Gmax), s	23.5	* 29	16.0	30.0	5.5	47.4	11.6	34.4
Max Q Clear Time (g_c+I1), s	15.7	20.4	9.7	3.8	3.3	14.8	3.5	3.5
Green Ext Time (p_c), s	2.8	2.6	0.1	0.6	0.0	4.3	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	32.6
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	47	1	0	28	531	3	799
Future Volume (vph)	47	1	0	28	531	3	799
Turn Type	Perm	NA	NA	Prot	NA	Prot	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4						
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	9.6	28.2	9.6	28.2
Total Split (s)	31.6	31.6	31.6	9.6	38.8	9.6	38.8
Total Split (%)	39.5%	39.5%	39.5%	12.0%	48.5%	12.0%	48.5%
Yellow Time (s)	3.6	3.6	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	4.6	4.6	6.2	4.6	6.2
Lead/Lag				Lead	Lag	Lead	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	Min
Act Effct Green (s)		12.9	12.9	5.1	43.9	5.1	41.9
Actuated g/C Ratio		0.20	0.20	0.08	0.68	0.08	0.65
v/c Ratio		0.29	0.01	0.21	0.45	0.02	0.75
Control Delay		15.7	0.0	34.7	11.0	31.7	20.1
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		15.7	0.0	34.7	11.0	31.7	20.1
LOS		B	A	C	B	C	C
Approach Delay		15.7			12.2		20.2
Approach LOS		B			B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 64.4	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 16.9	Intersection LOS: B
Intersection Capacity Utilization 65.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	1	39	0	0	3	28	531	1	3	799	37
Future Volume (veh/h)	47	1	39	0	0	3	28	531	1	3	799	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	51	1	42	0	0	3	30	571	1	3	859	40
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	190	29	96	0	0	222	59	1074	2	7	969	45
Arrive On Green	0.14	0.14	0.14	0.00	0.00	0.14	0.03	0.58	0.58	0.00	0.55	0.55
Sat Flow, veh/h	639	210	686	0	0	1583	1774	1859	3	1774	1766	82
Grp Volume(v), veh/h	94	0	0	0	0	3	30	0	572	3	0	899
Grp Sat Flow(s),veh/h/ln	1535	0	0	0	0	1583	1774	0	1862	1774	0	1848
Q Serve(g_s), s	1.3	0.0	0.0	0.0	0.0	0.1	0.9	0.0	10.4	0.1	0.0	23.7
Cycle Q Clear(g_c), s	2.9	0.0	0.0	0.0	0.0	0.1	0.9	0.0	10.4	0.1	0.0	23.7
Prop In Lane	0.54		0.45	0.00		1.00	1.00		0.00	1.00		0.04
Lane Grp Cap(c), veh/h	315	0	0	0	0	222	59	0	1076	7	0	1014
V/C Ratio(X)	0.30	0.00	0.00	0.00	0.00	0.01	0.51	0.00	0.53	0.42	0.00	0.89
Avail Cap(c_a), veh/h	831	0	0	0	0	772	160	0	1096	160	0	1088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	0.0	0.0	0.0	20.5	26.3	0.0	7.1	27.5	0.0	11.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.5	13.5	0.0	8.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	0.0	0.0	0.0	0.5	0.0	5.4	0.1	0.0	14.2
LnGrp Delay(d),s/veh	22.2	0.0	0.0	0.0	0.0	20.5	28.8	0.0	7.6	41.0	0.0	19.6
LnGrp LOS	C					C	C		A	D		B
Approach Vol, veh/h		94			3			602			902	
Approach Delay, s/veh		22.2			20.5			8.7			19.7	
Approach LOS		C			C			A			B	

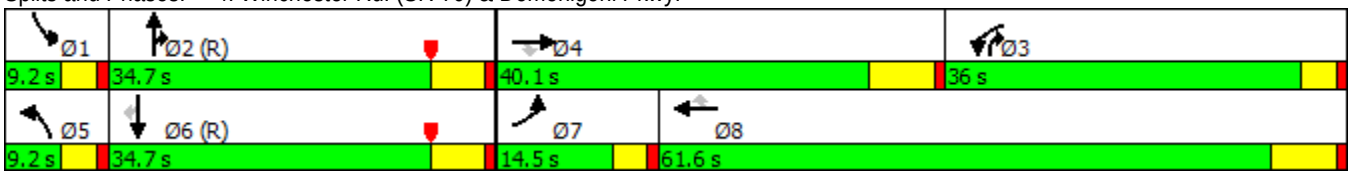
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.8	38.2		12.4	6.4	36.6		12.4
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6
Max Green Setting (Gmax), s	5.0	32.6		27.0	5.0	32.6		27.0
Max Q Clear Time (g_c+I1), s	2.1	12.4		4.9	2.9	25.7		2.1
Green Ext Time (p_c), s	0.0	10.0		0.5	0.0	4.7		0.5

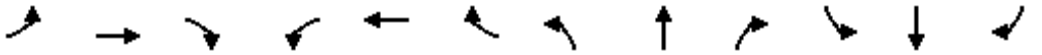
Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	147	913	77	817	902	37	46	319	658	48	586	212
Future Volume (vph)	147	913	77	817	902	37	46	319	658	48	586	212
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	2 3	1	6	
Permitted Phases			4			8						6
Detector Phase	7	4	4	3	8	8	5	2	2 3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8		9.2	33.8	33.8
Total Split (s)	14.5	40.1	40.1	36.0	61.6	61.6	9.2	34.7		9.2	34.7	34.7
Total Split (%)	12.1%	33.4%	33.4%	30.0%	51.3%	51.3%	7.7%	28.9%		7.7%	28.9%	28.9%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8		3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8		4.2	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	9.2	33.2	33.2	31.8	55.8	55.8	5.0	30.7	62.1	5.0	30.7	30.7
Actuated g/C Ratio	0.08	0.28	0.28	0.26	0.46	0.46	0.04	0.26	0.52	0.04	0.26	0.26
v/c Ratio	0.61	1.01	0.16	0.98	0.41	0.05	0.68	0.38	0.82	0.71	0.70	0.40
Control Delay	63.5	75.3	2.3	68.8	22.1	0.1	98.8	39.0	24.6	102.7	46.0	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	75.3	2.3	68.8	22.1	0.1	98.8	39.0	24.6	102.7	46.0	6.9
LOS	E	E	A	E	C	A	F	D	C	F	D	A
Approach Delay		68.8			43.4			32.4			39.4	
Approach LOS		E			D			C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 46.4	Intersection LOS: D
Intersection Capacity Utilization 86.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	913	77	817	902	37	46	319	658	48	586	212
Future Volume (veh/h)	147	913	77	817	902	37	46	319	658	48	586	212
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	160	992	47	888	980	28	50	347	453	52	637	131
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	979	438	912	2551	794	64	2997	1760	67	3002	1343
Arrive On Green	0.06	0.28	0.28	0.26	0.50	0.50	0.04	0.85	0.85	0.04	0.85	0.85
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	160	992	47	888	980	28	50	347	453	52	637	131
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	5.5	33.2	4.5	30.7	14.3	1.1	3.4	2.0	2.0	3.5	4.0	1.6
Cycle Q Clear(g_c), s	5.5	33.2	4.5	30.7	14.3	1.1	3.4	2.0	2.0	3.5	4.0	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	215	979	438	912	2551	794	64	2997	1760	67	3002	1343
V/C Ratio(X)	0.74	1.01	0.11	0.97	0.38	0.04	0.78	0.12	0.26	0.78	0.21	0.10
Avail Cap(c_a), veh/h	295	979	438	912	2551	794	74	2997	1760	74	3002	1343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	55.3	43.4	91.9	43.7	18.5	15.2	57.4	1.6	4.9	57.2	1.7	1.5
Incr Delay (d2), s/veh	3.7	32.0	0.1	23.4	0.1	0.0	30.6	0.1	0.4	29.3	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	20.5	2.0	17.5	6.6	0.5	2.2	1.0	1.4	2.2	2.0	0.7
LnGrp Delay(d),s/veh	59.0	75.4	92.0	67.0	18.6	15.2	87.9	1.6	5.2	86.6	1.8	1.6
LnGrp LOS	E	F	F	E	B	B	F	A	A	F	A	A
Approach Vol, veh/h		1199			1896			850			820	
Approach Delay, s/veh		73.9			41.2			8.6			7.2	
Approach LOS		E			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	109.6	38.7	40.1	8.5	109.8	11.7	67.1
Change Period (Y+Rc), s	* 4.2	5.8	6.9	* 6.9	* 4.2	5.8	* 4.2	6.9
Max Green Setting (Gmax), s	* 5	28.9	31.8	* 33	* 5	28.9	* 10	54.7
Max Q Clear Time (g_c+I1), s	5.5	4.0	32.7	35.2	5.4	6.0	7.5	16.3
Green Ext Time (p_c), s	0.0	13.1	0.0	0.0	0.0	12.5	0.1	9.5

Intersection Summary	
HCM 2010 Ctrl Delay	37.8
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	36	250	17	19	699	59	549
Future Volume (vph)	29	36	250	17	19	699	59	549
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	27.8	9.6	27.8
Total Split (s)	32.3	32.3	32.3	32.3	10.2	77.5	10.2	77.5
Total Split (%)	26.9%	26.9%	26.9%	26.9%	8.5%	64.6%	8.5%	64.6%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	25.0	25.0	25.0	25.0	5.7	62.2	6.0	66.0
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.05	0.59	0.06	0.62
v/c Ratio	0.11	0.14	0.84	0.29	0.21	0.92	0.63	0.51
Control Delay	37.6	25.7	65.8	11.4	60.4	35.3	83.1	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.6	25.7	65.8	11.4	60.4	35.3	83.1	13.5
LOS	D	C	E	B	E	D	F	B
Approach Delay		29.7		47.4		35.8		20.2
Approach LOS		C		D		D		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 105.7	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 33.0	Intersection LOS: C
Intersection Capacity Utilization 83.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 20: Warren Rd. & Esplanade Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	36	23	250	17	111	19	699	226	59	549	8
Future Volume (veh/h)	29	36	23	250	17	111	19	699	226	59	549	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	31	38	24	266	18	118	20	744	240	63	584	9
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	255	161	343	51	334	36	792	256	81	1119	17
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.02	0.59	0.59	0.05	0.61	0.61
Sat Flow, veh/h	1248	1069	675	1335	214	1402	1774	1350	436	1774	1830	28
Grp Volume(v), veh/h	31	0	62	266	0	136	20	0	984	63	0	593
Grp Sat Flow(s),veh/h/ln	1248	0	1744	1335	0	1615	1774	0	1786	1774	0	1858
Q Serve(g_s), s	2.5	0.0	3.3	22.8	0.0	8.1	1.3	0.0	58.9	4.1	0.0	21.1
Cycle Q Clear(g_c), s	10.6	0.0	3.3	26.1	0.0	8.1	1.3	0.0	58.9	4.1	0.0	21.1
Prop In Lane	1.00		0.39	1.00		0.87	1.00		0.24	1.00		0.02
Lane Grp Cap(c), veh/h	272	0	416	343	0	385	36	0	1048	81	0	1137
V/C Ratio(X)	0.11	0.00	0.15	0.78	0.00	0.35	0.55	0.00	0.94	0.78	0.00	0.52
Avail Cap(c_a), veh/h	272	0	416	343	0	385	86	0	1103	86	0	1147
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.2	0.0	34.9	45.2	0.0	36.8	56.3	0.0	22.1	54.8	0.0	12.9
Incr Delay (d2), s/veh	0.2	0.0	0.2	10.6	0.0	0.5	4.8	0.0	14.4	31.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.6	9.4	0.0	3.7	0.7	0.0	32.9	2.7	0.0	10.8
LnGrp Delay(d),s/veh	41.3	0.0	35.1	55.8	0.0	37.3	61.1	0.0	36.5	85.9	0.0	13.3
LnGrp LOS	D		D	E		D	E		D	F		B
Approach Vol, veh/h		93			402			1004			656	
Approach Delay, s/veh		37.2			49.6			37.0			20.2	
Approach LOS		D			D			D			C	

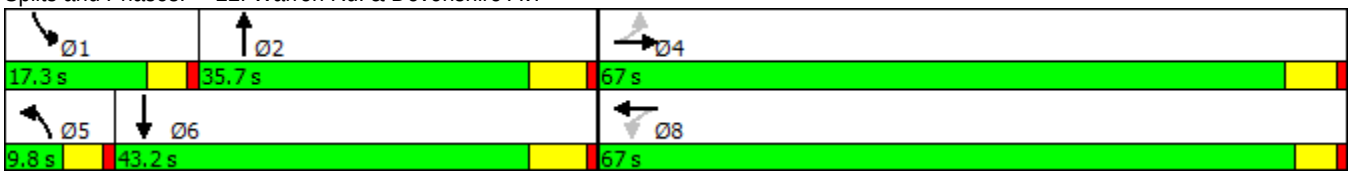
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.9	73.9		32.3	7.0	76.8		32.3
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6
Max Green Setting (Gmax), s	5.6	71.7		27.7	5.6	71.7		27.7
Max Q Clear Time (g_c+I1), s	6.1	60.9		12.6	3.3	23.1		28.1
Green Ext Time (p_c), s	0.0	7.3		2.0	0.0	16.5		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		34.2
HCM 2010 LOS		C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	243	239	185	377	12	553	152	510
Future Volume (vph)	243	239	185	377	12	553	152	510
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	31.8	31.8	9.6	28.2	9.6	28.2
Total Split (s)	67.0	67.0	67.0	67.0	9.8	35.7	17.3	43.2
Total Split (%)	55.8%	55.8%	55.8%	55.8%	8.2%	29.8%	14.4%	36.0%
Yellow Time (s)	4.8	4.8	3.8	3.8	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.8	4.8	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	55.1	55.1	56.1	56.1	5.2	26.3	12.2	39.6
Actuated g/C Ratio	0.50	0.50	0.51	0.51	0.05	0.24	0.11	0.36
v/c Ratio	0.99	0.31	0.39	0.61	0.16	0.84	0.83	0.57
Control Delay	82.9	17.3	19.9	22.1	59.7	50.2	83.9	31.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.9	17.3	19.9	22.1	59.7	50.2	83.9	31.2
LOS	F	B	B	C	E	D	F	C
Approach Delay		48.8		21.5		50.4		41.0
Approach LOS		D		C		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 110.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 39.7	Intersection LOS: D
Intersection Capacity Utilization 87.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	243	239	24	185	377	148	12	553	105	152	510	161
Future Volume (veh/h)	243	239	24	185	377	148	12	553	105	152	510	161
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	259	254	26	197	401	157	13	588	112	162	543	171
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	319	868	89	539	666	261	26	682	130	189	852	267
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.01	0.23	0.23	0.11	0.32	0.32
Sat Flow, veh/h	848	1663	170	1095	1275	499	1774	2969	564	1774	2653	832
Grp Volume(v), veh/h	259	0	280	197	0	558	13	350	350	162	362	352
Grp Sat Flow(s),veh/h/ln	848	0	1833	1095	0	1775	1774	1770	1763	1774	1770	1716
Q Serve(g_s), s	35.5	0.0	10.1	14.5	0.0	25.7	0.9	22.2	22.4	10.5	20.4	20.6
Cycle Q Clear(g_c), s	61.2	0.0	10.1	24.6	0.0	25.7	0.9	22.2	22.4	10.5	20.4	20.6
Prop In Lane	1.00		0.09	1.00		0.28	1.00		0.32	1.00		0.49
Lane Grp Cap(c), veh/h	319	0	957	539	0	927	26	406	405	189	568	551
V/C Ratio(X)	0.81	0.00	0.29	0.37	0.00	0.60	0.50	0.86	0.86	0.86	0.64	0.64
Avail Cap(c_a), veh/h	319	0	957	548	0	942	79	446	444	192	568	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	0.0	15.8	22.7	0.0	19.5	57.3	43.3	43.4	51.5	33.9	34.0
Incr Delay (d2), s/veh	14.8	0.0	0.2	0.4	0.0	1.1	5.4	14.8	15.2	28.4	2.3	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	0.0	5.1	4.4	0.0	12.8	0.5	12.6	12.6	6.7	10.3	10.1
LnGrp Delay(d),s/veh	55.7	0.0	15.9	23.1	0.0	20.5	62.6	58.1	58.6	79.9	36.3	36.4
LnGrp LOS	E		B	C		C	E	E	E	E	D	D
Approach Vol, veh/h		539			755			713			876	
Approach Delay, s/veh		35.1			21.2			58.4			44.4	
Approach LOS		D			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.1	33.1		67.0	6.3	43.8		67.0
Change Period (Y+Rc), s	4.6	6.2		5.8	4.6	6.2		* 5.8
Max Green Setting (Gmax), s	12.7	29.5		61.2	5.2	37.0		* 62
Max Q Clear Time (g_c+I1), s	12.5	24.4		63.2	2.9	22.6		27.7
Green Ext Time (p_c), s	0.0	2.5		0.0	0.0	6.6		9.5

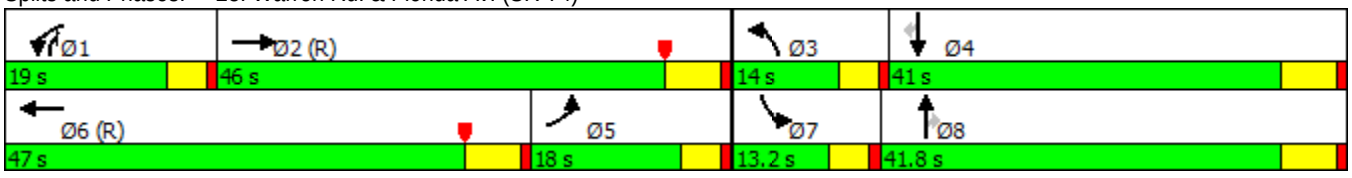
Intersection Summary			
HCM 2010 Ctrl Delay		40.1	
HCM 2010 LOS		D	

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	179	1070	344	904	206	477	228	100	455	185
Future Volume (vph)	179	1070	344	904	206	477	228	100	455	185
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8	1	7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	9.6	9.6	41.0	41.0
Total Split (s)	18.0	46.0	19.0	47.0	14.0	41.8	19.0	13.2	41.0	41.0
Total Split (%)	15.0%	38.3%	15.8%	39.2%	11.7%	34.8%	15.8%	11.0%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	3.6	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	4.6	4.6	6.0	6.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	13.4	40.3	14.1	41.0	9.4	36.0	51.5	8.4	35.0	35.0
Actuated g/C Ratio	0.11	0.34	0.12	0.34	0.08	0.30	0.43	0.07	0.29	0.29
v/c Ratio	0.93	0.78	0.87	0.56	1.52	0.46	0.31	0.83	0.45	0.32
Control Delay	101.2	38.8	74.5	33.4	305.5	35.9	10.1	99.9	36.3	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.2	38.8	74.5	33.4	305.5	35.9	10.1	99.9	36.3	6.1
LOS	F	D	E	C	F	D	B	F	D	A
Approach Delay		46.4		44.4		90.3			37.4	
Approach LOS		D		D		F			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 19 (16%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.52	
Intersection Signal Delay: 53.3	Intersection LOS: D
Intersection Capacity Utilization 100.7%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	1070	227	344	904	41	206	477	228	100	455	185
Future Volume (veh/h)	179	1070	227	344	904	41	206	477	228	100	455	185
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	183	1092	169	351	922	38	210	487	188	102	464	125
Adj No. of Lanes	1	3	0	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	491	2279	352	403	1712	70	139	1059	658	126	1032	460
Arrive On Green	0.28	0.51	0.51	0.12	0.34	0.34	0.08	0.30	0.30	0.07	0.29	0.29
Sat Flow, veh/h	1774	4444	687	3442	5010	206	1774	3539	1580	1774	3539	1578
Grp Volume(v), veh/h	183	833	428	351	623	337	210	487	188	102	464	125
Grp Sat Flow(s),veh/h/ln	1774	1695	1741	1721	1695	1826	1774	1770	1580	1774	1770	1578
Q Serve(g_s), s	10.0	19.0	19.1	12.0	17.8	17.9	9.4	13.4	9.5	6.8	12.8	5.2
Cycle Q Clear(g_c), s	10.0	19.0	19.1	12.0	17.8	17.9	9.4	13.4	9.5	6.8	12.8	5.2
Prop In Lane	1.00		0.39	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	491	1738	893	403	1158	624	139	1059	658	126	1032	460
V/C Ratio(X)	0.37	0.48	0.48	0.87	0.54	0.54	1.51	0.46	0.29	0.81	0.45	0.27
Avail Cap(c_a), veh/h	491	1738	893	413	1158	624	139	1059	658	127	1032	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.64	0.64	0.64	0.83	0.83	0.83
Uniform Delay (d), s/veh	35.0	18.9	18.9	52.1	31.9	31.9	55.3	34.2	23.2	55.0	34.6	16.8
Incr Delay (d2), s/veh	0.2	0.9	1.8	16.8	1.8	3.3	252.2	0.9	0.7	25.1	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	9.1	9.6	6.6	8.6	9.6	14.3	6.7	4.3	4.2	6.4	2.4
LnGrp Delay(d),s/veh	35.2	19.8	20.7	68.9	33.7	35.2	307.5	35.1	23.9	80.0	35.8	18.0
LnGrp LOS	D	B	C	E	C	D	F	D	C	F	D	B
Approach Vol, veh/h		1444			1311			885			691	
Approach Delay, s/veh		22.0			43.5			97.4			39.1	
Approach LOS		C			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.7	67.6	14.0	41.0	39.3	47.0	13.1	41.9
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	6.0	* 6	4.6	6.0
Max Green Setting (Gmax), s	14.4	40.0	9.4	35.0	13.4	* 41	8.6	35.8
Max Q Clear Time (g_c+I1), s	14.0	21.1	11.4	14.8	12.0	19.9	8.8	15.4
Green Ext Time (p_c), s	0.0	5.1	0.0	3.9	0.1	3.5	0.0	3.9

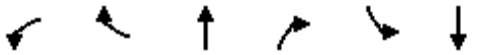
Intersection Summary	
HCM 2010 Ctrl Delay	46.7
HCM 2010 LOS	D

Notes

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	14	845	248	733
Future Volume (vph)	14	845	248	733
Turn Type	Prot	NA	Prot	NA
Protected Phases	8	2	1	6
Permitted Phases				
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	28.2	9.6	24.2
Total Split (s)	31.6	54.4	34.0	88.4
Total Split (%)	26.3%	45.3%	28.3%	73.7%
Yellow Time (s)	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	Min	None	Min
Act Effct Green (s)	13.9	29.3	17.2	54.7
Actuated g/C Ratio	0.19	0.41	0.24	0.76
v/c Ratio	0.21	0.71	0.63	0.29
Control Delay	13.9	22.9	36.5	4.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	13.9	22.9	36.5	4.9
LOS	B	C	D	A
Approach Delay	13.9	22.9		12.9
Approach LOS	B	C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 72.3	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 61.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 24: Warren Rd. & Auto Bl.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	14	60	845	101	248	733
Future Volume (veh/h)	14	60	845	101	248	733
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	15	64	899	107	264	780
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	36	155	1456	173	317	2508
Arrive On Green	0.12	0.12	0.46	0.46	0.18	0.71
Sat Flow, veh/h	304	1295	3279	379	1774	3632
Grp Volume(v), veh/h	80	0	499	507	264	780
Grp Sat Flow(s),veh/h/ln	1619	0	1770	1795	1774	1770
Q Serve(g_s), s	2.9	0.0	13.4	13.4	9.0	5.2
Cycle Q Clear(g_c), s	2.9	0.0	13.4	13.4	9.0	5.2
Prop In Lane	0.19	0.80		0.21	1.00	
Lane Grp Cap(c), veh/h	194	0	809	821	317	2508
V/C Ratio(X)	0.41	0.00	0.62	0.62	0.83	0.31
Avail Cap(c_a), veh/h	695	0	1356	1376	829	4625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	0.0	12.9	12.9	24.9	3.4
Incr Delay (d2), s/veh	1.4	0.0	0.8	0.8	2.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	6.7	6.8	4.6	2.5
LnGrp Delay(d),s/veh	27.0	0.0	13.7	13.7	27.2	3.5
LnGrp LOS	C		B	B	C	A
Approach Vol, veh/h	80		1006			1044
Approach Delay, s/veh	27.0		13.7			9.5
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.8	34.9				50.8		12.1
Change Period (Y+Rc), s	4.6	6.2				6.2		4.6
Max Green Setting (Gmax), s	29.4	48.2				82.2		27.0
Max Q Clear Time (g_c+I1), s	11.0	15.4				7.2		4.9
Green Ext Time (p_c), s	0.3	13.3				15.9		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	12.1
HCM 2010 LOS	B

Notes

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	188	592	224	44	513
Future Volume (vph)	188	592	224	44	513
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	4	3	8	2	3
Permitted Phases					2
Detector Phase	4	3	8	2	3
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	9.6	22.5	31.6	9.6
Total Split (s)	28.2	60.0	88.2	31.8	60.0
Total Split (%)	23.5%	50.0%	73.5%	26.5%	50.0%
Yellow Time (s)	5.2	3.6	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	5.2	4.6	4.6
Lead/Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	None	None	None	Min	None
Act Effct Green (s)	17.5	37.4	60.8	13.0	55.3
Actuated g/C Ratio	0.21	0.44	0.72	0.15	0.66
v/c Ratio	0.66	0.87	0.19	0.19	0.53
Control Delay	42.3	34.8	4.4	37.2	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	34.8	4.4	37.2	6.0
LOS	D	C	A	D	A
Approach Delay	42.3		26.4	8.5	
Approach LOS	D		C	A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 84.2	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 22.3	Intersection LOS: C
Intersection Capacity Utilization 65.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 30: Warren Rd. & Simpson Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	188	32	592	224	44	513
Future Volume (veh/h)	188	32	592	224	44	513
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	216	37	680	257	51	590
Adj No. of Lanes	1	0	1	1	1	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	272	47	718	1177	437	1031
Arrive On Green	0.18	0.18	0.40	0.63	0.25	0.25
Sat Flow, veh/h	1550	266	1774	1863	1774	1583
Grp Volume(v), veh/h	0	253	680	257	51	590
Grp Sat Flow(s),veh/h/ln	0	1816	1774	1863	1774	1583
Q Serve(g_s), s	0.0	11.8	32.8	5.2	2.0	18.4
Cycle Q Clear(g_c), s	0.0	11.8	32.8	5.2	2.0	18.4
Prop In Lane		0.15	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	318	718	1177	437	1031
V/C Ratio(X)	0.00	0.79	0.95	0.22	0.12	0.57
Avail Cap(c_a), veh/h	0	451	1109	1744	544	1126
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	35.0	25.5	7.0	25.9	8.6
Incr Delay (d2), s/veh	0.0	6.4	9.4	0.1	0.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.5	17.7	2.7	1.0	8.0
LnGrp Delay(d),s/veh	0.0	41.4	34.9	7.1	26.0	9.2
LnGrp LOS		D	C	A	C	A
Approach Vol, veh/h	253			937	641	
Approach Delay, s/veh	41.4			27.2	10.5	
Approach LOS	D			C	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		26.4	40.5	21.7				62.2
Change Period (Y+Rc), s		4.6	4.6	6.2				* 6.2
Max Green Setting (Gmax), s		27.2	55.4	22.0				* 83
Max Q Clear Time (g_c+I1), s		20.4	34.8	13.8				7.2
Green Ext Time (p_c), s		1.5	1.0	1.7				2.9

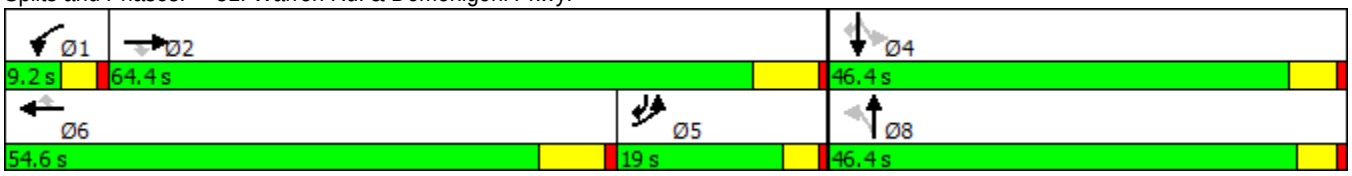
Intersection Summary	
HCM 2010 Ctrl Delay	23.4
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	464	1294	2	2	1543	89	3	14	103	9	510
Future Volume (vph)	464	1294	2	2	1543	89	3	14	103	9	510
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	5	2		1	6			8		4	5
Permitted Phases			2			6	8		4		4
Detector Phase	5	2	2	1	6	6	8	8	4	4	5
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	46.4	46.4	9.2
Total Split (s)	19.0	64.4	64.4	9.2	54.6	54.6	46.4	46.4	46.4	46.4	19.0
Total Split (%)	15.8%	53.7%	53.7%	7.7%	45.5%	45.5%	38.7%	38.7%	38.7%	38.7%	15.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	4.4	4.4	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.6	4.6	5.4	5.4	4.2
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead					Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None
Act Effct Green (s)	15.0	66.1	66.1	5.1	48.3	48.3	17.1	17.1	16.3	16.3	36.7
Actuated g/C Ratio	0.16	0.69	0.69	0.05	0.50	0.50	0.18	0.18	0.17	0.17	0.38
v/c Ratio	0.96	0.59	0.00	0.02	0.96	0.12	0.01	0.05	0.48	0.03	0.86
Control Delay	71.4	12.4	0.0	50.0	37.8	5.7	29.0	28.9	41.7	30.3	37.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.4	12.4	0.0	50.0	37.8	5.7	29.0	28.9	41.7	30.3	37.6
LOS	E	B	A	D	D	A	C	C	D	C	D
Approach Delay		28.0			36.1			28.9		38.2	
Approach LOS		C			D			C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 96.3	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 32.8	Intersection LOS: C
Intersection Capacity Utilization 95.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	1294	2	2	1543	89	3	14	1	103	9	510
Future Volume (veh/h)	464	1294	2	2	1543	89	3	14	1	103	9	510
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	510	1422	2	2	1696	88	3	15	0	113	10	415
Adj No. of Lanes	2	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	544	2455	1076	5	1803	790	194	237	0	244	237	452
Arrive On Green	0.16	0.69	0.69	0.00	0.51	0.51	0.13	0.13	0.00	0.13	0.13	0.13
Sat Flow, veh/h	3442	3539	1551	1774	3539	1551	958	1863	0	1393	1863	1583
Grp Volume(v), veh/h	510	1422	2	2	1696	88	3	15	0	113	10	415
Grp Sat Flow(s),veh/h/ln	1721	1770	1551	1774	1770	1551	958	1863	0	1393	1863	1583
Q Serve(g_s), s	13.7	19.3	0.0	0.1	42.3	2.8	0.3	0.7	0.0	7.3	0.4	9.0
Cycle Q Clear(g_c), s	13.7	19.3	0.0	0.1	42.3	2.8	0.7	0.7	0.0	7.9	0.4	9.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	544	2455	1076	5	1803	790	194	237	0	244	237	452
V/C Ratio(X)	0.94	0.58	0.00	0.42	0.94	0.11	0.02	0.06	0.00	0.46	0.04	0.92
Avail Cap(c_a), veh/h	544	2455	1076	95	1803	790	500	832	0	677	816	944
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	7.3	4.4	46.6	21.6	11.9	36.1	35.9	0.0	39.4	35.8	32.4
Incr Delay (d2), s/veh	23.8	1.0	0.0	20.0	11.2	0.3	0.0	0.0	0.0	0.5	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	9.6	0.0	0.1	23.3	1.2	0.1	0.3	0.0	2.8	0.2	9.8
LnGrp Delay(d),s/veh	62.7	8.3	4.4	66.6	32.8	12.2	36.2	36.0	0.0	39.9	35.9	35.7
LnGrp LOS	E	A	A	E	C	B	D	D		D	D	D
Approach Vol, veh/h		1934			1786			18			538	
Approach Delay, s/veh		22.7			31.8			36.0			36.6	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	71.8		17.3	21.7	54.6		17.3
Change Period (Y+Rc), s	* 4.2	6.9		5.4	6.9	* 6.9		* 5.4
Max Green Setting (Gmax), s	* 5	57.5		41.0	14.8	* 48		* 42
Max Q Clear Time (g_c+I1), s	2.1	21.3		11.0	15.7	44.3		2.7
Green Ext Time (p_c), s	0.0	8.5		1.0	0.0	2.4		1.0

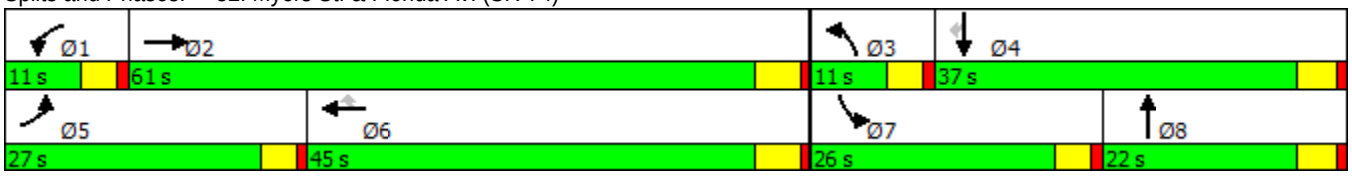
Intersection Summary			
HCM 2010 Ctrl Delay		28.3	
HCM 2010 LOS		C	

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	151	1147	17	961	144	24	69	147	52	190
Future Volume (vph)	151	1147	17	961	144	24	69	147	52	190
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	27.0	61.0	11.0	45.0	45.0	11.0	22.0	26.0	37.0	37.0
Total Split (%)	22.5%	50.8%	9.2%	37.5%	37.5%	9.2%	18.3%	21.7%	30.8%	30.8%
Yellow Time (s)	3.2	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	13.1	44.4	5.8	30.6	30.6	5.9	20.4	12.8	33.8	33.8
Actuated g/C Ratio	0.14	0.46	0.06	0.32	0.32	0.06	0.21	0.13	0.35	0.35
v/c Ratio	0.64	0.50	0.16	0.60	0.24	0.22	0.29	0.63	0.08	0.28
Control Delay	53.6	19.5	53.0	29.6	4.0	54.0	32.5	53.8	27.1	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	19.5	53.0	29.6	4.0	54.0	32.5	53.8	27.1	5.8
LOS	D	B	D	C	A	D	C	D	C	A
Approach Delay		23.4		26.6			36.3		26.8	
Approach LOS		C		C			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 95.5	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 25.7	Intersection LOS: C
Intersection Capacity Utilization 53.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	1147	5	17	961	144	24	69	41	147	52	190
Future Volume (veh/h)	151	1147	5	17	961	144	24	69	41	147	52	190
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	154	1170	5	17	981	147	24	70	18	150	53	139
Adj No. of Lanes	1	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	186	2404	10	33	1901	590	43	344	88	182	594	505
Arrive On Green	0.10	0.46	0.46	0.02	0.37	0.37	0.02	0.24	0.24	0.10	0.32	0.32
Sat Flow, veh/h	1774	5226	22	1774	5085	1577	1774	1430	368	1774	1863	1583
Grp Volume(v), veh/h	154	759	416	17	981	147	24	0	88	150	53	139
Grp Sat Flow(s),veh/h/ln	1774	1695	1858	1774	1695	1577	1774	0	1798	1774	1863	1583
Q Serve(g_s), s	8.6	15.8	15.8	1.0	15.2	6.5	1.4	0.0	4.0	8.4	2.0	6.7
Cycle Q Clear(g_c), s	8.6	15.8	15.8	1.0	15.2	6.5	1.4	0.0	4.0	8.4	2.0	6.7
Prop In Lane	1.00		0.01	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	186	1559	855	33	1901	590	43	0	433	182	594	505
V/C Ratio(X)	0.83	0.49	0.49	0.51	0.52	0.25	0.56	0.00	0.20	0.82	0.09	0.28
Avail Cap(c_a), veh/h	398	1865	1023	119	1997	619	119	0	433	381	594	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	19.1	19.1	49.4	24.7	22.0	49.0	0.0	30.8	44.7	24.3	25.8
Incr Delay (d2), s/veh	3.6	0.3	0.6	4.4	0.3	0.3	4.2	0.0	1.1	3.6	0.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	7.5	8.2	0.5	7.1	2.9	0.7	0.0	2.1	4.3	1.1	3.1
LnGrp Delay(d),s/veh	48.1	19.4	19.7	53.8	25.0	22.3	53.2	0.0	31.9	48.3	24.5	27.2
LnGrp LOS	D	B	B	D	C	C	D		C	D	C	C
Approach Vol, veh/h		1329			1145			112			342	
Approach Delay, s/veh		22.8			25.1			36.4			36.0	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	51.8	6.7	37.0	14.9	43.1	14.6	29.0
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 6.8	55.9	* 6.8	32.4	* 23	39.9	* 22	17.4
Max Q Clear Time (g_c+I1), s	3.0	17.8	3.4	8.7	10.6	17.2	10.4	6.0
Green Ext Time (p_c), s	0.0	28.9	0.0	1.3	0.1	19.0	0.1	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	25.8
HCM 2010 LOS	C

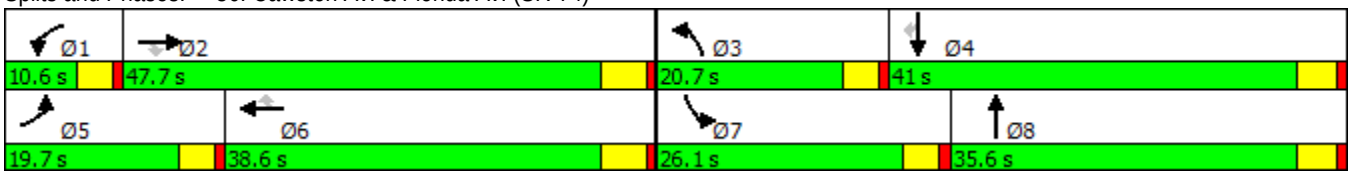
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	114	1014	9	31	1036	89	125	66	188	79	118
Future Volume (vph)	114	1014	9	31	1036	89	125	66	188	79	118
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	19.7	47.7	47.7	10.6	38.6	38.6	20.7	35.6	26.1	41.0	41.0
Total Split (%)	16.4%	39.8%	39.8%	8.8%	32.2%	32.2%	17.3%	29.7%	21.8%	34.2%	34.2%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	11.4	40.8	40.8	5.9	31.1	31.1	12.0	32.7	16.0	36.7	36.7
Actuated g/C Ratio	0.10	0.37	0.37	0.05	0.28	0.28	0.11	0.30	0.15	0.34	0.34
v/c Ratio	0.64	0.55	0.01	0.34	0.74	0.16	0.66	0.09	0.75	0.13	0.20
Control Delay	64.8	29.4	0.0	63.0	39.7	0.6	64.7	24.0	63.8	29.0	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.8	29.4	0.0	63.0	39.7	0.6	64.7	24.0	63.8	29.0	5.0
LOS	E	C	A	E	D	A	E	C	E	C	A
Approach Delay		32.8			37.3			47.7		38.6	
Approach LOS		C			D			D		D	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 109.5
Natural Cycle: 85
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 36.5 — Intersection LOS: D
Intersection Capacity Utilization 63.7% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	1014	9	31	1036	89	125	66	23	188	79	118
Future Volume (veh/h)	114	1014	9	31	1036	89	125	66	23	188	79	118
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	118	1045	8	32	1068	76	129	68	21	194	81	54
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	146	1856	578	51	1584	493	158	827	245	226	643	547
Arrive On Green	0.08	0.36	0.36	0.03	0.31	0.31	0.09	0.31	0.31	0.13	0.35	0.35
Sat Flow, veh/h	1774	5085	1583	1774	5085	1583	1774	2693	797	1774	1863	1583
Grp Volume(v), veh/h	118	1045	8	32	1068	76	129	44	45	194	81	54
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1583	1774	1770	1721	1774	1863	1583
Q Serve(g_s), s	6.9	17.3	0.3	1.9	19.3	3.7	7.5	1.8	2.0	11.3	3.1	2.4
Cycle Q Clear(g_c), s	6.9	17.3	0.3	1.9	19.3	3.7	7.5	1.8	2.0	11.3	3.1	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.46	1.00		1.00
Lane Grp Cap(c), veh/h	146	1856	578	51	1584	493	158	543	529	226	643	547
V/C Ratio(X)	0.81	0.56	0.01	0.63	0.67	0.15	0.82	0.08	0.09	0.86	0.13	0.10
Avail Cap(c_a), veh/h	261	2055	640	108	1616	503	278	543	529	369	643	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	26.8	21.4	50.6	31.6	26.2	47.2	25.9	26.0	45.1	23.6	23.4
Incr Delay (d2), s/veh	4.0	0.4	0.0	4.6	1.2	0.2	3.9	0.3	0.3	5.7	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	8.2	0.2	1.0	9.2	1.6	3.9	0.9	1.0	5.9	1.7	1.1
LnGrp Delay(d),s/veh	51.5	27.2	21.4	55.2	32.9	26.5	51.0	26.2	26.3	50.8	24.0	23.7
LnGrp LOS	D	C	C	E	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1171			1176			218			329	
Approach Delay, s/veh		29.6			33.1			40.9			39.7	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	43.6	13.6	41.0	12.9	37.9	17.6	37.0
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 6.4	42.6	* 17	36.4	* 16	33.5	* 22	31.0
Max Q Clear Time (g_c+I1), s	3.9	19.3	9.5	5.1	8.9	21.3	13.3	4.0
Green Ext Time (p_c), s	0.0	19.2	0.1	1.2	0.1	10.8	0.2	1.2

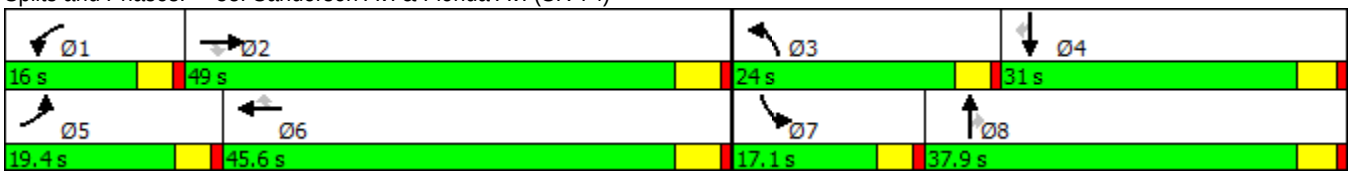
Intersection Summary	
HCM 2010 Ctrl Delay	33.0
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	228	820	102	166	691	131	328	888	168	197	745	206
Future Volume (vph)	228	820	102	166	691	131	328	888	168	197	745	206
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	19.4	49.0	49.0	16.0	45.6	45.6	24.0	37.9	37.9	17.1	31.0	31.0
Total Split (%)	16.2%	40.8%	40.8%	13.3%	38.0%	38.0%	20.0%	31.6%	31.6%	14.3%	25.8%	25.8%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Act Effct Green (s)	12.1	36.9	36.9	9.8	34.6	34.6	15.6	33.5	33.5	10.8	28.7	28.7
Actuated g/C Ratio	0.11	0.34	0.34	0.09	0.32	0.32	0.14	0.31	0.31	0.10	0.26	0.26
v/c Ratio	0.66	0.76	0.18	0.59	0.68	0.24	0.74	0.63	0.31	0.64	0.61	0.39
Control Delay	56.7	36.9	3.8	57.8	36.2	5.6	55.4	36.1	6.3	58.0	39.7	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.7	36.9	3.8	57.8	36.2	5.6	55.4	36.1	6.3	58.0	39.7	7.2
LOS	E	D	A	E	D	A	E	D	A	E	D	A
Approach Delay		37.9			35.8			37.1			37.0	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.4	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 37.0	Intersection LOS: D
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	820	102	166	691	131	328	888	168	197	745	206
Future Volume (veh/h)	228	820	102	166	691	131	328	888	168	197	745	206
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	251	901	83	182	759	85	360	976	75	216	819	174
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	317	1298	571	246	1225	538	430	1577	476	281	1356	422
Arrive On Green	0.09	0.37	0.37	0.07	0.35	0.35	0.12	0.31	0.31	0.08	0.27	0.27
Sat Flow, veh/h	3442	3539	1557	3442	3539	1556	3442	5085	1535	3442	5085	1583
Grp Volume(v), veh/h	251	901	83	182	759	85	360	976	75	216	819	174
Grp Sat Flow(s),veh/h/ln	1721	1770	1557	1721	1770	1556	1721	1695	1535	1721	1695	1583
Q Serve(g_s), s	7.6	23.1	3.8	5.5	19.1	4.0	10.9	17.5	3.8	6.6	15.1	9.7
Cycle Q Clear(g_c), s	7.6	23.1	3.8	5.5	19.1	4.0	10.9	17.5	3.8	6.6	15.1	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	317	1298	571	246	1225	538	430	1577	476	281	1356	422
V/C Ratio(X)	0.79	0.69	0.15	0.74	0.62	0.16	0.84	0.62	0.16	0.77	0.60	0.41
Avail Cap(c_a), veh/h	489	1452	639	379	1339	589	637	1577	476	415	1356	422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.6	28.8	22.7	48.7	29.1	24.2	45.8	31.5	26.8	48.2	34.3	32.3
Incr Delay (d2), s/veh	2.2	1.5	0.2	1.7	1.0	0.2	4.1	1.8	0.7	2.5	2.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	11.5	1.7	2.7	9.4	1.8	5.4	8.5	1.7	3.2	7.3	4.6
LnGrp Delay(d),s/veh	49.8	30.3	22.8	50.4	30.1	24.4	49.8	33.3	27.5	50.6	36.3	35.3
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	D	D
Approach Vol, veh/h		1235			1026			1411			1209	
Approach Delay, s/veh		33.7			33.2			37.2			38.7	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	44.4	17.6	33.2	14.1	42.1	12.9	37.9
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	* 4.7	* 4.2	5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	* 12	43.9	* 20	* 26	* 15	40.5	* 13	* 33
Max Q Clear Time (g_c+I1), s	7.5	25.1	12.9	17.1	9.6	21.1	8.6	19.5
Green Ext Time (p_c), s	0.1	14.1	0.4	7.3	0.2	14.5	0.2	10.1

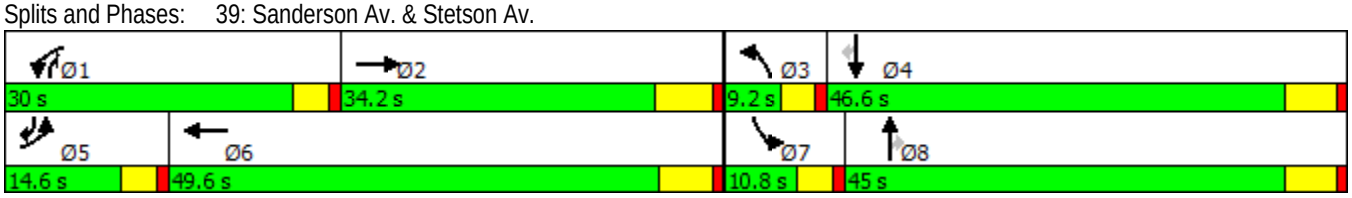
Intersection Summary	
HCM 2010 Ctrl Delay	35.9
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	163	416	536	655	42	967	689	137	980	140
Future Volume (vph)	163	416	536	655	42	967	689	137	980	140
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8	1	7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8	9.2
Total Split (s)	14.6	34.2	30.0	49.6	9.2	45.0	30.0	10.8	46.6	14.6
Total Split (%)	12.2%	28.5%	25.0%	41.3%	7.7%	37.5%	25.0%	9.0%	38.8%	12.2%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	None
Act Effct Green (s)	9.5	24.1	23.7	38.7	5.0	39.3	64.6	6.6	43.0	54.1
Actuated g/C Ratio	0.08	0.21	0.21	0.34	0.04	0.34	0.57	0.06	0.38	0.47
v/c Ratio	0.67	0.69	0.88	0.87	0.32	0.92	0.89	0.80	0.86	0.20
Control Delay	63.8	46.7	58.6	42.5	61.1	50.0	32.4	82.6	42.1	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.8	46.7	58.6	42.5	61.1	50.0	32.4	82.6	42.1	7.6
LOS	E	D	E	D	E	D	C	F	D	A
Approach Delay		51.3		48.6		43.1			42.7	
Approach LOS		D		D		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.2	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 45.6	Intersection LOS: D
Intersection Capacity Utilization 81.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	416	25	536	655	226	42	967	689	137	980	140
Future Volume (veh/h)	163	416	25	536	655	226	42	967	689	137	980	140
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	190	484	28	623	762	246	49	1124	421	159	1140	157
Adj No. of Lanes	2	2	0	2	2	0	2	2	1	2	2	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	731	42	687	902	291	119	1226	847	201	1309	700
Arrive On Green	0.07	0.22	0.22	0.20	0.34	0.34	0.03	0.35	0.35	0.06	0.37	0.37
Sat Flow, veh/h	3442	3391	196	3442	2633	850	3442	3539	1532	3442	3539	1582
Grp Volume(v), veh/h	190	252	260	623	512	496	49	1124	421	159	1140	157
Grp Sat Flow(s),veh/h/ln	1721	1770	1817	1721	1770	1713	1721	1770	1532	1721	1770	1582
Q Serve(g_s), s	6.1	14.7	14.8	20.0	30.3	30.3	1.6	34.4	19.5	5.2	33.9	7.0
Cycle Q Clear(g_c), s	6.1	14.7	14.8	20.0	30.3	30.3	1.6	34.4	19.5	5.2	33.9	7.0
Prop In Lane	1.00		0.11	1.00		0.50	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	381	392	687	607	587	119	1226	847	201	1309	700
V/C Ratio(X)	0.76	0.66	0.66	0.91	0.84	0.84	0.41	0.92	0.50	0.79	0.87	0.22
Avail Cap(c_a), veh/h	316	438	449	784	685	663	152	1226	847	201	1309	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	40.6	40.6	44.3	34.4	34.4	53.5	35.4	16.1	52.6	33.1	19.5
Incr Delay (d2), s/veh	5.9	3.0	3.0	12.3	8.7	8.9	0.8	12.2	2.1	17.8	8.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	7.5	7.8	10.7	16.3	15.8	0.8	18.8	8.7	2.9	17.9	3.2
LnGrp Delay(d),s/veh	57.4	43.6	43.7	56.6	43.1	43.3	54.3	47.7	18.2	70.4	41.3	20.3
LnGrp LOS	E	D	D	E	D	D	D	D	B	E	D	C
Approach Vol, veh/h		702			1631			1594			1456	
Approach Delay, s/veh		47.4			48.3			40.1			42.2	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.8	30.6	8.1	47.7	12.4	45.0	10.8	45.0
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	* 4.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 26	28.0	* 5	40.8	* 10	* 44	* 6.6	39.2
Max Q Clear Time (g_c+I1), s	22.0	16.8	3.6	35.9	8.1	32.3	7.2	36.4
Green Ext Time (p_c), s	0.6	6.4	0.0	4.8	0.1	6.5	0.0	2.7

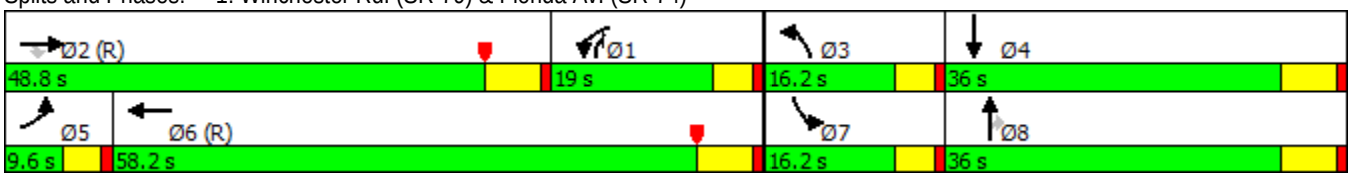
Intersection Summary	
HCM 2010 Ctrl Delay	44.1
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	17	1470	127	566	1182	156	9	641	18	20
Future Volume (vph)	17	1470	127	566	1182	156	9	641	18	20
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2		1	6	3	8	1	7	4
Permitted Phases			2					8		
Detector Phase	5	2	2	1	6	3	8	1	7	4
Switch Phase										
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	5.0	25.0	5.0	5.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	16.2	31.0	9.5	16.2	36.0
Total Split (s)	9.6	48.8	48.8	19.0	58.2	16.2	36.0	19.0	16.2	36.0
Total Split (%)	8.0%	40.7%	40.7%	15.8%	48.5%	13.5%	30.0%	15.8%	13.5%	30.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.6	5.0	3.5	3.6	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	4.6	6.0	4.5	4.6	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	5.1	42.8	42.8	14.5	58.0	11.6	41.4	60.1	6.1	30.0
Actuated g/C Ratio	0.04	0.36	0.36	0.12	0.48	0.10	0.34	0.50	0.05	0.25
v/c Ratio	0.26	0.92	0.22	1.55	0.57	1.04	0.02	0.82	0.22	0.07
Control Delay	64.3	46.5	7.3	296.2	23.8	131.2	29.7	27.1	60.1	28.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.3	46.5	7.3	296.2	23.8	131.2	29.7	27.1	60.1	28.1
LOS	E	D	A	F	C	F	C	C	E	C
Approach Delay		43.6			109.9		47.3			40.7
Approach LOS		D			F		D			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 19 (16%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.55	
Intersection Signal Delay: 72.2	Intersection LOS: E
Intersection Capacity Utilization 84.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	1470	127	566	1182	42	156	9	641	18	20	7
Future Volume (veh/h)	17	1470	127	566	1182	42	156	9	641	18	20	7
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	19	1670	97	643	1343	42	177	10	520	20	23	3
Adj No. of Lanes	1	3	1	2	3	0	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	35	1814	565	1836	4474	140	171	608	1361	36	403	53
Arrive On Green	0.02	0.36	0.36	0.53	0.88	0.88	0.10	0.33	0.33	0.02	0.25	0.25
Sat Flow, veh/h	1774	5085	1583	3442	5067	158	1774	1863	1583	1774	1614	210
Grp Volume(v), veh/h	19	1670	97	643	899	486	177	10	520	20	0	26
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1835	1774	1863	1583	1774	0	1824
Q Serve(g_s), s	1.3	37.7	6.9	12.9	5.1	5.1	11.6	0.4	3.4	1.3	0.0	1.3
Cycle Q Clear(g_c), s	1.3	37.7	6.9	12.9	5.1	5.1	11.6	0.4	3.4	1.3	0.0	1.3
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	35	1814	565	1836	2993	1620	171	608	1361	36	0	456
V/C Ratio(X)	0.55	0.92	0.17	0.35	0.30	0.30	1.03	0.02	0.38	0.56	0.00	0.06
Avail Cap(c_a), veh/h	75	1814	565	1836	2993	1620	171	608	1361	171	0	456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.3	37.0	49.9	16.1	1.1	1.1	54.2	27.4	15.1	58.2	0.0	34.2
Incr Delay (d2), s/veh	4.9	9.2	0.7	0.0	0.3	0.5	77.4	0.0	0.8	4.9	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	19.2	3.1	6.1	2.4	2.6	9.4	0.2	10.6	0.7	0.0	0.7
LnGrp Delay(d),s/veh	63.2	46.1	50.5	16.1	1.4	1.6	131.9	27.4	15.9	63.2	0.0	34.5
LnGrp LOS	E	D	D	B	A	A	F	C	B	E		C
Approach Vol, veh/h		1786			2028			707			46	
Approach Delay, s/veh		46.6			6.1			45.1			46.9	
Approach LOS		D			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	71.5	48.8	16.2	36.0	6.8	113.5	7.0	45.2
Change Period (Y+Rc), s	6.0	* 6	4.6	6.0	4.5	6.0	4.6	6.0
Max Green Setting (Gmax), s	14.5	* 43	11.6	30.0	5.1	52.2	11.6	30.0
Max Q Clear Time (g_c+I1), s	14.9	39.7	13.6	3.3	3.3	7.1	3.3	5.4
Green Ext Time (p_c), s	0.0	2.1	0.0	1.0	0.0	8.2	0.0	1.0

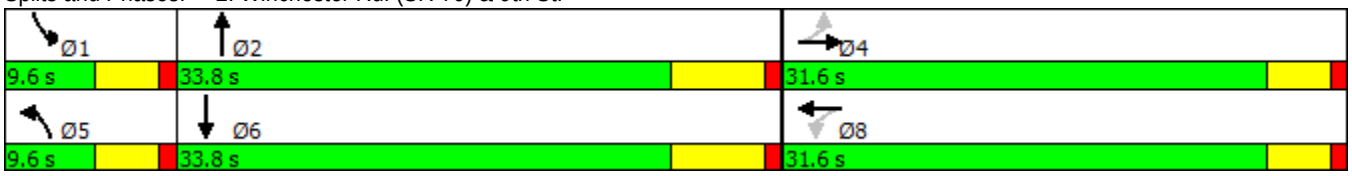
Intersection Summary	
HCM 2010 Ctrl Delay	28.4
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	51	1	2	1	52	849	3	701
Future Volume (vph)	51	1	2	1	52	849	3	701
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	28.2	9.6	28.2
Total Split (s)	31.6	31.6	31.6	31.6	9.6	33.8	9.6	33.8
Total Split (%)	42.1%	42.1%	42.1%	42.1%	12.8%	45.1%	12.8%	45.1%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		12.9		12.9	5.1	39.4	5.1	35.5
Actuated g/C Ratio		0.22		0.22	0.09	0.66	0.09	0.59
v/c Ratio		0.30		0.02	0.36	0.74	0.02	0.73
Control Delay		13.8		14.3	36.3	18.6	29.7	21.8
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		13.8		14.3	36.3	18.6	29.7	21.8
LOS		B		B	D	B	C	C
Approach Delay		13.8		14.3		19.6		21.8
Approach LOS		B		B		B		C

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 59.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1	47	2	1	3	52	849	1	3	701	52
Future Volume (veh/h)	51	1	47	2	1	3	52	849	1	3	701	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	54	1	50	2	1	3	55	903	1	3	746	55
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	33	113	140	77	124	94	1013	1	7	850	63
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.05	0.54	0.54	0.00	0.50	0.50
Sat Flow, veh/h	595	212	734	305	497	802	1774	1860	2	1774	1714	126
Grp Volume(v), veh/h	105	0	0	6	0	0	55	0	904	3	0	801
Grp Sat Flow(s),veh/h/ln	1540	0	0	1605	0	0	1774	0	1862	1774	0	1840
Q Serve(g_s), s	1.2	0.0	0.0	0.0	0.0	0.0	1.6	0.0	22.2	0.1	0.0	20.1
Cycle Q Clear(g_c), s	3.0	0.0	0.0	0.2	0.0	0.0	1.6	0.0	22.2	0.1	0.0	20.1
Prop In Lane	0.51		0.48	0.33		0.50	1.00		0.00	1.00		0.07
Lane Grp Cap(c), veh/h	342	0	0	340	0	0	94	0	1014	7	0	913
V/C Ratio(X)	0.31	0.00	0.00	0.02	0.00	0.00	0.59	0.00	0.89	0.41	0.00	0.88
Avail Cap(c_a), veh/h	890	0	0	903	0	0	171	0	1014	171	0	981
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.8	0.0	0.0	18.6	0.0	0.0	24.0	0.0	10.4	25.7	0.0	11.7
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.0	2.2	0.0	10.0	13.5	0.0	8.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	0.1	0.0	0.0	0.8	0.0	13.9	0.1	0.0	12.2
LnGrp Delay(d),s/veh	20.3	0.0	0.0	18.6	0.0	0.0	26.1	0.0	20.5	39.2	0.0	20.4
LnGrp LOS	C			B			C		C	D		C
Approach Vol, veh/h		105			6			959			804	
Approach Delay, s/veh		20.3			18.6			20.8			20.4	
Approach LOS		C			B			C			C	

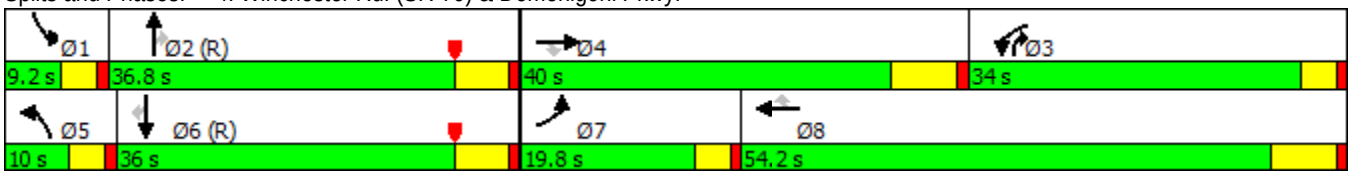
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.8	34.4		12.6	7.3	31.9		12.6
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6
Max Green Setting (Gmax), s	5.0	27.6		27.0	5.0	27.6		27.0
Max Q Clear Time (g_c+I1), s	2.1	24.2		5.0	3.6	22.1		2.2
Green Ext Time (p_c), s	0.0	2.7		0.6	0.0	3.6		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	20.6
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	258	888	79	702	947	48	91	740	1049	39	424	199
Future Volume (vph)	258	888	79	702	947	48	91	740	1049	39	424	199
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8	9.2	9.2	33.8	33.8
Total Split (s)	19.8	40.0	40.0	34.0	54.2	54.2	10.0	36.8	34.0	9.2	36.0	36.0
Total Split (%)	16.5%	33.3%	33.3%	28.3%	45.2%	45.2%	8.3%	30.7%	28.3%	7.7%	30.0%	30.0%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	3.2	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	4.2	4.2	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	C-Max
Act Effct Green (s)	13.4	33.1	33.1	29.8	49.5	49.5	5.8	32.8	65.1	5.0	30.2	30.2
Actuated g/C Ratio	0.11	0.28	0.28	0.25	0.41	0.41	0.05	0.27	0.54	0.04	0.25	0.25
v/c Ratio	0.71	0.97	0.16	0.88	0.48	0.07	1.14	0.81	1.23	0.56	0.51	0.38
Control Delay	62.0	65.3	2.3	56.0	27.1	0.2	191.3	49.1	134.6	84.8	40.9	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.0	65.3	2.3	56.0	27.1	0.2	191.3	49.1	134.6	84.8	40.9	6.8
LOS	E	E	A	E	C	A	F	D	F	F	D	A
Approach Delay		60.6			38.3			103.7			33.2	
Approach LOS		E			D			F			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 9.2 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay: 65.2	Intersection LOS: E
Intersection Capacity Utilization 106.4%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	888	79	702	947	48	91	740	1049	39	424	199
Future Volume (veh/h)	258	888	79	702	947	48	91	740	1049	39	424	199
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	274	945	53	747	1007	41	97	787	701	41	451	103
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	332	976	437	808	2220	691	86	1997	1265	55	1936	866
Arrive On Green	0.10	0.28	0.28	0.23	0.44	0.44	0.05	0.56	0.56	0.03	0.55	0.55
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	274	945	53	747	1007	41	97	787	701	41	451	103
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	9.4	31.7	3.7	25.5	16.7	1.8	5.8	15.0	9.9	2.8	7.9	3.8
Cycle Q Clear(g_c), s	9.4	31.7	3.7	25.5	16.7	1.8	5.8	15.0	9.9	2.8	7.9	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	332	976	437	808	2220	691	86	1997	1265	55	1936	866
V/C Ratio(X)	0.83	0.97	0.12	0.92	0.45	0.06	1.13	0.39	0.55	0.74	0.23	0.12
Avail Cap(c_a), veh/h	447	976	437	855	2220	691	86	1997	1265	74	1936	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	53.2	42.9	48.9	44.9	23.8	19.6	57.1	14.7	13.0	57.7	14.1	13.2
Incr Delay (d2), s/veh	6.8	21.3	0.1	14.7	0.1	0.0	137.0	0.6	1.8	14.3	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	18.4	1.6	13.8	7.9	0.8	6.1	7.4	4.8	1.6	4.0	1.7
LnGrp Delay(d),s/veh	60.0	64.3	49.0	59.6	23.9	19.6	194.1	15.2	14.7	72.0	14.4	13.4
LnGrp LOS	E	E	D	E	C	B	F	B	B	E	B	B
Approach Vol, veh/h		1272			1795			1585			595	
Approach Delay, s/veh		62.7			38.6			26.0			18.2	
Approach LOS		E			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	74.6	35.1	40.0	10.0	72.5	15.8	59.3
Change Period (Y+Rc), s	* 4.2	5.8	6.9	* 6.9	* 4.2	5.8	* 4.2	6.9
Max Green Setting (Gmax), s	* 5	31.0	29.8	* 33	* 5.8	30.2	* 16	47.3
Max Q Clear Time (g_c+I1), s	4.8	17.0	27.5	33.7	7.8	9.9	11.4	18.7
Green Ext Time (p_c), s	0.0	11.1	0.7	0.0	0.0	14.8	0.2	8.8

Intersection Summary	
HCM 2010 Ctrl Delay	38.3
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	16	29	170	45	7	655	157	640
Future Volume (vph)	16	29	170	45	7	655	157	640
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	27.8	9.6	27.8
Total Split (s)	31.8	31.8	31.8	31.8	9.6	71.2	17.0	78.6
Total Split (%)	26.5%	26.5%	26.5%	26.5%	8.0%	59.3%	14.2%	65.5%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	18.6	18.6	18.6	18.6	5.2	57.4	12.0	72.5
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.05	0.55	0.12	0.70
v/c Ratio	0.08	0.11	0.70	0.38	0.08	0.92	0.78	0.54
Control Delay	38.7	32.1	57.7	21.3	56.1	36.6	73.5	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	32.1	57.7	21.3	56.1	36.6	73.5	10.6
LOS	D	C	E	C	E	D	E	B
Approach Delay		34.1		41.5		36.8		22.4
Approach LOS		C		D		D		C

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 103.5
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 31.7 — Intersection LOS: C
Intersection Capacity Utilization 87.4% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 20: Warren Rd. & Esplanade Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	29	8	170	45	92	7	655	257	157	640	47
Future Volume (veh/h)	16	29	8	170	45	92	7	655	257	157	640	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	16	29	8	172	45	93	7	662	260	159	646	47
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	190	241	66	280	93	192	16	733	288	189	1156	84
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.01	0.58	0.58	0.11	0.67	0.67
Sat Flow, veh/h	1246	1406	388	1365	543	1122	1774	1274	500	1774	1716	125
Grp Volume(v), veh/h	16	0	37	172	0	138	7	0	922	159	0	693
Grp Sat Flow(s),veh/h/ln	1246	0	1794	1365	0	1665	1774	0	1774	1774	0	1841
Q Serve(g_s), s	1.2	0.0	1.8	12.5	0.0	7.7	0.4	0.0	47.0	9.0	0.0	20.2
Cycle Q Clear(g_c), s	8.9	0.0	1.8	14.3	0.0	7.7	0.4	0.0	47.0	9.0	0.0	20.2
Prop In Lane	1.00		0.22	1.00		0.67	1.00		0.28	1.00		0.07
Lane Grp Cap(c), veh/h	190	0	307	280	0	285	16	0	1021	189	0	1240
V/C Ratio(X)	0.08	0.00	0.12	0.61	0.00	0.48	0.45	0.00	0.90	0.84	0.00	0.56
Avail Cap(c_a), veh/h	308	0	477	410	0	443	87	0	1134	215	0	1310
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.3	0.0	35.9	41.9	0.0	38.3	50.5	0.0	19.2	44.8	0.0	8.7
Incr Delay (d2), s/veh	0.2	0.0	0.2	2.2	0.0	1.3	7.3	0.0	9.5	20.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.9	4.9	0.0	3.6	0.2	0.0	25.5	5.5	0.0	10.4
LnGrp Delay(d),s/veh	42.5	0.0	36.1	44.1	0.0	39.6	57.7	0.0	28.7	65.2	0.0	9.2
LnGrp LOS	D		D	D		D	E		C	E		A
Approach Vol, veh/h		53			310			929			852	
Approach Delay, s/veh		38.0			42.1			28.9			19.7	
Approach LOS		D			D			C			B	

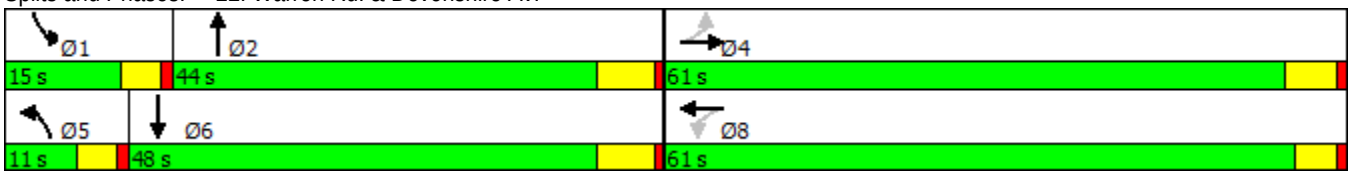
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.5	64.7		22.1	5.5	74.7		22.1
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6
Max Green Setting (Gmax), s	12.4	65.4		27.2	5.0	72.8		27.2
Max Q Clear Time (g_c+I1), s	11.0	49.0		10.9	2.4	22.2		16.3
Green Ext Time (p_c), s	0.0	9.9		1.5	0.0	17.0		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	27.4
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	228	315	133	347	36	616	96	563
Future Volume (vph)	228	315	133	347	36	616	96	563
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	31.8	31.8	9.6	28.2	9.6	28.2
Total Split (s)	61.0	61.0	61.0	61.0	11.0	44.0	15.0	48.0
Total Split (%)	50.8%	50.8%	50.8%	50.8%	9.2%	36.7%	12.5%	40.0%
Yellow Time (s)	4.8	4.8	3.8	3.8	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.8	4.8	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	40.2	40.2	41.3	41.3	6.4	29.8	9.4	34.8
Actuated g/C Ratio	0.43	0.43	0.44	0.44	0.07	0.32	0.10	0.37
v/c Ratio	0.85	0.45	0.38	0.55	0.32	0.76	0.56	0.58
Control Delay	55.3	22.0	23.4	23.0	58.9	35.3	61.8	27.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.3	22.0	23.4	23.0	58.9	35.3	61.8	27.3
LOS	E	C	C	C	E	D	E	C
Approach Delay		35.4		23.1		36.4		31.3
Approach LOS		D		C		D		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 93.9	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 32.0	Intersection LOS: C
Intersection Capacity Utilization 81.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	315	25	133	347	76	36	616	192	96	563	159
Future Volume (veh/h)	228	315	25	133	347	76	36	616	192	96	563	159
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	238	328	26	139	361	79	38	642	200	100	586	166
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	350	800	63	419	696	152	56	808	251	125	935	264
Arrive On Green	0.47	0.47	0.47	0.47	0.47	0.47	0.03	0.30	0.30	0.07	0.34	0.34
Sat Flow, veh/h	945	1704	135	1023	1481	324	1774	2659	828	1774	2726	770
Grp Volume(v), veh/h	238	0	354	139	0	440	38	427	415	100	380	372
Grp Sat Flow(s),veh/h/ln	945	0	1839	1023	0	1806	1774	1770	1717	1774	1770	1727
Q Serve(g_s), s	25.1	0.0	13.5	11.0	0.0	18.2	2.3	23.6	23.6	5.9	19.1	19.2
Cycle Q Clear(g_c), s	43.3	0.0	13.5	24.5	0.0	18.2	2.3	23.6	23.6	5.9	19.1	19.2
Prop In Lane	1.00		0.07	1.00		0.18	1.00		0.48	1.00		0.45
Lane Grp Cap(c), veh/h	350	0	863	419	0	848	56	538	522	125	607	592
V/C Ratio(X)	0.68	0.00	0.41	0.33	0.00	0.52	0.68	0.79	0.80	0.80	0.63	0.63
Avail Cap(c_a), veh/h	396	0	954	478	0	953	107	628	610	173	695	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	18.5	26.6	0.0	19.8	51.0	34.0	34.0	48.7	29.3	29.3
Incr Delay (d2), s/veh	4.0	0.0	0.3	0.5	0.0	0.5	5.2	6.0	6.3	11.2	1.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.0	6.9	3.1	0.0	9.2	1.2	12.4	12.1	3.3	9.5	9.3
LnGrp Delay(d),s/veh	39.0	0.0	18.9	27.0	0.0	20.3	56.2	40.0	40.3	59.9	30.7	30.8
LnGrp LOS	D		B	C		C	E	D	D	E	C	C
Approach Vol, veh/h		592			579			880			852	
Approach Delay, s/veh		26.9			21.9			40.8			34.2	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.1	38.5		55.8	8.0	42.7		55.8
Change Period (Y+Rc), s	4.6	6.2		5.8	4.6	6.2		* 5.8
Max Green Setting (Gmax), s	10.4	37.8		55.2	6.4	41.8		* 56
Max Q Clear Time (g_c+I1), s	7.9	25.6		45.3	4.3	21.2		26.5
Green Ext Time (p_c), s	0.0	6.7		4.7	0.0	9.1		7.7

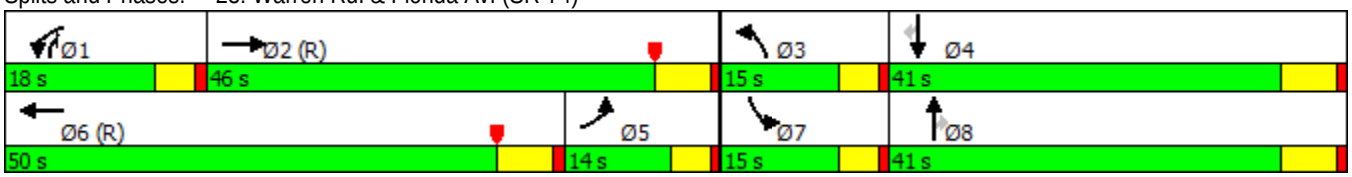
Intersection Summary	
HCM 2010 Ctrl Delay	32.3
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	234	1377	280	1258	250	529	398	100	388	217
Future Volume (vph)	234	1377	280	1258	250	529	398	100	388	217
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8	1	7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	9.6	9.6	41.0	41.0
Total Split (s)	14.0	46.0	18.0	50.0	15.0	41.0	18.0	15.0	41.0	41.0
Total Split (%)	11.7%	38.3%	15.0%	41.7%	12.5%	34.2%	15.0%	12.5%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	3.6	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	4.6	4.6	6.0	6.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	9.4	40.6	12.8	44.0	10.4	35.8	54.6	9.6	35.0	35.0
Actuated g/C Ratio	0.08	0.34	0.11	0.37	0.09	0.30	0.46	0.08	0.29	0.29
v/c Ratio	1.78	0.97	0.81	0.77	1.72	0.53	0.53	0.74	0.40	0.39
Control Delay	411.9	55.6	69.5	36.7	382.7	37.5	18.9	83.2	35.4	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	411.9	55.6	69.5	36.7	382.7	37.5	18.9	83.2	35.4	12.4
LOS	F	E	E	D	F	D	B	F	D	B
Approach Delay		101.6		42.3		104.5			35.1	
Approach LOS		F		D		F			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.78	
Intersection Signal Delay: 75.2	Intersection LOS: E
Intersection Capacity Utilization 81.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	1377	200	280	1258	99	250	529	398	100	388	217
Future Volume (veh/h)	234	1377	200	280	1258	99	250	529	398	100	388	217
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	246	1449	146	295	1324	98	263	557	303	105	408	160
Adj No. of Lanes	1	3	0	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	822	3476	350	350	1772	131	154	1081	645	129	1032	462
Arrive On Green	0.46	0.74	0.74	0.10	0.37	0.37	0.09	0.31	0.31	0.07	0.29	0.29
Sat Flow, veh/h	1774	4696	473	3442	4832	358	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	246	1046	549	295	929	493	263	557	303	105	408	160
Grp Sat Flow(s),veh/h/ln	1774	1695	1779	1721	1695	1800	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	10.4	13.9	13.9	10.1	28.7	28.7	10.4	15.6	16.8	7.0	11.1	7.3
Cycle Q Clear(g_c), s	10.4	13.9	13.9	10.1	28.7	28.7	10.4	15.6	16.8	7.0	11.1	7.3
Prop In Lane	1.00		0.27	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	822	2509	1317	350	1243	660	154	1081	645	129	1032	462
V/C Ratio(X)	0.30	0.42	0.42	0.84	0.75	0.75	1.71	0.52	0.47	0.81	0.40	0.35
Avail Cap(c_a), veh/h	822	2509	1317	384	1243	660	154	1081	645	154	1032	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.54	0.54	0.54	0.81	0.81	0.81
Uniform Delay (d), s/veh	20.1	5.9	5.9	53.0	33.1	33.1	54.8	34.3	26.1	54.8	34.0	19.6
Incr Delay (d2), s/veh	0.1	0.5	1.0	13.4	4.1	7.6	334.2	0.9	1.3	17.1	0.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	6.6	7.1	5.4	14.1	15.6	19.4	7.7	7.6	4.1	5.5	3.4
LnGrp Delay(d),s/veh	20.1	6.4	6.8	66.4	37.3	40.7	389.0	35.3	27.4	71.9	35.0	21.3
LnGrp LOS	C	A	A	E	D	D	F	D	C	E	C	C
Approach Vol, veh/h		1841			1717			1123			673	
Approach Delay, s/veh		8.4			43.3			116.0			37.5	
Approach LOS		A			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	96.2	15.0	41.0	63.0	50.0	13.3	42.7
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	6.0	* 6	4.6	6.0
Max Green Setting (Gmax), s	13.4	40.0	10.4	35.0	9.4	* 44	10.4	35.0
Max Q Clear Time (g_c+I1), s	12.1	15.9	12.4	13.1	12.4	30.7	9.0	18.8
Green Ext Time (p_c), s	0.1	7.5	0.0	4.4	0.0	4.9	0.0	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	45.8
HCM 2010 LOS	D

Notes

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	76	950	116	766
Future Volume (vph)	76	950	116	766
Turn Type	Prot	NA	Prot	NA
Protected Phases	8	2	1	6
Permitted Phases				
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	28.2	9.6	24.2
Total Split (s)	39.0	60.0	21.0	81.0
Total Split (%)	32.5%	50.0%	17.5%	67.5%
Yellow Time (s)	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	Min	None	Min
Act Effct Green (s)	20.1	36.3	11.3	52.6
Actuated g/C Ratio	0.24	0.43	0.13	0.62
v/c Ratio	0.76	0.78	0.57	0.40
Control Delay	30.8	25.5	49.6	9.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	30.8	25.5	49.6	9.1
LOS	C	C	D	A
Approach Delay	30.8	25.5		14.4
Approach LOS	C	C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 84.4	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 21.9	Intersection LOS: C
Intersection Capacity Utilization 67.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 24: Warren Rd. & Auto Bl.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	76	250	950	60	116	766
Future Volume (veh/h)	76	250	950	60	116	766
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	88	291	1105	70	135	891
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	98	326	1569	99	168	2168
Arrive On Green	0.26	0.26	0.46	0.46	0.09	0.61
Sat Flow, veh/h	376	1244	3474	214	1774	3632
Grp Volume(v), veh/h	380	0	578	597	135	891
Grp Sat Flow(s),veh/h/ln	1624	0	1770	1825	1774	1770
Q Serve(g_s), s	19.4	0.0	22.3	22.4	6.4	11.2
Cycle Q Clear(g_c), s	19.4	0.0	22.3	22.4	6.4	11.2
Prop In Lane	0.23	0.77		0.12	1.00	
Lane Grp Cap(c), veh/h	425	0	821	847	168	2168
V/C Ratio(X)	0.89	0.00	0.70	0.70	0.80	0.41
Avail Cap(c_a), veh/h	650	0	1108	1143	339	3081
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	0.0	18.3	18.3	38.1	8.6
Incr Delay (d2), s/veh	10.2	0.0	1.3	1.3	3.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	0.0	11.1	11.6	3.3	5.5
LnGrp Delay(d),s/veh	40.8	0.0	19.6	19.6	41.4	8.7
LnGrp LOS	D		B	B	D	A
Approach Vol, veh/h	380		1175			1026
Approach Delay, s/veh	40.8		19.6			13.0
Approach LOS	D		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.8	46.1				58.8		27.1
Change Period (Y+Rc), s	4.6	6.2				6.2		4.6
Max Green Setting (Gmax), s	16.4	53.8				74.8		34.4
Max Q Clear Time (g_c+I1), s	8.4	24.4				13.2		21.4
Green Ext Time (p_c), s	0.1	15.5				20.5		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

Notes

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	265	525	201	26	608
Future Volume (vph)	265	525	201	26	608
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	4	3	8	2	3
Permitted Phases					2
Detector Phase	4	3	8	2	3
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	9.6	22.5	31.6	9.6
Total Split (s)	34.2	53.0	87.2	32.8	53.0
Total Split (%)	28.5%	44.2%	72.7%	27.3%	44.2%
Yellow Time (s)	5.2	3.6	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	5.2	4.6	4.6
Lead/Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	None	None	None	Min	None
Act Effct Green (s)	19.8	30.2	56.0	13.0	48.1
Actuated g/C Ratio	0.25	0.38	0.70	0.16	0.61
v/c Ratio	0.69	0.82	0.16	0.09	0.61
Control Delay	38.3	34.6	4.5	34.3	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	38.3	34.6	4.5	34.3	8.7
LOS	D	C	A	C	A
Approach Delay	38.3		26.3	9.8	
Approach LOS	D		C	A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 79.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 22.1	Intersection LOS: C
Intersection Capacity Utilization 66.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 30: Warren Rd. & Simpson Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	265	37	525	201	26	608
Future Volume (veh/h)	265	37	525	201	26	608
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	279	39	553	212	27	640
Adj No. of Lanes	1	0	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	338	47	590	1107	511	983
Arrive On Green	0.21	0.21	0.33	0.59	0.29	0.29
Sat Flow, veh/h	1600	224	1774	1863	1774	1583
Grp Volume(v), veh/h	0	318	553	212	27	640
Grp Sat Flow(s),veh/h/ln	0	1823	1774	1863	1774	1583
Q Serve(g_s), s	0.0	15.2	27.7	4.8	1.0	23.6
Cycle Q Clear(g_c), s	0.0	15.2	27.7	4.8	1.0	23.6
Prop In Lane		0.12	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	385	590	1107	511	983
V/C Ratio(X)	0.00	0.83	0.94	0.19	0.05	0.65
Avail Cap(c_a), veh/h	0	558	938	1669	547	1015
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	34.5	29.6	8.5	23.6	11.1
Incr Delay (d2), s/veh	0.0	6.7	8.5	0.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.4	14.9	2.4	0.5	10.5
LnGrp Delay(d),s/veh	0.0	41.1	38.1	8.6	23.6	12.5
LnGrp LOS		D	D	A	C	B
Approach Vol, veh/h	318			765	667	
Approach Delay, s/veh	41.1			29.9	12.9	
Approach LOS	D			C	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		30.9	35.0	25.5				60.6
Change Period (Y+Rc), s		4.6	4.6	6.2				* 6.2
Max Green Setting (Gmax), s		28.2	48.4	28.0				* 82
Max Q Clear Time (g_c+I1), s		25.6	29.7	17.2				6.8
Green Ext Time (p_c), s		0.8	0.8	2.1				3.0

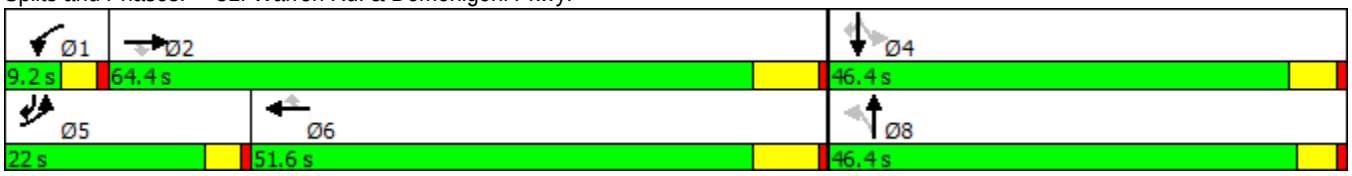
Intersection Summary	
HCM 2010 Ctrl Delay	25.5
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	543	1736	7	3	1441	83	3	6	80	6	490
Future Volume (vph)	543	1736	7	3	1441	83	3	6	80	6	490
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	5	2		1	6			8		4	5
Permitted Phases			2			6	8		4		4
Detector Phase	5	2	2	1	6	6	8	8	4	4	5
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	46.4	46.4	9.2
Total Split (s)	22.0	64.4	64.4	9.2	51.6	51.6	46.4	46.4	46.4	46.4	22.0
Total Split (%)	18.3%	53.7%	53.7%	7.7%	43.0%	43.0%	38.7%	38.7%	38.7%	38.7%	18.3%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	4.4	4.4	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.6	4.6	5.4	5.4	4.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None
Act Effct Green (s)	18.2	68.7	68.7	5.1	45.8	45.8	15.9	15.9	15.3	15.3	35.2
Actuated g/C Ratio	0.20	0.74	0.74	0.06	0.50	0.50	0.17	0.17	0.17	0.17	0.38
v/c Ratio	0.85	0.70	0.01	0.03	0.87	0.11	0.01	0.02	0.37	0.02	0.83
Control Delay	51.3	14.1	0.0	49.3	30.2	4.1	29.7	28.0	38.6	30.3	35.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	14.1	0.0	49.3	30.2	4.1	29.7	28.0	38.6	30.3	35.4
LOS	D	B	A	D	C	A	C	C	D	C	D
Approach Delay		22.9			28.8			28.5		35.8	
Approach LOS		C			C			C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 92.4	
Natural Cycle: 140	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 26.7	Intersection LOS: C
Intersection Capacity Utilization 91.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	543	1736	7	3	1441	83	3	6	1	80	6	490
Future Volume (veh/h)	543	1736	7	3	1441	83	3	6	1	80	6	490
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	578	1847	5	3	1533	81	3	6	1	85	6	307
Adj No. of Lanes	2	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	636	2281	1020	7	1641	734	263	281	47	323	336	578
Arrive On Green	0.18	0.64	0.64	0.00	0.46	0.46	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	3442	3539	1583	1774	3539	1583	1062	1557	260	1403	1863	1583
Grp Volume(v), veh/h	578	1847	5	3	1533	81	3	0	7	85	6	307
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1774	1770	1583	1062	0	1817	1403	1863	1583
Q Serve(g_s), s	15.9	37.4	0.1	0.2	39.5	2.8	0.2	0.0	0.3	5.1	0.3	14.7
Cycle Q Clear(g_c), s	15.9	37.4	0.1	0.2	39.5	2.8	0.5	0.0	0.3	5.4	0.3	14.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	636	2281	1020	7	1641	734	263	0	328	323	336	578
V/C Ratio(X)	0.91	0.81	0.00	0.42	0.93	0.11	0.01	0.00	0.02	0.26	0.02	0.53
Avail Cap(c_a), veh/h	636	2281	1020	92	1641	734	533	0	788	667	792	966
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	12.7	6.1	47.9	24.4	14.6	32.7	0.0	32.5	34.7	32.5	24.1
Incr Delay (d2), s/veh	16.8	3.2	0.0	14.1	11.2	0.3	0.0	0.0	0.0	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	19.0	0.0	0.1	21.7	1.3	0.1	0.0	0.2	2.0	0.1	6.5
LnGrp Delay(d),s/veh	55.3	16.0	6.1	62.0	35.7	14.9	32.7	0.0	32.5	34.9	32.5	24.4
LnGrp LOS	E	B	A	E	D	B	C		C	C	C	C
Approach Vol, veh/h		2430			1617			10			398	
Approach Delay, s/veh		25.3			34.7			32.6			26.8	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.6	69.0		22.8	22.0	51.6		22.8
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	57.5		41.0	* 18	44.7		* 42
Max Q Clear Time (g_c+I1), s	2.2	39.4		16.7	17.9	41.5		2.5
Green Ext Time (p_c), s	0.0	14.5		0.7	0.0	3.0		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	28.9
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	306	1488	55	1429	70	6	50	118	36	156
Future Volume (vph)	306	1488	55	1429	70	6	50	118	36	156
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	30.0	62.5	13.7	46.2	46.2	9.2	23.5	20.3	34.6	34.6
Total Split (%)	25.0%	52.1%	11.4%	38.5%	38.5%	7.7%	19.6%	16.9%	28.8%	28.8%
Yellow Time (s)	3.2	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	23.6	58.9	7.7	40.9	40.9	5.0	19.0	12.1	33.6	33.6
Actuated g/C Ratio	0.21	0.52	0.07	0.36	0.36	0.04	0.17	0.11	0.30	0.30
v/c Ratio	0.90	0.62	0.49	0.84	0.11	0.08	0.31	0.68	0.07	0.29
Control Delay	71.9	21.9	66.6	39.3	0.3	57.2	34.4	67.4	31.5	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.9	21.9	66.6	39.3	0.3	57.2	34.4	67.4	31.5	6.4
LOS	E	C	E	D	A	E	C	E	C	A
Approach Delay		30.3		38.5			35.8		32.5	
Approach LOS		C		D			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 113.8	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 34.0	Intersection LOS: C
Intersection Capacity Utilization 69.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	306	1488	22	55	1429	70	6	50	40	118	36	156
Future Volume (veh/h)	306	1488	22	55	1429	70	6	50	40	118	36	156
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	329	1600	14	59	1537	69	6	54	20	127	39	116
Adj No. of Lanes	1	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	357	2700	24	76	1834	571	13	245	91	155	500	425
Arrive On Green	0.20	0.52	0.52	0.04	0.36	0.36	0.01	0.19	0.19	0.09	0.27	0.27
Sat Flow, veh/h	1774	5199	45	1774	5085	1583	1774	1297	481	1774	1863	1583
Grp Volume(v), veh/h	329	1043	571	59	1537	69	6	0	74	127	39	116
Grp Sat Flow(s),veh/h/ln	1774	1695	1855	1774	1695	1583	1774	0	1778	1774	1863	1583
Q Serve(g_s), s	20.3	23.9	23.9	3.7	31.0	3.3	0.4	0.0	3.9	7.9	1.7	6.5
Cycle Q Clear(g_c), s	20.3	23.9	23.9	3.7	31.0	3.3	0.4	0.0	3.9	7.9	1.7	6.5
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	357	1760	963	76	1834	571	13	0	336	155	500	425
V/C Ratio(X)	0.92	0.59	0.59	0.78	0.84	0.12	0.44	0.00	0.22	0.82	0.08	0.27
Avail Cap(c_a), veh/h	410	1760	963	151	1870	582	79	0	336	256	500	425
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	18.7	18.7	53.0	32.7	23.9	55.2	0.0	38.4	50.1	30.5	32.3
Incr Delay (d2), s/veh	22.8	0.6	1.2	6.2	3.6	0.1	8.3	0.0	1.5	4.1	0.3	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.2	11.3	12.5	1.9	15.1	1.4	0.2	0.0	2.1	4.0	0.9	3.0
LnGrp Delay(d),s/veh	66.5	19.3	19.8	59.2	36.4	24.0	63.5	0.0	39.9	54.2	30.9	33.9
LnGrp LOS	E	B	B	E	D	C	E		D	D	C	C
Approach Vol, veh/h		1943			1665			80			282	
Approach Delay, s/veh		27.5			36.7			41.7			42.6	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	63.1	5.0	34.6	26.7	45.4	14.0	25.7
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 9.5	57.4	* 5	30.0	* 26	41.1	* 16	18.9
Max Q Clear Time (g_c+I1), s	5.7	25.9	2.4	8.5	22.3	33.0	9.9	5.9
Green Ext Time (p_c), s	0.0	29.8	0.0	1.0	0.2	7.3	0.1	0.8

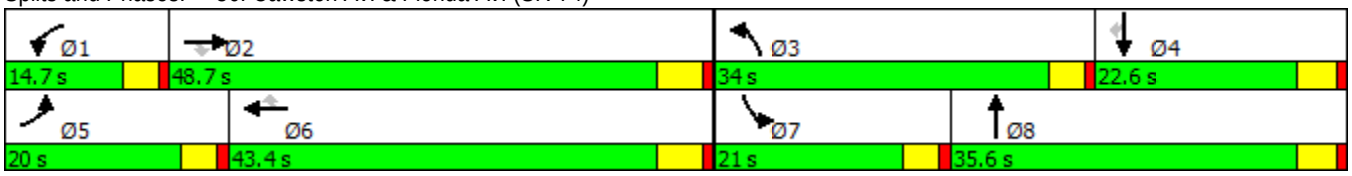
Intersection Summary	
HCM 2010 Ctrl Delay	32.7
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	181	1192	13	70	1328	244	255	117	204	133	146
Future Volume (vph)	181	1192	13	70	1328	244	255	117	204	133	146
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	20.0	48.7	48.7	14.7	43.4	43.4	34.0	35.6	21.0	22.6	22.6
Total Split (%)	16.7%	40.6%	40.6%	12.3%	36.2%	36.2%	28.3%	29.7%	17.5%	18.8%	18.8%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	14.8	46.5	46.5	8.6	38.3	38.3	22.1	31.0	16.0	25.0	25.0
Actuated g/C Ratio	0.13	0.39	0.39	0.07	0.32	0.32	0.19	0.26	0.14	0.21	0.21
v/c Ratio	0.86	0.62	0.02	0.57	0.84	0.38	0.81	0.21	0.89	0.35	0.32
Control Delay	83.4	31.4	0.1	70.6	43.0	6.2	64.3	22.1	86.5	45.2	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.4	31.4	0.1	70.6	43.0	6.2	64.3	22.1	86.5	45.2	6.6
LOS	F	C	A	E	D	A	E	C	F	D	A
Approach Delay		37.9			38.7			46.5		51.0	
Approach LOS		D			D			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 118.3	
Natural Cycle: 95	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 40.8	Intersection LOS: D
Intersection Capacity Utilization 87.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	181	1192	13	70	1328	244	255	117	70	204	133	146
Future Volume (veh/h)	181	1192	13	70	1328	244	255	117	70	204	133	146
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	189	1242	12	73	1383	210	266	122	67	212	139	88
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	217	1977	615	93	1623	503	296	601	309	239	439	373
Arrive On Green	0.12	0.39	0.39	0.05	0.32	0.32	0.17	0.27	0.27	0.13	0.24	0.24
Sat Flow, veh/h	1774	5085	1583	1774	5085	1576	1774	2246	1155	1774	1863	1583
Grp Volume(v), veh/h	189	1242	12	73	1383	210	266	94	95	212	139	88
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1576	1774	1770	1631	1774	1863	1583
Q Serve(g_s), s	12.1	22.9	0.5	4.7	29.5	12.1	17.0	4.8	5.2	13.6	7.1	5.2
Cycle Q Clear(g_c), s	12.1	22.9	0.5	4.7	29.5	12.1	17.0	4.8	5.2	13.6	7.1	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.71	1.00		1.00
Lane Grp Cap(c), veh/h	217	1977	615	93	1623	503	296	474	436	239	439	373
V/C Ratio(X)	0.87	0.63	0.02	0.78	0.85	0.42	0.90	0.20	0.22	0.89	0.32	0.24
Avail Cap(c_a), veh/h	242	1977	615	161	1681	521	456	474	436	257	439	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	28.6	21.8	54.2	36.9	31.0	47.3	32.8	33.0	49.2	36.6	35.8
Incr Delay (d2), s/veh	24.0	0.7	0.0	5.3	4.5	0.8	10.2	0.9	1.1	26.2	1.9	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	10.8	0.2	2.4	14.5	5.4	9.2	2.5	2.5	8.4	3.9	2.4
LnGrp Delay(d),s/veh	74.0	29.4	21.8	59.5	41.4	31.8	57.5	33.8	34.1	75.4	38.5	37.3
LnGrp LOS	E	C	C	E	D	C	E	C	C	E	D	D
Approach Vol, veh/h		1443			1666			455			439	
Approach Delay, s/veh		35.2			41.0			47.7			56.1	
Approach LOS		D			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	50.1	23.5	31.9	18.3	42.1	19.8	35.6
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 11	43.6	* 30	18.0	* 16	38.3	* 17	31.0
Max Q Clear Time (g_c+I1), s	6.7	24.9	19.0	9.1	14.1	31.5	15.6	7.2
Green Ext Time (p_c), s	0.0	17.5	0.3	1.5	0.0	5.5	0.0	2.3

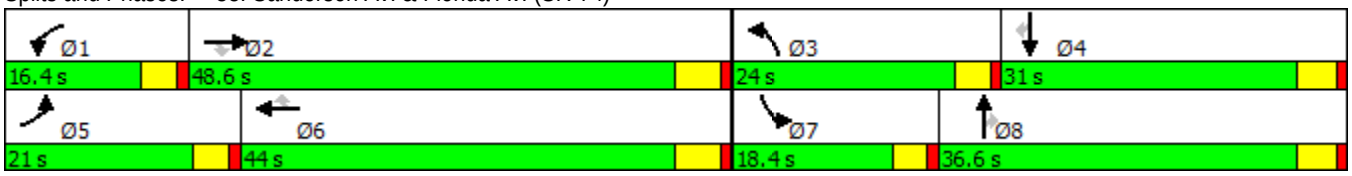
Intersection Summary	
HCM 2010 Ctrl Delay	41.3
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	385	1059	145	264	956	225	472	971	246	241	985	265
Future Volume (vph)	385	1059	145	264	956	225	472	971	246	241	985	265
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	21.0	48.6	48.6	16.4	44.0	44.0	24.0	36.6	36.6	18.4	31.0	31.0
Total Split (%)	17.5%	40.5%	40.5%	13.7%	36.7%	36.7%	20.0%	30.5%	30.5%	15.3%	25.8%	25.8%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Act Effct Green (s)	15.8	41.6	41.6	11.6	37.4	37.4	18.6	32.9	32.9	12.1	26.4	26.4
Actuated g/C Ratio	0.14	0.36	0.36	0.10	0.32	0.32	0.16	0.28	0.28	0.10	0.23	0.23
v/c Ratio	0.84	0.85	0.23	0.78	0.85	0.35	0.87	0.68	0.41	0.68	0.86	0.51
Control Delay	66.2	42.2	6.4	68.3	45.5	6.1	65.4	40.8	8.1	61.0	52.9	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.2	42.2	6.4	68.3	45.5	6.1	65.4	40.8	8.1	61.0	52.9	12.9
LOS	E	D	A	E	D	A	E	D	A	E	D	B
Approach Delay		44.8			43.5			42.9			47.1	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 116.5	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 44.5	Intersection LOS: D
Intersection Capacity Utilization 85.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	385	1059	145	264	956	225	472	971	246	241	985	265
Future Volume (veh/h)	385	1059	145	264	956	225	472	971	246	241	985	265
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	389	1070	106	267	966	170	477	981	162	243	995	210
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	446	1300	572	324	1174	517	535	1494	456	303	1152	353
Arrive On Green	0.13	0.37	0.37	0.09	0.33	0.33	0.16	0.29	0.29	0.09	0.23	0.23
Sat Flow, veh/h	3442	3539	1557	3442	3539	1558	3442	5085	1552	3442	5085	1559
Grp Volume(v), veh/h	389	1070	106	267	966	170	477	981	162	243	995	210
Grp Sat Flow(s),veh/h/ln	1721	1770	1557	1721	1770	1558	1721	1695	1552	1721	1695	1559
Q Serve(g_s), s	12.9	31.8	5.4	8.8	29.1	9.5	15.8	19.6	9.6	8.0	21.9	14.0
Cycle Q Clear(g_c), s	12.9	31.8	5.4	8.8	29.1	9.5	15.8	19.6	9.6	8.0	21.9	14.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	446	1300	572	324	1174	517	535	1494	456	303	1152	353
V/C Ratio(X)	0.87	0.82	0.19	0.82	0.82	0.33	0.89	0.66	0.36	0.80	0.86	0.59
Avail Cap(c_a), veh/h	498	1326	583	362	1185	522	587	1494	456	421	1152	353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	33.3	24.9	51.7	35.7	29.1	48.1	35.9	32.3	52.0	43.2	40.2
Incr Delay (d2), s/veh	13.3	4.5	0.2	11.8	5.0	0.5	14.1	2.3	2.2	5.1	8.7	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	16.3	2.3	4.8	15.0	4.2	8.5	9.5	4.4	4.0	11.2	6.7
LnGrp Delay(d),s/veh	62.9	37.8	25.2	63.5	40.6	29.6	62.2	38.2	34.5	57.0	51.9	47.4
LnGrp LOS	E	D	C	E	D	C	E	D	C	E	D	D
Approach Vol, veh/h		1565			1403			1620			1448	
Approach Delay, s/veh		43.2			43.7			44.9			52.1	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	47.8	22.2	31.0	19.3	43.6	14.4	38.8
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	* 4.7	* 4.2	5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	* 12	43.5	* 20	* 26	* 17	38.9	* 14	* 32
Max Q Clear Time (g_c+I1), s	10.8	33.8	17.8	23.9	14.9	31.1	10.0	21.6
Green Ext Time (p_c), s	0.1	8.8	0.3	2.2	0.2	7.2	0.2	8.6

Intersection Summary	
HCM 2010 Ctrl Delay	45.9
HCM 2010 LOS	D

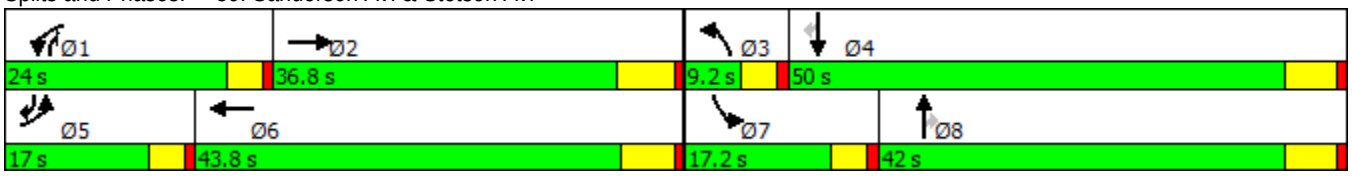
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	299	590	499	541	37	1000	515	333	1152	233
Future Volume (vph)	299	590	499	541	37	1000	515	333	1152	233
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8	1	7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8	9.2
Total Split (s)	17.0	36.8	24.0	43.8	9.2	42.0	24.0	17.2	50.0	17.0
Total Split (%)	14.2%	30.7%	20.0%	36.5%	7.7%	35.0%	20.0%	14.3%	41.7%	14.2%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 115.2
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	299	590	47	499	541	298	37	1000	515	333	1152	233
Future Volume (veh/h)	299	590	47	499	541	298	37	1000	515	333	1152	233
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	308	608	46	514	558	286	38	1031	162	343	1188	229
Adj No. of Lanes	2	2	0	2	2	0	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	363	784	59	567	668	342	105	1104	745	385	1392	790
Arrive On Green	0.11	0.24	0.24	0.16	0.29	0.29	0.03	0.31	0.31	0.11	0.39	0.39
Sat Flow, veh/h	3442	3327	251	3442	2266	1160	3442	3539	1553	3442	3539	1583
Grp Volume(v), veh/h	308	323	331	514	435	409	38	1031	162	343	1188	229
Grp Sat Flow(s),veh/h/ln	1721	1770	1809	1721	1770	1657	1721	1770	1553	1721	1770	1583
Q Serve(g_s), s	10.2	19.8	19.9	17.0	26.7	26.8	1.3	32.8	7.1	11.4	35.6	9.8
Cycle Q Clear(g_c), s	10.2	19.8	19.9	17.0	26.7	26.8	1.3	32.8	7.1	11.4	35.6	9.8
Prop In Lane	1.00		0.14	1.00		0.70	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	363	417	426	567	522	489	105	1104	745	385	1392	790
V/C Ratio(X)	0.85	0.77	0.78	0.91	0.83	0.84	0.36	0.93	0.22	0.89	0.85	0.29
Avail Cap(c_a), veh/h	380	467	477	587	579	542	148	1104	745	385	1392	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	41.5	41.5	47.6	38.3	38.3	55.2	38.8	17.7	50.8	32.1	17.0
Incr Delay (d2), s/veh	14.9	7.2	7.2	16.9	9.4	10.1	0.8	15.3	0.7	21.1	6.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	10.5	10.8	9.4	14.4	13.6	0.6	18.4	3.1	6.6	18.6	4.5
LnGrp Delay(d),s/veh	65.9	48.7	48.7	64.4	47.7	48.4	56.0	54.0	18.4	71.9	39.0	18.0
LnGrp LOS	E	D	D	E	D	D	E	D	B	E	D	B
Approach Vol, veh/h		962			1358			1231			1760	
Approach Delay, s/veh		54.2			54.3			49.4			42.7	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.3	33.5	7.7	51.5	16.4	40.4	17.2	42.0
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	* 4.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 20	30.6	* 5	44.2	* 13	* 38	* 13	36.2
Max Q Clear Time (g_c+I1), s	19.0	21.9	3.3	37.6	12.2	28.8	13.4	34.8
Green Ext Time (p_c), s	0.1	5.2	0.0	6.3	0.0	5.4	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	49.3
HCM 2010 LOS	D

Notes

APPENDIX 6.6:

OPENING YEAR CUMULATIVE (2024) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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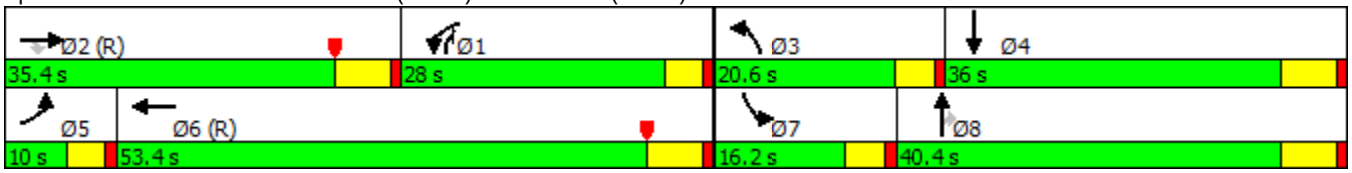
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	18	836	126	434	837	122	11	432	22	30
Future Volume (vph)	18	836	126	434	837	122	11	432	22	30
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2		1	6	3	8	1	7	4
Permitted Phases			2					8		
Detector Phase	5	2	2	1	6	3	8	1	7	4
Switch Phase										
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	5.0	25.0	5.0	5.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	16.2	31.0	9.5	16.2	36.0
Total Split (s)	10.0	35.4	35.4	28.0	53.4	20.6	40.4	28.0	16.2	36.0
Total Split (%)	8.3%	29.5%	29.5%	23.3%	44.5%	17.2%	33.7%	23.3%	13.5%	30.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.6	5.0	3.5	3.6	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	4.6	6.0	4.5	4.6	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	5.3	29.4	29.4	23.5	53.4	12.4	43.6	68.6	6.3	33.6
Actuated g/C Ratio	0.04	0.24	0.24	0.20	0.44	0.10	0.36	0.57	0.05	0.28
v/c Ratio	0.24	0.69	0.27	0.67	0.40	0.69	0.02	0.44	0.25	0.07
Control Delay	63.1	44.6	7.6	50.1	23.6	70.4	28.0	5.2	60.7	30.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	44.6	7.6	50.1	23.6	70.4	28.0	5.2	60.7	30.4
LOS	E	D	A	D	C	E	C	A	E	C
Approach Delay		40.2			32.4		19.8			42.2
Approach LOS		D			C		B			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 33.3 (28%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 32.8	Intersection LOS: C
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	836	126	434	837	34	122	11	432	22	30	5
Future Volume (veh/h)	18	836	126	434	837	34	122	11	432	22	30	5
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	19	862	91	447	863	33	126	11	265	23	31	5
Adj No. of Lanes	1	3	1	2	3	0	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	35	1246	388	795	2357	90	152	584	861	40	391	63
Arrive On Green	0.02	0.25	0.25	0.23	0.47	0.47	0.09	0.31	0.31	0.02	0.25	0.25
Sat Flow, veh/h	1774	5085	1583	3442	5027	192	1774	1863	1582	1774	1565	252
Grp Volume(v), veh/h	19	862	91	447	581	315	126	11	265	23	0	36
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1829	1774	1863	1582	1774	0	1818
Q Serve(g_s), s	1.3	18.5	4.3	13.8	13.2	13.2	8.4	0.5	1.5	1.5	0.0	1.8
Cycle Q Clear(g_c), s	1.3	18.5	4.3	13.8	13.2	13.2	8.4	0.5	1.5	1.5	0.0	1.8
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	35	1246	388	795	1589	857	152	584	861	40	0	454
V/C Ratio(X)	0.55	0.69	0.23	0.56	0.37	0.37	0.83	0.02	0.31	0.58	0.00	0.08
Avail Cap(c_a), veh/h	81	1246	388	795	1589	857	237	584	861	171	0	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.3	41.2	21.5	40.8	20.4	20.4	54.0	28.4	6.5	58.1	0.0	34.4
Incr Delay (d2), s/veh	4.9	3.2	1.4	0.6	0.7	1.2	7.3	0.1	0.9	4.9	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	9.0	2.0	6.6	6.3	6.9	4.4	0.3	3.3	0.8	0.0	1.0
LnGrp Delay(d),s/veh	63.2	44.4	22.9	41.4	21.1	21.7	61.3	28.5	7.5	63.0	0.0	34.8
LnGrp LOS	E	D	C	D	C	C	E	C	A	E		C
Approach Vol, veh/h		972			1343			402			59	
Approach Delay, s/veh		42.7			28.0			24.9			45.8	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.7	35.4	14.9	36.0	6.8	62.3	7.3	43.6
Change Period (Y+Rc), s	6.0	* 6	4.6	6.0	4.5	6.0	4.6	6.0
Max Green Setting (Gmax), s	23.5	* 29	16.0	30.0	5.5	47.4	11.6	34.4
Max Q Clear Time (g_c+I1), s	15.8	20.5	10.4	3.8	3.3	15.2	3.5	3.5
Green Ext Time (p_c), s	2.8	2.6	0.1	0.6	0.0	4.3	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	33.1
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	47	1	0	28	541	3	802
Future Volume (vph)	47	1	0	28	541	3	802
Turn Type	Perm	NA	NA	Prot	NA	Prot	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4						
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	9.6	28.2	9.6	28.2
Total Split (s)	31.6	31.6	31.6	9.6	38.8	9.6	38.8
Total Split (%)	39.5%	39.5%	39.5%	12.0%	48.5%	12.0%	48.5%
Yellow Time (s)	3.6	3.6	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	4.6	4.6	6.2	4.6	6.2
Lead/Lag				Lead	Lag	Lead	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	Min
Act Effct Green (s)		12.9	12.9	5.1	43.9	5.1	41.9
Actuated g/C Ratio		0.20	0.20	0.08	0.68	0.08	0.65
v/c Ratio		0.29	0.01	0.21	0.46	0.02	0.75
Control Delay		15.7	0.0	34.7	11.2	31.7	20.2
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		15.7	0.0	34.7	11.2	31.7	20.2
LOS		B	A	C	B	C	C
Approach Delay		15.7			12.4		20.3
Approach LOS		B			B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 64.4	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 65.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	1	39	0	0	3	28	541	1	3	802	37
Future Volume (veh/h)	47	1	39	0	0	3	28	541	1	3	802	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	51	1	42	0	0	3	30	582	1	3	862	40
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	29	96	0	0	221	59	1076	2	7	970	45
Arrive On Green	0.14	0.14	0.14	0.00	0.00	0.14	0.03	0.58	0.58	0.00	0.55	0.55
Sat Flow, veh/h	639	210	686	0	0	1583	1774	1859	3	1774	1766	82
Grp Volume(v), veh/h	94	0	0	0	0	3	30	0	583	3	0	902
Grp Sat Flow(s),veh/h/ln	1535	0	0	0	0	1583	1774	0	1862	1774	0	1848
Q Serve(g_s), s	1.3	0.0	0.0	0.0	0.0	0.1	0.9	0.0	10.7	0.1	0.0	23.8
Cycle Q Clear(g_c), s	2.9	0.0	0.0	0.0	0.0	0.1	0.9	0.0	10.7	0.1	0.0	23.8
Prop In Lane	0.54		0.45	0.00		1.00	1.00		0.00	1.00		0.04
Lane Grp Cap(c), veh/h	315	0	0	0	0	221	59	0	1078	7	0	1015
V/C Ratio(X)	0.30	0.00	0.00	0.00	0.00	0.01	0.51	0.00	0.54	0.42	0.00	0.89
Avail Cap(c_a), veh/h	830	0	0	0	0	770	160	0	1094	160	0	1086
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	0.0	0.0	0.0	20.6	26.4	0.0	7.2	27.6	0.0	11.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.5	13.5	0.0	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	0.0	0.0	0.0	0.5	0.0	5.5	0.1	0.0	14.5
LnGrp Delay(d),s/veh	22.3	0.0	0.0	0.0	0.0	20.6	28.9	0.0	7.7	41.1	0.0	19.8
LnGrp LOS	C					C	C		A	D		B
Approach Vol, veh/h		94			3			613			905	
Approach Delay, s/veh		22.3			20.6			8.7			19.9	
Approach LOS		C			C			A			B	

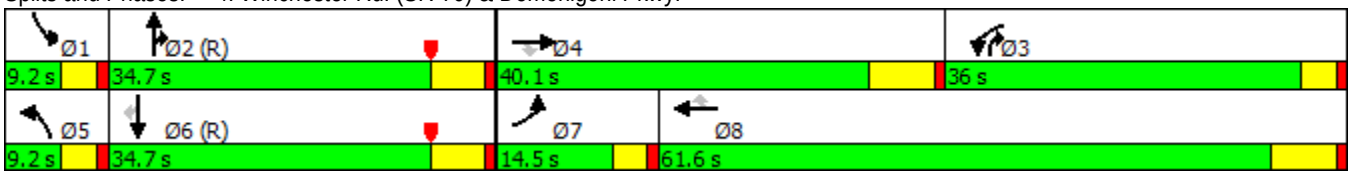
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.8	38.3		12.4	6.5	36.7		12.4
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6
Max Green Setting (Gmax), s	5.0	32.6		27.0	5.0	32.6		27.0
Max Q Clear Time (g_c+I1), s	2.1	12.7		4.9	2.9	25.8		2.1
Green Ext Time (p_c), s	0.0	10.0		0.5	0.0	4.6		0.5

Intersection Summary		
HCM 2010 Ctrl Delay		15.8
HCM 2010 LOS		B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	147	921	77	840	925	37	46	319	666	48	586	212
Future Volume (vph)	147	921	77	840	925	37	46	319	666	48	586	212
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	2 3	1	6	
Permitted Phases			4			8						6
Detector Phase	7	4	4	3	8	8	5	2	2 3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8		9.2	33.8	33.8
Total Split (s)	14.5	40.1	40.1	36.0	61.6	61.6	9.2	34.7		9.2	34.7	34.7
Total Split (%)	12.1%	33.4%	33.4%	30.0%	51.3%	51.3%	7.7%	28.9%		7.7%	28.9%	28.9%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8		3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8		4.2	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	9.2	33.2	33.2	31.8	55.8	55.8	5.0	30.7	62.1	5.0	30.7	30.7
Actuated g/C Ratio	0.08	0.28	0.28	0.26	0.46	0.46	0.04	0.26	0.52	0.04	0.26	0.26
v/c Ratio	0.61	1.02	0.16	1.00	0.43	0.05	0.68	0.38	0.83	0.71	0.70	0.40
Control Delay	63.5	77.5	2.3	75.1	22.3	0.1	98.8	39.0	25.4	102.7	46.0	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	77.5	2.3	75.1	22.3	0.1	98.8	39.0	25.4	102.7	46.0	6.9
LOS	E	E	A	E	C	A	F	D	C	F	D	A
Approach Delay		70.7			46.5			32.9			39.4	
Approach LOS		E			D			C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 48.1	Intersection LOS: D
Intersection Capacity Utilization 87.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	921	77	840	925	37	46	319	666	48	586	212
Future Volume (veh/h)	147	921	77	840	925	37	46	319	666	48	586	212
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	160	1001	47	913	1005	28	50	347	462	52	637	131
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	979	438	912	2551	794	64	2997	1760	67	3002	1343
Arrive On Green	0.06	0.28	0.28	0.26	0.50	0.50	0.04	0.85	0.85	0.04	0.85	0.85
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	160	1001	47	913	1005	28	50	347	462	52	637	131
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	5.5	33.2	4.5	31.8	14.7	1.1	3.4	2.0	2.1	3.5	4.0	1.6
Cycle Q Clear(g_c), s	5.5	33.2	4.5	31.8	14.7	1.1	3.4	2.0	2.1	3.5	4.0	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	215	979	438	912	2551	794	64	2997	1760	67	3002	1343
V/C Ratio(X)	0.74	1.02	0.11	1.00	0.39	0.04	0.78	0.12	0.26	0.78	0.21	0.10
Avail Cap(c_a), veh/h	295	979	438	912	2551	794	74	2997	1760	74	3002	1343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	55.3	43.4	91.9	44.1	18.6	15.2	57.4	1.6	4.9	57.2	1.7	1.5
Incr Delay (d2), s/veh	3.7	34.5	0.1	30.1	0.1	0.0	30.6	0.1	0.4	29.3	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	20.9	2.0	18.9	6.9	0.5	2.2	1.0	1.4	2.2	2.0	0.7
LnGrp Delay(d),s/veh	59.0	77.9	92.0	74.2	18.7	15.2	87.9	1.6	5.2	86.5	1.8	1.6
LnGrp LOS	E	F	F	F	B	B	F	A	A	F	A	A
Approach Vol, veh/h		1208			1946			859			820	
Approach Delay, s/veh		76.0			44.7			8.6			7.2	
Approach LOS		E			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	109.6	38.7	40.1	8.5	109.8	11.7	67.1
Change Period (Y+Rc), s	* 4.2	5.8	6.9	* 6.9	* 4.2	5.8	* 4.2	6.9
Max Green Setting (Gmax), s	* 5	28.9	31.8	* 33	* 5	28.9	* 10	54.7
Max Q Clear Time (g_c+I1), s	5.5	4.1	33.8	35.2	5.4	6.0	7.5	16.7
Green Ext Time (p_c), s	0.0	13.2	0.0	0.0	0.0	12.6	0.1	9.8

Intersection Summary	
HCM 2010 Ctrl Delay	39.7
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	36	258	17	19	722	59	557
Future Volume (vph)	29	36	258	17	19	722	59	557
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	27.8	9.6	27.8
Total Split (s)	32.3	32.3	32.3	32.3	10.2	77.5	10.2	77.5
Total Split (%)	26.9%	26.9%	26.9%	26.9%	8.5%	64.6%	8.5%	64.6%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	25.9	25.9	25.9	25.9	5.5	66.5	5.8	70.3
Actuated g/C Ratio	0.23	0.23	0.23	0.23	0.05	0.60	0.05	0.63
v/c Ratio	0.12	0.14	0.88	0.29	0.23	0.95	0.68	0.51
Control Delay	38.1	25.9	71.5	11.2	61.7	39.8	91.0	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.1	25.9	71.5	11.2	61.7	39.8	91.0	13.6
LOS	D	C	E	B	E	D	F	B
Approach Delay		30.0		51.5		40.2		20.9
Approach LOS		C		D		D		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 110.8	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 36.1	Intersection LOS: D
Intersection Capacity Utilization 85.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 20: Warren Rd. & Esplanade Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	36	23	258	17	111	19	722	249	59	557	8
Future Volume (veh/h)	29	36	23	258	17	111	19	722	249	59	557	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	31	38	24	274	18	118	20	768	265	63	593	9
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	250	158	335	50	328	36	787	271	81	1133	17
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.02	0.59	0.59	0.05	0.62	0.62
Sat Flow, veh/h	1248	1069	675	1335	214	1402	1774	1325	457	1774	1830	28
Grp Volume(v), veh/h	31	0	62	274	0	136	20	0	1033	63	0	602
Grp Sat Flow(s),veh/h/ln	1248	0	1744	1335	0	1615	1774	0	1782	1774	0	1858
Q Serve(g_s), s	2.5	0.0	3.3	24.3	0.0	8.3	1.3	0.0	66.3	4.2	0.0	21.6
Cycle Q Clear(g_c), s	10.9	0.0	3.3	27.6	0.0	8.3	1.3	0.0	66.3	4.2	0.0	21.6
Prop In Lane	1.00		0.39	1.00		0.87	1.00		0.26	1.00		0.01
Lane Grp Cap(c), veh/h	265	0	408	335	0	378	36	0	1058	81	0	1150
V/C Ratio(X)	0.12	0.00	0.15	0.82	0.00	0.36	0.55	0.00	0.98	0.78	0.00	0.52
Avail Cap(c_a), veh/h	265	0	408	335	0	378	84	0	1079	84	0	1150
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.5	0.0	36.0	47.0	0.0	37.9	57.4	0.0	23.2	55.9	0.0	12.7
Incr Delay (d2), s/veh	0.2	0.0	0.2	14.5	0.0	0.6	4.8	0.0	21.6	32.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.6	10.3	0.0	3.8	0.7	0.0	38.8	2.8	0.0	11.2
LnGrp Delay(d),s/veh	42.7	0.0	36.2	61.5	0.0	38.5	62.3	0.0	44.8	88.3	0.0	13.2
LnGrp LOS	D		D	E		D	E		D	F		B
Approach Vol, veh/h		93			410			1053			665	
Approach Delay, s/veh		38.3			53.8			45.2			20.3	
Approach LOS		D			D			D			C	

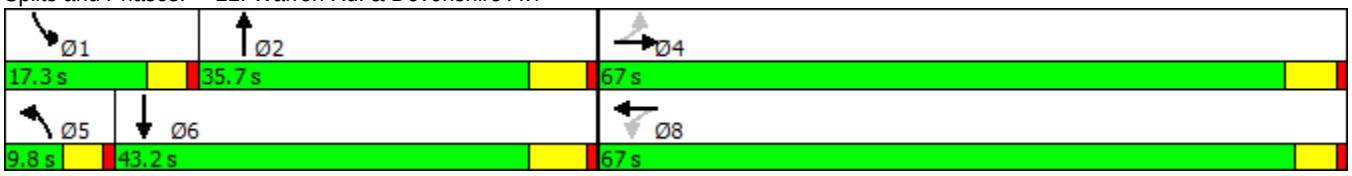
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	76.1		32.3	7.0	79.1		32.3
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6
Max Green Setting (Gmax), s	5.6	71.7		27.7	5.6	71.7		27.7
Max Q Clear Time (g_c+I1), s	6.2	68.3		12.9	3.3	23.6		29.6
Green Ext Time (p_c), s	0.0	2.0		2.0	0.0	17.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	243	239	185	377	15	599	152	526
Future Volume (vph)	243	239	185	377	15	599	152	526
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	31.8	31.8	9.6	28.2	9.6	28.2
Total Split (s)	67.0	67.0	67.0	67.0	9.8	35.7	17.3	43.2
Total Split (%)	55.8%	55.8%	55.8%	55.8%	8.2%	29.8%	14.4%	36.0%
Yellow Time (s)	4.8	4.8	3.8	3.8	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.8	4.8	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	55.6	55.6	56.6	56.6	5.2	27.2	12.2	40.4
Actuated g/C Ratio	0.50	0.50	0.51	0.51	0.05	0.24	0.11	0.36
v/c Ratio	1.00	0.31	0.39	0.61	0.20	0.88	0.84	0.58
Control Delay	86.2	17.5	20.1	22.4	61.1	53.5	86.0	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.2	17.5	20.1	22.4	61.1	53.5	86.0	31.5
LOS	F	B	C	C	E	D	F	C
Approach Delay		50.5		21.8		53.6		41.4
Approach LOS		D		C		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 111.9	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 41.2	Intersection LOS: D
Intersection Capacity Utilization 88.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	243	239	25	185	377	148	15	599	105	152	526	161
Future Volume (veh/h)	243	239	25	185	377	148	15	599	105	152	526	161
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	259	254	27	197	401	157	16	637	112	162	560	171
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	314	860	91	534	662	259	31	703	123	189	862	263
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.02	0.23	0.23	0.11	0.32	0.32
Sat Flow, veh/h	848	1656	176	1094	1275	499	1774	3011	529	1774	2675	814
Grp Volume(v), veh/h	259	0	281	197	0	558	16	374	375	162	370	361
Grp Sat Flow(s),veh/h/ln	848	0	1832	1094	0	1775	1774	1770	1769	1774	1770	1719
Q Serve(g_s), s	35.2	0.0	10.3	14.7	0.0	26.0	1.1	24.2	24.3	10.6	21.1	21.2
Cycle Q Clear(g_c), s	61.2	0.0	10.3	25.0	0.0	26.0	1.1	24.2	24.3	10.6	21.1	21.2
Prop In Lane	1.00		0.10	1.00		0.28	1.00		0.30	1.00		0.47
Lane Grp Cap(c), veh/h	314	0	951	534	0	922	31	413	413	189	571	554
V/C Ratio(X)	0.82	0.00	0.30	0.37	0.00	0.61	0.52	0.91	0.91	0.86	0.65	0.65
Avail Cap(c_a), veh/h	314	0	951	543	0	937	78	443	443	191	571	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	0.0	16.1	23.2	0.0	19.9	57.4	43.9	43.9	51.8	34.2	34.2
Incr Delay (d2), s/veh	16.1	0.0	0.2	0.4	0.0	1.1	5.0	21.0	21.4	28.8	2.6	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	0.0	5.2	4.5	0.0	13.0	0.6	14.3	14.3	6.7	10.7	10.4
LnGrp Delay(d),s/veh	57.8	0.0	16.2	23.6	0.0	20.9	62.4	64.9	65.4	80.6	36.8	36.9
LnGrp LOS	E		B	C		C	E	E	E	F	D	D
Approach Vol, veh/h		540			755			765			893	
Approach Delay, s/veh		36.2			21.6			65.1			44.8	
Approach LOS		D			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.1	33.7		67.0	6.6	44.2		67.0
Change Period (Y+Rc), s	4.6	6.2		5.8	4.6	6.2		* 5.8
Max Green Setting (Gmax), s	12.7	29.5		61.2	5.2	37.0		* 62
Max Q Clear Time (g_c+I1), s	12.6	26.3		63.2	3.1	23.2		28.0
Green Ext Time (p_c), s	0.0	1.2		0.0	0.0	6.7		9.5

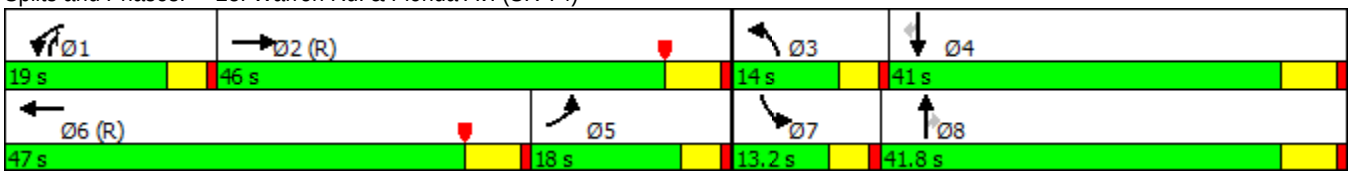
Intersection Summary			
HCM 2010 Ctrl Delay		42.5	
HCM 2010 LOS		D	

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	179	1070	368	904	219	526	297	100	472	185
Future Volume (vph)	179	1070	368	904	219	526	297	100	472	185
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8	1	7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	9.6	9.6	41.0	41.0
Total Split (s)	18.0	46.0	19.0	47.0	14.0	41.8	19.0	13.2	41.0	41.0
Total Split (%)	15.0%	38.3%	15.8%	39.2%	11.7%	34.8%	15.8%	11.0%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	3.6	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	4.6	4.6	6.0	6.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	13.4	40.0	14.4	41.0	9.4	36.0	51.7	8.4	35.0	35.0
Actuated g/C Ratio	0.11	0.33	0.12	0.34	0.08	0.30	0.43	0.07	0.29	0.29
v/c Ratio	0.93	0.79	0.92	0.56	1.62	0.51	0.41	0.83	0.47	0.32
Control Delay	101.2	39.2	80.3	33.4	343.3	36.8	13.5	99.9	36.7	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.2	39.2	80.3	33.4	343.3	36.8	13.5	99.9	36.7	6.1
LOS	F	D	F	C	F	D	B	F	D	A
Approach Delay		46.7		46.6		94.4			37.5	
Approach LOS		D		D		F			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 19 (16%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.62	
Intersection Signal Delay: 56.0	Intersection LOS: E
Intersection Capacity Utilization 101.4%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	1070	231	368	904	41	219	526	297	100	472	185
Future Volume (veh/h)	179	1070	231	368	904	41	219	526	297	100	472	185
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	183	1092	173	376	922	38	223	537	258	102	482	125
Adj No. of Lanes	1	3	0	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	492	2261	358	413	1712	70	139	1059	663	126	1032	460
Arrive On Green	0.28	0.51	0.51	0.12	0.34	0.34	0.08	0.30	0.30	0.07	0.29	0.29
Sat Flow, veh/h	1774	4428	701	3442	5010	206	1774	3539	1580	1774	3539	1578
Grp Volume(v), veh/h	183	836	429	376	623	337	223	537	258	102	482	125
Grp Sat Flow(s),veh/h/ln	1774	1695	1739	1721	1695	1826	1774	1770	1580	1774	1770	1578
Q Serve(g_s), s	10.0	19.2	19.2	13.0	17.8	17.9	9.4	15.0	13.6	6.8	13.4	5.2
Cycle Q Clear(g_c), s	10.0	19.2	19.2	13.0	17.8	17.9	9.4	15.0	13.6	6.8	13.4	5.2
Prop In Lane	1.00		0.40	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	492	1731	888	413	1158	624	139	1059	663	126	1032	460
V/C Ratio(X)	0.37	0.48	0.48	0.91	0.54	0.54	1.60	0.51	0.39	0.81	0.47	0.27
Avail Cap(c_a), veh/h	492	1731	888	413	1158	624	139	1059	663	127	1032	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	0.82	0.82	0.82
Uniform Delay (d), s/veh	34.9	19.1	19.1	52.2	31.9	31.9	55.3	34.7	24.2	55.0	34.9	16.8
Incr Delay (d2), s/veh	0.2	1.0	1.9	23.4	1.8	3.3	275.2	0.2	0.2	24.9	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	9.2	9.6	7.5	8.6	9.6	15.2	7.4	6.0	4.2	6.7	2.4
LnGrp Delay(d),s/veh	35.1	20.0	21.0	75.6	33.7	35.2	330.5	34.9	24.4	79.9	36.1	18.0
LnGrp LOS	D	C	C	E	C	D	F	C	C	E	D	B
Approach Vol, veh/h		1448			1336			1018			709	
Approach Delay, s/veh		22.2			45.8			97.0			39.2	
Approach LOS		C			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	67.4	14.0	41.0	39.4	47.0	13.1	41.9
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	6.0	* 6	4.6	6.0
Max Green Setting (Gmax), s	14.4	40.0	9.4	35.0	13.4	* 41	8.6	35.8
Max Q Clear Time (g_c+I1), s	15.0	21.2	11.4	15.4	12.0	19.9	8.8	17.0
Green Ext Time (p_c), s	0.0	5.1	0.0	4.3	0.2	3.5	0.0	4.3

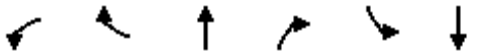
Intersection Summary	
HCM 2010 Ctrl Delay	48.8
HCM 2010 LOS	D

Notes

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	16	977	248	778
Future Volume (vph)	16	977	248	778
Turn Type	Prot	NA	Prot	NA
Protected Phases	8	2	1	6
Permitted Phases				
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	28.2	9.6	24.2
Total Split (s)	31.6	54.4	34.0	88.4
Total Split (%)	26.3%	45.3%	28.3%	73.7%
Yellow Time (s)	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	Min	None	Min
Act Effct Green (s)	13.8	33.4	18.0	59.3
Actuated g/C Ratio	0.18	0.43	0.23	0.77
v/c Ratio	0.23	0.76	0.64	0.30
Control Delay	15.0	24.4	38.6	4.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.0	24.4	38.6	4.8
LOS	B	C	D	A
Approach Delay	15.0	24.4		12.9
Approach LOS	B	C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 76.9	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 65.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 24: Warren Rd. & Auto Bl.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	16	60	977	108	248	778
Future Volume (veh/h)	16	60	977	108	248	778
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	17	64	1039	115	264	828
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	39	145	1564	173	313	2581
Arrive On Green	0.11	0.11	0.49	0.49	0.18	0.73
Sat Flow, veh/h	336	1266	3307	355	1774	3632
Grp Volume(v), veh/h	82	0	572	582	264	828
Grp Sat Flow(s),veh/h/ln	1622	0	1770	1800	1774	1770
Q Serve(g_s), s	3.3	0.0	17.0	17.0	10.0	5.7
Cycle Q Clear(g_c), s	3.3	0.0	17.0	17.0	10.0	5.7
Prop In Lane	0.21	0.78		0.20	1.00	
Lane Grp Cap(c), veh/h	186	0	861	876	313	2581
V/C Ratio(X)	0.44	0.00	0.66	0.66	0.84	0.32
Avail Cap(c_a), veh/h	633	0	1233	1254	754	4206
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	0.0	13.5	13.5	27.6	3.3
Incr Delay (d2), s/veh	1.6	0.0	0.9	0.9	2.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	8.5	8.6	5.1	2.8
LnGrp Delay(d),s/veh	30.2	0.0	14.4	14.4	30.0	3.4
LnGrp LOS	C		B	B	C	A
Approach Vol, veh/h	82		1154			1092
Approach Delay, s/veh	30.2		14.4			9.8
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.8	39.9				56.6		12.5
Change Period (Y+Rc), s	4.6	6.2				6.2		4.6
Max Green Setting (Gmax), s	29.4	48.2				82.2		27.0
Max Q Clear Time (g_c+I1), s	12.0	19.0				7.7		5.3
Green Ext Time (p_c), s	0.3	14.7				19.6		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	12.8
HCM 2010 LOS	B

Notes

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	199	661	257	44	537
Future Volume (vph)	199	661	257	44	537
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	4	3	8	2	3
Permitted Phases					2
Detector Phase	4	3	8	2	3
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	9.6	22.5	31.6	9.6
Total Split (s)	28.2	60.0	88.2	31.8	60.0
Total Split (%)	23.5%	50.0%	73.5%	26.5%	50.0%
Yellow Time (s)	5.2	3.6	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	5.2	4.6	4.6
Lead/Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	None	None	None	Min	None
Act Effct Green (s)	18.6	45.9	70.3	13.0	63.7
Actuated g/C Ratio	0.20	0.49	0.75	0.14	0.68
v/c Ratio	0.72	0.88	0.21	0.21	0.54
Control Delay	49.0	35.0	4.3	41.2	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	35.0	4.3	41.2	6.5
LOS	D	C	A	D	A
Approach Delay	49.0		26.4	9.1	
Approach LOS	D		C	A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 93.5	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 23.6	Intersection LOS: C
Intersection Capacity Utilization 70.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 30: Warren Rd. & Simpson Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	199	32	661	257	44	537
Future Volume (veh/h)	199	32	661	257	44	537
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	229	37	760	295	51	617
Adj No. of Lanes	1	0	1	1	1	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	272	44	790	1235	415	1075
Arrive On Green	0.17	0.17	0.45	0.66	0.23	0.23
Sat Flow, veh/h	1565	253	1774	1863	1774	1583
Grp Volume(v), veh/h	0	266	760	295	51	617
Grp Sat Flow(s),veh/h/ln	0	1818	1774	1863	1774	1583
Q Serve(g_s), s	0.0	14.8	43.5	6.6	2.4	21.5
Cycle Q Clear(g_c), s	0.0	14.8	43.5	6.6	2.4	21.5
Prop In Lane		0.14	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	316	790	1235	415	1075
V/C Ratio(X)	0.00	0.84	0.96	0.24	0.12	0.57
Avail Cap(c_a), veh/h	0	382	939	1477	461	1116
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	41.8	28.2	7.1	31.6	8.8
Incr Delay (d2), s/veh	0.0	13.3	18.3	0.1	0.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.6	25.1	3.4	1.2	9.4
LnGrp Delay(d),s/veh	0.0	55.1	46.5	7.2	31.8	9.5
LnGrp LOS		E	D	A	C	A
Approach Vol, veh/h	266			1055	668	
Approach Delay, s/veh	55.1			35.5	11.2	
Approach LOS	E			D	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		29.1	51.2	24.4				75.6
Change Period (Y+Rc), s		4.6	4.6	6.2				* 6.2
Max Green Setting (Gmax), s		27.2	55.4	22.0				* 83
Max Q Clear Time (g_c+I1), s		23.5	45.5	16.8				8.6
Green Ext Time (p_c), s		1.0	1.1	1.4				3.3

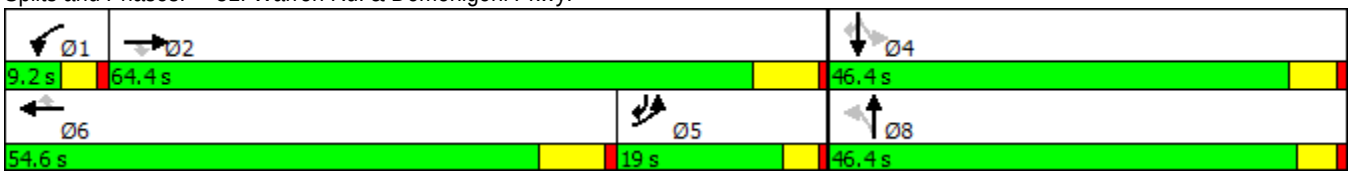
Intersection Summary	
HCM 2010 Ctrl Delay	30.0
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	480	1294	2	2	1543	97	3	14	126	9	556
Future Volume (vph)	480	1294	2	2	1543	97	3	14	126	9	556
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	5	2		1	6			8		4	5
Permitted Phases			2			6	8		4		4
Detector Phase	5	2	2	1	6	6	8	8	4	4	5
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	46.4	46.4	9.2
Total Split (s)	19.0	64.4	64.4	9.2	54.6	54.6	46.4	46.4	46.4	46.4	19.0
Total Split (%)	15.8%	53.7%	53.7%	7.7%	45.5%	45.5%	38.7%	38.7%	38.7%	38.7%	15.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	4.4	4.4	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.6	4.6	5.4	5.4	4.2
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead					Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None
Act Effct Green (s)	15.0	66.1	66.1	5.1	48.3	48.3	18.1	18.1	17.3	17.3	37.8
Actuated g/C Ratio	0.15	0.68	0.68	0.05	0.50	0.50	0.19	0.19	0.18	0.18	0.39
v/c Ratio	1.00	0.59	0.00	0.02	0.97	0.13	0.01	0.05	0.56	0.03	0.93
Control Delay	81.5	12.8	0.0	50.5	40.2	6.3	29.0	28.6	44.1	30.0	46.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.5	12.8	0.0	50.5	40.2	6.3	29.0	28.6	44.1	30.0	46.0
LOS	F	B	A	D	D	A	C	C	D	C	D
Approach Delay		31.4			38.2			28.7		45.4	
Approach LOS		C			D			C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97.3	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 36.4	Intersection LOS: D
Intersection Capacity Utilization 98.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	480	1294	2	2	1543	97	3	14	1	126	9	556
Future Volume (veh/h)	480	1294	2	2	1543	97	3	14	1	126	9	556
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	527	1422	2	2	1696	97	3	15	0	138	10	466
Adj No. of Lanes	2	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	520	2347	1029	5	1724	755	221	308	0	295	308	501
Arrive On Green	0.15	0.66	0.66	0.00	0.49	0.49	0.17	0.17	0.00	0.17	0.17	0.17
Sat Flow, veh/h	3442	3539	1551	1774	3539	1550	914	1863	0	1393	1863	1583
Grp Volume(v), veh/h	527	1422	2	2	1696	97	3	15	0	138	10	466
Grp Sat Flow(s),veh/h/ln	1721	1770	1551	1774	1770	1550	914	1863	0	1393	1863	1583
Q Serve(g_s), s	14.8	22.1	0.0	0.1	46.2	3.4	0.3	0.7	0.0	9.1	0.4	13.1
Cycle Q Clear(g_c), s	14.8	22.1	0.0	0.1	46.2	3.4	0.7	0.7	0.0	9.7	0.4	13.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	520	2347	1029	5	1724	755	221	308	0	295	308	501
V/C Ratio(X)	1.01	0.61	0.00	0.42	0.98	0.13	0.01	0.05	0.00	0.47	0.03	0.93
Avail Cap(c_a), veh/h	520	2347	1029	91	1724	755	460	795	0	647	780	902
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	9.3	5.6	48.7	24.7	13.7	34.6	34.4	0.0	38.5	34.3	32.4
Incr Delay (d2), s/veh	42.7	1.2	0.0	20.0	18.1	0.4	0.0	0.0	0.0	0.4	0.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	11.0	0.0	0.1	26.7	1.5	0.1	0.3	0.0	3.5	0.2	11.0
LnGrp Delay(d),s/veh	84.3	10.4	5.6	68.8	42.8	14.1	34.6	34.4	0.0	38.9	34.3	37.0
LnGrp LOS	F	B	A	E	D	B	C	C		D	C	D
Approach Vol, veh/h		1951			1795			18			614	
Approach Delay, s/veh		30.4			41.3			34.4			37.3	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	71.8		21.6	21.7	54.6		21.6
Change Period (Y+Rc), s	* 4.2	6.9		5.4	6.9	* 6.9		* 5.4
Max Green Setting (Gmax), s	* 5	57.5		41.0	14.8	* 48		* 42
Max Q Clear Time (g_c+I1), s	2.1	24.1		15.1	16.8	48.2		2.7
Green Ext Time (p_c), s	0.0	8.5		1.1	0.0	0.0		1.1

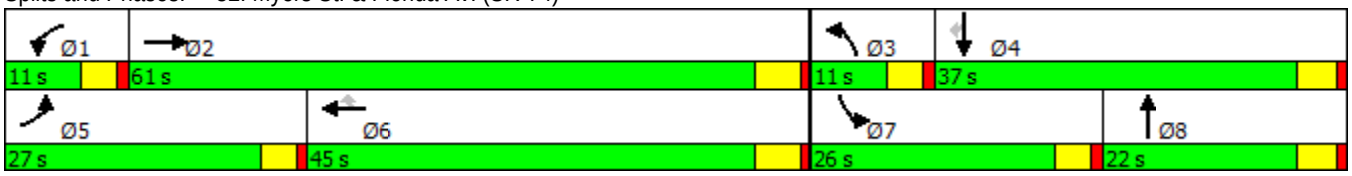
Intersection Summary	
HCM 2010 Ctrl Delay	35.9
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	161	1206	17	981	144	24	69	147	52	193
Future Volume (vph)	161	1206	17	981	144	24	69	147	52	193
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	27.0	61.0	11.0	45.0	45.0	11.0	22.0	26.0	37.0	37.0
Total Split (%)	22.5%	50.8%	9.2%	37.5%	37.5%	9.2%	18.3%	21.7%	30.8%	30.8%
Yellow Time (s)	3.2	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	13.7	45.7	5.8	31.2	31.2	5.9	20.3	13.0	33.9	33.9
Actuated g/C Ratio	0.14	0.47	0.06	0.32	0.32	0.06	0.21	0.13	0.35	0.35
v/c Ratio	0.66	0.52	0.16	0.61	0.24	0.22	0.29	0.63	0.08	0.29
Control Delay	54.3	19.6	53.9	30.0	4.0	54.9	33.3	54.6	27.8	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.3	19.6	53.9	30.0	4.0	54.9	33.3	54.6	27.8	5.9
LOS	D	B	D	C	A	D	C	D	C	A
Approach Delay		23.6		27.0			37.1		27.0	
Approach LOS		C		C			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 96.9	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 25.9	Intersection LOS: C
Intersection Capacity Utilization 54.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	1206	5	17	981	144	24	69	41	147	52	193
Future Volume (veh/h)	161	1206	5	17	981	144	24	69	41	147	52	193
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	164	1231	5	17	1001	147	24	70	18	150	53	142
Adj No. of Lanes	1	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	2438	10	33	1905	591	43	338	87	182	586	498
Arrive On Green	0.11	0.47	0.47	0.02	0.37	0.37	0.02	0.24	0.24	0.10	0.31	0.31
Sat Flow, veh/h	1774	5227	21	1774	5085	1577	1774	1430	368	1774	1863	1583
Grp Volume(v), veh/h	164	798	438	17	1001	147	24	0	88	150	53	142
Grp Sat Flow(s),veh/h/ln	1774	1695	1858	1774	1695	1577	1774	0	1798	1774	1863	1583
Q Serve(g_s), s	9.3	16.9	16.9	1.0	15.8	6.6	1.4	0.0	4.0	8.5	2.1	6.9
Cycle Q Clear(g_c), s	9.3	16.9	16.9	1.0	15.8	6.6	1.4	0.0	4.0	8.5	2.1	6.9
Prop In Lane	1.00		0.01	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	196	1581	867	33	1905	591	43	0	425	182	586	498
V/C Ratio(X)	0.84	0.50	0.50	0.51	0.53	0.25	0.56	0.00	0.21	0.83	0.09	0.28
Avail Cap(c_a), veh/h	393	1841	1009	117	1972	611	117	0	425	376	586	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	19.2	19.2	50.0	25.1	22.2	49.7	0.0	31.5	45.3	24.9	26.5
Incr Delay (d2), s/veh	3.6	0.4	0.6	4.5	0.3	0.3	4.2	0.0	1.1	3.6	0.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	8.0	8.8	0.5	7.4	2.9	0.7	0.0	2.1	4.3	1.1	3.2
LnGrp Delay(d),s/veh	48.4	19.5	19.8	54.5	25.4	22.5	53.9	0.0	32.6	48.9	25.2	28.0
LnGrp LOS	D	B	B	D	C	C	D		C	D	C	C
Approach Vol, veh/h		1400			1165			112			345	
Approach Delay, s/veh		23.0			25.4			37.2			36.6	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	53.1	6.7	37.0	15.6	43.7	14.7	28.9
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 6.8	55.9	* 6.8	32.4	* 23	39.9	* 22	17.4
Max Q Clear Time (g_c+I1), s	3.0	18.9	3.4	8.9	11.3	17.8	10.5	6.0
Green Ext Time (p_c), s	0.0	29.1	0.0	1.3	0.2	18.9	0.1	1.0

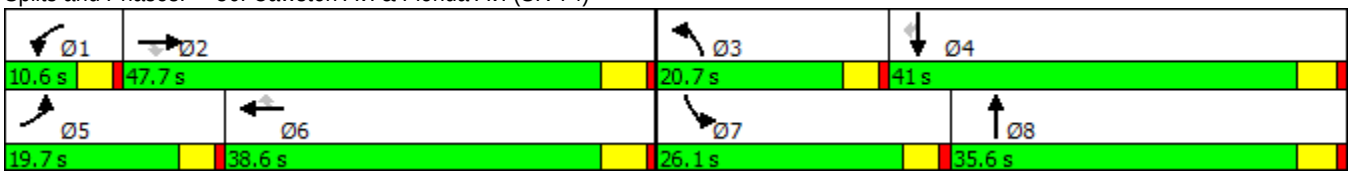
Intersection Summary	
HCM 2010 Ctrl Delay	26.0
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	114	1060	12	31	1052	89	129	66	188	79	118
Future Volume (vph)	114	1060	12	31	1052	89	129	66	188	79	118
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	19.7	47.7	47.7	10.6	38.6	38.6	20.7	35.6	26.1	41.0	41.0
Total Split (%)	16.4%	39.8%	39.8%	8.8%	32.2%	32.2%	17.3%	29.7%	21.8%	34.2%	34.2%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	11.4	41.1	41.1	5.9	31.5	31.5	12.3	32.9	16.0	36.7	36.7
Actuated g/C Ratio	0.10	0.37	0.37	0.05	0.29	0.29	0.11	0.30	0.15	0.33	0.33
v/c Ratio	0.64	0.58	0.02	0.34	0.75	0.16	0.68	0.09	0.75	0.13	0.20
Control Delay	65.2	29.9	0.1	63.2	40.0	0.6	65.5	23.9	64.4	29.2	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.2	29.9	0.1	63.2	40.0	0.6	65.5	23.9	64.4	29.2	5.0
LOS	E	C	A	E	D	A	E	C	E	C	A
Approach Delay		33.0			37.6			48.5		39.0	
Approach LOS		C			D			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 110.1	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 36.7	Intersection LOS: D
Intersection Capacity Utilization 64.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	1060	12	31	1052	89	129	66	23	188	79	118
Future Volume (veh/h)	114	1060	12	31	1052	89	129	66	23	188	79	118
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	118	1093	11	32	1085	76	133	68	21	194	81	54
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	146	1870	582	51	1597	497	162	825	244	226	637	542
Arrive On Green	0.08	0.37	0.37	0.03	0.31	0.31	0.09	0.31	0.31	0.13	0.34	0.34
Sat Flow, veh/h	1774	5085	1583	1774	5085	1583	1774	2693	797	1774	1863	1583
Grp Volume(v), veh/h	118	1093	11	32	1085	76	133	44	45	194	81	54
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1583	1774	1770	1721	1774	1863	1583
Q Serve(g_s), s	7.0	18.4	0.5	1.9	19.8	3.7	7.8	1.9	2.0	11.4	3.2	2.5
Cycle Q Clear(g_c), s	7.0	18.4	0.5	1.9	19.8	3.7	7.8	1.9	2.0	11.4	3.2	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.46	1.00		1.00
Lane Grp Cap(c), veh/h	146	1870	582	51	1597	497	162	542	527	226	637	542
V/C Ratio(X)	0.81	0.58	0.02	0.63	0.68	0.15	0.82	0.08	0.09	0.86	0.13	0.10
Avail Cap(c_a), veh/h	258	2036	634	107	1601	498	275	542	527	365	637	542
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.0	27.1	21.4	51.1	31.8	26.3	47.5	26.3	26.3	45.5	24.1	23.8
Incr Delay (d2), s/veh	4.0	0.5	0.0	4.6	1.3	0.2	3.9	0.3	0.3	6.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	8.7	0.2	1.0	9.4	1.6	4.0	1.0	1.0	6.0	1.7	1.1
LnGrp Delay(d),s/veh	52.0	27.6	21.4	55.8	33.1	26.5	51.3	26.5	26.6	51.6	24.5	24.2
LnGrp LOS	D	C	C	E	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1222			1193			222			329	
Approach Delay, s/veh		29.9			33.3			41.4			40.5	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	44.2	13.9	41.0	13.0	38.5	17.7	37.2
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 6.4	42.6	* 17	36.4	* 16	33.5	* 22	31.0
Max Q Clear Time (g_c+I1), s	3.9	20.4	9.8	5.2	9.0	21.8	13.4	4.0
Green Ext Time (p_c), s	0.0	18.7	0.1	1.2	0.1	10.5	0.2	1.2

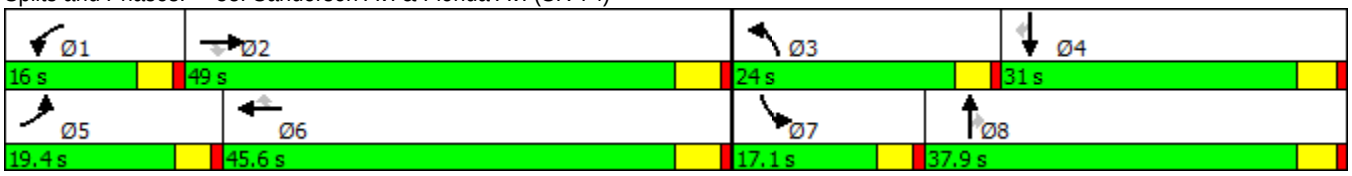
Intersection Summary	
HCM 2010 Ctrl Delay	33.3
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	238	843	102	166	699	131	328	901	168	197	749	209
Future Volume (vph)	238	843	102	166	699	131	328	901	168	197	749	209
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	19.4	49.0	49.0	16.0	45.6	45.6	24.0	37.9	37.9	17.1	31.0	31.0
Total Split (%)	16.2%	40.8%	40.8%	13.3%	38.0%	38.0%	20.0%	31.6%	31.6%	14.3%	25.8%	25.8%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Act Effct Green (s)	12.4	37.4	37.4	9.8	34.8	34.8	15.6	33.5	33.5	10.8	28.7	28.7
Actuated g/C Ratio	0.11	0.34	0.34	0.09	0.32	0.32	0.14	0.30	0.30	0.10	0.26	0.26
v/c Ratio	0.68	0.77	0.18	0.59	0.69	0.24	0.74	0.64	0.31	0.64	0.62	0.39
Control Delay	57.2	37.4	3.8	58.0	36.5	5.6	55.7	36.6	6.3	58.3	40.0	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.2	37.4	3.8	58.0	36.5	5.6	55.7	36.6	6.3	58.3	40.0	7.2
LOS	E	D	A	E	D	A	E	D	A	E	D	A
Approach Delay		38.5			36.0			37.5			37.2	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.9	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 37.4	Intersection LOS: D
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	238	843	102	166	699	131	328	901	168	197	749	209
Future Volume (veh/h)	238	843	102	166	699	131	328	901	168	197	749	209
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	262	926	83	182	768	85	360	990	75	216	823	178
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	328	1309	576	245	1224	538	430	1569	473	280	1348	420
Arrive On Green	0.10	0.37	0.37	0.07	0.35	0.35	0.12	0.31	0.31	0.08	0.27	0.27
Sat Flow, veh/h	3442	3539	1557	3442	3539	1556	3442	5085	1535	3442	5085	1583
Grp Volume(v), veh/h	262	926	83	182	768	85	360	990	75	216	823	178
Grp Sat Flow(s),veh/h/ln	1721	1770	1557	1721	1770	1556	1721	1695	1535	1721	1695	1583
Q Serve(g_s), s	8.0	24.0	3.8	5.6	19.5	4.1	11.0	18.0	3.8	6.6	15.3	10.0
Cycle Q Clear(g_c), s	8.0	24.0	3.8	5.6	19.5	4.1	11.0	18.0	3.8	6.6	15.3	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	328	1309	576	245	1224	538	430	1569	473	280	1348	420
V/C Ratio(X)	0.80	0.71	0.14	0.74	0.63	0.16	0.84	0.63	0.16	0.77	0.61	0.42
Avail Cap(c_a), veh/h	486	1443	635	377	1332	585	633	1569	473	412	1348	420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	28.9	22.6	49.0	29.4	24.4	46.0	32.0	27.1	48.5	34.7	32.8
Incr Delay (d2), s/veh	3.2	1.7	0.2	1.7	1.0	0.2	4.2	1.9	0.7	2.6	2.1	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	12.0	1.7	2.7	9.7	1.8	5.5	8.7	1.7	3.3	7.4	4.7
LnGrp Delay(d),s/veh	50.9	30.6	22.7	50.7	30.4	24.6	50.3	33.9	27.8	51.1	36.8	35.9
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	D	D
Approach Vol, veh/h		1271			1035			1425			1217	
Approach Delay, s/veh		34.3			33.5			37.7			39.2	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	44.9	17.6	33.2	14.5	42.3	13.0	37.9
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	* 4.7	* 4.2	5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	* 12	43.9	* 20	* 26	* 15	40.5	* 13	* 33
Max Q Clear Time (g_c+I1), s	7.6	26.0	13.0	17.3	10.0	21.5	8.6	20.0
Green Ext Time (p_c), s	0.1	13.8	0.4	7.2	0.2	14.5	0.2	9.9

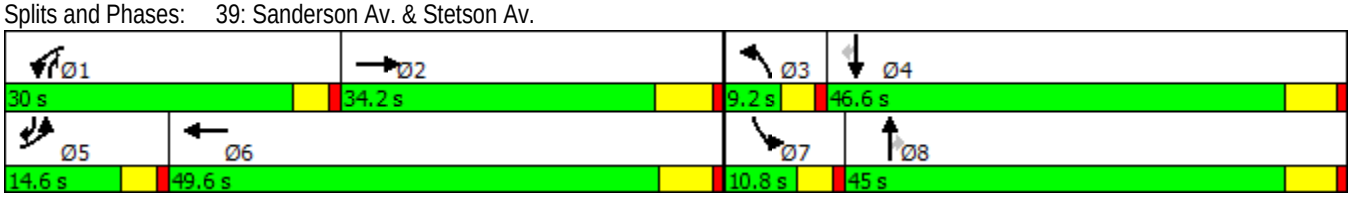
Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	186	439	536	663	48	967	689	137	980	148
Future Volume (vph)	186	439	536	663	48	967	689	137	980	148
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8	1	7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8	9.2
Total Split (s)	14.6	34.2	30.0	49.6	9.2	45.0	30.0	10.8	46.6	14.6
Total Split (%)	12.2%	28.5%	25.0%	41.3%	7.7%	37.5%	25.0%	9.0%	38.8%	12.2%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	None
Act Effct Green (s)	9.9	24.8	23.7	39.0	5.0	39.3	64.6	6.6	43.0	54.4
Actuated g/C Ratio	0.09	0.22	0.21	0.34	0.04	0.34	0.56	0.06	0.37	0.47
v/c Ratio	0.73	0.74	0.88	0.87	0.37	0.93	0.90	0.81	0.86	0.22
Control Delay	67.3	48.1	59.3	43.1	62.7	51.1	33.1	83.6	42.8	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.3	48.1	59.3	43.1	62.7	51.1	33.1	83.6	42.8	8.1
LOS	E	D	E	D	E	D	C	F	D	A
Approach Delay		53.5		49.2		44.2			43.2	
Approach LOS		D		D		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.9	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 46.6	Intersection LOS: D
Intersection Capacity Utilization 81.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	439	41	536	663	226	48	967	689	137	980	148
Future Volume (veh/h)	186	439	41	536	663	226	48	967	689	137	980	148
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	216	510	47	623	771	246	56	1124	421	159	1140	166
Adj No. of Lanes	2	2	0	2	2	0	2	2	1	2	2	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	273	731	67	685	908	290	125	1209	838	198	1284	700
Arrive On Green	0.08	0.22	0.22	0.20	0.34	0.34	0.04	0.34	0.34	0.06	0.36	0.36
Sat Flow, veh/h	3442	3263	300	3442	2641	843	3442	3539	1532	3442	3539	1582
Grp Volume(v), veh/h	216	276	281	623	517	500	56	1124	421	159	1140	166
Grp Sat Flow(s),veh/h/ln	1721	1770	1793	1721	1770	1714	1721	1770	1532	1721	1770	1582
Q Serve(g_s), s	7.1	16.4	16.6	20.3	31.1	31.1	1.8	35.2	20.0	5.2	34.7	7.5
Cycle Q Clear(g_c), s	7.1	16.4	16.6	20.3	31.1	31.1	1.8	35.2	20.0	5.2	34.7	7.5
Prop In Lane	1.00		0.17	1.00		0.49	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	397	402	685	608	589	125	1209	838	198	1284	700
V/C Ratio(X)	0.79	0.70	0.70	0.91	0.85	0.85	0.45	0.93	0.50	0.80	0.89	0.24
Avail Cap(c_a), veh/h	312	432	437	774	675	654	150	1209	838	198	1284	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.9	40.9	41.0	44.9	34.9	34.9	54.2	36.5	16.7	53.4	34.4	19.9
Incr Delay (d2), s/veh	9.8	4.4	4.5	12.8	9.3	9.5	0.9	13.7	2.1	19.4	9.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	8.5	8.7	10.9	16.8	16.3	0.9	19.5	8.9	3.0	18.6	3.4
LnGrp Delay(d),s/veh	61.6	45.3	45.4	57.8	44.2	44.4	55.1	50.2	18.8	72.9	43.7	20.7
LnGrp LOS	E	D	D	E	D	D	E	D	B	E	D	C
Approach Vol, veh/h		773			1640			1601			1465	
Approach Delay, s/veh		49.9			49.4			42.1			44.3	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	31.9	8.4	47.4	13.3	45.6	10.8	45.0
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	* 4.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 26	28.0	* 5	40.8	* 10	* 44	* 6.6	39.2
Max Q Clear Time (g_c+I1), s	22.3	18.6	3.8	36.7	9.1	33.1	7.2	37.2
Green Ext Time (p_c), s	0.5	5.8	0.0	3.9	0.1	6.4	0.0	2.0

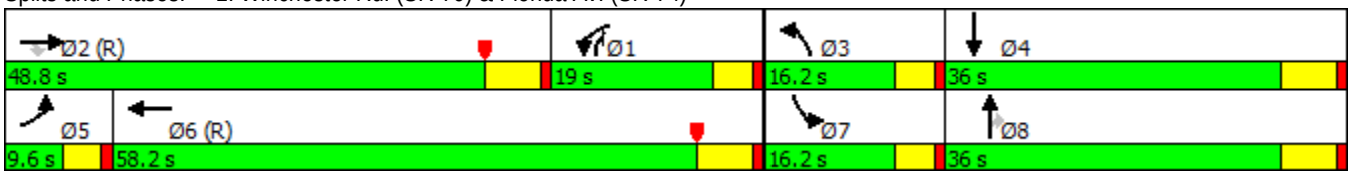
Intersection Summary	
HCM 2010 Ctrl Delay	46.0
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	17	1485	138	566	1191	163	9	641	18	20
Future Volume (vph)	17	1485	138	566	1191	163	9	641	18	20
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2		1	6	3	8	1	7	4
Permitted Phases			2					8		
Detector Phase	5	2	2	1	6	3	8	1	7	4
Switch Phase										
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	5.0	25.0	5.0	5.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	16.2	31.0	9.5	16.2	36.0
Total Split (s)	9.6	48.8	48.8	19.0	58.2	16.2	36.0	19.0	16.2	36.0
Total Split (%)	8.0%	40.7%	40.7%	15.8%	48.5%	13.5%	30.0%	15.8%	13.5%	30.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.6	5.0	3.5	3.6	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	4.6	6.0	4.5	4.6	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	5.1	42.8	42.8	14.5	58.0	11.6	41.4	60.1	6.1	30.0
Actuated g/C Ratio	0.04	0.36	0.36	0.12	0.48	0.10	0.34	0.50	0.05	0.25
v/c Ratio	0.26	0.93	0.24	1.55	0.57	1.08	0.02	0.82	0.22	0.07
Control Delay	64.3	47.6	7.8	296.2	23.9	143.1	29.7	27.1	60.1	28.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.3	47.6	7.8	296.2	23.9	143.1	29.7	27.1	60.1	28.1
LOS	E	D	A	F	C	F	C	C	E	C
Approach Delay		44.4			109.5		50.4			40.7
Approach LOS		D			F		D			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 19 (16%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.55	
Intersection Signal Delay: 72.8	Intersection LOS: E
Intersection Capacity Utilization 85.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	1485	138	566	1191	42	163	9	641	18	20	7
Future Volume (veh/h)	17	1485	138	566	1191	42	163	9	641	18	20	7
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	19	1688	110	643	1353	42	185	10	520	20	23	3
Adj No. of Lanes	1	3	1	2	3	0	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	35	1814	565	1836	4475	139	171	608	1361	36	403	53
Arrive On Green	0.02	0.36	0.36	0.53	0.88	0.88	0.10	0.33	0.33	0.02	0.25	0.25
Sat Flow, veh/h	1774	5085	1583	3442	5068	157	1774	1863	1583	1774	1614	210
Grp Volume(v), veh/h	19	1688	110	643	905	490	185	10	520	20	0	26
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1835	1774	1863	1583	1774	0	1824
Q Serve(g_s), s	1.3	38.4	7.9	12.9	5.1	5.1	11.6	0.4	3.4	1.3	0.0	1.3
Cycle Q Clear(g_c), s	1.3	38.4	7.9	12.9	5.1	5.1	11.6	0.4	3.4	1.3	0.0	1.3
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	35	1814	565	1836	2993	1620	171	608	1361	36	0	456
V/C Ratio(X)	0.55	0.93	0.19	0.35	0.30	0.30	1.08	0.02	0.38	0.56	0.00	0.06
Avail Cap(c_a), veh/h	75	1814	565	1836	2993	1620	171	608	1361	171	0	456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.3	37.2	50.3	16.1	1.1	1.1	54.2	27.4	15.1	58.2	0.0	34.2
Incr Delay (d2), s/veh	4.9	10.1	0.8	0.0	0.3	0.5	91.3	0.0	0.8	4.9	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	19.7	3.6	6.1	2.4	2.7	10.0	0.2	10.6	0.7	0.0	0.7
LnGrp Delay(d),s/veh	63.2	47.2	51.1	16.1	1.4	1.6	145.5	27.4	15.9	63.2	0.0	34.5
LnGrp LOS	E	D	D	B	A	A	F	C	B	E		C
Approach Vol, veh/h		1817			2038			715			46	
Approach Delay, s/veh		47.6			6.1			49.6			46.9	
Approach LOS		D			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	71.5	48.8	16.2	36.0	6.8	113.5	7.0	45.2
Change Period (Y+Rc), s	6.0	* 6	4.6	6.0	4.5	6.0	4.6	6.0
Max Green Setting (Gmax), s	14.5	* 43	11.6	30.0	5.1	52.2	11.6	30.0
Max Q Clear Time (g_c+I1), s	14.9	40.4	13.6	3.3	3.3	7.1	3.3	5.4
Green Ext Time (p_c), s	0.0	1.8	0.0	1.0	0.0	8.3	0.0	1.0

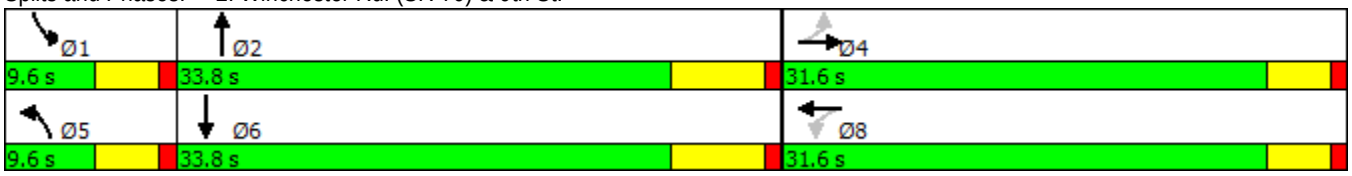
Intersection Summary	
HCM 2010 Ctrl Delay	29.6
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	51	1	2	1	52	856	3	712
Future Volume (vph)	51	1	2	1	52	856	3	712
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	28.2	9.6	28.2
Total Split (s)	31.6	31.6	31.6	31.6	9.6	33.8	9.6	33.8
Total Split (%)	42.1%	42.1%	42.1%	42.1%	12.8%	45.1%	12.8%	45.1%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		12.9		12.9	5.1	39.4	5.1	35.5
Actuated g/C Ratio		0.22		0.22	0.09	0.66	0.09	0.59
v/c Ratio		0.30		0.02	0.36	0.74	0.02	0.74
Control Delay		13.8		14.3	36.3	18.8	29.7	22.2
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		13.8		14.3	36.3	18.8	29.7	22.2
LOS		B		B	D	B	C	C
Approach Delay		13.8		14.3		19.8		22.3
Approach LOS		B		B		B		C

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 59.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 20.5	Intersection LOS: C
Intersection Capacity Utilization 63.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1	47	2	1	3	52	856	1	3	712	52
Future Volume (veh/h)	51	1	47	2	1	3	52	856	1	3	712	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	54	1	50	2	1	3	55	911	1	3	757	55
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	33	113	140	76	123	94	1014	1	7	852	62
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.05	0.55	0.55	0.00	0.50	0.50
Sat Flow, veh/h	595	212	734	306	497	802	1774	1860	2	1774	1716	125
Grp Volume(v), veh/h	105	0	0	6	0	0	55	0	912	3	0	812
Grp Sat Flow(s),veh/h/ln	1540	0	0	1605	0	0	1774	0	1862	1774	0	1841
Q Serve(g_s), s	1.3	0.0	0.0	0.0	0.0	0.0	1.6	0.0	22.6	0.1	0.0	20.6
Cycle Q Clear(g_c), s	3.0	0.0	0.0	0.2	0.0	0.0	1.6	0.0	22.6	0.1	0.0	20.6
Prop In Lane	0.51		0.48	0.33		0.50	1.00		0.00	1.00		0.07
Lane Grp Cap(c), veh/h	342	0	0	339	0	0	94	0	1016	7	0	914
V/C Ratio(X)	0.31	0.00	0.00	0.02	0.00	0.00	0.59	0.00	0.90	0.41	0.00	0.89
Avail Cap(c_a), veh/h	888	0	0	901	0	0	171	0	1016	171	0	979
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.8	0.0	0.0	18.6	0.0	0.0	24.0	0.0	10.5	25.8	0.0	11.8
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.0	2.2	0.0	10.6	13.5	0.0	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	0.1	0.0	0.0	0.8	0.0	14.4	0.1	0.0	12.8
LnGrp Delay(d),s/veh	20.3	0.0	0.0	18.7	0.0	0.0	26.2	0.0	21.2	39.2	0.0	21.4
LnGrp LOS	C			B			C		C	D		C
Approach Vol, veh/h		105			6			967			815	
Approach Delay, s/veh		20.3			18.7			21.4			21.5	
Approach LOS		C			B			C			C	

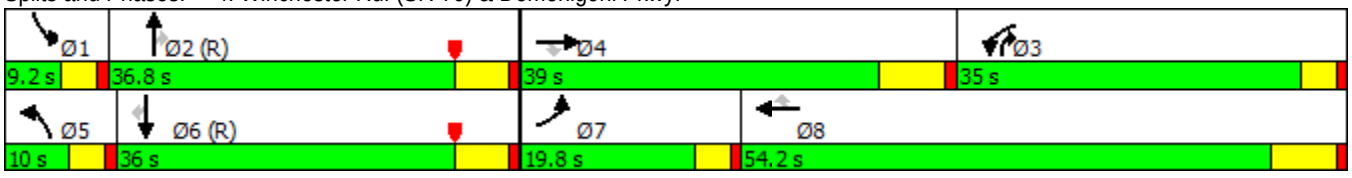
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.8	34.5		12.6	7.3	32.0		12.6
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6
Max Green Setting (Gmax), s	5.0	27.6		27.0	5.0	27.6		27.0
Max Q Clear Time (g_c+I1), s	2.1	24.6		5.0	3.6	22.6		2.2
Green Ext Time (p_c), s	0.0	2.4		0.6	0.0	3.1		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	21.4
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	258	914	79	717	962	48	91	740	1075	39	424	199
Future Volume (vph)	258	914	79	717	962	48	91	740	1075	39	424	199
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8	9.2	9.2	33.8	33.8
Total Split (s)	19.8	39.0	39.0	35.0	54.2	54.2	10.0	36.8	35.0	9.2	36.0	36.0
Total Split (%)	16.5%	32.5%	32.5%	29.2%	45.2%	45.2%	8.3%	30.7%	29.2%	7.7%	30.0%	30.0%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	3.2	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	4.2	4.2	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	C-Max
Act Effct Green (s)	13.4	32.1	32.1	30.8	49.5	49.5	5.8	32.8	66.1	5.0	30.2	30.2
Actuated g/C Ratio	0.11	0.27	0.27	0.26	0.41	0.41	0.05	0.27	0.55	0.04	0.25	0.25
v/c Ratio	0.71	1.03	0.16	0.87	0.49	0.07	1.14	0.81	1.24	0.56	0.51	0.38
Control Delay	62.0	79.8	2.4	54.2	27.2	0.2	191.3	49.1	139.8	84.8	40.9	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.0	79.8	2.4	54.2	27.2	0.2	191.3	49.1	139.8	84.8	40.9	6.8
LOS	E	E	A	D	C	A	F	D	F	F	D	A
Approach Delay		71.3			37.7			107.1			33.2	
Approach LOS		E			D			F			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 9.2 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.24	
Intersection Signal Delay: 68.6	Intersection LOS: E
Intersection Capacity Utilization 108.7%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	914	79	717	962	48	91	740	1075	39	424	199
Future Volume (veh/h)	258	914	79	717	962	48	91	740	1075	39	424	199
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	274	972	53	763	1023	41	97	787	729	41	451	103
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	332	947	424	827	2206	687	86	1659	1123	55	1598	715
Arrive On Green	0.10	0.27	0.27	0.24	0.43	0.43	0.05	0.47	0.47	0.03	0.45	0.45
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	274	972	53	763	1023	41	97	787	729	41	451	103
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	9.4	32.1	3.3	26.0	17.1	1.8	5.8	18.2	11.2	2.8	9.6	4.6
Cycle Q Clear(g_c), s	9.4	32.1	3.3	26.0	17.1	1.8	5.8	18.2	11.2	2.8	9.6	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	332	947	424	827	2206	687	86	1659	1123	55	1598	715
V/C Ratio(X)	0.83	1.03	0.13	0.92	0.46	0.06	1.13	0.47	0.65	0.74	0.28	0.14
Avail Cap(c_a), veh/h	447	947	424	883	2206	687	86	1659	1123	74	1598	715
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	53.2	43.9	39.5	44.5	24.1	19.8	57.1	21.8	12.9	57.7	20.7	19.3
Incr Delay (d2), s/veh	6.8	36.2	0.1	14.0	0.2	0.0	137.0	1.0	2.9	14.3	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	20.4	1.5	13.9	8.0	0.8	6.1	9.1	5.6	1.6	4.8	2.1
LnGrp Delay(d),s/veh	60.0	80.2	39.6	58.5	24.2	19.8	194.1	22.7	15.8	71.9	21.1	19.7
LnGrp LOS	E	F	D	E	C	B	F	C	B	E	C	B
Approach Vol, veh/h		1299			1827			1613			595	
Approach Delay, s/veh		74.3			38.4			29.9			24.4	
Approach LOS		E			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	62.8	35.7	39.0	10.0	60.7	15.8	58.9
Change Period (Y+Rc), s	* 4.2	5.8	6.9	* 6.9	* 4.2	5.8	* 4.2	6.9
Max Green Setting (Gmax), s	* 5	31.0	30.8	* 32	* 5.8	30.2	* 16	47.3
Max Q Clear Time (g_c+I1), s	4.8	20.2	28.0	34.1	7.8	11.6	11.4	19.1
Green Ext Time (p_c), s	0.0	8.9	0.8	0.0	0.0	14.0	0.2	8.9

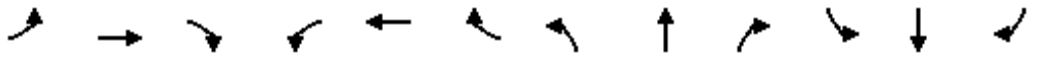
Intersection Summary	
HCM 2010 Ctrl Delay	43.0
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	16	29	196	45	7	670	157	666
Future Volume (vph)	16	29	196	45	7	670	157	666
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	27.8	9.6	27.8
Total Split (s)	31.8	31.8	31.8	31.8	9.6	71.2	17.0	78.6
Total Split (%)	26.5%	26.5%	26.5%	26.5%	8.0%	59.3%	14.2%	65.5%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	20.5	20.5	20.5	20.5	5.1	61.4	12.0	76.4
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.05	0.56	0.11	0.70
v/c Ratio	0.08	0.11	0.77	0.36	0.09	0.94	0.82	0.56
Control Delay	38.4	31.9	63.6	20.9	57.1	40.1	81.7	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.4	31.9	63.6	20.9	57.1	40.1	81.7	11.5
LOS	D	C	E	C	E	D	F	B
Approach Delay		33.9		46.0		40.2		24.2
Approach LOS		C		D		D		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.2	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 34.6	Intersection LOS: C
Intersection Capacity Utilization 90.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 20: Warren Rd. & Esplanade Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	29	8	196	45	92	7	670	272	157	666	47
Future Volume (veh/h)	16	29	8	196	45	92	7	670	272	157	666	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	16	29	8	198	45	93	7	677	275	159	673	47
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	206	262	72	297	101	209	16	720	293	187	1150	80
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.01	0.57	0.57	0.11	0.67	0.67
Sat Flow, veh/h	1246	1406	388	1365	543	1122	1774	1260	512	1774	1721	120
Grp Volume(v), veh/h	16	0	37	198	0	138	7	0	952	159	0	720
Grp Sat Flow(s),veh/h/ln	1246	0	1794	1365	0	1665	1774	0	1772	1774	0	1842
Q Serve(g_s), s	1.3	0.0	1.9	15.5	0.0	8.1	0.4	0.0	54.5	9.7	0.0	23.4
Cycle Q Clear(g_c), s	9.3	0.0	1.9	17.3	0.0	8.1	0.4	0.0	54.5	9.7	0.0	23.4
Prop In Lane	1.00		0.22	1.00		0.67	1.00		0.29	1.00		0.07
Lane Grp Cap(c), veh/h	206	0	334	297	0	310	16	0	1013	187	0	1231
V/C Ratio(X)	0.08	0.00	0.11	0.67	0.00	0.45	0.45	0.00	0.94	0.85	0.00	0.59
Avail Cap(c_a), veh/h	283	0	445	381	0	413	81	0	1057	201	0	1231
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.7	0.0	37.1	44.3	0.0	39.6	54.1	0.0	21.8	48.2	0.0	9.9
Incr Delay (d2), s/veh	0.2	0.0	0.1	3.0	0.0	1.0	7.4	0.0	15.1	24.5	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.9	6.1	0.0	3.8	0.2	0.0	30.7	6.0	0.0	12.0
LnGrp Delay(d),s/veh	43.9	0.0	37.2	47.2	0.0	40.6	61.5	0.0	36.9	72.7	0.0	10.6
LnGrp LOS	D		D	D		D	E		D	E		B
Approach Vol, veh/h		53			336			959			879	
Approach Delay, s/veh		39.2			44.5			37.0			21.9	
Approach LOS		D			D			D			C	

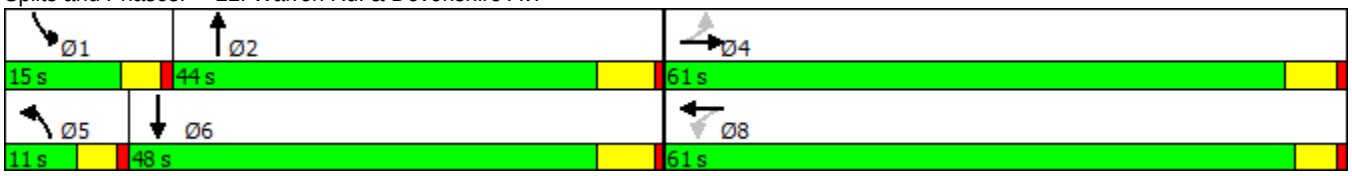
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.2	68.5		25.0	5.6	79.1		25.0
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6
Max Green Setting (Gmax), s	12.4	65.4		27.2	5.0	72.8		27.2
Max Q Clear Time (g_c+I1), s	11.7	56.5		11.3	2.4	25.4		19.3
Green Ext Time (p_c), s	0.0	6.1		1.6	0.0	17.9		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	228	315	133	347	38	647	96	615
Future Volume (vph)	228	315	133	347	38	647	96	615
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	31.8	31.8	9.6	28.2	9.6	28.2
Total Split (s)	61.0	61.0	61.0	61.0	11.0	44.0	15.0	48.0
Total Split (%)	50.8%	50.8%	50.8%	50.8%	9.2%	36.7%	12.5%	40.0%
Yellow Time (s)	4.8	4.8	3.8	3.8	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.8	4.8	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	40.1	40.1	41.2	41.2	6.2	29.9	9.2	38.4
Actuated g/C Ratio	0.41	0.41	0.42	0.42	0.06	0.31	0.09	0.40
v/c Ratio	0.93	0.47	0.41	0.57	0.35	0.81	0.60	0.59
Control Delay	69.7	22.8	24.4	23.9	60.8	38.1	64.4	27.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.7	22.8	24.4	23.9	60.8	38.1	64.4	27.5
LOS	E	C	C	C	E	D	E	C
Approach Delay		41.5		24.0		39.1		31.6
Approach LOS		D		C		D		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 34.4	Intersection LOS: C
Intersection Capacity Utilization 82.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	315	29	133	347	76	38	647	192	96	615	159
Future Volume (veh/h)	228	315	29	133	347	76	38	647	192	96	615	159
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	238	328	30	139	361	79	40	674	200	100	641	166
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	346	786	72	411	692	151	57	832	247	125	967	250
Arrive On Green	0.47	0.47	0.47	0.47	0.47	0.47	0.03	0.31	0.31	0.07	0.35	0.35
Sat Flow, veh/h	945	1682	154	1019	1481	324	1774	2693	799	1774	2785	720
Grp Volume(v), veh/h	238	0	358	139	0	440	40	443	431	100	407	400
Grp Sat Flow(s),veh/h/ln	945	0	1836	1019	0	1806	1774	1770	1722	1774	1770	1736
Q Serve(g_s), s	25.7	0.0	14.0	11.3	0.0	18.6	2.4	25.0	25.0	6.0	21.1	21.2
Cycle Q Clear(g_c), s	44.3	0.0	14.0	25.3	0.0	18.6	2.4	25.0	25.0	6.0	21.1	21.2
Prop In Lane	1.00		0.08	1.00		0.18	1.00		0.46	1.00		0.42
Lane Grp Cap(c), veh/h	346	0	858	411	0	844	57	547	532	125	615	603
V/C Ratio(X)	0.69	0.00	0.42	0.34	0.00	0.52	0.70	0.81	0.81	0.80	0.66	0.66
Avail Cap(c_a), veh/h	385	0	934	463	0	936	105	617	600	170	682	669
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	0.0	19.1	27.5	0.0	20.3	52.0	34.5	34.5	49.6	30.0	30.0
Incr Delay (d2), s/veh	4.5	0.0	0.3	0.5	0.0	0.5	5.6	7.2	7.4	12.2	2.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.0	7.1	3.2	0.0	9.4	1.3	13.3	13.0	3.4	10.6	10.5
LnGrp Delay(d),s/veh	40.4	0.0	19.4	28.0	0.0	20.8	57.6	41.7	41.9	61.9	32.1	32.2
LnGrp LOS	D		B	C		C	E	D	D	E	C	C
Approach Vol, veh/h		596			579			914			907	
Approach Delay, s/veh		27.8			22.6			42.5			35.4	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.2	39.7		56.5	8.1	43.9		56.5
Change Period (Y+Rc), s	4.6	6.2		5.8	4.6	6.2		* 5.8
Max Green Setting (Gmax), s	10.4	37.8		55.2	6.4	41.8		* 56
Max Q Clear Time (g_c+I1), s	8.0	27.0		46.3	4.4	23.2		27.3
Green Ext Time (p_c), s	0.0	6.5		4.4	0.0	9.2		7.7

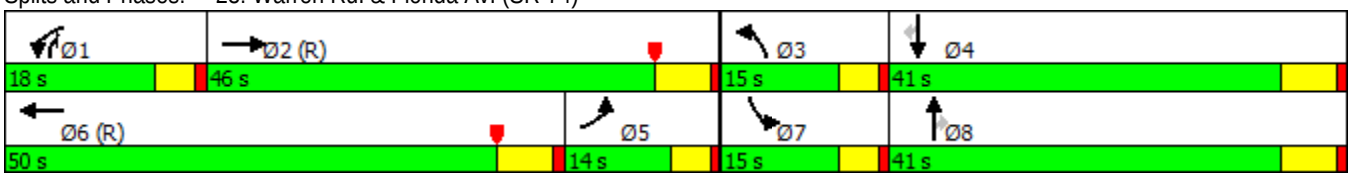
Intersection Summary	
HCM 2010 Ctrl Delay	33.6
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	234	1377	358	1258	259	562	444	100	444	217
Future Volume (vph)	234	1377	358	1258	259	562	444	100	444	217
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8	1	7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	9.6	9.6	41.0	41.0
Total Split (s)	14.0	46.0	18.0	50.0	15.0	41.0	18.0	15.0	41.0	41.0
Total Split (%)	11.7%	38.3%	15.0%	41.7%	12.5%	34.2%	15.0%	12.5%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	3.6	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	4.6	4.6	6.0	6.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	9.4	40.0	13.4	44.0	10.4	35.8	55.2	9.6	35.0	35.0
Actuated g/C Ratio	0.08	0.33	0.11	0.37	0.09	0.30	0.46	0.08	0.29	0.29
v/c Ratio	1.78	1.00	0.98	0.77	1.78	0.56	0.59	0.74	0.45	0.39
Control Delay	411.9	61.1	95.6	36.7	409.9	38.2	20.8	83.2	36.4	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	411.9	61.1	95.6	36.7	409.9	38.2	20.8	83.2	36.4	12.4
LOS	F	E	F	D	F	D	C	F	D	B
Approach Delay		106.0		49.0		108.3			35.7	
Approach LOS		F		D		F			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.78	
Intersection Signal Delay: 79.4	Intersection LOS: E
Intersection Capacity Utilization 85.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	1377	215	358	1258	99	259	562	444	100	444	217
Future Volume (veh/h)	234	1377	215	358	1258	99	259	562	444	100	444	217
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	246	1449	161	377	1324	98	273	592	351	105	467	160
Adj No. of Lanes	1	3	0	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	822	3391	377	384	1772	131	154	1081	661	129	1032	462
Arrive On Green	0.46	0.73	0.73	0.11	0.37	0.37	0.09	0.31	0.31	0.07	0.29	0.29
Sat Flow, veh/h	1774	4646	516	3442	4832	358	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	246	1057	553	377	929	493	273	592	351	105	467	160
Grp Sat Flow(s),veh/h/ln	1774	1695	1772	1721	1695	1800	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	10.4	14.7	14.7	13.1	28.7	28.7	10.4	16.7	19.9	7.0	12.9	7.3
Cycle Q Clear(g_c), s	10.4	14.7	14.7	13.1	28.7	28.7	10.4	16.7	19.9	7.0	12.9	7.3
Prop In Lane	1.00		0.29	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	822	2475	1293	384	1243	660	154	1081	661	129	1032	462
V/C Ratio(X)	0.30	0.43	0.43	0.98	0.75	0.75	1.78	0.55	0.53	0.81	0.45	0.35
Avail Cap(c_a), veh/h	822	2475	1293	384	1243	660	154	1081	661	154	1032	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	0.81	0.81	0.81
Uniform Delay (d), s/veh	20.1	6.4	6.4	53.2	33.1	33.1	54.8	34.8	26.2	54.8	34.7	19.6
Incr Delay (d2), s/veh	0.1	0.5	1.0	40.6	4.1	7.6	351.4	0.2	0.3	16.9	1.2	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	6.9	7.4	8.4	14.1	15.6	20.1	8.2	8.7	4.0	6.5	3.4
LnGrp Delay(d),s/veh	20.1	6.9	7.4	93.8	37.3	40.7	406.2	34.9	26.5	71.7	35.8	21.2
LnGrp LOS	C	A	A	F	D	D	F	C	C	E	D	C
Approach Vol, veh/h		1856			1799			1216			732	
Approach Delay, s/veh		8.8			50.1			115.8			37.8	
Approach LOS		A			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	95.0	15.0	41.0	63.0	50.0	13.3	42.7
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	6.0	* 6	4.6	6.0
Max Green Setting (Gmax), s	13.4	40.0	10.4	35.0	9.4	* 44	10.4	35.0
Max Q Clear Time (g_c+I1), s	15.1	16.7	12.4	14.9	12.4	30.7	9.0	21.9
Green Ext Time (p_c), s	0.0	7.5	0.0	4.8	0.0	4.9	0.0	4.2

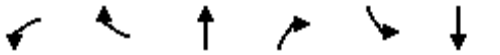
Intersection Summary	
HCM 2010 Ctrl Delay	49.1
HCM 2010 LOS	D

Notes

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	83	1037	116	914
Future Volume (vph)	83	1037	116	914
Turn Type	Prot	NA	Prot	NA
Protected Phases	8	2	1	6
Permitted Phases				
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	28.2	9.6	24.2
Total Split (s)	39.0	60.0	21.0	81.0
Total Split (%)	32.5%	50.0%	17.5%	67.5%
Yellow Time (s)	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	Min	None	Min
Act Effct Green (s)	21.8	40.4	11.6	57.0
Actuated g/C Ratio	0.24	0.45	0.13	0.63
v/c Ratio	0.79	0.81	0.59	0.48
Control Delay	34.9	27.6	53.5	10.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	34.9	27.6	53.5	10.1
LOS	C	C	D	B
Approach Delay	34.9	27.6		15.0
Approach LOS	C	C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 90.4	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 23.3	Intersection LOS: C
Intersection Capacity Utilization 70.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 24: Warren Rd. & Auto Bl.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	83	250	1037	64	116	914
Future Volume (veh/h)	83	250	1037	64	116	914
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	97	291	1206	74	135	1063
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	107	321	1626	100	167	2203
Arrive On Green	0.26	0.26	0.48	0.48	0.09	0.62
Sat Flow, veh/h	406	1218	3481	208	1774	3632
Grp Volume(v), veh/h	389	0	629	651	135	1063
Grp Sat Flow(s),veh/h/ln	1628	0	1770	1826	1774	1770
Q Serve(g_s), s	21.9	0.0	27.2	27.3	7.1	15.3
Cycle Q Clear(g_c), s	21.9	0.0	27.2	27.3	7.1	15.3
Prop In Lane	0.25	0.75		0.11	1.00	
Lane Grp Cap(c), veh/h	429	0	849	877	167	2203
V/C Ratio(X)	0.91	0.00	0.74	0.74	0.81	0.48
Avail Cap(c_a), veh/h	591	0	1006	1038	307	2796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	0.0	19.9	19.9	42.1	9.6
Incr Delay (d2), s/veh	14.2	0.0	2.5	2.4	3.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	0.0	13.7	14.3	3.6	7.4
LnGrp Delay(d),s/veh	47.9	0.0	22.3	22.3	45.6	9.8
LnGrp LOS	D		C	C	D	A
Approach Vol, veh/h	389		1280			1198
Approach Delay, s/veh	47.9		22.3			13.8
Approach LOS	D		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.5	51.6				65.1		29.5
Change Period (Y+Rc), s	4.6	6.2				6.2		4.6
Max Green Setting (Gmax), s	16.4	53.8				74.8		34.4
Max Q Clear Time (g_c+I1), s	9.1	29.3				17.3		23.9
Green Ext Time (p_c), s	0.1	16.2				25.5		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	22.2
HCM 2010 LOS	C

Notes

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	302	571	223	26	686
Future Volume (vph)	302	571	223	26	686
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	4	3	8	2	3
Permitted Phases					2
Detector Phase	4	3	8	2	3
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	9.6	22.5	31.6	9.6
Total Split (s)	34.2	53.0	87.2	32.8	53.0
Total Split (%)	28.5%	44.2%	72.7%	27.3%	44.2%
Yellow Time (s)	5.2	3.6	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	5.2	4.6	4.6
Lead/Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	None	None	None	Min	None
Act Effct Green (s)	22.7	34.8	63.4	13.0	52.6
Actuated g/C Ratio	0.26	0.40	0.73	0.15	0.61
v/c Ratio	0.74	0.85	0.17	0.10	0.70
Control Delay	41.5	37.2	4.3	37.1	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	37.2	4.3	37.1	12.6
LOS	D	D	A	D	B
Approach Delay	41.5		28.0	13.5	
Approach LOS	D		C	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 86.7	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 24.9	Intersection LOS: C
Intersection Capacity Utilization 70.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 30: Warren Rd. & Simpson Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	302	37	571	223	26	686
Future Volume (veh/h)	302	37	571	223	26	686
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	318	39	601	235	27	722
Adj No. of Lanes	1	0	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	365	45	633	1164	481	994
Arrive On Green	0.22	0.22	0.36	0.62	0.27	0.27
Sat Flow, veh/h	1628	200	1774	1863	1774	1583
Grp Volume(v), veh/h	0	357	601	235	27	722
Grp Sat Flow(s),veh/h/ln	0	1828	1774	1863	1774	1583
Q Serve(g_s), s	0.0	19.6	34.3	5.6	1.2	28.2
Cycle Q Clear(g_c), s	0.0	19.6	34.3	5.6	1.2	28.2
Prop In Lane		0.11	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	409	633	1164	481	994
V/C Ratio(X)	0.00	0.87	0.95	0.20	0.06	0.73
Avail Cap(c_a), veh/h	0	492	826	1469	481	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	38.9	32.5	8.4	28.0	13.2
Incr Delay (d2), s/veh	0.0	13.8	15.8	0.1	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.5	19.5	2.9	0.6	14.7
LnGrp Delay(d),s/veh	0.0	52.7	48.4	8.5	28.1	15.9
LnGrp LOS		D	D	A	C	B
Approach Vol, veh/h	357			836	749	
Approach Delay, s/veh	52.7			37.1	16.4	
Approach LOS	D			D	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		32.8	41.7	29.5				71.2
Change Period (Y+Rc), s		4.6	4.6	6.2				* 6.2
Max Green Setting (Gmax), s		28.2	48.4	28.0				* 82
Max Q Clear Time (g_c+I1), s		30.2	36.3	21.6				7.6
Green Ext Time (p_c), s		0.0	0.8	1.7				3.4

Intersection Summary	
HCM 2010 Ctrl Delay	32.0
HCM 2010 LOS	C

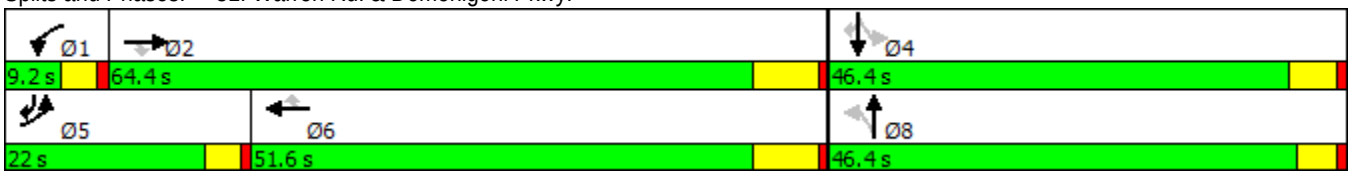
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	595	1736	7	3	1441	109	3	6	95	6	521
Future Volume (vph)	595	1736	7	3	1441	109	3	6	95	6	521
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	5	2		1	6			8		4	5
Permitted Phases			2			6	8		4		4
Detector Phase	5	2	2	1	6	6	8	8	4	4	5
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	46.4	46.4	9.2
Total Split (s)	22.0	64.4	64.4	9.2	51.6	51.6	46.4	46.4	46.4	46.4	22.0
Total Split (%)	18.3%	53.7%	53.7%	7.7%	43.0%	43.0%	38.7%	38.7%	38.7%	38.7%	18.3%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	4.4	4.4	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.6	4.6	5.4	5.4	4.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None
Act Effct Green (s)	18.2	68.6	68.6	5.1	45.8	45.8	16.4	16.4	15.8	15.8	35.6
Actuated g/C Ratio	0.20	0.74	0.74	0.05	0.49	0.49	0.18	0.18	0.17	0.17	0.38
v/c Ratio	0.94	0.71	0.01	0.03	0.88	0.14	0.01	0.02	0.42	0.02	0.88
Control Delay	61.9	14.3	0.0	49.7	30.8	6.2	29.3	27.7	39.9	30.2	39.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.9	14.3	0.0	49.7	30.8	6.2	29.3	27.7	39.9	30.2	39.9
LOS	E	B	A	D	C	A	C	C	D	C	D
Approach Delay		26.4			29.1			28.2		39.8	
Approach LOS		C			C			C		D	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 92.8
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 29.2 — Intersection LOS: C
Intersection Capacity Utilization 93.5% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	595	1736	7	3	1441	109	3	6	1	95	6	521
Future Volume (veh/h)	595	1736	7	3	1441	109	3	6	1	95	6	521
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	633	1847	5	3	1533	109	3	6	1	101	6	340
Adj No. of Lanes	2	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	622	2232	999	7	1606	719	274	308	51	346	368	599
Arrive On Green	0.18	0.63	0.63	0.00	0.45	0.45	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	3442	3539	1583	1774	3539	1583	1031	1557	260	1403	1863	1583
Grp Volume(v), veh/h	633	1847	5	3	1533	109	3	0	7	101	6	340
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1774	1770	1583	1031	0	1817	1403	1863	1583
Q Serve(g_s), s	17.8	39.7	0.1	0.2	41.1	4.0	0.2	0.0	0.3	6.2	0.3	16.7
Cycle Q Clear(g_c), s	17.8	39.7	0.1	0.2	41.1	4.0	0.5	0.0	0.3	6.5	0.3	16.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	622	2232	999	7	1606	719	274	0	359	346	368	599
V/C Ratio(X)	1.02	0.83	0.01	0.42	0.95	0.15	0.01	0.00	0.02	0.29	0.02	0.57
Avail Cap(c_a), veh/h	622	2232	999	90	1606	719	508	0	771	653	776	945
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	14.0	6.7	48.9	25.9	15.8	32.0	0.0	31.8	34.4	31.8	24.2
Incr Delay (d2), s/veh	40.6	3.7	0.0	14.1	13.9	0.4	0.0	0.0	0.0	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	20.4	0.1	0.1	23.1	1.8	0.1	0.0	0.2	2.4	0.1	7.3
LnGrp Delay(d),s/veh	80.9	17.7	6.7	63.1	39.8	16.2	32.0	0.0	31.8	34.6	31.8	24.5
LnGrp LOS	F	B	A	E	D	B	C		C	C	C	C
Approach Vol, veh/h		2485			1645			10			447	
Approach Delay, s/veh		33.8			38.3			31.9			26.9	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.6	69.0		24.9	22.0	51.6		24.9
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	57.5		41.0	* 18	44.7		* 42
Max Q Clear Time (g_c+I1), s	2.2	41.7		18.7	19.8	43.1		2.5
Green Ext Time (p_c), s	0.0	13.0		0.7	0.0	1.5		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	34.7
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	313	1527	55	1496	70	6	50	118	36	167
Future Volume (vph)	313	1527	55	1496	70	6	50	118	36	167
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	30.0	62.5	13.7	46.2	46.2	9.2	23.5	20.3	34.6	34.6
Total Split (%)	25.0%	52.1%	11.4%	38.5%	38.5%	7.7%	19.6%	16.9%	28.8%	28.8%
Yellow Time (s)	3.2	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	24.0	59.5	7.8	41.2	41.2	5.0	19.0	12.2	33.6	33.6
Actuated g/C Ratio	0.21	0.52	0.07	0.36	0.36	0.04	0.17	0.11	0.29	0.29
v/c Ratio	0.91	0.63	0.50	0.88	0.11	0.08	0.31	0.68	0.07	0.30
Control Delay	73.7	22.1	66.8	41.7	0.3	57.2	34.5	67.7	31.5	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.7	22.1	66.8	41.7	0.3	57.2	34.5	67.7	31.5	6.4
LOS	E	C	E	D	A	E	C	E	C	A
Approach Delay		30.8		40.8			35.8		31.7	
Approach LOS		C		D			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.5	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 35.2	Intersection LOS: D
Intersection Capacity Utilization 71.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	313	1527	22	55	1496	70	6	50	40	118	36	167
Future Volume (veh/h)	313	1527	22	55	1496	70	6	50	40	118	36	167
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	337	1642	14	59	1609	69	6	54	20	127	39	128
Adj No. of Lanes	1	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	365	2707	23	76	1818	566	13	244	90	155	499	424
Arrive On Green	0.21	0.52	0.52	0.04	0.36	0.36	0.01	0.19	0.19	0.09	0.27	0.27
Sat Flow, veh/h	1774	5201	44	1774	5085	1583	1774	1297	481	1774	1863	1583
Grp Volume(v), veh/h	337	1070	586	59	1609	69	6	0	74	127	39	128
Grp Sat Flow(s),veh/h/ln	1774	1695	1855	1774	1695	1583	1774	0	1778	1774	1863	1583
Q Serve(g_s), s	20.9	24.8	24.8	3.7	33.3	3.3	0.4	0.0	4.0	7.9	1.8	7.2
Cycle Q Clear(g_c), s	20.9	24.8	24.8	3.7	33.3	3.3	0.4	0.0	4.0	7.9	1.8	7.2
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	365	1764	965	76	1818	566	13	0	334	155	499	424
V/C Ratio(X)	0.92	0.61	0.61	0.78	0.88	0.12	0.44	0.00	0.22	0.82	0.08	0.30
Avail Cap(c_a), veh/h	408	1764	965	150	1865	581	79	0	334	255	499	424
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	18.8	18.8	53.1	33.8	24.2	55.4	0.0	38.6	50.3	30.7	32.7
Incr Delay (d2), s/veh	23.9	0.7	1.3	6.2	5.6	0.1	8.3	0.0	1.5	4.1	0.3	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	11.8	13.0	1.9	16.6	1.5	0.2	0.0	2.1	4.1	0.9	3.4
LnGrp Delay(d),s/veh	67.5	19.5	20.1	59.4	39.4	24.3	63.7	0.0	40.1	54.4	31.0	34.5
LnGrp LOS	E	B	C	E	D	C	E		D	D	C	C
Approach Vol, veh/h		1993			1737			80			294	
Approach Delay, s/veh		27.8			39.5			41.8			42.6	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	63.4	5.1	34.6	27.3	45.2	14.0	25.7
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 9.5	57.4	* 5	30.0	* 26	41.1	* 16	18.9
Max Q Clear Time (g_c+I1), s	5.7	26.8	2.4	9.2	22.9	35.3	9.9	6.0
Green Ext Time (p_c), s	0.0	29.3	0.0	1.0	0.2	4.8	0.1	0.8

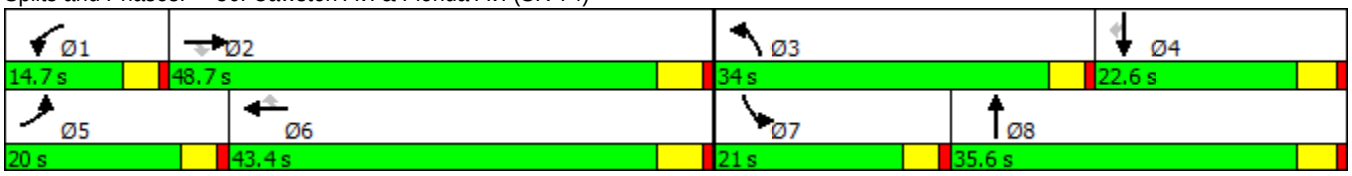
Intersection Summary	
HCM 2010 Ctrl Delay	34.1
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	181	1223	15	70	1380	244	270	117	204	133	146
Future Volume (vph)	181	1223	15	70	1380	244	270	117	204	133	146
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	20.0	48.7	48.7	14.7	43.4	43.4	34.0	35.6	21.0	22.6	22.6
Total Split (%)	16.7%	40.6%	40.6%	12.3%	36.2%	36.2%	28.3%	29.7%	17.5%	18.8%	18.8%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	14.8	46.5	46.5	8.6	38.3	38.3	22.8	31.0	16.0	24.2	24.2
Actuated g/C Ratio	0.13	0.39	0.39	0.07	0.32	0.32	0.19	0.26	0.14	0.20	0.20
v/c Ratio	0.86	0.64	0.02	0.57	0.87	0.38	0.82	0.21	0.89	0.36	0.33
Control Delay	83.4	31.8	0.1	70.6	45.0	6.9	65.1	22.1	86.5	46.0	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.4	31.8	0.1	70.6	45.0	6.9	65.1	22.1	86.5	46.0	6.8
LOS	F	C	A	E	D	A	E	C	F	D	A
Approach Delay		38.0			40.6			47.5		51.3	
Approach LOS		D			D			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 118.3	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 41.8	Intersection LOS: D
Intersection Capacity Utilization 88.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	181	1223	15	70	1380	244	270	117	70	204	133	146
Future Volume (veh/h)	181	1223	15	70	1380	244	270	117	70	204	133	146
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	189	1274	14	73	1438	210	281	122	67	212	139	88
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	217	1978	616	93	1625	503	311	601	309	239	423	360
Arrive On Green	0.12	0.39	0.39	0.05	0.32	0.32	0.18	0.27	0.27	0.13	0.23	0.23
Sat Flow, veh/h	1774	5085	1583	1774	5085	1576	1774	2246	1155	1774	1863	1583
Grp Volume(v), veh/h	189	1274	14	73	1438	210	281	94	95	212	139	88
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1576	1774	1770	1631	1774	1863	1583
Q Serve(g_s), s	12.1	23.7	0.6	4.7	31.1	12.1	18.0	4.8	5.2	13.6	7.2	5.3
Cycle Q Clear(g_c), s	12.1	23.7	0.6	4.7	31.1	12.1	18.0	4.8	5.2	13.6	7.2	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.71	1.00		1.00
Lane Grp Cap(c), veh/h	217	1978	616	93	1625	503	311	473	436	239	423	360
V/C Ratio(X)	0.87	0.64	0.02	0.78	0.89	0.42	0.90	0.20	0.22	0.89	0.33	0.24
Avail Cap(c_a), veh/h	242	1978	616	161	1680	521	456	473	436	257	423	360
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	28.9	21.8	54.3	37.4	31.0	46.8	32.9	33.0	49.3	37.4	36.7
Incr Delay (d2), s/veh	24.0	0.8	0.0	5.3	6.1	0.8	12.4	0.9	1.1	26.2	2.1	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	11.2	0.3	2.4	15.4	5.4	9.9	2.5	2.5	8.4	3.9	2.5
LnGrp Delay(d),s/veh	74.0	29.7	21.9	59.6	43.5	31.8	59.3	33.8	34.2	75.5	39.5	38.3
LnGrp LOS	E	C	C	E	D	C	E	C	C	E	D	D
Approach Vol, veh/h		1477			1721			470			439	
Approach Delay, s/veh		35.3			42.8			49.1			56.6	
Approach LOS		D			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	50.2	24.5	30.9	18.3	42.1	19.8	35.6
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 11	43.6	* 30	18.0	* 16	38.3	* 17	31.0
Max Q Clear Time (g_c+I1), s	6.7	25.7	20.0	9.2	14.1	33.1	15.6	7.2
Green Ext Time (p_c), s	0.0	17.0	0.3	1.5	0.0	3.9	0.0	2.3

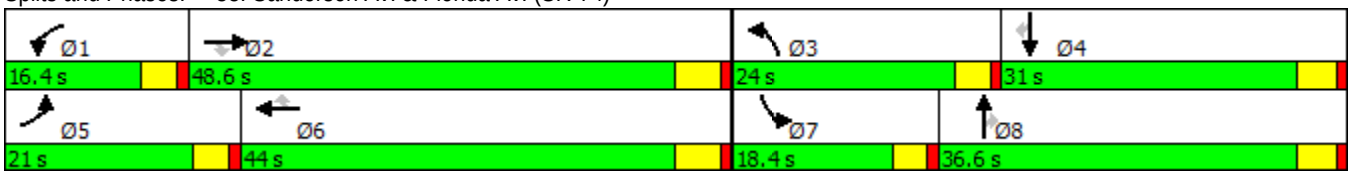
Intersection Summary	
HCM 2010 Ctrl Delay	42.3
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	392	1074	145	264	982	225	472	980	246	241	1000	276
Future Volume (vph)	392	1074	145	264	982	225	472	980	246	241	1000	276
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	21.0	48.6	48.6	16.4	44.0	44.0	24.0	36.6	36.6	18.4	31.0	31.0
Total Split (%)	17.5%	40.5%	40.5%	13.7%	36.7%	36.7%	20.0%	30.5%	30.5%	15.3%	25.8%	25.8%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Act Effct Green (s)	15.9	42.1	42.1	11.6	37.9	37.9	18.7	32.9	32.9	12.1	26.4	26.4
Actuated g/C Ratio	0.14	0.36	0.36	0.10	0.32	0.32	0.16	0.28	0.28	0.10	0.23	0.23
v/c Ratio	0.85	0.85	0.23	0.78	0.87	0.35	0.87	0.69	0.41	0.68	0.88	0.54
Control Delay	67.3	42.5	6.6	68.7	46.8	6.6	65.7	41.2	8.2	61.2	54.5	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.3	42.5	6.6	68.7	46.8	6.6	65.7	41.2	8.2	61.2	54.5	14.4
LOS	E	D	A	E	D	A	E	D	A	E	D	B
Approach Delay		45.3			44.6			43.2			48.3	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117.1	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 45.3	Intersection LOS: D
Intersection Capacity Utilization 86.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	392	1074	145	264	982	225	472	980	246	241	1000	276
Future Volume (veh/h)	392	1074	145	264	982	225	472	980	246	241	1000	276
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	396	1085	106	267	992	170	477	990	162	243	1010	221
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	453	1303	573	324	1170	515	534	1492	455	303	1149	352
Arrive On Green	0.13	0.37	0.37	0.09	0.33	0.33	0.16	0.29	0.29	0.09	0.23	0.23
Sat Flow, veh/h	3442	3539	1557	3442	3539	1558	3442	5085	1552	3442	5085	1559
Grp Volume(v), veh/h	396	1085	106	267	992	170	477	990	162	243	1010	221
Grp Sat Flow(s),veh/h/ln	1721	1770	1557	1721	1770	1558	1721	1695	1552	1721	1695	1559
Q Serve(g_s), s	13.1	32.5	5.4	8.9	30.3	9.5	15.8	19.9	9.6	8.1	22.3	14.9
Cycle Q Clear(g_c), s	13.1	32.5	5.4	8.9	30.3	9.5	15.8	19.9	9.6	8.1	22.3	14.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	453	1303	573	324	1170	515	534	1492	455	303	1149	352
V/C Ratio(X)	0.87	0.83	0.18	0.82	0.85	0.33	0.89	0.66	0.36	0.80	0.88	0.63
Avail Cap(c_a), veh/h	497	1323	582	361	1183	521	586	1492	455	420	1149	352
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	33.5	24.9	51.8	36.2	29.3	48.2	36.1	32.4	52.1	43.5	40.6
Incr Delay (d2), s/veh	13.9	4.8	0.2	11.9	6.1	0.5	14.2	2.3	2.2	5.1	9.6	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	16.7	2.3	4.8	15.7	4.2	8.5	9.6	4.4	4.1	11.5	7.2
LnGrp Delay(d),s/veh	63.5	38.3	25.1	63.6	42.3	29.8	62.4	38.4	34.6	57.2	53.1	48.8
LnGrp LOS	E	D	C	E	D	C	E	D	C	E	D	D
Approach Vol, veh/h		1587			1429			1629			1474	
Approach Delay, s/veh		43.7			44.8			45.1			53.1	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	47.9	22.3	31.0	19.5	43.6	14.4	38.8
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	* 4.7	* 4.2	5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	* 12	43.5	* 20	* 26	* 17	38.9	* 14	* 32
Max Q Clear Time (g_c+I1), s	10.9	34.5	17.8	24.3	15.1	32.3	10.1	21.9
Green Ext Time (p_c), s	0.1	8.3	0.3	1.8	0.2	6.2	0.2	8.4

Intersection Summary	
HCM 2010 Ctrl Delay	46.6
HCM 2010 LOS	D

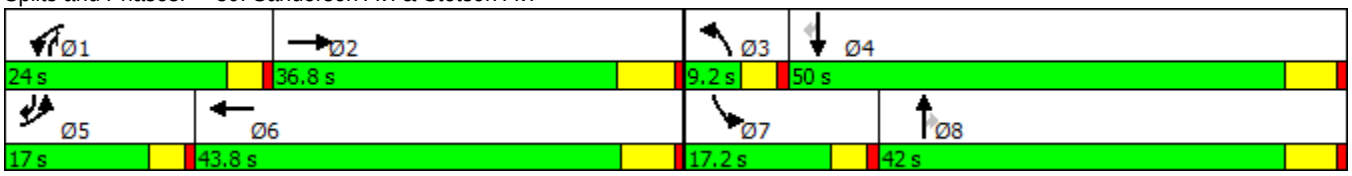
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	314	605	499	567	56	1000	515	333	1152	259
Future Volume (vph)	314	605	499	567	56	1000	515	333	1152	259
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8	1	7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8	9.2
Total Split (s)	17.0	36.8	24.0	43.8	9.2	42.0	24.0	17.2	50.0	17.0
Total Split (%)	14.2%	30.7%	20.0%	36.5%	7.7%	35.0%	20.0%	14.3%	41.7%	14.2%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 115.9
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	605	58	499	567	298	56	1000	515	333	1152	259
Future Volume (veh/h)	314	605	58	499	567	298	56	1000	515	333	1152	259
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	324	624	58	514	585	286	58	1031	162	343	1188	256
Adj No. of Lanes	2	2	0	2	2	0	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	375	794	74	566	688	336	124	1091	739	381	1354	778
Arrive On Green	0.11	0.24	0.24	0.16	0.30	0.30	0.04	0.31	0.31	0.11	0.38	0.38
Sat Flow, veh/h	3442	3265	303	3442	2306	1126	3442	3539	1553	3442	3539	1583
Grp Volume(v), veh/h	324	338	344	514	449	422	58	1031	162	343	1188	256
Grp Sat Flow(s),veh/h/ln	1721	1770	1798	1721	1770	1663	1721	1770	1553	1721	1770	1583
Q Serve(g_s), s	10.9	21.0	21.1	17.2	28.0	28.0	1.9	33.4	7.2	11.6	36.6	11.5
Cycle Q Clear(g_c), s	10.9	21.0	21.1	17.2	28.0	28.0	1.9	33.4	7.2	11.6	36.6	11.5
Prop In Lane	1.00		0.17	1.00		0.68	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	375	430	437	566	528	496	124	1091	739	381	1354	778
V/C Ratio(X)	0.86	0.79	0.79	0.91	0.85	0.85	0.47	0.95	0.22	0.90	0.88	0.33
Avail Cap(c_a), veh/h	375	461	468	580	572	538	146	1091	739	381	1354	778
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	41.6	41.6	48.2	38.7	38.7	55.5	39.7	18.2	51.6	33.7	18.1
Incr Delay (d2), s/veh	17.7	8.2	8.2	17.5	11.0	11.7	1.0	16.9	0.7	23.1	8.3	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	11.2	11.4	9.6	15.3	14.5	0.9	18.9	3.2	6.7	19.4	5.3
LnGrp Delay(d),s/veh	69.2	49.8	49.8	65.7	49.7	50.4	56.5	56.6	18.9	74.7	41.9	19.2
LnGrp LOS	E	D	D	E	D	D	E	E	B	E	D	B
Approach Vol, veh/h		1006			1385			1251			1787	
Approach Delay, s/veh		56.1			55.8			51.7			45.0	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.5	34.8	8.4	50.8	17.0	41.3	17.2	42.0
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	* 4.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 20	30.6	* 5	44.2	* 13	* 38	* 13	36.2
Max Q Clear Time (g_c+I1), s	19.2	23.1	3.9	38.6	12.9	30.0	13.6	35.4
Green Ext Time (p_c), s	0.1	4.8	0.0	5.3	0.0	5.0	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	51.3
HCM 2010 LOS	D

Notes

APPENDIX 7.1:

OPENING YEAR CUMULATIVE (2026) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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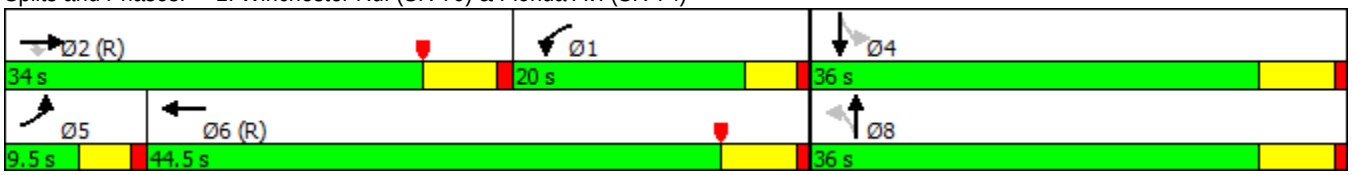
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	20	1163	142	583	1332	132	13	25	33
Future Volume (vph)	20	1163	142	583	1332	132	13	25	33
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	28.0	28.0	15.5	44.2	30.0	30.0	30.0	30.0
Actuated g/C Ratio	0.06	0.31	0.31	0.17	0.49	0.33	0.33	0.33	0.33
v/c Ratio	0.21	1.09	0.25	1.98	0.81	0.30	0.78	0.32	0.07
Control Delay	46.0	85.9	5.3	475.8	25.6	24.5	16.6	35.0	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.0	85.9	5.3	475.8	25.6	24.5	16.6	35.0	18.2
LOS	D	F	A	F	C	C	B	C	B
Approach Delay		76.6			160.1		18.0		24.7
Approach LOS		E			F		B		C

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.98
Intersection Signal Delay: 105.3 — Intersection LOS: F
Intersection Capacity Utilization 115.4% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1163	142	583	1332	37	132	13	588	25	33	7
Future Volume (veh/h)	20	1163	142	583	1332	37	132	13	588	25	33	7
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	21	1199	107	601	1373	36	136	13	426	26	34	7
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	40	1101	493	1281	3620	95	512	16	514	155	500	103
Arrive On Green	0.02	0.31	0.31	0.72	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3524	92	1359	47	1542	946	1499	309
Grp Volume(v), veh/h	21	1199	107	601	689	720	136	0	439	26	0	41
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1846	1359	0	1589	946	0	1808
Q Serve(g_s), s	1.1	28.0	4.5	12.8	0.0	0.0	6.8	0.0	22.9	2.3	0.0	1.4
Cycle Q Clear(g_c), s	1.1	28.0	4.5	12.8	0.0	0.0	8.2	0.0	22.9	25.2	0.0	1.4
Prop In Lane	1.00		1.00	1.00		0.05	1.00		0.97	1.00		0.17
Lane Grp Cap(c), veh/h	40	1101	493	1281	1818	1897	512	0	530	155	0	603
V/C Ratio(X)	0.52	1.09	0.22	0.47	0.38	0.38	0.27	0.00	0.83	0.17	0.00	0.07
Avail Cap(c_a), veh/h	99	1101	493	1281	1818	1897	512	0	530	155	0	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.5	31.0	22.9	5.3	0.0	0.0	23.3	0.0	27.6	39.3	0.0	20.5
Incr Delay (d2), s/veh	3.8	54.7	1.0	0.1	0.6	0.6	1.3	0.0	13.9	2.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	22.0	2.1	6.2	0.3	0.3	2.7	0.0	12.0	0.7	0.0	0.7
LnGrp Delay(d),s/veh	47.3	85.7	23.9	5.4	0.6	0.6	24.5	0.0	41.6	41.6	0.0	20.7
LnGrp LOS	D	F	C	A	A	A	C		D	D		C
Approach Vol, veh/h		1327			2010			575			67	
Approach Delay, s/veh		80.1			2.0			37.5			28.8	
Approach LOS		F			A			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	72.0	34.0		36.0	6.5	99.4		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	14.8	30.0		27.2	3.1	2.0		24.9
Green Ext Time (p_c), s	0.1	0.0		0.7	0.0	7.4		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	33.6
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	63.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	1	61	0	0	3	37	639	1	4	903	48
Future Vol, veh/h	70	1	61	0	0	3	37	639	1	4	903	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	75	1	66	0	0	3	40	687	1	4	971	52

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1774	1773	997	1773	1798	688	1023	0	0	688	0	0
Stage 1	1005	1005	-	767	767	-	-	-	-	-	-	-
Stage 2	769	768	-	1006	1031	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 23	31	296	23	29	*572	679	-	-	*856	-	-
Stage 1	291	319	-	472	424	-	-	-	-	-	-	-
Stage 2	470	423	-	291	310	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	~ 21	29	296	16	27	*572	679	-	-	*856	-	-
Mov Cap-2 Maneuver	~ 21	29	-	16	27	-	-	-	-	-	-	-
Stage 1	274	318	-	444	399	-	-	-	-	-	-	-
Stage 2	440	398	-	225	309	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 851	11.3	0.6	0
HCM LOS	F	B		

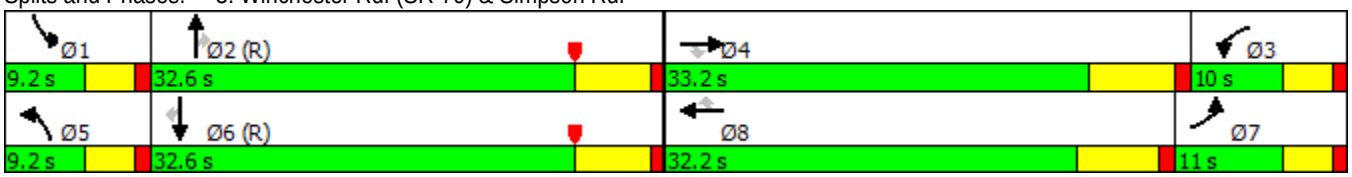
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	679	-	-	21	296	572	* 856	-	-
HCM Lane V/C Ratio	0.059	-	-	3.635	0.222	0.006	0.005	-	-
HCM Control Delay (s)	10.6	-	-	$ 1564.4	20.6	11.3	9.2	-	-
HCM Lane LOS	B	-	-	F	C	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	9.8	0.8	0	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	179	189	99	119	287	65	44	446	51	30	766	149
Future Volume (vph)	179	189	99	119	287	65	44	446	51	30	766	149
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	11.0	33.2	33.2	10.0	32.2	32.2	9.2	32.6	32.6	9.2	32.6	32.6
Total Split (%)	12.9%	39.1%	39.1%	11.8%	37.9%	37.9%	10.8%	38.4%	38.4%	10.8%	38.4%	38.4%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.4	16.0	16.0	16.5	19.4	19.4	5.0	30.5	30.5	5.0	30.5	30.5
Actuated g/C Ratio	0.16	0.19	0.19	0.19	0.23	0.23	0.06	0.36	0.36	0.06	0.36	0.36
v/c Ratio	0.70	0.59	0.26	0.38	0.73	0.15	0.46	0.38	0.09	0.32	0.66	0.25
Control Delay	53.3	37.2	3.6	38.4	40.3	0.7	53.5	22.3	0.3	46.8	26.9	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.3	37.2	3.6	38.4	40.3	0.7	53.5	22.3	0.3	46.8	26.9	4.8
LOS	D	D	A	D	D	A	D	C	A	D	C	A
Approach Delay		36.2			34.3			22.8			24.0	
Approach LOS		D			C			C			C	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 28.1	Intersection LOS: C
Intersection Capacity Utilization 68.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	189	99	119	287	65	44	446	51	30	766	149
Future Volume (veh/h)	179	189	99	119	287	65	44	446	51	30	766	149
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	195	205	83	129	312	54	48	485	43	33	833	117
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	293	243	227	389	327	71	1555	684	56	1527	676
Arrive On Green	0.08	0.16	0.16	0.13	0.21	0.21	0.04	0.44	0.44	0.03	0.43	0.43
Sat Flow, veh/h	1774	1863	1547	1774	1863	1568	1774	3539	1556	1774	3539	1567
Grp Volume(v), veh/h	195	205	83	129	312	54	48	485	43	33	833	117
Grp Sat Flow(s),veh/h/ln	1774	1863	1547	1774	1863	1568	1774	1770	1556	1774	1770	1567
Q Serve(g_s), s	6.8	8.9	3.3	5.8	13.5	1.9	2.3	7.6	0.8	1.6	14.9	2.5
Cycle Q Clear(g_c), s	6.8	8.9	3.3	5.8	13.5	1.9	2.3	7.6	0.8	1.6	14.9	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	142	293	243	227	389	327	71	1555	684	56	1527	676
V/C Ratio(X)	1.37	0.70	0.34	0.57	0.80	0.17	0.68	0.31	0.06	0.58	0.55	0.17
Avail Cap(c_a), veh/h	142	585	486	227	570	480	104	1555	684	104	1527	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	33.9	20.6	34.8	32.0	17.9	40.3	15.5	4.3	40.6	18.0	6.3
Incr Delay (d2), s/veh	206.3	3.0	0.8	2.1	5.2	0.2	3.7	0.5	0.2	3.5	1.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	4.8	1.5	3.0	7.5	0.8	1.2	3.8	0.3	0.8	7.5	1.2
LnGrp Delay(d),s/veh	245.4	37.0	21.4	36.9	37.1	18.1	44.0	15.9	4.5	44.1	19.4	6.9
LnGrp LOS	F	D	C	D	D	B	D	B	A	D	B	A
Approach Vol, veh/h		483			495			576			983	
Approach Delay, s/veh		118.5			35.0			17.4			18.7	
Approach LOS		F			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	43.2	15.1	19.8	7.6	42.5	11.0	23.9
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 5	26.8	5.8	* 27	* 5	26.8	6.8	* 26
Max Q Clear Time (g_c+I1), s	3.6	9.6	7.8	10.9	4.3	16.9	8.8	15.5
Green Ext Time (p_c), s	0.0	10.8	0.0	1.0	0.0	7.1	0.0	1.3

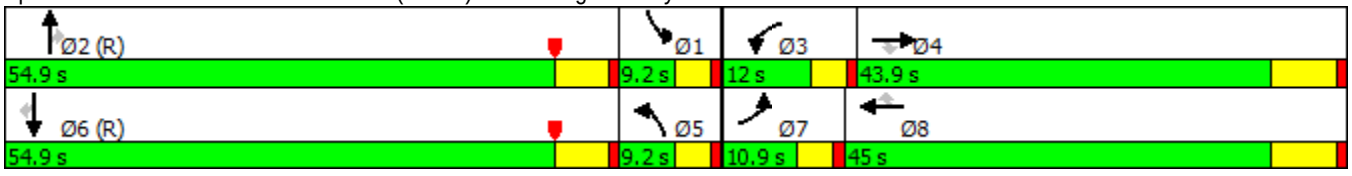
Intersection Summary	
HCM 2010 Ctrl Delay	40.6
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	960	88	852	948	52	54	354	693	80	655	249
Future Volume (vph)	169	960	88	852	948	52	54	354	693	80	655	249
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	10.9	43.9	43.9	12.0	45.0	45.0	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.1%	36.6%	36.6%	10.0%	37.5%	37.5%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	6.7	37.0	37.0	7.8	38.1	38.1	5.0	49.1	49.1	5.0	49.1	49.1
Actuated g/C Ratio	0.06	0.31	0.31	0.06	0.32	0.32	0.04	0.41	0.41	0.04	0.41	0.41
v/c Ratio	0.96	0.96	0.17	4.15	0.64	0.10	0.81	0.27	1.01	1.19	0.49	0.36
Control Delay	112.9	59.6	5.9	1443.4	37.2	1.1	118.5	24.1	63.9	214.7	27.7	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	112.9	59.6	5.9	1443.4	37.2	1.1	118.5	24.1	63.9	214.7	27.7	9.9
LOS	F	E	A	F	D	A	F	C	E	F	C	A
Approach Delay		63.1			683.1			53.8			38.4	
Approach LOS		E			F			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 4.15	
Intersection Signal Delay: 279.1	Intersection LOS: F
Intersection Capacity Utilization 90.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	960	88	852	948	52	54	354	693	80	655	249
Future Volume (veh/h)	169	960	88	852	948	52	54	354	693	80	655	249
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	184	1043	59	926	1030	45	59	385	491	87	712	172
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	1090	488	224	1613	502	74	1448	648	74	1448	648
Arrive On Green	0.06	0.31	0.31	0.07	0.32	0.32	0.04	0.41	0.41	0.04	0.41	0.41
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	184	1043	59	926	1030	45	59	385	491	87	712	172
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.4	34.7	2.6	7.8	20.8	1.9	4.0	8.7	23.9	5.0	17.9	6.6
Cycle Q Clear(g_c), s	6.4	34.7	2.6	7.8	20.8	1.9	4.0	8.7	23.9	5.0	17.9	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	1090	488	224	1613	502	74	1448	648	74	1448	648
V/C Ratio(X)	0.96	0.96	0.12	4.14	0.64	0.09	0.79	0.27	0.76	1.17	0.49	0.27
Avail Cap(c_a), veh/h	192	1091	488	224	1615	503	74	1448	648	74	1448	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	56.5	40.7	19.4	56.1	35.1	18.6	57.0	23.5	17.0	57.5	26.2	13.7
Incr Delay (d2), s/veh	52.2	17.7	0.1	1423.2	0.8	0.1	40.3	0.4	8.1	145.6	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	19.6	1.1	47.9	9.9	0.8	2.8	4.3	11.8	5.5	8.9	3.0
LnGrp Delay(d),s/veh	108.7	58.4	19.5	1479.3	35.9	18.6	97.3	24.0	25.1	203.1	27.2	14.5
LnGrp LOS	F	E	B	F	D	B	F	C	C	F	C	B
Approach Vol, veh/h		1286			2001			935			971	
Approach Delay, s/veh		63.9			703.5			29.2			40.7	
Approach LOS		E			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	54.9	12.0	43.9	9.2	54.9	10.9	45.0
Change Period (Y+Rc), s	4.2	* 5.8	* 4.2	6.9	4.2	* 5.8	* 4.2	6.9
Max Green Setting (Gmax), s	5.0	* 49	* 7.8	37.0	5.0	* 49	* 6.7	38.1
Max Q Clear Time (g_c+I1), s	7.0	25.9	9.8	36.7	6.0	19.9	8.4	22.8
Green Ext Time (p_c), s	0.0	6.4	0.0	0.3	0.0	8.0	0.0	10.8

Intersection Summary	
HCM 2010 Ctrl Delay	299.8
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1733	0	0	1887	1	0	0	0	0	0	1
Future Vol, veh/h	0	1733	0	0	1887	1	0	0	0	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1926	0	0	2097	1	0	0	0	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	963	-	-	1049
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*389	0	0	224
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*389	-	-	224
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	21.2
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	224
HCM Lane V/C Ratio	-	-	-	-	-	0.005
HCM Control Delay (s)	0	-	-	-	-	21.2
HCM Lane LOS	A	-	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	99	0	4	4	5	116
Future Vol, veh/h	99	0	4	4	5	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	0	5	5	6	141

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	21	6	6	0	-	0
Stage 1	6	-	-	-	-	-
Stage 2	15	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	996	1077	1615	-	-	-
Stage 1	1017	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	993	1077	1615	-	-	-
Mov Cap-2 Maneuver	993	-	-	-	-	-
Stage 1	1017	-	-	-	-	-
Stage 2	1005	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	3.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1615	-	993	-	-
HCM Lane V/C Ratio	0.003	-	0.122	-	-
HCM Control Delay (s)	7.2	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	190	0	0	228	1	2	1	0	2	1	5
Future Vol, veh/h	2	190	0	0	228	1	2	1	0	2	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	209	0	0	251	1	2	1	0	2	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	252	0	0	209	0	0	467	465	209	465	464	251
Stage 1	-	-	-	-	-	-	213	213	-	251	251	-
Stage 2	-	-	-	-	-	-	254	252	-	214	213	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1313	-	-	1362	-	-	506	495	831	508	495	788
Stage 1	-	-	-	-	-	-	789	726	-	753	699	-
Stage 2	-	-	-	-	-	-	750	698	-	788	726	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1313	-	-	1362	-	-	501	494	831	506	494	788
Mov Cap-2 Maneuver	-	-	-	-	-	-	501	494	-	506	494	-
Stage 1	-	-	-	-	-	-	787	725	-	751	699	-
Stage 2	-	-	-	-	-	-	744	698	-	785	725	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	12.3	10.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	499	1313	-	-	1362	-	-	649
HCM Lane V/C Ratio	0.007	0.002	-	-	-	-	-	0.014
HCM Control Delay (s)	12.3	7.7	0	-	0	-	-	10.6
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Intersection Delay, s/veh	437.2
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	30	37	24	0	303	18	140	0	19	813	269
Future Vol, veh/h	0	30	37	24	0	303	18	140	0	19	813	269
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	32	39	26	0	322	19	149	0	20	865	286
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	24.3	94.5	680.5
HCM LOS	C	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	33%	66%	11%
Vol Thru, %	74%	41%	4%	88%
Vol Right, %	24%	26%	30%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1101	91	461	734
LT Vol	19	30	303	78
Through Vol	813	37	18	648
RT Vol	269	24	140	8
Lane Flow Rate	1171	97	490	781
Geometry Grp	1	1	1	1
Degree of Util (X)	2.453	0.257	1.04	1.67
Departure Headway (Hd)	8.907	15.897	10.819	10.369
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	422	227	338	359
Service Time	6.907	13.897	8.819	8.369
HCM Lane V/C Ratio	2.775	0.427	1.45	2.175
HCM Control Delay	680.5	24.3	94.5	338.8
HCM Lane LOS	F	C	F	F
HCM 95th-tile Q	78.2	1	12.3	35.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	78	648	8
Future Vol, veh/h	0	78	648	8
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	83	689	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	338.8
HCM LOS	F

Intersection	
Intersection Delay, s/veh	579.7
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	265	255	34	0	188	389	150	0	16	685	108	0	153	649	173
Future Vol, veh/h	0	265	255	34	0	188	389	150	0	16	685	108	0	153	649	173
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	282	271	36	0	200	414	160	0	17	729	115	0	163	690	184
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0

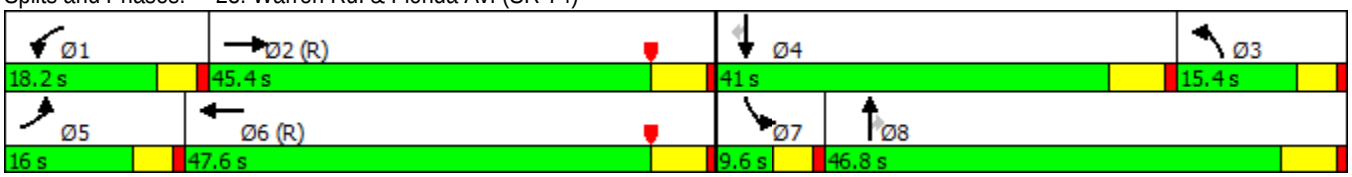
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	346.7	536.1	451.9	850.8
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	0%	48%	26%	16%
Vol Thru, %	98%	0%	46%	54%	67%
Vol Right, %	0%	100%	6%	21%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	701	108	554	727	975
LT Vol	16	0	265	188	153
Through Vol	685	0	255	389	649
RT Vol	0	108	34	150	173
Lane Flow Rate	746	115	589	773	1037
Geometry Grp	7	7	2	2	5
Degree of Util (X)	2.018	0.288	1.586	2.053	2.781
Departure Headway (Hd)	19.813	19.049	24.709	21.14	18.493
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	194	191	153	186	207
Service Time	17.513	16.749	22.709	19.14	16.493
HCM Lane V/C Ratio	3.845	0.602	3.85	4.156	5.01
HCM Control Delay	517	29.3	346.7	536.1	850.8
HCM Lane LOS	F	D	F	F	F
HCM 95th-tile Q	28	1.1	16.1	27.2	47.6

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	243	1281	371	1049	260	543	264	120	536	236
Future Volume (vph)	243	1281	371	1049	260	543	264	120	536	236
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	16.0	45.4	18.2	47.6	15.4	46.8	46.8	9.6	41.0	41.0
Total Split (%)	13.3%	37.8%	15.2%	39.7%	12.8%	39.0%	39.0%	8.0%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	11.4	39.4	13.6	41.6	10.8	40.8	40.8	5.0	35.0	35.0
Actuated g/C Ratio	0.10	0.33	0.11	0.35	0.09	0.34	0.34	0.04	0.29	0.29
v/c Ratio	1.48	1.39	1.90	0.92	1.67	0.46	0.40	1.67	0.53	0.40
Control Delay	281.5	213.9	450.7	50.2	360.1	32.5	7.8	389.4	37.9	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	281.5	213.9	450.7	50.2	360.1	32.5	7.8	389.4	37.9	7.8
LOS	F	F	F	D	F	C	A	F	D	A
Approach Delay		223.0		151.5		106.2			77.0	
Approach LOS		F		F		F			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 18.2 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.90	
Intersection Signal Delay: 154.2	Intersection LOS: F
Intersection Capacity Utilization 126.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	243	1281	281	371	1049	49	260	543	264	120	536	236
Future Volume (veh/h)	243	1281	281	371	1049	49	260	543	264	120	536	236
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	248	1307	224	379	1070	46	265	554	224	122	547	177
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	2160	367	201	2530	109	160	1245	556	74	1032	460
Arrive On Green	0.09	0.71	0.71	0.11	0.73	0.73	0.09	0.35	0.35	0.04	0.29	0.29
Sat Flow, veh/h	1774	3028	514	1774	3457	149	1774	3539	1581	1774	3539	1578
Grp Volume(v), veh/h	248	759	772	379	548	568	265	554	224	122	547	177
Grp Sat Flow(s),veh/h/ln	1774	1770	1772	1774	1770	1836	1774	1770	1581	1774	1770	1578
Q Serve(g_s), s	11.4	25.8	26.6	13.6	14.4	14.4	10.8	14.4	12.8	5.0	15.5	14.0
Cycle Q Clear(g_c), s	11.4	25.8	26.6	13.6	14.4	14.4	10.8	14.4	12.8	5.0	15.5	14.0
Prop In Lane	1.00		0.29	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	1262	1264	201	1295	1344	160	1245	556	74	1032	460
V/C Ratio(X)	1.47	0.60	0.61	1.89	0.42	0.42	1.66	0.45	0.40	1.65	0.53	0.38
Avail Cap(c_a), veh/h	169	1262	1264	201	1295	1344	160	1245	556	74	1032	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.3	8.6	8.7	53.2	6.3	6.3	54.6	29.9	29.4	57.5	35.6	57.4
Incr Delay (d2), s/veh	241.5	2.1	2.2	416.5	1.0	1.0	323.0	1.2	2.2	345.1	1.9	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.9	13.2	13.6	29.9	7.4	7.6	19.6	7.3	5.9	9.5	7.9	6.4
LnGrp Delay(d),s/veh	295.8	10.8	10.9	469.7	7.3	7.2	377.6	31.1	31.6	402.6	37.6	59.8
LnGrp LOS	F	B	B	F	A	A	F	C	C	F	D	E
Approach Vol, veh/h		1779			1495			1043			846	
Approach Delay, s/veh		50.6			124.5			119.2			94.9	
Approach LOS		D			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.2	93.0	16.8	41.0	16.0	95.2	9.6	48.2
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	13.6	39.4	10.8	* 35	11.4	41.6	5.0	40.8
Max Q Clear Time (g_c+I1), s	15.6	28.6	12.8	17.5	13.4	16.4	7.0	16.4
Green Ext Time (p_c), s	0.0	7.5	0.0	2.1	0.0	12.7	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	93.1
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	69	994	125	277	864
Future Vol, veh/h	22	69	994	125	277	864
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	73	1057	133	295	919

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2567	1058	0	0	1058	0
Stage 1	1058	-	-	-	-	-
Stage 2	1509	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	29	273	-	-	658	-
Stage 1	334	-	-	-	-	-
Stage 2	202	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 16	273	-	-	658	-
Mov Cap-2 Maneuver	100	-	-	-	-	-
Stage 1	334	-	-	-	-	-
Stage 2	111	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	41.4	0	3.6
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	192	658	-
HCM Lane V/C Ratio	-	-	0.504	0.448	-
HCM Control Delay (s)	-	-	41.4	14.8	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	2.5	2.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	55	1140	4	21	889
Future Vol, veh/h	0	55	1140	4	21	889
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	57	1175	4	22	916

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2137	1177	0	0	1179	0
Stage 1	1177	-	-	-	-	-
Stage 2	960	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	54	233	-	-	592	-
Stage 1	293	-	-	-	-	-
Stage 2	372	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	52	233	-	-	592	-
Mov Cap-2 Maneuver	219	-	-	-	-	-
Stage 1	293	-	-	-	-	-
Stage 2	358	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.3	0	0.3
HCM LOS	D		

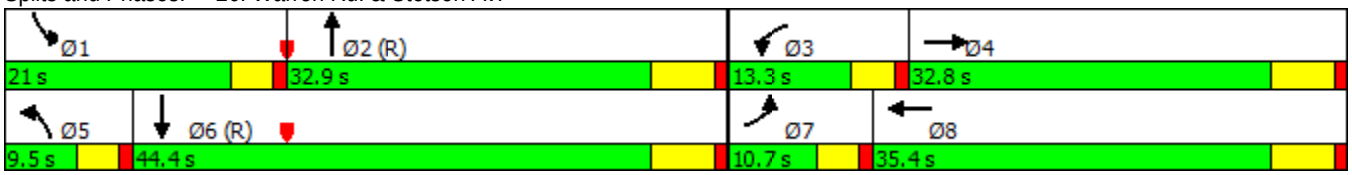
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	233	592	-
HCM Lane V/C Ratio	-	-	0.243	0.037	-
HCM Control Delay (s)	-	-	25.3	11.3	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	0.9	0.1	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	92	144	117	109	10	747	248	608
Future Volume (vph)	92	144	117	109	10	747	248	608
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	32.8	9.5	32.8
Total Split (s)	10.7	32.8	13.3	35.4	9.5	32.9	21.0	44.4
Total Split (%)	10.7%	32.8%	13.3%	35.4%	9.5%	32.9%	21.0%	44.4%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	21.1	8.7	23.4	5.2	32.8	17.3	52.4
Actuated g/C Ratio	0.06	0.21	0.09	0.23	0.05	0.33	0.17	0.52
v/c Ratio	0.83	0.45	0.79	0.88	0.11	0.80	0.84	0.37
Control Delay	96.2	35.2	78.4	42.8	47.9	38.4	64.7	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.2	35.2	78.4	42.8	47.9	38.4	64.7	16.3
LOS	F	D	E	D	D	D	E	B
Approach Delay		56.8		50.6		38.6		29.5
Approach LOS		E		D		D		C

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 39.7 — Intersection LOS: D
Intersection Capacity Utilization 85.3% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	144	24	117	109	308	10	747	139	248	608	49
Future Volume (veh/h)	92	144	24	117	109	308	10	747	139	248	608	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	96	150	25	122	114	321	10	778	145	258	633	51
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	411	69	150	123	345	22	860	160	288	1457	117
Arrive On Green	0.06	0.26	0.26	0.08	0.28	0.28	0.01	0.29	0.29	0.16	0.44	0.44
Sat Flow, veh/h	1774	1557	260	1774	432	1216	1774	2979	555	1774	3318	267
Grp Volume(v), veh/h	96	0	175	122	0	435	10	462	461	258	337	347
Grp Sat Flow(s),veh/h/ln	1774	0	1817	1774	0	1648	1774	1770	1765	1774	1770	1816
Q Serve(g_s), s	5.3	0.0	7.8	6.8	0.0	25.7	0.6	25.1	25.1	14.3	13.2	13.2
Cycle Q Clear(g_c), s	5.3	0.0	7.8	6.8	0.0	25.7	0.6	25.1	25.1	14.3	13.2	13.2
Prop In Lane	1.00		0.14	1.00		0.74	1.00		0.31	1.00		0.15
Lane Grp Cap(c), veh/h	115	0	480	150	0	468	22	511	509	288	777	797
V/C Ratio(X)	0.83	0.00	0.36	0.81	0.00	0.93	0.46	0.90	0.90	0.89	0.43	0.43
Avail Cap(c_a), veh/h	115	0	491	161	0	488	94	511	509	298	777	797
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.80	0.80	0.80	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.2	0.0	30.0	45.0	0.0	34.8	49.1	34.2	34.2	41.0	19.4	19.4
Incr Delay (d2), s/veh	36.3	0.0	0.5	22.5	0.0	24.1	4.6	18.6	18.6	25.8	1.8	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	4.0	4.3	0.0	14.8	0.3	15.0	14.9	9.0	6.8	7.0
LnGrp Delay(d),s/veh	82.5	0.0	30.4	67.5	0.0	58.9	53.6	52.8	52.9	66.8	21.2	21.2
LnGrp LOS	F		C	E		E	D	D	D	E	C	C
Approach Vol, veh/h		271			557			933			942	
Approach Delay, s/veh		48.9			60.8			52.9			33.7	
Approach LOS		D			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.5	34.7	12.7	32.2	5.4	49.7	10.7	34.2
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8
Max Green Setting (Gmax), s	* 17	27.1	* 9.1	27.0	* 5.3	38.6	* 6.5	29.6
Max Q Clear Time (g_c+I1), s	16.3	27.1	8.8	9.8	2.6	15.2	7.3	27.7
Green Ext Time (p_c), s	0.0	0.0	0.0	3.2	0.0	13.8	0.0	0.7

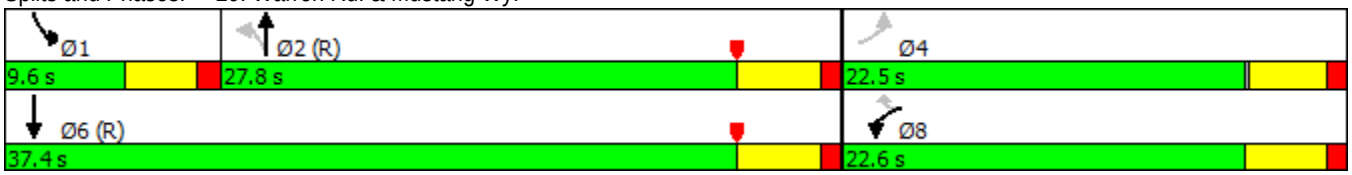
Intersection Summary	
HCM 2010 Ctrl Delay	47.4
HCM 2010 LOS	D

Notes

Lane Group	EBT	WBL	WBR	NBL	NBT	SBL	SBT	Ø4
Lane Configurations								
Traffic Volume (vph)	0	331	208	19	608	131	592	
Future Volume (vph)	0	331	208	19	608	131	592	
Turn Type		Prot	Perm	Perm	NA	Prot	NA	
Protected Phases		8			2	1	6	4
Permitted Phases			8	2				
Detector Phase		8	8	2	2	1	6	
Switch Phase								
Minimum Initial (s)		10.0	10.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)		22.5	22.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)		22.6	22.6	27.8	27.8	9.6	37.4	22.5
Total Split (%)		37.7%	37.7%	46.3%	46.3%	16.0%	62.3%	38%
Yellow Time (s)		3.6	3.6	3.7	3.7	3.2	3.7	3.5
All-Red Time (s)		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.7	4.2	4.7	
Lead/Lag				Lag	Lag	Lead		
Lead-Lag Optimize?				Yes	Yes	Yes		
Recall Mode		None	None	C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	0.0	16.0	16.0		24.0	6.5	34.7	
Actuated g/C Ratio	0.00	0.27	0.27		0.40	0.11	0.58	
v/c Ratio	0.78	0.78	0.39		1.27	0.76	0.64	
Control Delay	0.0	32.7	4.9		155.0	57.5	12.6	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	0.0	32.7	4.9		155.0	57.5	12.6	
LOS	A	C	A		F	E	B	
Approach Delay					155.0		20.5	
Approach LOS					F		C	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.27	
Intersection Signal Delay: 69.0	Intersection LOS: E
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	0	56	331	0	208	19	608	199	131	592	27
Future Volume (veh/h)	78	0	56	331	0	208	19	608	199	131	592	27
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h				368	0	184	21	676	207	146	658	30
Adj No. of Lanes				1	0	1	0	1	0	1	1	0
Peak Hour Factor				0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	2
Cap, veh/h				434	0	387	69	592	178	160	1061	48
Arrive On Green				0.24	0.00	0.24	0.44	0.44	0.44	0.09	0.60	0.60
Sat Flow, veh/h				1774	0	1583	17	1344	404	1774	1768	81
Grp Volume(v), veh/h				368	0	184	904	0	0	146	0	688
Grp Sat Flow(s),veh/h/ln				1774	0	1583	1766	0	0	1774	0	1849
Q Serve(g_s), s				11.9	0.0	6.0	11.5	0.0	0.0	4.9	0.0	14.2
Cycle Q Clear(g_c), s				11.9	0.0	6.0	26.4	0.0	0.0	4.9	0.0	14.2
Prop In Lane				1.00		1.00	0.02		0.23	1.00		0.04
Lane Grp Cap(c), veh/h				434	0	387	839	0	0	160	0	1110
V/C Ratio(X)				0.85	0.00	0.48	1.08	0.00	0.00	0.91	0.00	0.62
Avail Cap(c_a), veh/h				532	0	475	839	0	0	160	0	1110
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh				21.6	0.0	19.4	17.7	0.0	0.0	27.1	0.0	7.6
Incr Delay (d2), s/veh				10.4	0.0	0.9	54.1	0.0	0.0	46.2	0.0	2.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.1	0.0	2.7	26.4	0.0	0.0	4.4	0.0	7.9
LnGrp Delay(d),s/veh				32.0	0.0	20.3	71.8	0.0	0.0	73.2	0.0	10.2
LnGrp LOS				C		C	F			E		B
Approach Vol, veh/h					552			904			834	
Approach Delay, s/veh					28.1			71.8			21.3	
Approach LOS					C			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.6	31.1				40.7		19.3
Change Period (Y+Rc), s	* 4.2	* 4.7				* 4.7		4.6
Max Green Setting (Gmax), s	* 5.4	* 23				* 33		18.0
Max Q Clear Time (g_c+I1), s	6.9	28.4				16.2		13.9
Green Ext Time (p_c), s	0.0	0.0				12.9		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	42.9
HCM 2010 LOS	D

Notes

Intersection	
Intersection Delay, s/veh	192.8
Intersection LOS	F

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	212	33	0	712	259	0	45	593
Future Vol, veh/h	0	212	33	0	712	259	0	45	593
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	244	38	0	818	298	0	52	682
Number of Lanes	0	1	0	0	1	1	0	1	1

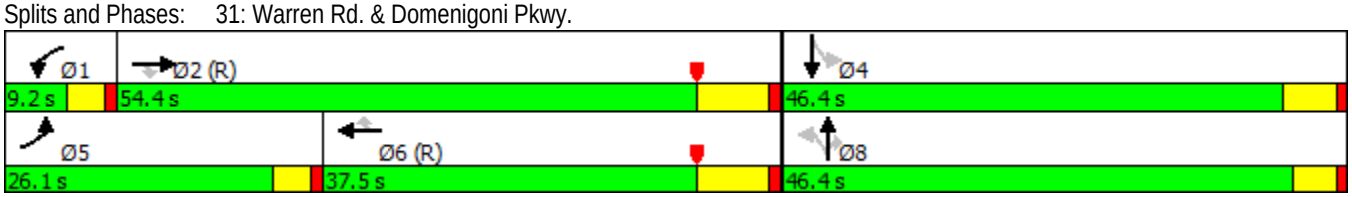
Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	22.3	265.5	147.7
HCM LOS	C	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	87%	0%	100%
Vol Right, %	0%	100%	13%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	593	245	712	259
LT Vol	45	0	0	712	0
Through Vol	0	0	212	0	259
RT Vol	0	593	33	0	0
Lane Flow Rate	52	682	282	818	298
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.113	1.265	0.574	1.721	0.585
Departure Headway (Hd)	8.665	7.432	8.502	8.378	7.863
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	416	498	428	442	461
Service Time	6.365	5.132	6.502	6.078	5.563
HCM Lane V/C Ratio	0.125	1.369	0.659	1.851	0.646
HCM Control Delay	12.5	158	22.3	354.4	21.1
HCM Lane LOS	B	F	C	F	C
HCM 95th-tile Q	0.4	25.2	3.5	44.9	3.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	520	1463	2	2	1762	106	4	22	1	138	16
Future Volume (vph)	520	1463	2	2	1762	106	4	22	1	138	16
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	21.9	54.9	54.9	5.0	30.6	30.6		41.8	41.8		41.0
Actuated g/C Ratio	0.20	0.50	0.50	0.05	0.28	0.28		0.38	0.38		0.37
v/c Ratio	1.62	0.91	0.00	0.03	1.97	0.23		0.04	0.00		1.17
Control Delay	323.6	35.0	0.0	51.0	464.3	8.2		21.9	0.0		116.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	323.6	35.0	0.0	51.0	464.3	8.2		21.9	0.0		116.0
LOS	F	C	A	D	F	A		C	A		F
Approach Delay		110.5			438.1			21.1			116.0
Approach LOS		F			F			C			F

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.97	
Intersection Signal Delay: 243.3	Intersection LOS: F
Intersection Capacity Utilization 142.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	520	1463	2	2	1762	106	4	22	1	138	16	588
Future Volume (veh/h)	520	1463	2	2	1762	106	4	22	1	138	16	588
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	571	1608	2	2	1936	106	4	24	0	152	18	501
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	1680	736	5	985	431	88	498	590	163	23	430
Arrive On Green	0.20	0.47	0.47	0.00	0.28	0.28	0.37	0.37	0.00	0.37	0.37	0.37
Sat Flow, veh/h	1774	3539	1550	1774	3539	1550	136	1337	1583	329	62	1153
Grp Volume(v), veh/h	571	1608	2	2	1936	106	28	0	0	671	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1550	1472	0	1583	1545	0	0
Q Serve(g_s), s	21.9	48.1	0.1	0.1	30.6	5.8	0.0	0.0	0.0	38.7	0.0	0.0
Cycle Q Clear(g_c), s	21.9	48.1	0.1	0.1	30.6	5.8	1.1	0.0	0.0	41.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.14		1.00	0.23		0.75
Lane Grp Cap(c), veh/h	353	1680	736	5	985	431	586	0	590	616	0	0
V/C Ratio(X)	1.62	0.96	0.00	0.42	1.97	0.25	0.05	0.00	0.00	1.09	0.00	0.00
Avail Cap(c_a), veh/h	353	1680	736	81	985	431	598	0	602	616	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	27.8	15.2	54.8	39.7	30.8	22.0	0.0	0.0	35.8	0.0	0.0
Incr Delay (d2), s/veh	290.3	13.9	0.0	20.2	438.6	1.4	0.0	0.0	0.0	63.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	39.2	26.7	0.0	0.1	74.9	2.7	0.5	0.0	0.0	29.4	0.0	0.0
LnGrp Delay(d),s/veh	334.3	41.8	15.2	74.9	478.3	32.1	22.0	0.0	0.0	98.8	0.0	0.0
LnGrp LOS	F	D	B	E	F	C	C			F		
Approach Vol, veh/h		2181			2044			28			671	
Approach Delay, s/veh		118.3			454.7			22.0			98.8	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	59.1		46.4	26.1	37.5		46.4
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.1	50.1		43.0	23.9	32.6		3.1
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		3.5

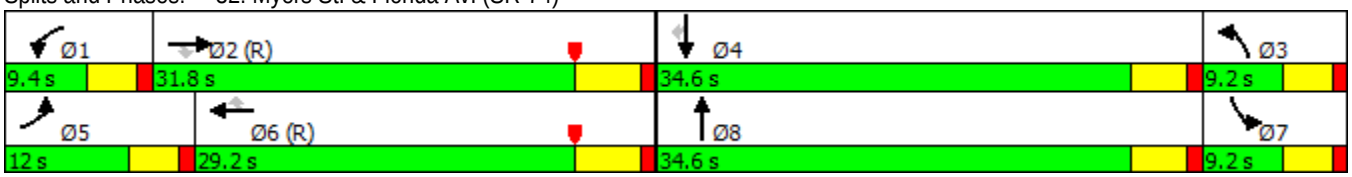
Intersection Summary	
HCM 2010 Ctrl Delay	254.8
HCM 2010 LOS	F

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	156	1402	5	18	1133	144	25	70	147	53	194
Future Volume (vph)	156	1402	5	18	1133	144	25	70	147	53	194
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.0	31.8	31.8	9.4	29.2	29.2	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.1%	37.4%	37.4%	11.1%	34.4%	34.4%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.8	32.3	32.3	5.1	24.1	24.1	5.0	30.0	5.0	35.5	35.5
Actuated g/C Ratio	0.09	0.38	0.38	0.06	0.28	0.28	0.06	0.35	0.06	0.42	0.42
v/c Ratio	0.98	1.06	0.01	0.17	1.15	0.27	0.25	0.18	1.44	0.07	0.26
Control Delay	108.1	71.5	0.0	52.4	86.8	0.9	44.4	13.4	277.9	17.1	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	108.1	71.5	0.0	52.4	86.8	0.9	44.4	13.4	277.9	17.1	4.0
LOS	F	E	A	D	F	A	D	B	F	B	A
Approach Delay		74.9			76.8			19.1		107.9	
Approach LOS		E			E			B		F	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.44	
Intersection Signal Delay: 77.2	Intersection LOS: E
Intersection Capacity Utilization 69.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	1402	5	18	1133	144	25	70	43	147	53	194
Future Volume (veh/h)	156	1402	5	18	1133	144	25	70	43	147	53	194
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	159	1431	5	18	1156	147	26	71	20	150	54	143
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	1256	550	36	1003	447	104	494	139	104	657	559
Arrive On Green	0.09	0.35	0.35	0.03	0.38	0.38	0.06	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	1774	3539	1550	1774	3539	1575	1774	1399	394	1774	1863	1583
Grp Volume(v), veh/h	159	1431	5	18	1156	147	26	0	91	150	54	143
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1575	1774	0	1793	1774	1863	1583
Q Serve(g_s), s	7.6	30.2	0.1	0.9	24.1	4.3	1.2	0.0	2.9	5.0	1.6	3.8
Cycle Q Clear(g_c), s	7.6	30.2	0.1	0.9	24.1	4.3	1.2	0.0	2.9	5.0	1.6	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	163	1256	550	36	1003	447	104	0	633	104	657	559
V/C Ratio(X)	0.98	1.14	0.01	0.50	1.15	0.33	0.25	0.00	0.14	1.44	0.08	0.26
Avail Cap(c_a), veh/h	163	1256	550	109	1003	447	104	0	633	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	27.4	9.7	40.9	26.5	12.1	38.2	0.0	18.7	40.0	18.3	9.5
Incr Delay (d2), s/veh	63.2	72.7	0.0	3.9	80.0	2.0	0.5	0.0	0.5	242.8	0.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	27.3	0.1	0.5	22.8	2.1	0.6	0.0	1.5	9.5	0.9	1.8
LnGrp Delay(d),s/veh	101.7	100.1	9.7	44.8	106.5	14.1	38.7	0.0	19.2	282.8	18.6	10.6
LnGrp LOS	F	F	A	D	F	B	D		B	F	B	B
Approach Vol, veh/h		1595			1321			117			347	
Approach Delay, s/veh		100.0			95.4			23.5			129.5	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	35.3	9.2	34.6	12.0	29.2	9.2	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.2	26.7	5.0	* 30	* 7.8	24.1	5.0	* 30
Max Q Clear Time (g_c+I1), s	2.9	32.2	3.2	5.8	9.6	26.1	7.0	4.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	98.6
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1391	319	0	1456	0	0
Future Vol, veh/h	1391	319	0	1456	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1480	339	0	1549	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1480	0	-	740
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*740	-	0	*495
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*740	-	-	*495
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	* 740	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

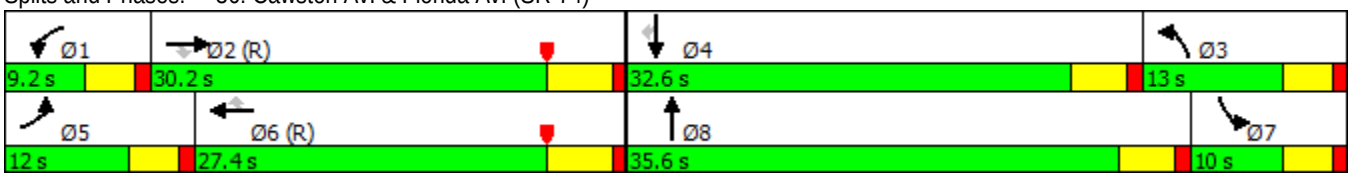
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	122	1258	10	31	1201	93	131	68	195	82	125
Future Volume (vph)	122	1258	10	31	1201	93	131	68	195	82	125
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	12.0	30.2	30.2	9.2	27.4	27.4	13.0	35.6	10.0	32.6	32.6
Total Split (%)	14.1%	35.5%	35.5%	10.8%	32.2%	32.2%	15.3%	41.9%	11.8%	38.4%	38.4%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.6	28.8	28.8	5.0	22.5	22.5	8.8	31.0	5.8	28.0	28.0
Actuated g/C Ratio	0.09	0.34	0.34	0.06	0.26	0.26	0.10	0.36	0.07	0.33	0.33
v/c Ratio	0.80	1.08	0.02	0.31	1.32	0.19	0.74	0.08	1.68	0.14	0.21
Control Delay	63.0	70.5	0.0	42.2	170.9	3.8	62.1	13.7	366.2	20.9	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	70.5	0.0	42.2	170.9	3.8	62.1	13.7	366.2	20.9	4.6
LOS	E	E	A	D	F	A	E	B	F	C	A
Approach Delay		69.3			156.2			42.2		183.1	
Approach LOS		E			F			D		F	

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 38 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.68
Intersection Signal Delay: 115.7 — Intersection LOS: F
Intersection Capacity Utilization 77.4% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	1258	10	31	1201	93	131	68	23	195	82	125
Future Volume (veh/h)	122	1258	10	31	1201	93	131	68	23	195	82	125
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	126	1297	9	32	1238	80	135	70	21	201	85	61
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	1143	511	55	940	421	184	989	285	121	614	522
Arrive On Green	0.09	0.32	0.32	0.03	0.27	0.27	0.10	0.36	0.36	0.07	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	2712	781	1774	1863	1583
Grp Volume(v), veh/h	126	1297	9	32	1238	80	135	45	46	201	85	61
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1724	1774	1863	1583
Q Serve(g_s), s	5.9	27.4	0.2	1.5	22.6	2.5	6.3	1.4	1.5	5.8	2.7	1.6
Cycle Q Clear(g_c), s	5.9	27.4	0.2	1.5	22.6	2.5	6.3	1.4	1.5	5.8	2.7	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	157	1143	511	55	940	421	184	645	629	121	614	522
V/C Ratio(X)	0.80	1.13	0.02	0.58	1.32	0.19	0.74	0.07	0.07	1.66	0.14	0.12
Avail Cap(c_a), veh/h	163	1143	511	104	940	421	184	645	629	121	614	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	28.8	9.2	40.6	31.2	13.9	37.0	17.6	17.6	39.6	20.0	10.1
Incr Delay (d2), s/veh	21.9	71.9	0.1	3.5	150.1	1.0	12.6	0.2	0.2	330.8	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	24.7	0.1	0.8	30.6	1.2	3.7	0.7	0.7	13.9	1.5	0.8
LnGrp Delay(d),s/veh	59.9	100.6	9.3	44.1	181.3	14.9	49.6	17.8	17.9	370.4	20.5	10.6
LnGrp LOS	E	F	A	D	F	B	D	B	B	F	C	B
Approach Vol, veh/h		1432			1350			226			347	
Approach Delay, s/veh		96.5			168.2			36.8			221.4	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	32.5	13.0	32.6	11.7	27.7	10.0	35.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5	25.1	8.8	* 28	* 7.8	22.3	5.8	* 31
Max Q Clear Time (g_c+I1), s	3.5	29.4	8.3	4.7	7.9	24.6	7.8	3.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.5

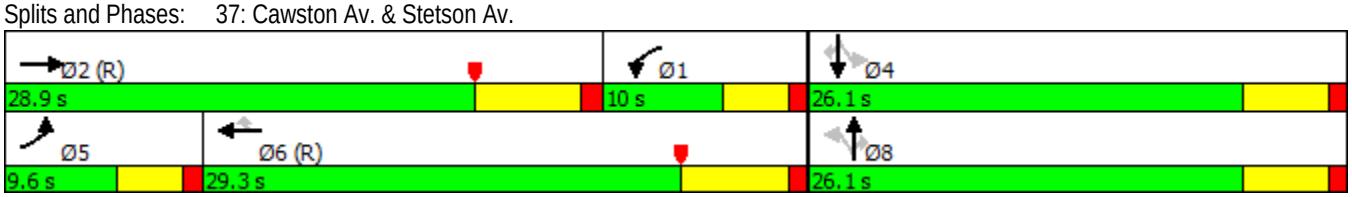
Intersection Summary	
HCM 2010 Ctrl Delay	134.2
HCM 2010 LOS	F

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	42	269	188	317	24	69	173	262	20	124	23
Future Volume (vph)	42	269	188	317	24	69	173	262	20	124	23
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.6	28.9	10.0	29.3	29.3	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.8%	44.5%	15.4%	45.1%	45.1%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.3	22.7	5.8	26.9	26.9	21.0	21.0	21.0	21.0	21.0	21.0
Actuated g/C Ratio	0.08	0.35	0.09	0.41	0.41	0.32	0.32	0.32	0.32	0.32	0.32
v/c Ratio	0.35	0.29	1.46	0.50	0.04	0.21	0.35	0.44	0.07	0.25	0.04
Control Delay	35.4	15.5	266.1	18.3	0.1	17.8	18.9	4.5	15.9	17.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.4	15.5	266.1	18.3	0.1	17.8	18.9	4.5	15.9	17.6	0.1
LOS	D	B	F	B	A	B	B	A	B	B	A
Approach Delay		18.0		105.4			11.2			15.0	
Approach LOS		B		F			B			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.46	
Intersection Signal Delay: 45.6	Intersection LOS: D
Intersection Capacity Utilization 55.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	269	22	188	317	24	69	173	262	20	124	23
Future Volume (veh/h)	42	269	22	188	317	24	69	173	262	20	124	23
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	51	328	25	229	387	22	84	211	181	24	151	11
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	1165	88	1541	2239	1903	432	602	512	345	602	505
Arrive On Green	0.05	0.35	0.35	0.87	1.00	1.00	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	3335	253	1774	1863	1583	1219	1863	1583	988	1863	1563
Grp Volume(v), veh/h	51	173	180	229	387	22	84	211	181	24	151	11
Grp Sat Flow(s),veh/h/ln	1774	1770	1818	1774	1863	1583	1219	1863	1583	988	1863	1563
Q Serve(g_s), s	1.8	4.6	4.6	1.3	0.0	0.0	3.5	5.6	5.7	1.2	3.9	0.3
Cycle Q Clear(g_c), s	1.8	4.6	4.6	1.3	0.0	0.0	7.4	5.6	5.7	6.9	3.9	0.3
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	82	618	635	1541	2239	1903	432	602	512	345	602	505
V/C Ratio(X)	0.62	0.28	0.28	0.15	0.17	0.01	0.19	0.35	0.35	0.07	0.25	0.02
Avail Cap(c_a), veh/h	147	618	635	1541	2239	1903	432	602	512	345	602	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	0.40	0.40	0.40	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	15.3	15.3	0.6	0.0	0.0	18.9	16.8	16.8	19.4	16.2	15.0
Incr Delay (d2), s/veh	2.6	1.0	1.0	0.0	0.1	0.0	1.0	1.6	1.9	0.4	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.4	2.5	0.6	0.0	0.0	1.3	3.1	2.7	0.4	2.1	0.1
LnGrp Delay(d),s/veh	33.0	16.3	16.3	0.7	0.1	0.0	19.9	18.4	18.7	19.8	17.2	15.1
LnGrp LOS	C	B	B	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		404			638			476			186	
Approach Delay, s/veh		18.4			0.3			18.8			17.4	
Approach LOS		B			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	63.4	28.9		26.1	7.2	85.1		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.8	* 23		21.0	* 5.4	23.1		21.0
Max Q Clear Time (g_c+I1), s	3.3	6.6		8.9	3.8	2.0		9.4
Green Ext Time (p_c), s	0.2	0.9		1.6	0.0	1.5		1.5

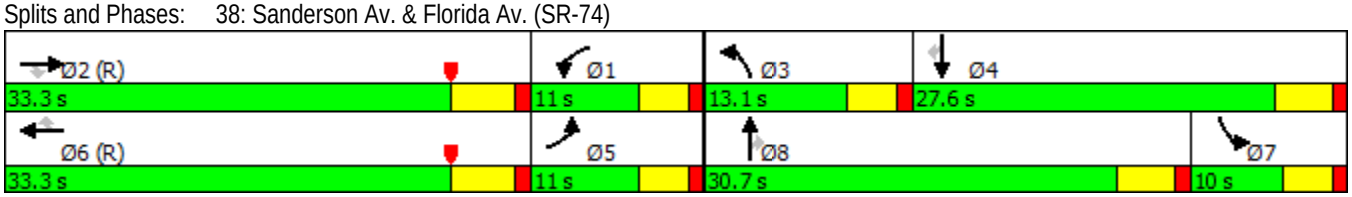
Intersection Summary	
HCM 2010 Ctrl Delay	11.6
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	288	929	151	180	749	155	355	1020	184	248	881	285
Future Volume (vph)	288	929	151	180	749	155	355	1020	184	248	881	285
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	11.0	33.3	33.3	11.0	33.3	33.3	13.1	30.7	30.7	10.0	27.6	27.6
Total Split (%)	12.9%	39.2%	39.2%	12.9%	39.2%	39.2%	15.4%	36.1%	36.1%	11.8%	32.5%	32.5%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	6.8	28.2	28.2	6.8	28.2	28.2	8.9	26.0	26.0	5.8	22.9	22.9
Actuated g/C Ratio	0.08	0.33	0.33	0.08	0.33	0.33	0.10	0.31	0.31	0.07	0.27	0.27
v/c Ratio	2.24	0.87	0.26	1.40	0.70	0.26	2.11	1.04	0.33	2.27	1.02	0.55
Control Delay	578.7	23.1	4.4	251.7	28.6	3.7	540.0	67.7	5.6	621.8	65.5	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	578.7	23.1	4.4	251.7	28.6	3.7	540.0	67.7	5.6	621.8	65.5	14.4
LOS	F	C	A	F	C	A	F	E	A	F	E	B
Approach Delay		137.8			62.1			167.9			152.9	
Approach LOS		F			E			F			F	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 81 (95%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.27	
Intersection Signal Delay: 135.3	Intersection LOS: F
Intersection Capacity Utilization 97.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	288	929	151	180	749	155	355	1020	184	248	881	285
Future Volume (veh/h)	288	929	151	180	749	155	355	1020	184	248	881	285
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	316	1021	137	198	823	111	390	1121	92	273	968	261
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	486	1174	516	486	1174	516	186	1083	469	121	974	436
Arrive On Green	0.27	0.33	0.33	0.27	0.33	0.33	0.10	0.31	0.31	0.07	0.28	0.28
Sat Flow, veh/h	1774	3539	1556	1774	3539	1555	1774	3539	1535	1774	3539	1583
Grp Volume(v), veh/h	316	1021	137	198	823	111	390	1121	92	273	968	261
Grp Sat Flow(s),veh/h/ln	1774	1770	1556	1774	1770	1555	1774	1770	1535	1774	1770	1583
Q Serve(g_s), s	13.4	23.0	5.4	7.8	17.2	4.4	8.9	26.0	3.8	5.8	23.2	9.2
Cycle Q Clear(g_c), s	13.4	23.0	5.4	7.8	17.2	4.4	8.9	26.0	3.8	5.8	23.2	9.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	486	1174	516	486	1174	516	186	1083	469	121	974	436
V/C Ratio(X)	0.65	0.87	0.27	0.41	0.70	0.22	2.10	1.04	0.20	2.26	0.99	0.60
Avail Cap(c_a), veh/h	486	1174	516	486	1174	516	186	1083	469	121	974	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.2	26.7	19.9	25.2	24.7	20.4	38.0	29.5	21.8	39.6	30.7	15.2
Incr Delay (d2), s/veh	2.4	8.9	1.3	0.2	3.5	1.0	512.7	36.9	0.9	590.4	27.3	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	12.7	2.5	3.8	8.9	2.0	30.8	18.2	1.7	22.7	15.0	4.7
LnGrp Delay(d),s/veh	29.7	35.5	21.2	25.4	28.2	21.4	550.7	66.4	22.7	630.0	58.0	21.1
LnGrp LOS	C	D	C	C	C	C	F	F	C	F	E	C
Approach Vol, veh/h		1474			1132			1603			1502	
Approach Delay, s/veh		33.0			27.1			181.8			155.6	
Approach LOS		C			C			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	33.3	13.1	28.1	28.0	33.3	10.5	30.7
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.7	* 4.7
Max Green Setting (Gmax), s	6.8	* 28	* 8.9	* 23	6.8	* 28	* 5.8	* 26
Max Q Clear Time (g_c+I1), s	9.8	25.0	10.9	25.2	15.4	19.2	7.8	28.0
Green Ext Time (p_c), s	0.0	2.3	0.0	0.0	0.0	4.9	0.0	0.0

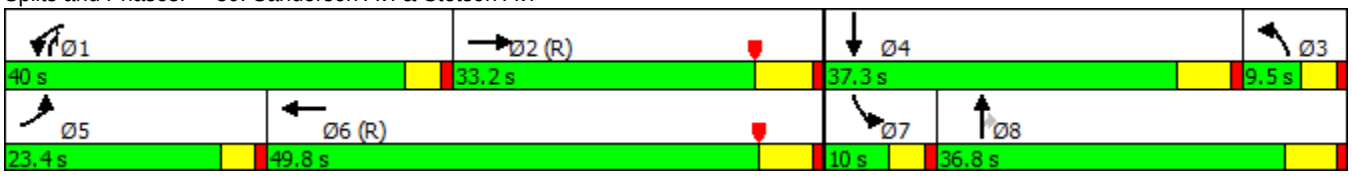
Intersection Summary		
HCM 2010 Ctrl Delay		105.8
HCM 2010 LOS		F

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	211	470	581	709	56	1146	735	149	1131
Future Volume (vph)	211	470	581	709	56	1146	735	149	1131
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	23.4	33.2	40.0	49.8	9.5	36.8	40.0	10.0	37.3
Total Split (%)	19.5%	27.7%	33.3%	41.5%	7.9%	30.7%	33.3%	8.3%	31.1%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	18.4	27.0	35.8	44.8	5.3	31.0	68.4	5.8	31.5
Actuated g/C Ratio	0.15	0.22	0.30	0.37	0.04	0.26	0.57	0.05	0.26
v/c Ratio	0.90	0.75	1.28	0.86	0.83	1.46	0.94	2.04	1.65
Control Delay	84.6	49.6	176.1	41.4	120.2	246.2	39.6	533.1	326.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.6	49.6	176.1	41.4	120.2	246.2	39.6	533.1	326.5
LOS	F	D	F	D	F	F	D	F	F
Approach Delay		59.9		92.2		164.2			347.7
Approach LOS		E		F		F			F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 77.8 (65%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.04	
Intersection Signal Delay: 178.3	Intersection LOS: F
Intersection Capacity Utilization 112.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	211	470	39	581	709	251	56	1146	735	149	1131	169
Future Volume (veh/h)	211	470	39	581	709	251	56	1146	735	149	1131	169
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	245	547	44	676	824	275	65	1333	475	173	1315	191
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	271	2196	176	529	2109	703	78	961	886	86	815	118
Arrive On Green	0.15	0.66	0.66	0.30	0.81	0.81	0.04	0.27	0.27	0.05	0.26	0.26
Sat Flow, veh/h	1774	3312	266	1774	2609	870	1774	3539	1523	1774	3105	448
Grp Volume(v), veh/h	245	292	299	676	559	540	65	1333	475	173	745	761
Grp Sat Flow(s),veh/h/ln	1774	1770	1808	1774	1770	1709	1774	1770	1523	1774	1770	1783
Q Serve(g_s), s	16.3	8.0	8.0	35.8	10.6	10.6	4.4	32.6	23.4	5.8	31.5	31.5
Cycle Q Clear(g_c), s	16.3	8.0	8.0	35.8	10.6	10.6	4.4	32.6	23.4	5.8	31.5	31.5
Prop In Lane	1.00		0.15	1.00		0.51	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	271	1173	1199	529	1431	1382	78	961	886	86	465	468
V/C Ratio(X)	0.90	0.25	0.25	1.28	0.39	0.39	0.83	1.39	0.54	2.02	1.60	1.63
Avail Cap(c_a), veh/h	284	1173	1199	529	1431	1382	78	961	886	86	465	468
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	8.2	8.2	42.1	3.2	3.2	56.9	43.7	16.1	57.1	44.3	44.3
Incr Delay (d2), s/veh	27.2	0.5	0.5	138.8	0.8	0.8	47.4	180.4	2.3	496.3	281.9	291.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	4.0	4.1	37.9	5.4	5.3	3.2	40.0	10.3	14.7	51.7	53.3
LnGrp Delay(d),s/veh	77.2	8.6	8.6	180.9	4.0	4.0	104.3	224.1	18.4	553.4	326.1	335.3
LnGrp LOS	E	A	A	F	A	A	F	F	B	F	F	F
Approach Vol, veh/h		836			1775			1873			1679	
Approach Delay, s/veh		28.7			71.4			167.8			353.7	
Approach LOS		C			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.0	87.3	11.1	37.3	22.5	104.8	10.0	38.4
Change Period (Y+Rc), s	* 4.2	6.2	5.8	* 5.8	* 4.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 36	27.0	5.3	* 32	* 19	* 44	* 5.8	31.0
Max Q Clear Time (g_c+I1), s	37.8	10.0	6.4	33.5	18.3	12.6	7.8	34.6
Green Ext Time (p_c), s	0.0	9.3	0.0	0.0	0.0	12.6	0.0	0.0

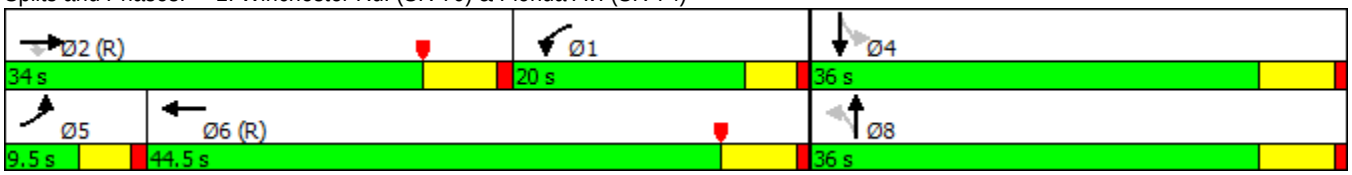
Intersection Summary	
HCM 2010 Ctrl Delay	171.8
HCM 2010 LOS	F

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	22	1724	157	701	1374	188	12	22	23
Future Volume (vph)	22	1724	157	701	1374	188	12	22	23
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	28.0	28.0	15.5	44.2	30.0	30.0	30.0	30.0
Actuated g/C Ratio	0.06	0.31	0.31	0.17	0.49	0.33	0.33	0.33	0.33
v/c Ratio	0.26	1.78	0.31	2.62	0.93	0.47	1.07	0.30	0.06
Control Delay	47.4	378.9	11.4	758.8	34.3	27.9	71.2	34.4	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.4	378.9	11.4	758.8	34.3	27.9	71.2	34.4	16.2
LOS	D	F	B	F	C	C	E	C	B
Approach Delay		344.8			273.8		62.5		23.5
Approach LOS		F			F		E		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.62	
Intersection Signal Delay: 258.3	Intersection LOS: F
Intersection Capacity Utilization 146.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	1724	157	701	1374	47	188	12	744	22	23	10
Future Volume (veh/h)	22	1724	157	701	1374	47	188	12	744	22	23	10
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	25	1959	131	797	1561	47	214	14	637	25	26	6
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	1101	493	1281	3593	108	519	11	518	80	488	113
Arrive On Green	0.03	0.31	0.31	0.72	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3508	105	1366	34	1554	778	1464	338
Grp Volume(v), veh/h	25	1959	131	797	786	822	214	0	651	25	0	32
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1844	1366	0	1588	778	0	1801
Q Serve(g_s), s	1.3	28.0	5.6	20.4	0.0	0.0	11.3	0.0	30.0	0.0	0.0	1.1
Cycle Q Clear(g_c), s	1.3	28.0	5.6	20.4	0.0	0.0	12.4	0.0	30.0	30.0	0.0	1.1
Prop In Lane	1.00		1.00	1.00		0.06	1.00		0.98	1.00		0.19
Lane Grp Cap(c), veh/h	46	1101	493	1281	1812	1889	519	0	529	80	0	600
V/C Ratio(X)	0.55	1.78	0.27	0.62	0.43	0.44	0.41	0.00	1.23	0.31	0.00	0.05
Avail Cap(c_a), veh/h	99	1101	493	1281	1812	1889	519	0	529	80	0	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.3	31.0	23.3	6.3	0.0	0.0	24.6	0.0	30.0	45.0	0.0	20.4
Incr Delay (d2), s/veh	3.7	354.3	1.3	0.7	0.8	0.7	2.4	0.0	119.1	9.9	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	67.8	2.6	10.0	0.4	0.4	4.6	0.0	30.6	0.8	0.0	0.6
LnGrp Delay(d),s/veh	47.0	385.3	24.6	7.0	0.8	0.7	27.0	0.0	149.1	54.9	0.0	20.5
LnGrp LOS	D	F	C	A	A	A	C		F	D		C
Approach Vol, veh/h		2115			2405			865			57	
Approach Delay, s/veh		359.0			2.8			118.9			35.6	
Approach LOS		F			A			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	72.5	34.0		36.0	6.8	99.7		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	22.4	30.0		32.0	3.3	2.0		32.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	10.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay	160.0	
HCM 2010 LOS	F	

Notes

Intersection	
Int Delay, s/veh	1284.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	68	1	62	2	1	4	76	985	1	4	842	77
Future Vol, veh/h	68	1	62	2	1	4	76	985	1	4	842	77
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	72	1	66	2	1	4	81	1048	1	4	896	82

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2159	2157	938	2156	2197	1048	979	0	0	1049	0	0
Stage 1	946	946	-	1210	1210	-	-	-	-	-	-	-
Stage 2	1213	1211	-	946	987	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 0	~ 1	321	~ 0	~ 1	*283	705	-	-	*424	-	-
Stage 1	314	340	-	166	159	-	-	-	-	-	-	-
Stage 2	163	158	-	314	325	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	0	~ 1	321	-	0	*283	705	-	-	*424	-	-
Mov Cap-2 Maneuver	0	~ 1	-	-	0	-	-	-	-	-	-	-
Stage 1	278	336	-	147	141	-	-	-	-	-	-	-
Stage 2	141	140	-	246	322	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 20814.3		0.8	0.1
HCM LOS	F	-		

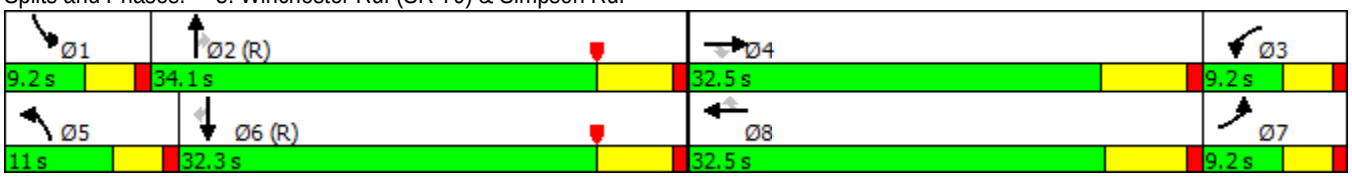
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	705	-	-	1	321	-	* 424	-	-
HCM Lane V/C Ratio	0.115	-	-	73.404	0.205	-	0.01	-	-
HCM Control Delay (s)	10.8	-	-	$ 39499.8	19.1	-	13.6	-	-
HCM Lane LOS	B	-	-	F	C	-	B	-	-
HCM 95th %tile Q(veh)	0.4	-	-	11.5	0.8	-	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	298	86	80	206	57	108	933	162	55	651	178
Future Volume (vph)	107	298	86	80	206	57	108	933	162	55	651	178
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	9.2	32.5	32.5	9.2	32.5	32.5	11.0	34.1	34.1	9.2	32.3	32.3
Total Split (%)	10.8%	38.2%	38.2%	10.8%	38.2%	38.2%	12.9%	40.1%	40.1%	10.8%	38.0%	38.0%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	11.4	19.5	19.5	8.0	16.3	16.3	7.7	33.1	33.1	5.6	29.2	29.2
Actuated g/C Ratio	0.13	0.23	0.23	0.09	0.19	0.19	0.09	0.39	0.39	0.07	0.34	0.34
v/c Ratio	0.47	0.74	0.19	0.51	0.61	0.15	0.72	0.71	0.24	0.50	0.56	0.29
Control Delay	44.9	40.4	2.2	50.9	37.7	0.7	64.7	27.3	4.4	54.5	25.7	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.9	40.4	2.2	50.9	37.7	0.7	64.7	27.3	4.4	54.5	25.7	4.8
LOS	D	D	A	D	D	A	E	C	A	D	C	A
Approach Delay		34.7			34.6			27.6			23.3	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 28.3	Intersection LOS: C
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	298	86	80	206	57	108	933	162	55	651	178
Future Volume (veh/h)	107	298	86	80	206	57	108	933	162	55	651	178
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	113	314	70	84	217	46	114	982	118	58	685	160
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	375	315	104	278	235	142	1601	716	78	1473	658
Arrive On Green	0.11	0.20	0.20	0.06	0.15	0.15	0.08	0.45	0.45	0.04	0.42	0.42
Sat Flow, veh/h	1774	1863	1563	1774	1863	1578	1774	3539	1583	1774	3539	1581
Grp Volume(v), veh/h	113	314	70	84	217	46	114	982	118	58	685	160
Grp Sat Flow(s),veh/h/ln	1774	1863	1563	1774	1863	1578	1774	1770	1583	1774	1770	1581
Q Serve(g_s), s	5.1	13.8	2.4	4.0	9.5	1.7	5.4	17.9	2.5	2.7	11.9	3.4
Cycle Q Clear(g_c), s	5.1	13.8	2.4	4.0	9.5	1.7	5.4	17.9	2.5	2.7	11.9	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	204	375	315	104	278	235	142	1601	716	78	1473	658
V/C Ratio(X)	0.56	0.84	0.22	0.80	0.78	0.20	0.80	0.61	0.16	0.75	0.47	0.24
Avail Cap(c_a), veh/h	204	570	478	104	576	488	142	1601	716	104	1473	658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.69	0.69	0.69	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	32.6	15.6	39.5	34.8	20.5	38.4	17.6	6.3	40.2	18.0	5.8
Incr Delay (d2), s/veh	2.0	6.7	0.4	33.1	4.8	0.4	18.8	1.2	0.3	11.3	1.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	7.8	1.0	2.9	5.3	0.8	3.4	9.0	1.2	1.6	6.0	1.6
LnGrp Delay(d),s/veh	37.6	39.3	16.0	72.7	39.6	20.9	57.2	18.9	6.7	51.4	19.0	6.7
LnGrp LOS	D	D	B	E	D	C	E	B	A	D	B	A
Approach Vol, veh/h		497			347			1214			903	
Approach Delay, s/veh		35.6			45.1			21.3			18.9	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	44.2	9.2	23.6	11.0	41.2	14.0	18.9
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 5	28.3	5.0	* 26	* 6.8	26.5	5.0	* 26
Max Q Clear Time (g_c+I1), s	4.7	19.9	6.0	15.8	7.4	13.9	7.1	11.5
Green Ext Time (p_c), s	0.0	7.1	0.0	1.3	0.0	10.2	0.0	1.0

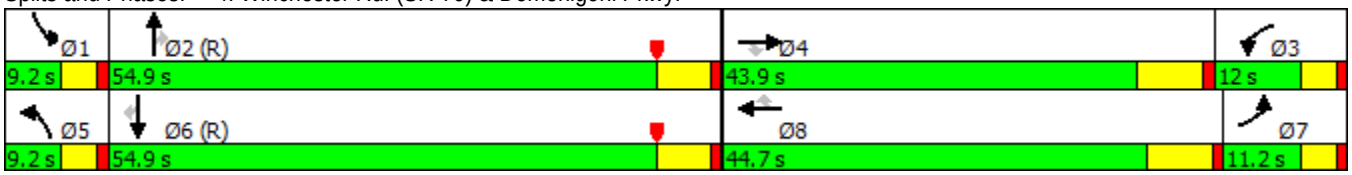
Intersection Summary	
HCM 2010 Ctrl Delay	25.8
HCM 2010 LOS	C

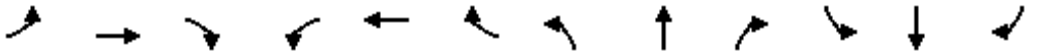
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	311	949	98	738	1011	83	112	819	1096	60	474	241
Future Volume (vph)	311	949	98	738	1011	83	112	819	1096	60	474	241
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	11.2	43.9	43.9	12.0	44.7	44.7	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.3%	36.6%	36.6%	10.0%	37.3%	37.3%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	11.8	36.6	36.6	8.2	33.0	33.0	5.0	49.1	49.1	5.0	49.1	49.1
Actuated g/C Ratio	0.10	0.30	0.30	0.07	0.28	0.28	0.04	0.41	0.41	0.04	0.41	0.41
v/c Ratio	0.98	0.94	0.19	3.34	0.77	0.17	1.63	0.60	1.55	0.88	0.35	0.34
Control Delay	99.6	56.7	6.9	1081.6	43.8	5.1	373.1	29.9	278.4	132.4	25.3	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.6	56.7	6.9	1081.6	43.8	5.1	373.1	29.9	278.4	132.4	25.3	9.9
LOS	F	E	A	F	D	A	F	C	F	F	C	A
Approach Delay		62.9			460.1			183.2			28.8	
Approach LOS		E			F			F			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.34	
Intersection Signal Delay: 220.6	Intersection LOS: F
Intersection Capacity Utilization 112.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	949	98	738	1011	83	112	819	1096	60	474	241
Future Volume (veh/h)	311	949	98	738	1011	83	112	819	1096	60	474	241
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	331	1010	73	785	1076	78	119	871	751	64	504	147
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	374	1073	480	224	1319	411	74	1466	656	74	1466	656
Arrive On Green	0.11	0.30	0.30	0.07	0.26	0.26	0.04	0.41	0.41	0.04	0.41	0.41
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	331	1010	73	785	1076	78	119	871	751	64	504	147
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	11.4	33.4	3.3	7.8	23.9	3.8	5.0	22.9	37.1	4.3	11.7	4.8
Cycle Q Clear(g_c), s	11.4	33.4	3.3	7.8	23.9	3.8	5.0	22.9	37.1	4.3	11.7	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	374	1073	480	224	1319	411	74	1466	656	74	1466	656
V/C Ratio(X)	0.88	0.94	0.15	3.51	0.82	0.19	1.61	0.59	1.14	0.87	0.34	0.22
Avail Cap(c_a), veh/h	374	1091	488	224	1602	499	74	1466	656	74	1466	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	52.7	40.8	19.9	56.1	41.7	23.2	57.5	27.3	19.6	57.2	24.0	10.2
Incr Delay (d2), s/veh	20.6	15.1	0.1	1140.2	2.8	0.2	328.2	1.8	82.4	53.1	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	18.5	1.4	39.1	11.5	1.7	9.2	11.5	31.1	3.2	5.8	2.2
LnGrp Delay(d),s/veh	73.4	55.9	20.1	1196.3	44.6	23.4	385.7	29.1	102.0	110.2	24.5	10.9
LnGrp LOS	E	E	C	F	D	C	F	C	F	F	C	B
Approach Vol, veh/h		1414			1939			1741			715	
Approach Delay, s/veh		58.1			510.0			84.9			29.4	
Approach LOS		E			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	55.5	12.0	43.3	9.2	55.5	17.3	38.0
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.9	* 4.2	5.8	4.2	* 6.9
Max Green Setting (Gmax), s	* 5	49.1	7.8	* 37	* 5	49.1	7.0	* 38
Max Q Clear Time (g_c+I1), s	6.3	39.1	9.8	35.4	7.0	13.7	13.4	25.9
Green Ext Time (p_c), s	0.0	8.7	0.0	1.0	0.0	24.6	0.0	5.3

Intersection Summary			
HCM 2010 Ctrl Delay		213.4	
HCM 2010 LOS		F	

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2102	4	0	1831	0	0	0	0	0	0	0
Future Vol, veh/h	0	2102	4	0	1831	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2123	4	0	1849	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	1064	-	-	925
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*241	0	0	271
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*241	-	-	271
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	-	0
HCM Lane LOS	A	-	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	142	6	2	11	11	108
Future Vol, veh/h	142	6	2	11	11	108
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	169	7	2	13	13	129

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	31	13	13	0	-	0
Stage 1	13	-	-	-	-	-
Stage 2	18	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	983	1067	1606	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	1005	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	982	1067	1606	-	-	-
Mov Cap-2 Maneuver	982	-	-	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	1004	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	1.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1606	-	985	-	-
HCM Lane V/C Ratio	0.001	-	0.179	-	-
HCM Control Delay (s)	7.2	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	244	2	2	176	0	1	1	2	1	2	2
Future Vol, veh/h	2	244	2	2	176	0	1	1	2	1	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	277	2	2	200	0	1	1	2	1	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	200	0	0	280	0	0	490	488	278	490	489	200
Stage 1	-	-	-	-	-	-	283	283	-	205	205	-
Stage 2	-	-	-	-	-	-	207	205	-	285	284	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1372	-	-	1283	-	-	489	480	761	489	480	841
Stage 1	-	-	-	-	-	-	724	677	-	797	732	-
Stage 2	-	-	-	-	-	-	795	732	-	722	676	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1372	-	-	1283	-	-	484	478	761	485	478	841
Mov Cap-2 Maneuver	-	-	-	-	-	-	484	478	-	485	478	-
Stage 1	-	-	-	-	-	-	723	676	-	795	731	-
Stage 2	-	-	-	-	-	-	789	731	-	717	675	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	11.2	11.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	589	1372	-	-	1283	-	-	580
HCM Lane V/C Ratio	0.008	0.002	-	-	0.002	-	-	0.01
HCM Control Delay (s)	11.2	7.6	0	-	7.8	0	-	11.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Intersection Delay, s/veh	433.8
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	17	30	8	0	226	47	124	0	7	797	325
Future Vol, veh/h	0	17	30	8	0	226	47	124	0	7	797	325
Peak Hour Factor	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	17	30	8	0	228	47	125	0	7	805	328
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	19.9	44.1	543.4
HCM LOS	C	E	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	31%	57%	19%
Vol Thru, %	71%	55%	12%	76%
Vol Right, %	29%	15%	31%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1129	55	397	1032
LT Vol	7	17	226	197
Through Vol	797	30	47	786
RT Vol	325	8	124	49
Lane Flow Rate	1140	56	401	1042
Geometry Grp	1	1	1	1
Degree of Util (X)	2.149	0.139	0.81	2.017
Departure Headway (Hd)	8.272	14.583	9.977	8.64
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	456	248	365	427
Service Time	6.272	12.583	7.977	6.64
HCM Lane V/C Ratio	2.5	0.226	1.099	2.44
HCM Control Delay	543.4	19.9	44.1	485.8
HCM Lane LOS	F	C	E	F
HCM 95th-tile Q	67.7	0.5	7	58.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	197	786	49
Future Vol, veh/h	0	197	786	49
Peak Hour Factor	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	199	794	49
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	485.8
HCM LOS	F

Intersection	
Intersection Delay, s/veh	591.8
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	245	327	34	0	137	366	78	0	49	806	196	0	100	742	179
Future Vol, veh/h	0	245	327	34	0	137	366	78	0	49	806	196	0	100	742	179
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	255	341	35	0	143	381	81	0	51	840	204	0	104	773	186
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	384.1	350.3	567.8	877.3
HCM LOS	F	F	F	F

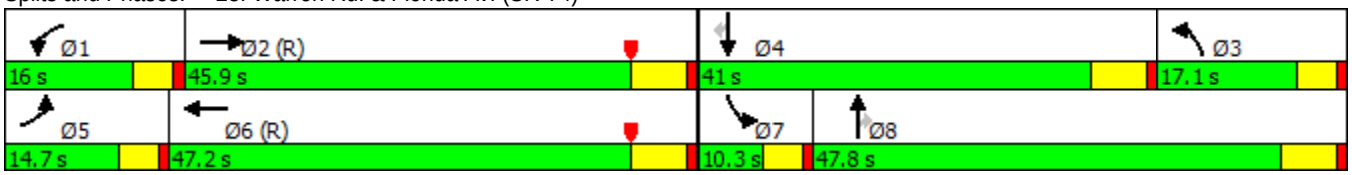
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	0%	40%	24%	10%
Vol Thru, %	94%	0%	54%	63%	73%
Vol Right, %	0%	100%	6%	13%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	855	196	606	581	1021
LT Vol	49	0	245	137	100
Through Vol	806	0	327	366	742
RT Vol	0	196	34	78	179
Lane Flow Rate	891	204	631	605	1064
Geometry Grp	7	7	2	2	5
Degree of Util (X)	2.415	0.512	1.697	1.613	2.849
Departure Headway (Hd)	18.88	18.097	21.573	22.106	16.914
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	205	202	177	169	234
Service Time	16.58	15.797	19.573	20.106	14.914
HCM Lane V/C Ratio	4.346	1.01	3.565	3.58	4.547
HCM Control Delay	689.1	38.4	384.1	350.3	877.3
HCM Lane LOS	F	E	F	F	F
HCM 95th-tile Q	38.2	2.6	19.9	18	53.4

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	304	1615	327	1534	306	639	441	118	483	294
Future Volume (vph)	304	1615	327	1534	306	639	441	118	483	294
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	14.7	45.9	16.0	47.2	17.1	47.8	47.8	10.3	41.0	41.0
Total Split (%)	12.3%	38.3%	13.3%	39.3%	14.3%	39.8%	39.8%	8.6%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	10.1	39.9	11.4	41.2	12.5	41.8	41.8	5.7	35.0	35.0
Actuated g/C Ratio	0.08	0.33	0.10	0.34	0.10	0.35	0.35	0.05	0.29	0.29
v/c Ratio	2.16	1.69	2.05	1.45	1.75	0.55	0.68	1.48	0.49	0.52
Control Delay	571.4	343.5	519.4	238.0	391.2	33.5	23.9	306.9	37.1	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	571.4	343.5	519.4	238.0	391.2	33.5	23.9	306.9	37.1	17.3
LOS	F	F	F	F	F	C	C	F	D	B
Approach Delay		375.4		284.3		109.4			66.2	
Approach LOS		F		F		F			E	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.16
Intersection Signal Delay: 247.1 — Intersection LOS: F
Intersection Capacity Utilization 118.9% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	304	1615	255	327	1534	125	306	639	441	118	483	294
Future Volume (veh/h)	304	1615	255	327	1534	125	306	639	441	118	483	294
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	320	1700	203	344	1615	126	322	673	348	124	508	241
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	2290	269	169	2425	188	185	1274	570	84	1032	462
Arrive On Green	0.08	0.72	0.72	0.09	0.73	0.73	0.10	0.36	0.36	0.05	0.29	0.29
Sat Flow, veh/h	1774	3192	374	1774	3329	258	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	320	929	974	344	852	889	322	673	348	124	508	241
Grp Sat Flow(s),veh/h/ln	1774	1770	1797	1774	1770	1817	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	10.1	37.4	40.2	11.4	30.3	31.2	12.5	18.0	21.6	5.7	14.2	20.1
Cycle Q Clear(g_c), s	10.1	37.4	40.2	11.4	30.3	31.2	12.5	18.0	21.6	5.7	14.2	20.1
Prop In Lane	1.00		0.21	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	1270	1289	169	1289	1324	185	1274	570	84	1032	462
V/C Ratio(X)	2.14	0.73	0.76	2.04	0.66	0.67	1.74	0.53	0.61	1.47	0.49	0.52
Avail Cap(c_a), veh/h	149	1270	1289	169	1289	1324	185	1274	570	84	1032	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	10.1	10.5	54.3	8.5	8.7	53.8	30.3	31.5	57.2	35.1	61.5
Incr Delay (d2), s/veh	536.1	3.7	4.2	488.6	2.7	2.7	355.6	1.6	4.8	265.5	1.7	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.2	19.4	21.0	28.4	15.4	16.3	24.4	9.1	10.2	9.0	7.2	9.3
LnGrp Delay(d),s/veh	591.0	13.8	14.6	542.9	11.2	11.4	409.3	31.9	36.3	322.6	36.8	65.7
LnGrp LOS	F	B	B	F	B	B	F	C	D	F	D	E
Approach Vol, veh/h		2223			2085			1343			873	
Approach Delay, s/veh		97.3			99.0			123.5			85.4	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	93.5	18.5	41.0	14.7	94.8	10.3	49.2
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	11.4	39.9	12.5	* 35	10.1	41.2	5.7	41.8
Max Q Clear Time (g_c+I1), s	13.4	42.2	14.5	22.1	12.1	33.2	7.7	23.6
Green Ext Time (p_c), s	0.0	0.0	0.0	1.9	0.0	7.2	0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	101.6
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	111.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	99	281	1128	77	134	947
Future Vol, veh/h	99	281	1128	77	134	947
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	115	327	1312	90	156	1101

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2725	1312	0	0	1312	0
Stage 1	1312	-	-	-	-	-
Stage 2	1413	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 23	~ 194	-	-	527	-
Stage 1	252	-	-	-	-	-
Stage 2	225	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 16	~ 194	-	-	527	-
Mov Cap-2 Maneuver	125	-	-	-	-	-
Stage 1	252	-	-	-	-	-
Stage 2	158	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 778.7	0	1.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	170	527	-
HCM Lane V/C Ratio	-	-	2.599	0.296	-
HCM Control Delay (s)	-	-	$ 778.7	14.7	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	38.3	1.2	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	47	1207	4	36	1161
Future Vol, veh/h	4	47	1207	4	36	1161
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	51	1312	4	39	1262

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2654	1314	0	0	1316	0
Stage 1	1314	-	-	-	-	-
Stage 2	1340	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	25	193	-	-	525	-
Stage 1	251	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	23	193	-	-	525	-
Mov Cap-2 Maneuver	158	-	-	-	-	-
Stage 1	251	-	-	-	-	-
Stage 2	226	-	-	-	-	-

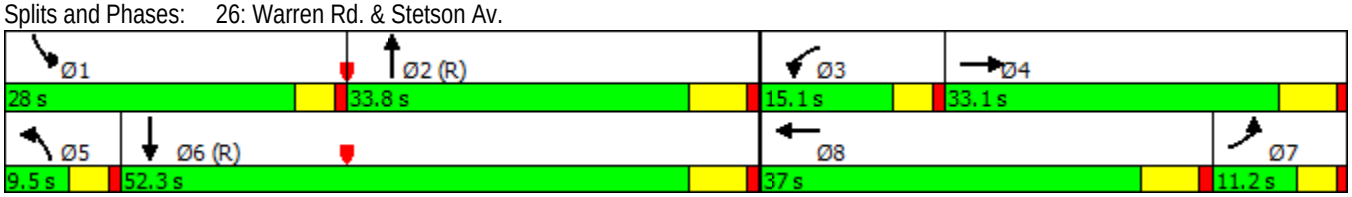
Approach	WB	NB	SB
HCM Control Delay, s	31.6	0	0.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	190	525	-
HCM Lane V/C Ratio	-	-	0.292	0.075	-
HCM Control Delay (s)	-	-	31.6	12.4	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	1.2	0.2	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	83	166	162	190	19	750	345	740
Future Volume (vph)	83	166	162	190	19	750	345	740
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	32.8	9.5	32.8
Total Split (s)	11.2	33.1	15.1	37.0	9.5	33.8	28.0	52.3
Total Split (%)	10.2%	30.1%	13.7%	33.6%	8.6%	30.7%	25.5%	47.5%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.9	27.2	10.9	31.2	5.2	28.7	23.2	52.3
Actuated g/C Ratio	0.06	0.25	0.10	0.28	0.05	0.26	0.21	0.48
v/c Ratio	0.77	0.41	0.94	1.05	0.23	0.97	0.95	0.52
Control Delay	91.8	37.1	104.8	87.0	57.2	63.8	78.2	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.8	37.1	104.8	87.0	57.2	63.8	78.2	21.8
LOS	F	D	F	F	E	E	E	C
Approach Delay		54.2		91.0		63.6		38.2
Approach LOS		D		F		E		D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 59.4	Intersection LOS: E
Intersection Capacity Utilization 97.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	166	17	162	190	366	19	750	122	345	740	99
Future Volume (veh/h)	83	166	17	162	190	366	19	750	122	345	740	99
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	85	169	17	165	194	373	19	765	124	352	755	101
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	433	44	176	162	311	36	1612	261	378	2265	303
Arrive On Green	0.06	0.26	0.26	0.10	0.28	0.28	0.02	0.53	0.53	0.21	0.72	0.72
Sat Flow, veh/h	1774	1666	168	1774	571	1098	1774	3051	494	1774	3139	420
Grp Volume(v), veh/h	85	0	186	165	0	567	19	444	445	352	426	430
Grp Sat Flow(s),veh/h/ln	1774	0	1833	1774	0	1669	1774	1770	1775	1774	1770	1789
Q Serve(g_s), s	5.2	0.0	9.2	10.2	0.0	31.2	1.2	17.4	17.4	21.4	9.7	9.7
Cycle Q Clear(g_c), s	5.2	0.0	9.2	10.2	0.0	31.2	1.2	17.4	17.4	21.4	9.7	9.7
Prop In Lane	1.00		0.09	1.00		0.66	1.00		0.28	1.00		0.23
Lane Grp Cap(c), veh/h	107	0	476	176	0	473	36	935	938	378	1277	1291
V/C Ratio(X)	0.79	0.00	0.39	0.94	0.00	1.20	0.53	0.47	0.47	0.93	0.33	0.33
Avail Cap(c_a), veh/h	113	0	476	176	0	473	85	935	938	384	1277	1291
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	0.0	33.5	49.2	0.0	39.4	53.4	16.3	16.3	42.5	5.6	5.6
Incr Delay (d2), s/veh	26.9	0.0	0.5	49.6	0.0	108.0	3.8	1.4	1.4	28.4	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	4.7	7.4	0.0	28.5	0.6	8.7	8.8	13.4	5.0	5.0
LnGrp Delay(d),s/veh	77.9	0.0	34.1	98.9	0.0	147.4	57.1	17.7	17.7	70.9	6.3	6.3
LnGrp LOS	E		C	F		F	E	B	B	E	A	A
Approach Vol, veh/h		271			732			908			1208	
Approach Delay, s/veh		47.8			136.4			18.5			25.1	
Approach LOS		D			F			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.6	64.9	15.1	34.4	6.4	86.1	12.5	37.0
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 24	28.0	* 11	27.3	* 5.3	46.5	7.0	* 31
Max Q Clear Time (g_c+I1), s	23.4	19.4	12.2	11.2	3.2	11.7	7.2	33.2
Green Ext Time (p_c), s	0.0	6.8	0.0	0.8	0.0	19.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	51.3
HCM 2010 LOS	D

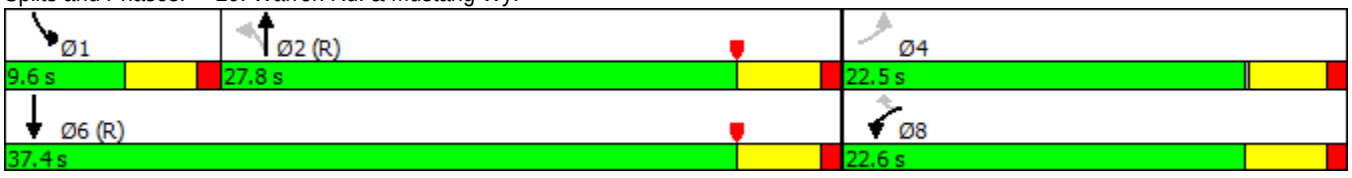
Notes

Lane Group	EBT	WBL	WBR	NBL	NBT	SBL	SBT	Ø4
Lane Configurations								
Traffic Volume (vph)	0	168	148	64	692	203	628	
Future Volume (vph)	0	168	148	64	692	203	628	
Turn Type		Prot	Perm	Perm	NA	Prot	NA	
Protected Phases		8			2	1	6	4
Permitted Phases			8	2				
Detector Phase		8	8	2	2	1	6	
Switch Phase								
Minimum Initial (s)		10.0	10.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)		22.5	22.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)		22.6	22.6	27.8	27.8	9.6	37.4	22.5
Total Split (%)		37.7%	37.7%	46.3%	46.3%	16.0%	62.3%	38%
Yellow Time (s)		3.6	3.6	3.7	3.7	3.2	3.7	3.5
All-Red Time (s)		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.7	4.2	4.7	
Lead/Lag				Lag	Lag	Lead		
Lead-Lag Optimize?				Yes	Yes	Yes		
Recall Mode		None	None	C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	0.0	12.2	12.2		23.1	11.2	38.5	
Actuated g/C Ratio	0.00	0.20	0.20		0.38	0.19	0.64	
v/c Ratio	0.48	0.48	0.34		1.65	0.63	0.62	
Control Delay	0.0	25.1	6.1		319.7	37.3	9.9	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	0.0	25.1	6.1		319.7	37.3	9.9	
LOS	A	C	A		F	D	A	
Approach Delay					319.7		15.9	
Approach LOS					F		B	

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.65
Intersection Signal Delay: 150.1 — Intersection LOS: F
Intersection Capacity Utilization Err% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	0	37	168	0	148	64	692	300	203	628	89
Future Volume (veh/h)	52	0	37	168	0	148	64	692	300	203	628	89
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h				171	0	124	65	706	282	207	641	91
Adj No. of Lanes				1	0	1	0	1	0	1	1	0
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	2
Cap, veh/h				294	0	262	98	604	233	160	1085	154
Arrive On Green				0.17	0.00	0.17	0.52	0.52	0.52	0.09	0.68	0.68
Sat Flow, veh/h				1774	0	1583	66	1163	449	1774	1596	227
Grp Volume(v), veh/h				171	0	124	1053	0	0	207	0	732
Grp Sat Flow(s),veh/h/ln				1774	0	1583	1678	0	0	1774	0	1823
Q Serve(g_s), s				5.3	0.0	4.3	20.6	0.0	0.0	5.4	0.0	12.9
Cycle Q Clear(g_c), s				5.3	0.0	4.3	31.2	0.0	0.0	5.4	0.0	12.9
Prop In Lane				1.00		1.00	0.06		0.27	1.00		0.12
Lane Grp Cap(c), veh/h				294	0	262	936	0	0	160	0	1239
V/C Ratio(X)				0.58	0.00	0.47	1.13	0.00	0.00	1.30	0.00	0.59
Avail Cap(c_a), veh/h				532	0	475	936	0	0	160	0	1239
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh				23.1	0.0	22.7	15.2	0.0	0.0	27.3	0.0	5.1
Incr Delay (d2), s/veh				1.8	0.0	1.3	70.3	0.0	0.0	171.7	0.0	2.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.8	0.0	2.0	33.6	0.0	0.0	10.2	0.0	7.0
LnGrp Delay(d),s/veh				25.0	0.0	24.0	85.5	0.0	0.0	199.0	0.0	7.2
LnGrp LOS				C		C	F			F		A
Approach Vol, veh/h					295			1053			939	
Approach Delay, s/veh					24.6			85.5			49.5	
Approach LOS					C			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.6	35.9				45.5		14.5
Change Period (Y+Rc), s	* 4.2	* 4.7				* 4.7		4.6
Max Green Setting (Gmax), s	* 5.4	* 23				* 33		18.0
Max Q Clear Time (g_c+I1), s	7.4	33.2				14.9		7.3
Green Ext Time (p_c), s	0.0	0.0				15.2		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	62.9
HCM 2010 LOS	E

Notes

Intersection	
Intersection Delay, s/veh	170
Intersection LOS	F

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	304	38	0	620	230	0	27	736
Future Vol, veh/h	0	304	38	0	620	230	0	27	736
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	320	40	0	653	242	0	28	775
Number of Lanes	0	1	0	0	1	1	0	1	1

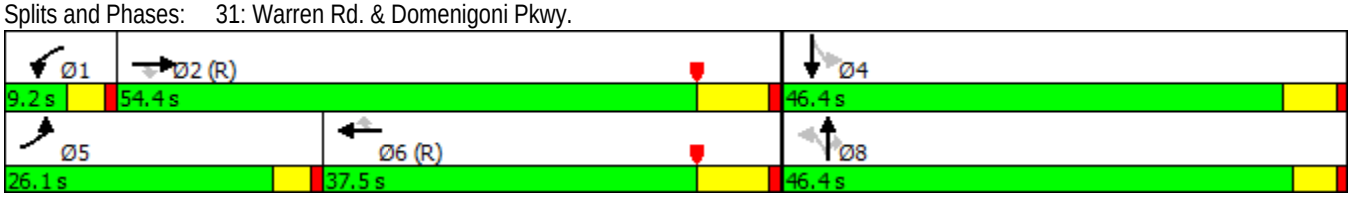
Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	33	171.3	229.9
HCM LOS	D	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	89%	0%	100%
Vol Right, %	0%	100%	11%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	736	342	620	230
LT Vol	27	0	0	620	0
Through Vol	0	0	304	0	230
RT Vol	0	736	38	0	0
Lane Flow Rate	28	775	360	653	242
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.063	1.46	0.736	1.42	0.493
Departure Headway (Hd)	8.513	7.277	8.893	9.083	8.563
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	423	504	410	405	424
Service Time	6.213	4.977	6.893	6.783	6.263
HCM Lane V/C Ratio	0.066	1.538	0.878	1.612	0.571
HCM Control Delay	11.8	237.9	33	227.7	19.3
HCM Lane LOS	B	F	D	F	C
HCM 95th-tile Q	0.2	36	5.8	28.3	2.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	627	2035	7	4	1698	124	4	11	1	108	9
Future Volume (vph)	627	2035	7	4	1698	124	4	11	1	108	9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	22.6	55.6	55.6	5.0	30.6	30.6		41.1	41.1		40.3
Actuated g/C Ratio	0.21	0.51	0.51	0.05	0.28	0.28		0.37	0.37		0.37
v/c Ratio	1.83	1.21	0.01	0.05	1.84	0.26		0.03	0.00		0.99
Control Delay	413.5	127.3	0.0	51.8	406.5	10.1		21.6	0.0		53.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	413.5	127.3	0.0	51.8	406.5	10.1		21.6	0.0		53.6
LOS	F	F	A	D	F	B		C	A		D
Approach Delay		194.2			378.9			20.3			53.6
Approach LOS		F			F			C			D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.84	
Intersection Signal Delay: 240.5	Intersection LOS: F
Intersection Capacity Utilization 142.8%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	627	2035	7	4	1698	124	4	11	1	108	9	556
Future Volume (veh/h)	627	2035	7	4	1698	124	4	11	1	108	9	556
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	667	2165	5	4	1806	125	4	12	1	115	10	377
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	1780	796	9	1094	490	122	346	541	149	23	398
Arrive On Green	0.20	0.50	0.50	0.01	0.31	0.31	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	238	1011	1583	319	67	1164
Grp Volume(v), veh/h	667	2165	5	4	1806	125	16	0	1	502	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1250	0	1583	1551	0	0
Q Serve(g_s), s	21.9	55.3	0.2	0.2	34.0	6.5	0.0	0.0	0.0	31.0	0.0	0.0
Cycle Q Clear(g_c), s	21.9	55.3	0.2	0.2	34.0	6.5	0.6	0.0	0.0	34.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.25		1.00	0.23		0.75
Lane Grp Cap(c), veh/h	353	1780	796	9	1094	490	468	0	541	570	0	0
V/C Ratio(X)	1.89	1.22	0.01	0.43	1.65	0.26	0.03	0.00	0.00	0.88	0.00	0.00
Avail Cap(c_a), veh/h	353	1780	796	81	1094	490	526	0	602	618	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	27.3	13.6	54.5	38.0	28.5	24.0	0.0	23.8	35.1	0.0	0.0
Incr Delay (d2), s/veh	410.4	102.6	0.0	11.3	296.8	1.3	0.0	0.0	0.0	12.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	51.0	52.3	0.1	0.2	61.7	3.0	0.3	0.0	0.0	16.7	0.0	0.0
LnGrp Delay(d),s/veh	454.4	130.0	13.6	65.9	334.8	29.8	24.0	0.0	23.8	47.5	0.0	0.0
LnGrp LOS	F	F	B	E	F	C	C		C	D		
Approach Vol, veh/h		2837			1935			17			502	
Approach Delay, s/veh		206.0			314.6			24.0			47.5	
Approach LOS		F			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.8	62.2		43.0	26.1	40.9		43.0
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.2	57.3		36.6	23.9	36.0		2.6
Green Ext Time (p_c), s	0.0	0.0		1.0	0.0	0.0		2.3

Intersection Summary		
HCM 2010 Ctrl Delay		230.1
HCM 2010 LOS		F

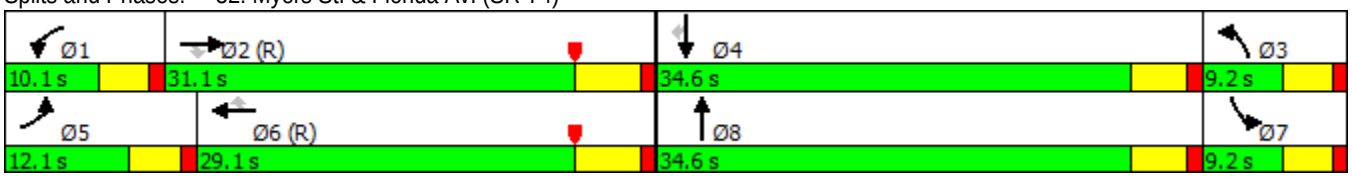
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	314	1771	23	57	1764	70	7	51	119	37	160
Future Volume (vph)	314	1771	23	57	1764	70	7	51	119	37	160
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.1	31.1	31.1	10.1	29.1	29.1	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.2%	36.6%	36.6%	11.9%	34.2%	34.2%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.9	28.0	28.0	5.7	24.0	24.0	5.0	30.0	5.0	37.4	37.4
Actuated g/C Ratio	0.09	0.33	0.33	0.07	0.28	0.28	0.06	0.35	0.06	0.44	0.44
v/c Ratio	2.06	1.63	0.04	0.52	1.90	0.14	0.08	0.16	1.23	0.05	0.22
Control Delay	521.9	313.4	0.1	53.2	425.0	0.8	39.6	12.0	200.3	15.4	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	521.9	313.4	0.1	53.2	425.0	0.8	39.6	12.0	200.3	15.4	3.7
LOS	F	F	A	D	F	A	D	B	F	B	A
Approach Delay		341.1			398.2			14.0		79.1	
Approach LOS		F			F			B		E	

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 80.1 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.06
Intersection Signal Delay: 339.3 — Intersection LOS: F
Intersection Capacity Utilization 91.0% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	1771	23	57	1764	70	7	51	42	119	37	160
Future Volume (veh/h)	314	1771	23	57	1764	70	7	51	42	119	37	160
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	338	1904	15	61	1897	69	8	55	22	128	40	120
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1169	523	80	999	447	104	447	179	104	657	559
Arrive On Green	0.09	0.33	0.33	0.03	0.19	0.19	0.06	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	1267	507	1774	1863	1583
Grp Volume(v), veh/h	338	1904	15	61	1897	69	8	0	77	128	40	120
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	0	1773	1774	1863	1583
Q Serve(g_s), s	7.9	28.1	0.4	2.9	24.0	2.4	0.4	0.0	2.5	5.0	1.2	3.1
Cycle Q Clear(g_c), s	7.9	28.1	0.4	2.9	24.0	2.4	0.4	0.0	2.5	5.0	1.2	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	165	1169	523	80	999	447	104	0	626	104	657	559
V/C Ratio(X)	2.05	1.63	0.03	0.77	1.90	0.15	0.08	0.00	0.12	1.23	0.06	0.21
Avail Cap(c_a), veh/h	165	1169	523	123	999	447	104	0	626	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	28.5	10.8	40.8	34.5	15.2	37.8	0.0	18.6	40.0	18.2	9.3
Incr Delay (d2), s/veh	492.9	286.6	0.1	5.6	408.0	0.7	0.1	0.0	0.4	161.1	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.4	60.2	0.2	1.6	68.3	1.1	0.2	0.0	1.3	7.1	0.7	1.5
LnGrp Delay(d),s/veh	531.5	315.1	10.9	46.4	442.5	16.0	37.9	0.0	19.0	201.1	18.4	10.2
LnGrp LOS	F	F	B	D	F	B	D		B	F	B	B
Approach Vol, veh/h		2257			2027			85			288	
Approach Delay, s/veh		345.5			416.0			20.8			96.2	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	33.2	9.2	34.6	12.1	29.1	9.2	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.9	26.0	5.0	* 30	* 7.9	24.0	5.0	* 30
Max Q Clear Time (g_c+I1), s	4.9	30.1	2.4	5.1	9.9	26.0	7.0	4.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	354.8
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1663	458	1	2069	0	2
Future Vol, veh/h	1663	458	1	2069	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1769	487	1	2201	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1769	0	-	885
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*578	-	0	*386
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*578	-	-	*386
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	386	-	-	* 578	-
HCM Lane V/C Ratio	0.006	-	-	0.002	-
HCM Control Delay (s)	14.4	-	-	11.2	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0	-	-	0	-

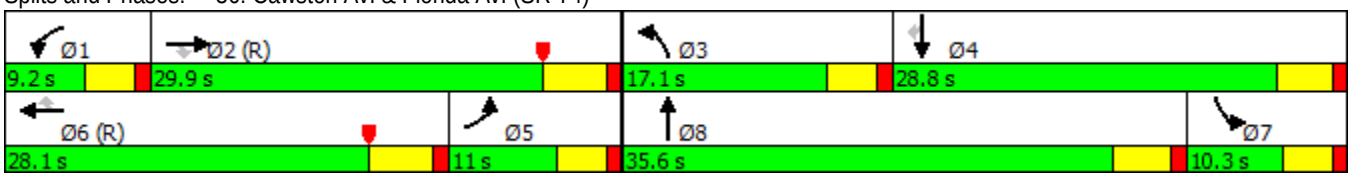
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	193	1460	13	70	1651	256	264	121	215	137	157
Future Volume (vph)	193	1460	13	70	1651	256	264	121	215	137	157
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	11.0	29.9	29.9	9.2	28.1	28.1	17.1	35.6	10.3	28.8	28.8
Total Split (%)	12.9%	35.2%	35.2%	10.8%	33.1%	33.1%	20.1%	41.9%	12.1%	33.9%	33.9%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	6.8	26.6	26.6	5.0	23.0	23.0	12.9	31.0	6.1	24.2	24.2
Actuated g/C Ratio	0.08	0.31	0.31	0.06	0.27	0.27	0.15	0.36	0.07	0.28	0.28
v/c Ratio	1.43	1.37	0.02	0.70	1.80	0.47	1.03	0.16	1.76	0.27	0.28
Control Delay	218.6	186.1	0.0	74.6	387.4	10.6	100.2	11.7	401.5	25.3	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	218.6	186.1	0.0	74.6	387.4	10.6	100.2	11.7	401.5	25.3	3.4
LOS	F	F	A	E	F	B	F	B	F	C	A
Approach Delay		188.4			327.4			62.9		177.2	
Approach LOS		F			F			E		F	

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 35 (41%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.80
Intersection Signal Delay: 234.4 — Intersection LOS: F
Intersection Capacity Utilization 109.2% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	1460	13	70	1651	256	264	121	71	215	137	157
Future Volume (veh/h)	193	1460	13	70	1651	256	264	121	71	215	137	157
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	201	1521	12	73	1720	223	275	126	68	224	143	100
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	902	2608	1167	94	958	426	269	824	418	127	539	458
Arrive On Green	0.68	0.98	0.98	0.05	0.27	0.27	0.15	0.36	0.36	0.07	0.29	0.29
Sat Flow, veh/h	1774	3539	1583	1774	3539	1575	1774	2260	1145	1774	1863	1583
Grp Volume(v), veh/h	201	1521	12	73	1720	223	275	97	97	224	143	100
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1575	1774	1770	1636	1774	1863	1583
Q Serve(g_s), s	3.7	1.7	0.0	3.5	23.0	10.2	12.9	3.1	3.4	6.1	5.0	3.0
Cycle Q Clear(g_c), s	3.7	1.7	0.0	3.5	23.0	10.2	12.9	3.1	3.4	6.1	5.0	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.70	1.00		1.00
Lane Grp Cap(c), veh/h	902	2608	1167	94	958	426	269	645	597	127	539	458
V/C Ratio(X)	0.22	0.58	0.01	0.78	1.80	0.52	1.02	0.15	0.16	1.76	0.27	0.22
Avail Cap(c_a), veh/h	902	2608	1167	104	958	426	269	645	597	127	539	458
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.4	0.2	0.2	39.8	31.0	26.3	36.0	18.1	18.2	39.4	23.2	12.8
Incr Delay (d2), s/veh	0.0	1.0	0.0	24.5	362.4	4.5	60.5	0.5	0.6	371.8	1.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.9	0.0	2.3	59.4	5.0	10.8	1.6	1.6	16.1	2.8	1.5
LnGrp Delay(d),s/veh	7.4	1.2	0.2	64.3	393.4	30.9	96.6	18.6	18.8	411.3	24.4	13.9
LnGrp LOS	A	A	A	E	F	C	F	B	B	F	C	B
Approach Vol, veh/h		1734			2016			469			467	
Approach Delay, s/veh		1.9			341.4			64.4			207.7	
Approach LOS		A			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	68.0	17.1	29.2	48.5	28.1	10.7	35.6
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	5.1	* 5.1	4.6	* 4.6
Max Green Setting (Gmax), s	* 5	24.8	* 13	24.2	6.8	* 23	6.1	* 31
Max Q Clear Time (g_c+I1), s	5.5	3.7	14.9	7.0	5.7	25.0	8.1	5.4
Green Ext Time (p_c), s	0.0	15.0	0.0	1.3	0.1	0.0	0.0	1.2

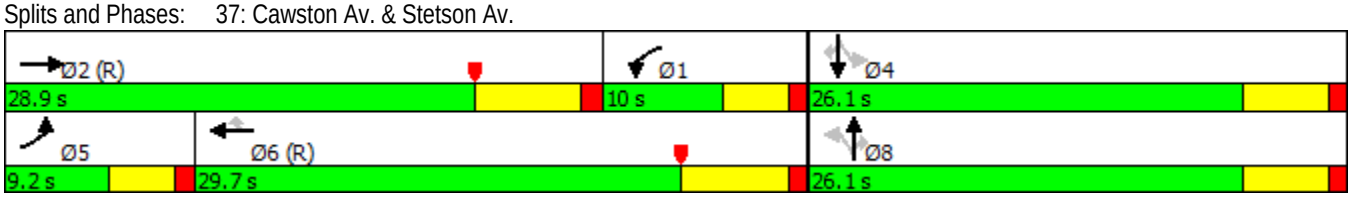
Intersection Summary	
HCM 2010 Ctrl Delay	174.7
HCM 2010 LOS	F

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	26	393	173	354	22	49	112	174	19	161	60
Future Volume (vph)	26	393	173	354	22	49	112	174	19	161	60
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.2	28.9	10.0	29.7	29.7	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.2%	44.5%	15.4%	45.7%	45.7%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	22.7	5.8	29.0	29.0	21.0	21.0	21.0	21.0	21.0	21.0
Actuated g/C Ratio	0.08	0.35	0.09	0.45	0.45	0.32	0.32	0.32	0.32	0.32	0.32
v/c Ratio	0.20	0.43	1.16	0.45	0.03	0.13	0.20	0.28	0.05	0.28	0.09
Control Delay	31.8	16.9	153.8	16.0	0.1	16.8	17.0	2.6	15.7	18.0	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.8	16.9	153.8	16.0	0.1	16.8	17.0	2.6	15.7	18.0	0.3
LOS	C	B	F	B	A	B	B	A	B	B	A
Approach Delay		17.7		58.8			9.5			13.4	
Approach LOS		B		E			A			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay: 29.4	Intersection LOS: C
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	393	59	173	354	22	49	112	174	19	161	60
Future Volume (veh/h)	26	393	59	173	354	22	49	112	174	19	161	60
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	27	414	48	182	373	20	52	118	94	20	169	36
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	53	1060	122	1398	2121	1803	410	602	512	434	602	512
Arrive On Green	0.03	0.35	0.35	0.79	1.00	1.00	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	3034	350	1774	1863	1583	1172	1863	1583	1165	1863	1583
Grp Volume(v), veh/h	27	215	247	182	373	20	52	118	94	20	169	36
Grp Sat Flow(s),veh/h/ln	1774	1583	1801	1774	1863	1583	1172	1863	1583	1165	1863	1583
Q Serve(g_s), s	1.0	6.6	6.7	1.6	0.0	0.0	2.2	3.0	2.8	0.8	4.4	1.0
Cycle Q Clear(g_c), s	1.0	6.6	6.7	1.6	0.0	0.0	6.6	3.0	2.8	3.8	4.4	1.0
Prop In Lane	1.00		0.19	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	53	553	629	1398	2121	1803	410	602	512	434	602	512
V/C Ratio(X)	0.51	0.39	0.39	0.13	0.18	0.01	0.13	0.20	0.18	0.05	0.28	0.07
Avail Cap(c_a), veh/h	136	553	629	1398	2121	1803	410	602	512	434	602	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	15.9	16.0	1.6	0.0	0.0	18.8	15.9	15.8	17.3	16.4	15.2
Incr Delay (d2), s/veh	2.1	1.5	1.4	0.0	0.1	0.0	0.6	0.7	0.8	0.2	1.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.1	3.5	0.8	0.1	0.0	0.8	1.6	1.3	0.3	2.4	0.5
LnGrp Delay(d),s/veh	33.2	17.5	17.3	1.6	0.1	0.0	19.5	16.6	16.6	17.5	17.5	15.5
LnGrp LOS	C	B	B	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		489			575			264			225	
Approach Delay, s/veh		18.3			0.6			17.2			17.2	
Approach LOS		B			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	58.2	28.9		26.1	6.1	80.9		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.8	* 23		21.0	* 5	23.5		21.0
Max Q Clear Time (g_c+I1), s	3.6	8.7		6.4	3.0	2.0		8.6
Green Ext Time (p_c), s	0.1	1.2		1.2	0.0	1.4		1.1

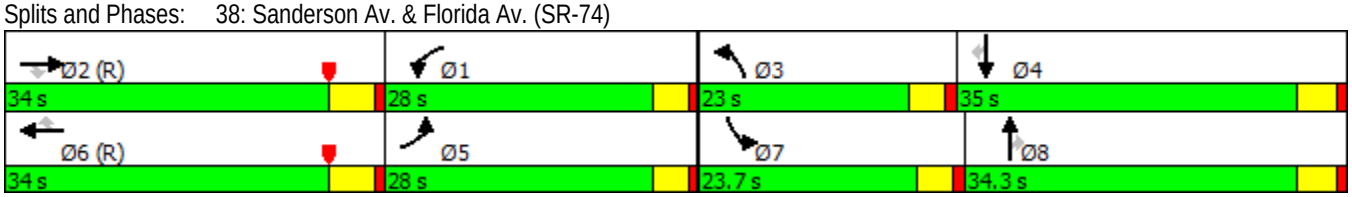
Intersection Summary	
HCM 2010 Ctrl Delay	11.4
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	496	1168	197	293	1095	287	547	1175	272	284	1182	356
Future Volume (vph)	496	1168	197	293	1095	287	547	1175	272	284	1182	356
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	28.0	34.0	34.0	28.0	34.0	34.0	23.0	34.3	34.3	23.7	35.0	35.0
Total Split (%)	23.3%	28.3%	28.3%	23.3%	28.3%	28.3%	19.2%	28.6%	28.6%	19.8%	29.2%	29.2%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	23.8	28.9	28.9	23.8	28.9	28.9	18.8	29.6	29.6	19.5	30.3	30.3
Actuated g/C Ratio	0.20	0.24	0.24	0.20	0.24	0.24	0.16	0.25	0.25	0.16	0.25	0.25
v/c Ratio	1.43	1.38	0.42	0.84	1.30	0.54	2.00	1.36	0.52	1.00	1.34	0.62
Control Delay	244.3	216.3	15.5	68.2	180.4	14.8	488.7	206.1	16.0	103.8	195.7	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	244.3	216.3	15.5	68.2	180.4	14.8	488.7	206.1	16.0	103.8	195.7	17.0
LOS	F	F	B	E	F	B	F	F	B	F	F	B
Approach Delay		202.5			132.4			257.7			146.4	
Approach LOS		F			F			F			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.00	
Intersection Signal Delay: 187.6	Intersection LOS: F
Intersection Capacity Utilization 135.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	496	1168	197	293	1095	287	547	1175	272	284	1182	356
Future Volume (veh/h)	496	1168	197	293	1095	287	547	1175	272	284	1182	356
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	501	1180	159	296	1106	233	553	1187	189	287	1194	302
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	852	374	352	852	375	278	873	382	288	894	394
Arrive On Green	0.20	0.24	0.24	0.20	0.24	0.24	0.16	0.25	0.25	0.16	0.25	0.25
Sat Flow, veh/h	1774	3539	1554	1774	3539	1555	1774	3539	1550	1774	3539	1559
Grp Volume(v), veh/h	501	1180	159	296	1106	233	553	1187	189	287	1194	302
Grp Sat Flow(s),veh/h/ln	1774	1770	1554	1774	1770	1555	1774	1770	1550	1774	1770	1559
Q Serve(g_s), s	23.8	28.9	7.2	19.3	28.9	11.0	18.8	29.6	8.0	19.4	30.3	13.7
Cycle Q Clear(g_c), s	23.8	28.9	7.2	19.3	28.9	11.0	18.8	29.6	8.0	19.4	30.3	13.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	852	374	352	852	375	278	873	382	288	894	394
V/C Ratio(X)	1.42	1.38	0.42	0.84	1.30	0.62	1.99	1.36	0.49	1.00	1.34	0.77
Avail Cap(c_a), veh/h	352	852	374	352	852	375	278	873	382	288	894	394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	45.5	18.4	46.3	45.5	19.0	50.6	45.2	15.8	50.2	44.8	16.8
Incr Delay (d2), s/veh	206.6	180.3	3.5	15.7	142.6	7.6	458.0	169.3	4.5	51.7	158.9	13.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	31.8	35.4	3.5	11.0	31.0	5.5	44.5	35.0	3.9	13.6	34.5	7.3
LnGrp Delay(d),s/veh	254.7	225.8	21.9	62.0	188.1	26.6	508.6	214.5	20.3	101.9	203.7	30.1
LnGrp LOS	F	F	C	E	F	C	F	F	C	F	F	C
Approach Vol, veh/h		1840			1635			1929			1783	
Approach Delay, s/veh		216.1			142.3			279.8			157.9	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	34.0	23.0	35.0	28.0	34.0	23.7	34.3
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	23.8	* 29	* 19	* 30	23.8	* 29	* 20	* 30
Max Q Clear Time (g_c+I1), s	21.3	30.9	20.8	32.3	25.8	30.9	21.4	31.6
Green Ext Time (p_c), s	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0

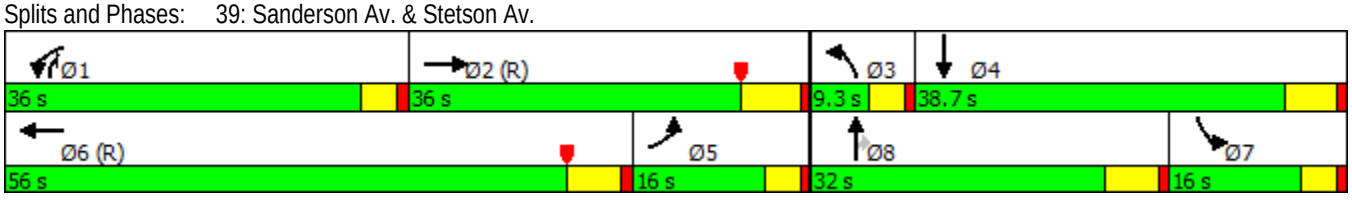
Intersection Summary		
HCM 2010 Ctrl Delay		202.0
HCM 2010 LOS		F

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	373	661	526	616	61	1236	542	378	1413
Future Volume (vph)	373	661	526	616	61	1236	542	378	1413
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	16.0	36.0	36.0	56.0	9.3	32.0	36.0	16.0	38.7
Total Split (%)	13.3%	30.0%	30.0%	46.7%	7.8%	26.7%	30.0%	13.3%	32.3%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	11.8	29.8	31.8	50.2	5.1	26.2	59.6	11.8	32.9
Actuated g/C Ratio	0.10	0.25	0.26	0.42	0.04	0.22	0.50	0.10	0.27
v/c Ratio	2.21	0.87	1.16	0.67	0.84	1.65	0.66	2.24	1.86
Control Delay	589.9	54.6	131.9	27.7	123.4	330.0	13.6	602.3	416.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	589.9	54.6	131.9	27.7	123.4	330.0	13.6	602.3	416.1
LOS	F	D	F	C	F	F	B	F	F
Approach Delay		235.3		64.8		229.8			449.6
Approach LOS		F		E		F			F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 21.4 (18%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.24	
Intersection Signal Delay: 264.3	Intersection LOS: F
Intersection Capacity Utilization 123.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	373	661	72	526	616	336	61	1236	542	378	1413	314
Future Volume (veh/h)	373	661	72	526	616	336	61	1236	542	378	1413	314
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	385	681	72	542	635	325	63	1274	190	390	1457	313
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1615	3474	367	470	948	485	75	773	758	174	838	176
Arrive On Green	0.91	1.00	1.00	0.27	0.42	0.42	0.04	0.22	0.22	0.10	0.29	0.29
Sat Flow, veh/h	1774	3225	341	1774	2267	1160	1774	3539	1548	1774	2913	611
Grp Volume(v), veh/h	385	373	380	542	496	464	63	1274	190	390	871	899
Grp Sat Flow(s),veh/h/ln	1774	1770	1796	1774	1770	1657	1774	1770	1548	1774	1770	1755
Q Serve(g_s), s	3.0	0.0	0.0	31.8	27.2	27.2	4.2	26.2	18.9	11.8	34.5	34.5
Cycle Q Clear(g_c), s	3.0	0.0	0.0	31.8	27.2	27.2	4.2	26.2	18.9	11.8	34.5	34.5
Prop In Lane	1.00		0.19	1.00		0.70	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	1615	1906	1935	470	740	693	75	773	758	174	509	505
V/C Ratio(X)	0.24	0.20	0.20	1.15	0.67	0.67	0.84	1.65	0.25	2.24	1.71	1.78
Avail Cap(c_a), veh/h	1615	1906	1935	470	740	693	75	773	758	174	509	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.6	0.0	0.0	44.1	28.2	28.2	57.0	46.9	88.6	54.1	42.8	42.8
Incr Delay (d2), s/veh	0.0	0.2	0.2	90.7	4.8	5.1	50.4	297.7	0.8	574.1	328.8	359.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.1	0.1	27.4	14.2	13.4	3.1	44.7	8.3	33.6	63.3	67.1
LnGrp Delay(d),s/veh	0.6	0.2	0.2	134.8	33.0	33.3	107.4	344.6	89.4	628.2	371.6	402.4
LnGrp LOS	A	A	A	F	C	C	F	F	F	F	F	F
Approach Vol, veh/h		1138			1502			1527			2160	
Approach Delay, s/veh		0.4			69.8			303.1			430.7	
Approach LOS		A			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.0	137.1	9.3	40.3	117.1	56.0	17.6	32.0
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	6.2	* 5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 32	29.8	* 5.1	32.9	11.8	* 50	11.8	* 26
Max Q Clear Time (g_c+I1), s	33.8	2.0	6.2	36.5	5.0	29.2	13.8	28.2
Green Ext Time (p_c), s	0.0	4.7	0.0	0.0	2.7	5.9	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		236.8
HCM 2010 LOS		F

Notes

APPENDIX 7.2:

OPENING YEAR CUMULATIVE (2026) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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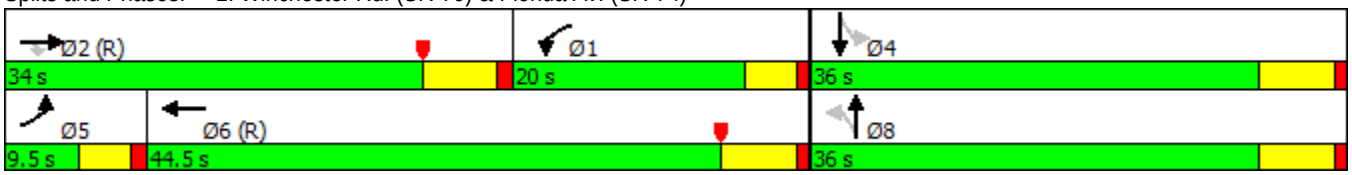
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	20	1172	145	586	1348	142	13	25	33
Future Volume (vph)	20	1172	145	586	1348	142	13	25	33
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	28.0	28.0	15.5	44.2	30.0	30.0	30.0	30.0
Actuated g/C Ratio	0.06	0.31	0.31	0.17	0.49	0.33	0.33	0.33	0.33
v/c Ratio	0.21	1.10	0.25	1.99	0.82	0.32	0.78	0.32	0.07
Control Delay	46.0	88.8	5.3	480.1	26.1	24.9	17.2	35.0	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.0	88.8	5.3	480.1	26.1	24.9	17.2	35.0	18.2
LOS	D	F	A	F	C	C	B	C	B
Approach Delay		79.1			161.0		18.6		24.7
Approach LOS		E			F		B		C

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.99
Intersection Signal Delay: 106.5 — Intersection LOS: F
Intersection Capacity Utilization 116.1% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1172	145	586	1348	37	142	13	593	25	33	7
Future Volume (veh/h)	20	1172	145	586	1348	37	142	13	593	25	33	7
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	21	1208	110	604	1390	36	146	13	431	26	34	7
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	40	1101	493	1281	3621	94	512	16	514	150	500	103
Arrive On Green	0.02	0.31	0.31	0.72	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3525	91	1359	47	1542	942	1499	309
Grp Volume(v), veh/h	21	1208	110	604	697	729	146	0	444	26	0	41
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1847	1359	0	1589	942	0	1808
Q Serve(g_s), s	1.1	28.0	4.6	12.9	0.0	0.0	7.4	0.0	23.3	2.4	0.0	1.4
Cycle Q Clear(g_c), s	1.1	28.0	4.6	12.9	0.0	0.0	8.8	0.0	23.3	25.6	0.0	1.4
Prop In Lane	1.00		1.00	1.00		0.05	1.00		0.97	1.00		0.17
Lane Grp Cap(c), veh/h	40	1101	493	1281	1818	1897	512	0	530	150	0	603
V/C Ratio(X)	0.52	1.10	0.22	0.47	0.38	0.38	0.29	0.00	0.84	0.17	0.00	0.07
Avail Cap(c_a), veh/h	99	1101	493	1281	1818	1897	512	0	530	150	0	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.5	31.0	22.9	5.3	0.0	0.0	23.5	0.0	27.8	39.6	0.0	20.5
Incr Delay (d2), s/veh	3.8	57.7	1.0	0.1	0.6	0.6	1.4	0.0	14.7	2.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	22.4	2.2	6.2	0.3	0.3	3.0	0.0	12.3	0.7	0.0	0.7
LnGrp Delay(d),s/veh	47.3	88.7	24.0	5.4	0.6	0.6	24.9	0.0	42.4	42.1	0.0	20.7
LnGrp LOS	D	F	C	A	A	A	C		D	D		C
Approach Vol, veh/h		1339			2030			590			67	
Approach Delay, s/veh		82.7			2.0			38.1			29.0	
Approach LOS		F			A			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	72.0	34.0		36.0	6.5	99.5		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	14.9	30.0		27.6	3.1	2.0		25.3
Green Ext Time (p_c), s	0.1	0.0		0.6	0.0	7.6		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.6
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	67.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	1	63	2	0	3	38	649	2	4	906	48
Future Vol, veh/h	70	1	63	2	0	3	38	649	2	4	906	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	75	1	68	2	0	3	41	698	2	4	974	52

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1791	1791	1000	1790	1815	699	1026	0	0	700	0	0
Stage 1	1009	1009	-	781	781	-	-	-	-	-	-	-
Stage 2	782	782	-	1009	1034	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 22	30	295	22	27	*572	677	-	-	*856	-	-
Stage 1	290	318	-	457	413	-	-	-	-	-	-	-
Stage 2	456	413	-	290	309	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	~ 20	28	295	15	26	*572	677	-	-	*856	-	-
Mov Cap-2 Maneuver	~ 20	28	-	15	26	-	-	-	-	-	-	-
Stage 1	272	317	-	429	388	-	-	-	-	-	-	-
Stage 2	426	388	-	222	308	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 890.4	121.8	0.6	0
HCM LOS	F	F		

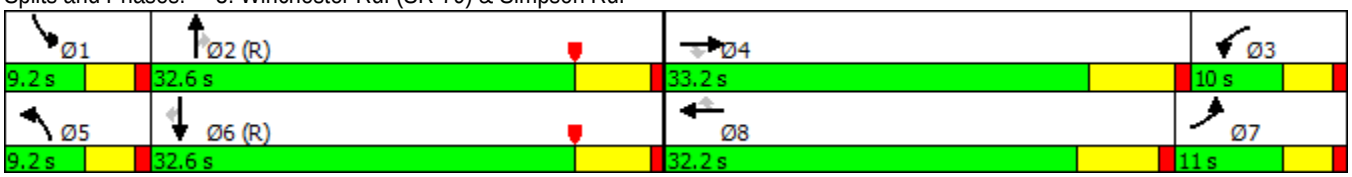
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	677	-	-	20	295	36	* 856	-	-
HCM Lane V/C Ratio	0.06	-	-	3.817	0.23	0.149	0.005	-	-
HCM Control Delay (s)	10.7	-	-	$ 1662.1	20.8	121.8	9.2	-	-
HCM Lane LOS	B	-	-	F	C	F	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	9.9	0.9	0.5	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	179	200	99	119	312	77	44	446	51	37	766	149
Future Volume (vph)	179	200	99	119	312	77	44	446	51	37	766	149
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	11.0	33.2	33.2	10.0	32.2	32.2	9.2	32.6	32.6	9.2	32.6	32.6
Total Split (%)	12.9%	39.1%	39.1%	11.8%	37.9%	37.9%	10.8%	38.4%	38.4%	10.8%	38.4%	38.4%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	12.4	16.3	16.3	16.2	20.4	20.4	5.0	30.5	30.5	5.0	30.5	30.5
Actuated g/C Ratio	0.15	0.19	0.19	0.19	0.24	0.24	0.06	0.36	0.36	0.06	0.36	0.36
v/c Ratio	0.76	0.61	0.26	0.38	0.76	0.18	0.46	0.38	0.09	0.38	0.66	0.25
Control Delay	59.0	37.7	3.5	38.8	41.1	1.6	53.5	22.3	0.3	49.6	26.9	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	37.7	3.5	38.8	41.1	1.6	53.5	22.3	0.3	49.6	26.9	4.8
LOS	E	D	A	D	D	A	D	C	A	D	C	A
Approach Delay		38.6			34.5			22.8			24.3	
Approach LOS		D			C			C			C	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 28.8	Intersection LOS: C
Intersection Capacity Utilization 69.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	200	99	119	312	77	44	446	51	37	766	149
Future Volume (veh/h)	179	200	99	119	312	77	44	446	51	37	766	149
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	195	217	83	129	339	67	48	485	43	40	833	117
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	304	252	240	413	348	71	1494	657	64	1480	655
Arrive On Green	0.08	0.16	0.16	0.14	0.22	0.22	0.04	0.42	0.42	0.04	0.42	0.42
Sat Flow, veh/h	1774	1863	1548	1774	1863	1569	1774	3539	1555	1774	3539	1566
Grp Volume(v), veh/h	195	217	83	129	339	67	48	485	43	40	833	117
Grp Sat Flow(s),veh/h/ln	1774	1863	1548	1774	1863	1569	1774	1770	1555	1774	1770	1566
Q Serve(g_s), s	6.8	9.4	3.2	5.8	14.7	2.4	2.3	7.8	0.8	1.9	15.2	2.6
Cycle Q Clear(g_c), s	6.8	9.4	3.2	5.8	14.7	2.4	2.3	7.8	0.8	1.9	15.2	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	142	304	252	240	413	348	71	1494	657	64	1480	655
V/C Ratio(X)	1.37	0.71	0.33	0.54	0.82	0.19	0.68	0.32	0.07	0.63	0.56	0.18
Avail Cap(c_a), veh/h	142	585	486	240	570	480	104	1494	657	104	1480	655
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	33.7	20.2	34.3	31.5	17.1	40.3	16.4	4.6	40.4	18.8	6.8
Incr Delay (d2), s/veh	206.3	3.1	0.8	1.3	6.7	0.3	3.7	0.5	0.2	3.7	1.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	5.1	1.4	2.9	8.3	1.0	1.2	3.9	0.4	1.0	7.7	1.2
LnGrp Delay(d),s/veh	245.4	36.8	21.0	35.6	38.2	17.3	44.0	17.0	4.8	44.1	20.4	7.4
LnGrp LOS	F	D	C	D	D	B	D	B	A	D	C	A
Approach Vol, veh/h		495			535			576			990	
Approach Delay, s/veh		116.3			34.9			18.3			19.8	
Approach LOS		F			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	41.7	15.7	20.4	7.6	41.3	11.0	25.1
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 5	26.8	5.8	* 27	* 5	26.8	6.8	* 26
Max Q Clear Time (g_c+I1), s	3.9	9.8	7.8	11.4	4.3	17.2	8.8	16.7
Green Ext Time (p_c), s	0.0	10.7	0.0	1.1	0.0	6.9	0.0	1.3

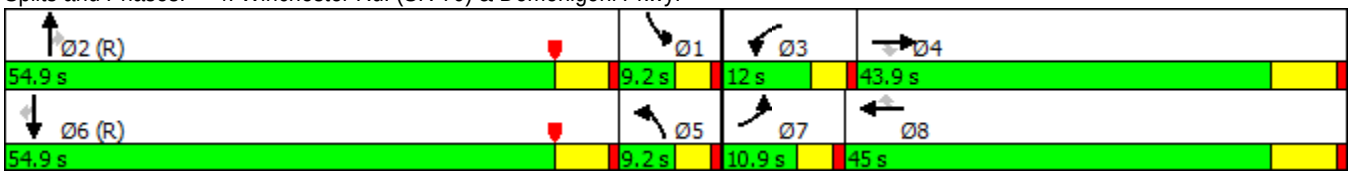
Intersection Summary	
HCM 2010 Ctrl Delay	41.0
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	969	88	876	971	52	54	354	703	80	655	249
Future Volume (vph)	169	969	88	876	971	52	54	354	703	80	655	249
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	10.9	43.9	43.9	12.0	45.0	45.0	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.1%	36.6%	36.6%	10.0%	37.5%	37.5%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	6.7	37.0	37.0	7.8	38.1	38.1	5.0	49.1	49.1	5.0	49.1	49.1
Actuated g/C Ratio	0.06	0.31	0.31	0.06	0.32	0.32	0.04	0.41	0.41	0.04	0.41	0.41
v/c Ratio	0.96	0.97	0.17	4.27	0.65	0.10	0.81	0.27	1.03	1.19	0.49	0.36
Control Delay	112.9	61.2	5.9	1495.4	37.6	1.1	118.5	24.1	68.3	214.7	27.7	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	112.9	61.2	5.9	1495.4	37.6	1.1	118.5	24.1	68.3	214.7	27.7	10.0
LOS	F	E	A	F	D	A	F	C	E	F	C	A
Approach Delay		64.4			709.0			56.6			38.4	
Approach LOS		E			F			E			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 4.27	
Intersection Signal Delay: 292.3	Intersection LOS: F
Intersection Capacity Utilization 91.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	969	88	876	971	52	54	354	703	80	655	249
Future Volume (veh/h)	169	969	88	876	971	52	54	354	703	80	655	249
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	184	1053	59	952	1055	45	59	385	502	87	712	172
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	1091	488	224	1615	503	74	1448	648	74	1448	648
Arrive On Green	0.06	0.31	0.31	0.07	0.32	0.32	0.04	0.41	0.41	0.04	0.41	0.41
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	184	1053	59	952	1055	45	59	385	502	87	712	172
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.4	35.2	2.6	7.8	21.4	1.9	4.0	8.7	24.7	5.0	17.9	6.6
Cycle Q Clear(g_c), s	6.4	35.2	2.6	7.8	21.4	1.9	4.0	8.7	24.7	5.0	17.9	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	1091	488	224	1615	503	74	1448	648	74	1448	648
V/C Ratio(X)	0.96	0.96	0.12	4.26	0.65	0.09	0.80	0.27	0.77	1.18	0.49	0.27
Avail Cap(c_a), veh/h	192	1091	488	224	1615	503	74	1448	648	74	1448	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78
Uniform Delay (d), s/veh	56.5	40.9	19.4	56.1	35.3	18.6	57.0	23.5	17.2	57.5	26.2	13.7
Incr Delay (d2), s/veh	52.2	19.3	0.1	1475.4	1.0	0.1	41.5	0.4	8.8	148.0	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	20.0	1.1	49.5	10.2	0.8	2.8	4.3	12.3	5.5	8.9	3.0
LnGrp Delay(d),s/veh	108.7	60.2	19.5	1531.5	36.2	18.6	98.5	24.0	26.0	205.5	27.2	14.5
LnGrp LOS	F	E	B	F	D	B	F	C	C	F	C	B
Approach Vol, veh/h		1296			2052			946			971	
Approach Delay, s/veh		65.2			729.6			29.7			40.9	
Approach LOS		E			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	54.9	12.0	43.9	9.2	54.9	10.9	45.0
Change Period (Y+Rc), s	4.2	* 5.8	* 4.2	6.9	4.2	* 5.8	* 4.2	6.9
Max Green Setting (Gmax), s	5.0	* 49	* 7.8	37.0	5.0	* 49	* 6.7	38.1
Max Q Clear Time (g_c+I1), s	7.0	26.7	9.8	37.2	6.0	19.9	8.4	23.4
Green Ext Time (p_c), s	0.0	6.4	0.0	0.0	0.0	8.0	0.0	10.6

Intersection Summary	
HCM 2010 Ctrl Delay	313.3
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1751	0	0	1934	1	0	0	0	0	0	1
Future Vol, veh/h	0	1751	0	0	1934	1	0	0	0	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1946	0	0	2149	1	0	0	0	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	973	-	-	1075
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*389	0	0	215
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*389	-	-	215
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	21.8
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	215
HCM Lane V/C Ratio	-	-	-	-	-	0.005
HCM Control Delay (s)	0	-	-	-	-	21.8
HCM Lane LOS	A	-	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	99	0	4	4	5	116
Future Vol, veh/h	99	0	4	4	5	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	0	5	5	6	141

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	21	6	6	0	-	0
Stage 1	6	-	-	-	-	-
Stage 2	15	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	996	1077	1615	-	-	-
Stage 1	1017	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	993	1077	1615	-	-	-
Mov Cap-2 Maneuver	993	-	-	-	-	-
Stage 1	1017	-	-	-	-	-
Stage 2	1005	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	3.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1615	-	993	-	-
HCM Lane V/C Ratio	0.003	-	0.122	-	-
HCM Control Delay (s)	7.2	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	209	0	0	266	1	2	1	0	2	1	5
Future Vol, veh/h	2	209	0	0	266	1	2	1	0	2	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	230	0	0	292	1	2	1	0	2	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	293	0	0	230	0	0	530	527	230	528	527	293
Stage 1	-	-	-	-	-	-	234	234	-	293	293	-
Stage 2	-	-	-	-	-	-	296	293	-	235	234	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1269	-	-	1338	-	-	460	456	809	461	456	746
Stage 1	-	-	-	-	-	-	769	711	-	715	670	-
Stage 2	-	-	-	-	-	-	712	670	-	768	711	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1269	-	-	1338	-	-	455	455	809	459	455	746
Mov Cap-2 Maneuver	-	-	-	-	-	-	455	455	-	459	455	-
Stage 1	-	-	-	-	-	-	767	710	-	714	670	-
Stage 2	-	-	-	-	-	-	706	670	-	765	710	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	13	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	455	1269	-	-	1338	-	-	603
HCM Lane V/C Ratio	0.007	0.002	-	-	-	-	-	0.015
HCM Control Delay (s)	13	7.8	0	-	0	-	-	11.1
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	7.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	11	0	0	33
Future Vol, veh/h	0	0	11	0	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	12	0	0	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1	0	25	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	24	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1622	-	991	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	999	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1622	-	984	1084
Mov Cap-2 Maneuver	-	-	-	-	984	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	992	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.2	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1084	-	-	1622	-
HCM Lane V/C Ratio	0.033	-	-	0.007	-
HCM Control Delay (s)	8.4	-	-	7.2	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	6.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	33	0	50	11	0	82
Future Vol, veh/h	33	0	50	11	0	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	0	54	12	0	89

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	36	0	157	36
Stage 1	-	-	-	-	36	-
Stage 2	-	-	-	-	121	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1575	-	834	1037
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	904	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1575	-	805	1037
Mov Cap-2 Maneuver	-	-	-	-	805	-
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	873	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1037	-	-	1575	-
HCM Lane V/C Ratio	0.086	-	-	0.035	-
HCM Control Delay (s)	8.8	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	115	0	30	61	0	44
Future Vol, veh/h	115	0	30	61	0	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	125	0	33	66	0	48

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	125	0	257	125
Stage 1	-	-	-	-	125	-
Stage 2	-	-	-	-	132	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1462	-	732	926
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	894	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1462	-	715	926
Mov Cap-2 Maneuver	-	-	-	-	715	-
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	874	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	926	-	-	1462	-
HCM Lane V/C Ratio	0.052	-	-	0.022	-
HCM Control Delay (s)	9.1	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Intersection Delay, s/veh	470.4
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	30	37	24	0	315	18	140	0	19	839	295
Future Vol, veh/h	0	30	37	24	0	315	18	140	0	19	839	295
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	32	39	26	0	335	19	149	0	20	893	314
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	25.1	103.9	732.6
HCM LOS	D	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	33%	67%	10%
Vol Thru, %	73%	41%	4%	88%
Vol Right, %	26%	26%	30%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1153	91	473	746
LT Vol	19	30	315	78
Through Vol	839	37	18	660
RT Vol	295	24	140	8
Lane Flow Rate	1227	97	503	794
Geometry Grp	1	1	1	1
Degree of Util (X)	2.569	0.257	1.069	1.698
Departure Headway (Hd)	9.031	16.524	11.006	10.664
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	417	220	337	349
Service Time	7.031	14.524	9.006	8.664
HCM Lane V/C Ratio	2.942	0.441	1.493	2.275
HCM Control Delay	732.6	25.1	103.9	351.9
HCM Lane LOS	F	D	F	F
HCM 95th-tile Q	82.8	1	12.9	35.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	78	660	8
Future Vol, veh/h	0	78	660	8
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	83	702	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	351.9
HCM LOS	F

Intersection	
Intersection Delay, s/veh	610.8
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	265	255	37	0	193	389	150	0	20	736	111	0	153	674	173
Future Vol, veh/h	0	265	255	37	0	193	389	150	0	20	736	111	0	153	674	173
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	282	271	39	0	205	414	160	0	21	783	118	0	163	717	184
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0

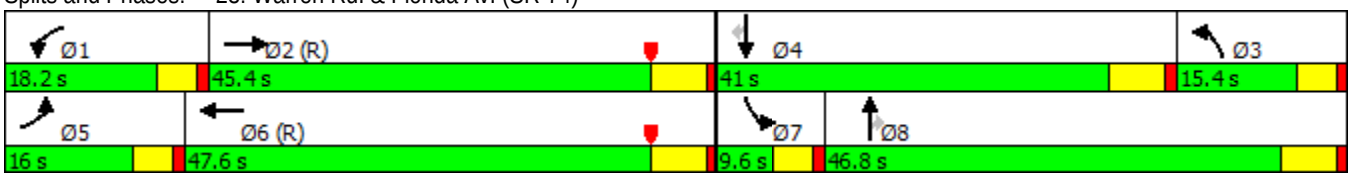
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	353.3	545	516.1	884.6
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	0%	48%	26%	15%
Vol Thru, %	97%	0%	46%	53%	67%
Vol Right, %	0%	100%	7%	20%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	756	111	557	732	1000
LT Vol	20	0	265	193	153
Through Vol	736	0	255	389	674
RT Vol	0	111	37	150	173
Lane Flow Rate	804	118	593	779	1064
Geometry Grp	7	7	2	2	5
Degree of Util (X)	2.177	0.296	1.594	2.068	2.853
Departure Headway (Hd)	20.165	19.4	25.857	22.019	19.182
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	193	188	148	171	202
Service Time	17.865	17.1	23.857	20.019	17.182
HCM Lane V/C Ratio	4.166	0.628	4.007	4.556	5.267
HCM Control Delay	587.5	30.1	353.3	545	884.6
HCM Lane LOS	F	D	F	F	F
HCM 95th-tile Q	31	1.2	15.7	26.6	47.7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	243	1281	419	1049	284	602	347	120	568	236
Future Volume (vph)	243	1281	419	1049	284	602	347	120	568	236
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	16.0	45.4	18.2	47.6	15.4	46.8	46.8	9.6	41.0	41.0
Total Split (%)	13.3%	37.8%	15.2%	39.7%	12.8%	39.0%	39.0%	8.0%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	11.4	39.4	13.6	41.6	10.8	40.8	40.8	5.0	35.0	35.0
Actuated g/C Ratio	0.10	0.33	0.11	0.35	0.09	0.34	0.34	0.04	0.29	0.29
v/c Ratio	1.48	1.41	2.14	0.92	1.82	0.51	0.52	1.67	0.56	0.40
Control Delay	281.5	222.9	555.9	50.2	425.6	33.5	13.8	389.4	38.5	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	281.5	222.9	555.9	50.2	425.6	33.5	13.8	389.4	38.5	7.9
LOS	F	F	F	D	F	C	B	F	D	A
Approach Delay		230.7		190.0		118.3			76.1	
Approach LOS		F		F		F			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 18.2 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.14	
Intersection Signal Delay: 168.3	Intersection LOS: F
Intersection Capacity Utilization 130.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	243	1281	304	419	1049	49	284	602	347	120	568	236
Future Volume (veh/h)	243	1281	304	419	1049	49	284	602	347	120	568	236
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	248	1307	247	428	1070	46	290	614	309	122	580	177
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	2124	397	201	2530	109	160	1245	556	74	1032	460
Arrive On Green	0.09	0.71	0.71	0.11	0.73	0.73	0.09	0.35	0.35	0.04	0.29	0.29
Sat Flow, veh/h	1774	2978	556	1774	3457	149	1774	3539	1581	1774	3539	1578
Grp Volume(v), veh/h	248	771	783	428	548	568	290	614	309	122	580	177
Grp Sat Flow(s),veh/h/ln	1774	1770	1765	1774	1770	1836	1774	1770	1581	1774	1770	1578
Q Serve(g_s), s	11.4	26.5	27.5	13.6	14.4	14.4	10.8	16.3	18.9	5.0	16.7	14.0
Cycle Q Clear(g_c), s	11.4	26.5	27.5	13.6	14.4	14.4	10.8	16.3	18.9	5.0	16.7	14.0
Prop In Lane	1.00		0.32	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	1262	1259	201	1295	1344	160	1245	556	74	1032	460
V/C Ratio(X)	1.47	0.61	0.62	2.13	0.42	0.42	1.82	0.49	0.56	1.65	0.56	0.38
Avail Cap(c_a), veh/h	169	1262	1259	201	1295	1344	160	1245	556	74	1032	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.3	8.7	8.9	53.2	6.3	6.3	54.6	30.5	31.3	57.5	36.0	57.4
Incr Delay (d2), s/veh	241.5	2.2	2.3	524.3	1.0	1.0	390.9	1.4	4.0	345.1	2.2	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.9	13.6	14.1	35.9	7.4	7.6	22.6	8.2	8.8	9.5	8.5	6.4
LnGrp Delay(d),s/veh	295.8	10.9	11.2	577.5	7.3	7.2	445.5	31.9	35.3	402.6	38.2	59.8
LnGrp LOS	F	B	B	F	A	A	F	C	D	F	D	E
Approach Vol, veh/h		1802			1544			1213			879	
Approach Delay, s/veh		50.2			165.3			131.7			93.1	
Approach LOS		D			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.2	93.0	16.8	41.0	16.0	95.2	9.6	48.2
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	13.6	39.4	10.8	* 35	11.4	41.6	5.0	40.8
Max Q Clear Time (g_c+I1), s	15.6	29.5	12.8	18.7	13.4	16.4	7.0	20.9
Green Ext Time (p_c), s	0.0	7.1	0.0	2.2	0.0	12.9	0.0	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	108.0
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	4.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	69	1160	132	277	967
Future Vol, veh/h	24	69	1160	132	277	967
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	73	1234	140	295	1029

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2853	1235	0	0	1235	0
Stage 1	1235	-	-	-	-	-
Stage 2	1618	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 19	215	-	-	564	-
Stage 1	274	-	-	-	-	-
Stage 2	178	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 9	215	-	-	564	-
Mov Cap-2 Maneuver	76	-	-	-	-	-
Stage 1	274	-	-	-	-	-
Stage 2	85	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	70.2	0	4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	146	564	-
HCM Lane V/C Ratio	-	-	0.678	0.522	-
HCM Control Delay (s)	-	-	70.2	18.2	-
HCM Lane LOS	-	-	F	C	-
HCM 95th %tile Q(veh)	-	-	3.8	3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	55	1313	4	21	994
Future Vol, veh/h	0	55	1313	4	21	994
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	57	1354	4	22	1025

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2424	1356	0	0	1358	0
Stage 1	1356	-	-	-	-	-
Stage 2	1068	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	35	183	-	-	506	-
Stage 1	240	-	-	-	-	-
Stage 2	330	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	33	183	-	-	506	-
Mov Cap-2 Maneuver	181	-	-	-	-	-
Stage 1	240	-	-	-	-	-
Stage 2	316	-	-	-	-	-

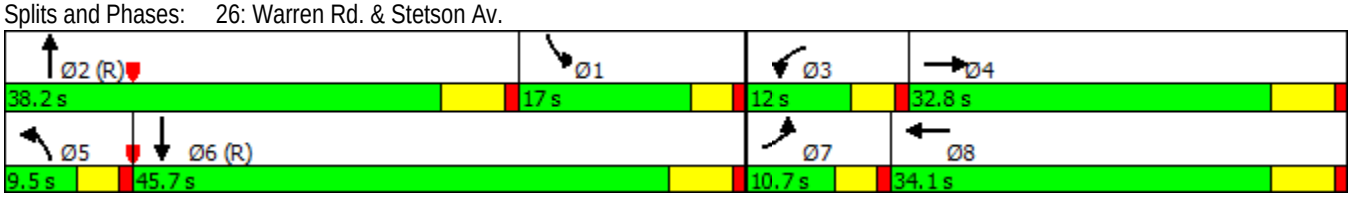
Approach	WB	NB	SB
HCM Control Delay, s	33.3	0	0.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	183	506	-
HCM Lane V/C Ratio	-	-	0.31	0.043	-
HCM Control Delay (s)	-	-	33.3	12.4	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	1.2	0.1	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	92	144	156	109	10	920	248	713
Future Volume (vph)	92	144	156	109	10	920	248	713
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	32.8	9.5	32.8
Total Split (s)	10.7	32.8	12.0	34.1	9.5	38.2	17.0	45.7
Total Split (%)	10.7%	32.8%	12.0%	34.1%	9.5%	38.2%	17.0%	45.7%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	22.1	7.8	23.4	5.1	37.3	12.8	52.4
Actuated g/C Ratio	0.06	0.22	0.08	0.23	0.05	0.37	0.13	0.52
v/c Ratio	0.83	0.43	1.18	0.88	0.11	0.91	1.14	0.43
Control Delay	96.2	34.1	175.4	44.0	48.0	42.0	144.2	16.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.2	34.1	175.4	44.0	48.0	42.0	144.2	16.9
LOS	F	C	F	D	D	D	F	B
Approach Delay		56.1		79.8		42.0		48.1
Approach LOS		E		E		D		D

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 85 (85%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.18	
Intersection Signal Delay: 52.6	Intersection LOS: D
Intersection Capacity Utilization 92.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	144	24	156	109	308	10	920	217	248	713	49
Future Volume (veh/h)	92	144	24	156	109	308	10	920	217	248	713	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	96	150	25	162	114	321	10	958	226	258	743	51
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	416	69	138	121	341	22	922	217	791	2600	178
Arrive On Green	0.06	0.27	0.27	0.08	0.28	0.28	0.01	0.32	0.32	0.45	0.77	0.77
Sat Flow, veh/h	1774	1557	260	1774	432	1216	1774	2844	670	1774	3361	231
Grp Volume(v), veh/h	96	0	175	162	0	435	10	595	589	258	391	403
Grp Sat Flow(s),veh/h/ln	1774	0	1817	1774	0	1648	1774	1770	1745	1774	1770	1822
Q Serve(g_s), s	5.3	0.0	7.8	7.8	0.0	25.8	0.6	32.4	32.4	9.4	6.4	6.4
Cycle Q Clear(g_c), s	5.3	0.0	7.8	7.8	0.0	25.8	0.6	32.4	32.4	9.4	6.4	6.4
Prop In Lane	1.00		0.14	1.00		0.74	1.00		0.38	1.00		0.13
Lane Grp Cap(c), veh/h	115	0	485	138	0	462	22	573	565	791	1369	1409
V/C Ratio(X)	0.83	0.00	0.36	1.17	0.00	0.94	0.46	1.04	1.04	0.33	0.29	0.29
Avail Cap(c_a), veh/h	115	0	491	138	0	466	94	573	565	791	1369	1409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.48	0.48	0.48	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.2	0.0	29.7	46.1	0.0	35.2	49.1	33.8	33.8	18.0	3.3	3.3
Incr Delay (d2), s/veh	36.3	0.0	0.5	129.7	0.0	27.6	2.8	36.5	37.6	0.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	4.0	8.8	0.0	15.3	0.3	21.6	21.4	4.6	3.2	3.3
LnGrp Delay(d),s/veh	82.5	0.0	30.2	175.8	0.0	62.9	51.8	70.3	71.4	18.1	3.8	3.8
LnGrp LOS	F		C	F		E	D	F	F	B	A	A
Approach Vol, veh/h		271			597			1194			1052	
Approach Delay, s/veh		48.7			93.5			70.7			7.3	
Approach LOS		D			F			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	50.5	38.2	12.0	32.5	5.4	83.3	10.7	33.8
Change Period (Y+Rc), s	5.8	* 5.8	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8
Max Green Setting (Gmax), s	12.8	* 32	* 7.8	27.0	* 5.3	39.9	* 6.5	28.3
Max Q Clear Time (g_c+I1), s	11.4	34.4	9.8	9.8	2.6	8.4	7.3	27.8
Green Ext Time (p_c), s	0.2	0.0	0.0	3.2	0.0	6.9	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	51.7
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	123	35	16	1015	812
Future Volume (vph)	123	35	16	1015	812
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	34.8	34.8	9.2	15.8	34.8
Total Split (s)	35.0	35.0	9.2	49.1	39.9
Total Split (%)	41.6%	41.6%	10.9%	58.4%	47.4%
Yellow Time (s)	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	14.5	14.5	5.3	58.0	56.1
Actuated g/C Ratio	0.17	0.17	0.06	0.69	0.67
v/c Ratio	0.44	0.13	0.15	0.86	0.78
Control Delay	34.0	8.8	40.6	21.2	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	8.8	40.6	21.2	19.4
LOS	C	A	D	C	B
Approach Delay	28.5			21.5	19.4
Approach LOS	C			C	B

Intersection Summary	
Cycle Length: 84.1	
Actuated Cycle Length: 84.1	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 21.1	Intersection LOS: C
Intersection Capacity Utilization 72.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 27: Warren Rd. & New Stetson Av.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	123	35	16	1015	812	75
Future Volume (veh/h)	123	35	16	1015	812	75
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	134	38	17	1103	883	82
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	207	185	35	1388	1134	105
Arrive On Green	0.12	0.12	0.02	0.75	0.68	0.68
Sat Flow, veh/h	1774	1583	1774	1863	1679	156
Grp Volume(v), veh/h	134	38	17	1103	0	965
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	0	1835
Q Serve(g_s), s	6.1	1.8	0.8	31.1	0.0	30.2
Cycle Q Clear(g_c), s	6.1	1.8	0.8	31.1	0.0	30.2
Prop In Lane	1.00	1.00	1.00			0.08
Lane Grp Cap(c), veh/h	207	185	35	1388	0	1240
V/C Ratio(X)	0.65	0.21	0.49	0.79	0.00	0.78
Avail Cap(c_a), veh/h	617	550	106	1388	0	1240
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.83
Uniform Delay (d), s/veh	35.4	33.6	40.8	6.7	0.0	9.3
Incr Delay (d2), s/veh	1.3	0.2	4.0	4.8	0.0	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	1.7	0.4	17.5	0.0	16.4
LnGrp Delay(d),s/veh	36.7	33.8	44.7	11.5	0.0	13.4
LnGrp LOS	D	C	D	B		B
Approach Vol, veh/h	172			1120	965	
Approach Delay, s/veh	36.0			12.0	13.4	
Approach LOS	D			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		68.4		15.6	5.8	62.5		
Change Period (Y+Rc), s		5.8		5.8	* 4.2	5.8		
Max Green Setting (Gmax), s		43.3		29.2	* 5	34.1		
Max Q Clear Time (g_c+I1), s		33.1		8.1	2.8	32.2		
Green Ext Time (p_c), s		6.8		0.2	0.0	1.5		

Intersection Summary	
HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B

Notes

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	52	20	845	696
Future Volume (vph)	52	20	845	696
Turn Type	Prot	Prot	NA	NA
Protected Phases	4	5	2	6
Permitted Phases				
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	10.8	23.8
Total Split (s)	13.0	10.0	47.0	37.0
Total Split (%)	21.7%	16.7%	78.3%	61.7%
Yellow Time (s)	3.6	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Min	C-Min
Act Effct Green (s)	6.5	5.3	46.2	44.2
Actuated g/C Ratio	0.11	0.09	0.77	0.74
v/c Ratio	0.40	0.14	0.64	0.59
Control Delay	23.8	33.9	2.8	9.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.8	33.9	2.8	9.7
LOS	C	C	A	A
Approach Delay	23.8		3.6	9.7
Approach LOS	C		A	A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 7.2	Intersection LOS: A
Intersection Capacity Utilization 57.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 28: Warren Rd. & Street D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	52	25	20	845	696	44
Future Volume (veh/h)	52	25	20	845	696	44
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	57	27	22	918	757	48
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	72	34	45	1422	1146	73
Arrive On Green	0.06	0.06	0.05	1.00	0.66	0.66
Sat Flow, veh/h	1146	543	1774	1863	1733	110
Grp Volume(v), veh/h	85	0	22	918	0	805
Grp Sat Flow(s),veh/h/ln	1710	0	1774	1863	0	1843
Q Serve(g_s), s	2.9	0.0	0.7	0.0	0.0	15.8
Cycle Q Clear(g_c), s	2.9	0.0	0.7	0.0	0.0	15.8
Prop In Lane	0.67	0.32	1.00			0.06
Lane Grp Cap(c), veh/h	108	0	45	1422	0	1219
V/C Ratio(X)	0.79	0.00	0.48	0.65	0.00	0.66
Avail Cap(c_a), veh/h	239	0	160	1422	0	1219
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.09	0.09	0.00	1.00
Uniform Delay (d), s/veh	27.7	0.0	28.1	0.0	0.0	6.1
Incr Delay (d2), s/veh	4.7	0.0	0.3	0.2	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.4	0.1	0.0	8.8
LnGrp Delay(d),s/veh	32.4	0.0	28.3	0.2	0.0	8.9
LnGrp LOS	C		C	A		A
Approach Vol, veh/h	85			940	805	
Approach Delay, s/veh	32.4			0.9	8.9	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		51.6		8.4	6.1	45.5		
Change Period (Y+Rc), s		5.8		4.6	4.6	5.8		
Max Green Setting (Gmax), s		41.2		8.4	5.4	31.2		
Max Q Clear Time (g_c+I1), s		2.0		4.9	2.7	17.8		
Green Ext Time (p_c), s		24.4		0.0	0.0	10.8		

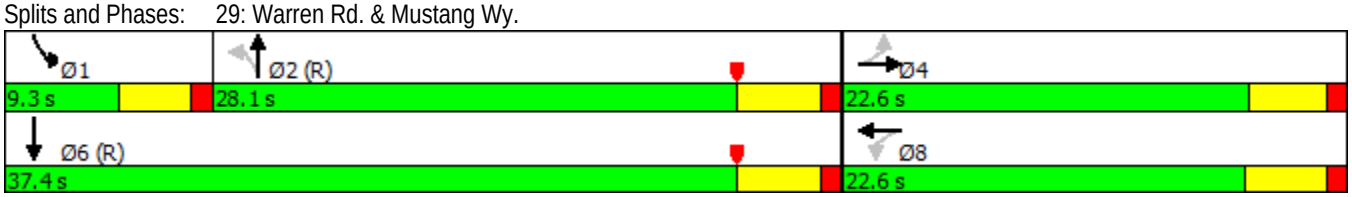
Intersection Summary	
HCM 2010 Ctrl Delay	5.9
HCM 2010 LOS	A

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	153	20	331	7	37	638	134	649
Future Volume (vph)	153	20	331	7	37	638	134	649
Turn Type	Perm	NA	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2			
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.5	22.5	21.6	21.6	21.7	21.7	9.2	14.7
Total Split (s)	22.6	22.6	22.6	22.6	28.1	28.1	9.3	37.4
Total Split (%)	37.7%	37.7%	37.7%	37.7%	46.8%	46.8%	15.5%	62.3%
Yellow Time (s)	3.5	3.5	3.6	3.6	3.7	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.6	4.6	4.7	4.7	4.2	4.7
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	18.1	18.1	18.0	18.0	23.4	23.4	5.1	32.7
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.39	0.39	0.08	0.54
v/c Ratio	0.56	0.25	0.99	0.38	0.22	1.29	0.99	0.77
Control Delay	26.2	6.2	69.9	4.9	15.9	163.8	101.2	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	6.2	69.9	4.9	15.9	163.8	101.2	16.5
LOS	C	A	E	A	B	F	F	B
Approach Delay		17.1		43.9		157.5		30.1
Approach LOS		B		D		F		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.29	
Intersection Signal Delay: 75.4	Intersection LOS: E
Intersection Capacity Utilization 94.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	20	108	331	7	214	37	638	199	134	649	52
Future Volume (veh/h)	153	20	108	331	7	214	37	638	199	134	649	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	170	22	120	368	8	191	41	709	207	149	721	58
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	356	75	411	409	19	459	217	541	158	151	927	75
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.39	0.39	0.39	0.03	0.18	0.18
Sat Flow, veh/h	1179	251	1370	1241	64	1529	690	1387	405	1774	1702	137
Grp Volume(v), veh/h	170	0	142	368	0	199	41	0	916	149	0	779
Grp Sat Flow(s),veh/h/ln	1179	0	1621	1241	0	1593	690	0	1791	1774	0	1839
Q Serve(g_s), s	8.1	0.0	4.0	14.0	0.0	6.0	3.3	0.0	23.4	5.0	0.0	24.2
Cycle Q Clear(g_c), s	14.1	0.0	4.0	18.0	0.0	6.0	18.2	0.0	23.4	5.0	0.0	24.2
Prop In Lane	1.00		0.85	1.00		0.96	1.00		0.23	1.00		0.07
Lane Grp Cap(c), veh/h	356	0	486	409	0	478	217	0	699	151	0	1002
V/C Ratio(X)	0.48	0.00	0.29	0.90	0.00	0.42	0.19	0.00	1.31	0.99	0.00	0.78
Avail Cap(c_a), veh/h	358	0	489	409	0	478	217	0	699	151	0	1002
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.78	0.00	0.78
Uniform Delay (d), s/veh	22.4	0.0	16.1	24.5	0.0	16.8	23.5	0.0	18.3	29.1	0.0	21.1
Incr Delay (d2), s/veh	1.0	0.0	0.3	22.3	0.0	0.6	1.9	0.0	150.2	60.9	0.0	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	1.8	8.6	0.0	2.7	0.7	0.0	40.6	5.0	0.0	13.6
LnGrp Delay(d),s/veh	23.4	0.0	16.4	46.8	0.0	17.4	25.4	0.0	168.5	90.0	0.0	25.8
LnGrp LOS	C		B	D		B	C		F	F		C
Approach Vol, veh/h		312			567			957			928	
Approach Delay, s/veh		20.2			36.5			162.3			36.1	
Approach LOS		C			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	9.3	28.1		22.6		37.4		22.6
Change Period (Y+Rc), s	* 4.2	* 4.7		* 4.6		* 4.7		4.6
Max Green Setting (Gmax), s	* 5.1	* 23		* 18		* 33		18.0
Max Q Clear Time (g_c+I1), s	7.0	25.4		16.1		26.2		20.0
Green Ext Time (p_c), s	0.0	0.0		0.9		5.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	78.1
HCM 2010 LOS	E

Notes

Intersection	
Intersection Delay, s/veh	236.1
Intersection LOS	F

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	231	33	0	783	297	0	45	621
Future Vol, veh/h	0	231	33	0	783	297	0	45	621
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	266	38	0	900	341	0	52	714
Number of Lanes	0	1	0	0	1	1	0	1	1

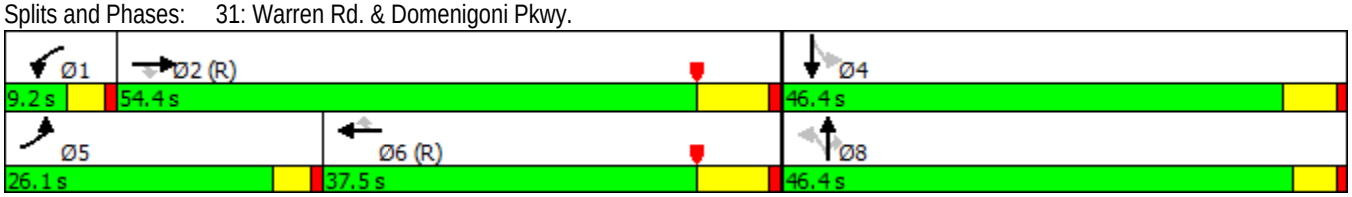
Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	24.8	324.2	176.9
HCM LOS	C	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	88%	0%	100%
Vol Right, %	0%	100%	12%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	621	264	783	297
LT Vol	45	0	0	783	0
Through Vol	0	0	231	0	297
RT Vol	0	621	33	0	0
Lane Flow Rate	52	714	303	900	341
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.114	1.34	0.619	1.908	0.676
Departure Headway (Hd)	8.803	7.568	8.671	8.607	8.09
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	410	485	419	432	451
Service Time	6.503	5.268	6.671	6.307	5.79
HCM Lane V/C Ratio	0.127	1.472	0.723	2.083	0.756
HCM Control Delay	12.6	188.8	24.8	437.3	26.1
HCM Lane LOS	B	F	C	F	D
HCM 95th-tile Q	0.4	28.6	4	53.1	4.9

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	538	1463	2	2	1762	116	4	22	1	162	16
Future Volume (vph)	538	1463	2	2	1762	116	4	22	1	162	16
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	21.9	54.9	54.9	5.0	30.6	30.6		41.8	41.8		41.0
Actuated g/C Ratio	0.20	0.50	0.50	0.05	0.28	0.28		0.38	0.38		0.37
v/c Ratio	1.68	0.91	0.00	0.03	1.97	0.25		0.04	0.00		1.30
Control Delay	347.8	35.0	0.0	51.0	464.3	9.6		21.9	0.0		169.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	347.8	35.0	0.0	51.0	464.3	9.6		21.9	0.0		169.2
LOS	F	C	A	D	F	A		C	A		F
Approach Delay		118.9			435.9			21.1			169.2
Approach LOS		F			F			C			F

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.97	
Intersection Signal Delay: 253.2	Intersection LOS: F
Intersection Capacity Utilization 147.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	538	1463	2	2	1762	116	4	22	1	162	16	635
Future Volume (veh/h)	538	1463	2	2	1762	116	4	22	1	162	16	635
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	591	1608	2	2	1936	117	4	24	0	178	18	553
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	1680	736	5	985	431	89	502	590	172	19	424
Arrive On Green	0.20	0.47	0.47	0.00	0.28	0.28	0.37	0.37	0.00	0.37	0.37	0.37
Sat Flow, veh/h	1774	3539	1550	1774	3539	1550	137	1347	1583	353	50	1137
Grp Volume(v), veh/h	591	1608	2	2	1936	117	28	0	0	749	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1550	1484	0	1583	1539	0	0
Q Serve(g_s), s	21.9	48.1	0.1	0.1	30.6	6.5	0.0	0.0	0.0	39.6	0.0	0.0
Cycle Q Clear(g_c), s	21.9	48.1	0.1	0.1	30.6	6.5	1.1	0.0	0.0	41.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.14		1.00	0.24		0.74
Lane Grp Cap(c), veh/h	353	1680	736	5	985	431	591	0	590	614	0	0
V/C Ratio(X)	1.67	0.96	0.00	0.42	1.97	0.27	0.05	0.00	0.00	1.22	0.00	0.00
Avail Cap(c_a), veh/h	353	1680	736	81	985	431	602	0	602	614	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	27.8	15.2	54.8	39.7	31.0	22.0	0.0	0.0	35.8	0.0	0.0
Incr Delay (d2), s/veh	315.2	13.9	0.0	20.2	438.6	1.5	0.0	0.0	0.0	112.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	41.6	26.7	0.0	0.1	74.9	2.9	0.5	0.0	0.0	37.9	0.0	0.0
LnGrp Delay(d),s/veh	359.2	41.8	15.2	74.9	478.3	32.5	22.0	0.0	0.0	148.8	0.0	0.0
LnGrp LOS	F	D	B	E	F	C	C			F		
Approach Vol, veh/h		2201			2055			28			749	
Approach Delay, s/veh		127.0			452.5			22.0			148.8	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	59.1		46.4	26.1	37.5		46.4
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.1	50.1		43.0	23.9	32.6		3.1
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		4.1

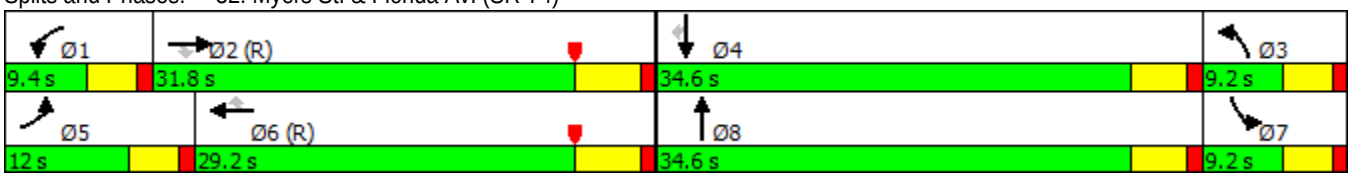
Intersection Summary		
HCM 2010 Ctrl Delay		262.5
HCM 2010 LOS		F

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	166	1473	8	18	1173	144	30	70	147	53	197
Future Volume (vph)	166	1473	8	18	1173	144	30	70	147	53	197
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.0	31.8	31.8	9.4	29.2	29.2	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.1%	37.4%	37.4%	11.1%	34.4%	34.4%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.8	32.3	32.3	5.1	24.1	24.1	5.0	30.0	5.0	33.7	33.7
Actuated g/C Ratio	0.09	0.38	0.38	0.06	0.28	0.28	0.06	0.35	0.06	0.40	0.40
v/c Ratio	1.04	1.12	0.01	0.17	1.19	0.27	0.30	0.18	1.44	0.07	0.27
Control Delay	123.5	90.7	0.0	52.2	105.6	0.9	46.1	13.4	277.9	18.2	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	123.5	90.7	0.0	52.2	105.6	0.9	46.1	13.4	277.9	18.2	4.0
LOS	F	F	A	D	F	A	D	B	F	B	A
Approach Delay		93.6			93.6			20.3		107.3	
Approach LOS		F			F			C		F	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.44	
Intersection Signal Delay: 92.2	Intersection LOS: F
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	1473	8	18	1173	144	30	70	43	147	53	197
Future Volume (veh/h)	166	1473	8	18	1173	144	30	70	43	147	53	197
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	169	1503	8	18	1197	147	31	71	20	150	54	146
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	1256	550	36	1003	447	104	494	139	104	657	559
Arrive On Green	0.09	0.35	0.35	0.03	0.38	0.38	0.06	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	1774	3539	1550	1774	3539	1575	1774	1399	394	1774	1863	1583
Grp Volume(v), veh/h	169	1503	8	18	1197	147	31	0	91	150	54	146
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1575	1774	0	1793	1774	1863	1583
Q Serve(g_s), s	7.8	30.2	0.2	0.9	24.1	4.3	1.4	0.0	2.9	5.0	1.6	3.9
Cycle Q Clear(g_c), s	7.8	30.2	0.2	0.9	24.1	4.3	1.4	0.0	2.9	5.0	1.6	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	163	1256	550	36	1003	447	104	0	633	104	657	559
V/C Ratio(X)	1.04	1.20	0.01	0.50	1.19	0.33	0.30	0.00	0.14	1.44	0.08	0.26
Avail Cap(c_a), veh/h	163	1256	550	109	1003	447	104	0	633	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	27.4	9.7	40.9	26.5	12.1	38.3	0.0	18.7	40.0	18.3	9.6
Incr Delay (d2), s/veh	81.0	96.4	0.0	3.9	96.7	2.0	0.6	0.0	0.5	242.8	0.2	1.1
Initial Q Delay(d3),s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	31.5	0.1	0.5	25.1	2.1	0.7	0.0	1.5	9.5	0.9	1.9
LnGrp Delay(d),s/veh	119.8	123.8	9.8	44.8	123.2	14.1	38.9	0.0	19.2	282.8	18.6	10.7
LnGrp LOS	F	F	A	D	F	B	D		B	F	B	B
Approach Vol, veh/h		1680			1362			122			350	
Approach Delay, s/veh		122.9			110.4			24.2			128.5	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	35.3	9.2	34.6	12.0	29.2	9.2	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.2	26.7	5.0	* 30	* 7.8	24.1	5.0	* 30
Max Q Clear Time (g_c+I1), s	2.9	32.2	3.4	5.9	9.8	26.1	7.0	4.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	115.2
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1444	332	0	1496	0	0
Future Vol, veh/h	1444	332	0	1496	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1536	353	0	1591	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1536	0	-	768
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*740	-	0	*495
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*740	-	-	*495
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

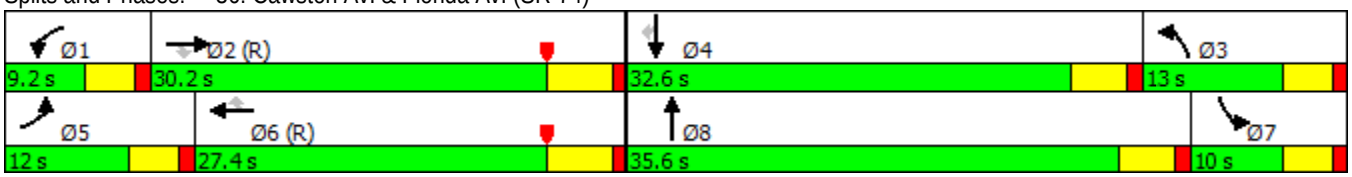
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	* 740	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	125	1309	13	31	1226	93	140	68	195	82	131
Future Volume (vph)	125	1309	13	31	1226	93	140	68	195	82	131
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	12.0	30.2	30.2	9.2	27.4	27.4	13.0	35.6	10.0	32.6	32.6
Total Split (%)	14.1%	35.5%	35.5%	10.8%	32.2%	32.2%	15.3%	41.9%	11.8%	38.4%	38.4%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.7	28.8	28.8	5.0	22.4	22.4	8.8	31.0	5.8	28.0	28.0
Actuated g/C Ratio	0.09	0.34	0.34	0.06	0.26	0.26	0.10	0.36	0.07	0.33	0.33
v/c Ratio	0.81	1.13	0.02	0.31	1.35	0.19	0.79	0.08	1.68	0.14	0.22
Control Delay	55.2	86.0	0.0	42.1	184.4	3.7	67.4	13.7	366.2	20.9	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.2	86.0	0.0	42.1	184.4	3.7	67.4	13.7	366.2	20.9	4.9
LOS	E	F	A	D	F	A	E	B	F	C	A
Approach Delay		82.6			168.6			46.2		180.6	
Approach LOS		F			F			D		F	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 38 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.68	
Intersection Signal Delay: 125.6	Intersection LOS: F
Intersection Capacity Utilization 78.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	1309	13	31	1226	93	140	68	23	195	82	131
Future Volume (veh/h)	125	1309	13	31	1226	93	140	68	23	195	82	131
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	129	1349	12	32	1264	80	144	70	21	201	85	67
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	160	1143	511	55	934	418	184	989	285	121	614	522
Arrive On Green	0.09	0.32	0.32	0.03	0.26	0.26	0.10	0.36	0.36	0.07	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	2712	781	1774	1863	1583
Grp Volume(v), veh/h	129	1349	12	32	1264	80	144	45	46	201	85	67
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1724	1774	1863	1583
Q Serve(g_s), s	6.1	27.4	0.3	1.5	22.4	2.5	6.7	1.4	1.5	5.8	2.7	1.8
Cycle Q Clear(g_c), s	6.1	27.4	0.3	1.5	22.4	2.5	6.7	1.4	1.5	5.8	2.7	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	160	1143	511	55	934	418	184	645	629	121	614	522
V/C Ratio(X)	0.80	1.18	0.02	0.58	1.35	0.19	0.78	0.07	0.07	1.66	0.14	0.13
Avail Cap(c_a), veh/h	163	1143	511	104	934	418	184	645	629	121	614	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	28.8	9.2	40.6	31.3	14.0	37.2	17.6	17.6	39.6	20.0	10.1
Incr Delay (d2), s/veh	22.7	90.4	0.1	3.5	166.4	1.0	18.1	0.2	0.2	330.8	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	27.7	0.1	0.8	32.5	1.2	4.2	0.7	0.7	13.9	1.5	0.8
LnGrp Delay(d),s/veh	60.7	119.2	9.3	44.1	197.7	15.0	55.3	17.8	17.9	370.4	20.5	10.6
LnGrp LOS	E	F	A	D	F	B	E	B	B	F	C	B
Approach Vol, veh/h		1490			1376			235			353	
Approach Delay, s/veh		113.2			183.5			40.8			217.8	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	32.5	13.0	32.6	11.9	27.5	10.0	35.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5	25.1	8.8	* 28	* 7.8	22.3	5.8	* 31
Max Q Clear Time (g_c+I1), s	3.5	29.4	8.7	4.7	8.1	24.4	7.8	3.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.5

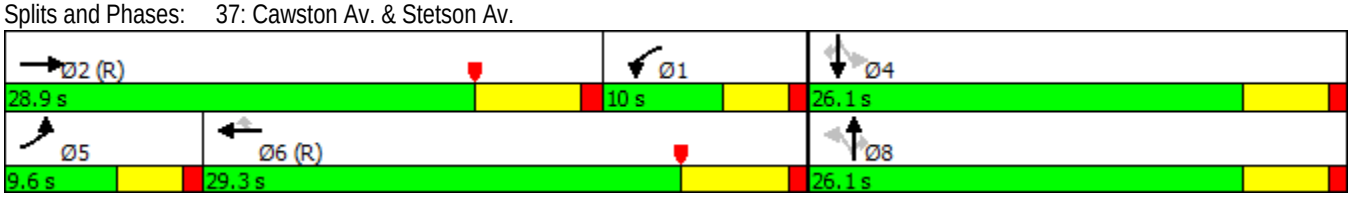
Intersection Summary	
HCM 2010 Ctrl Delay	147.0
HCM 2010 LOS	F

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	42	337	188	348	24	77	173	262	20	124	23
Future Volume (vph)	42	337	188	348	24	77	173	262	20	124	23
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.6	28.9	10.0	29.3	29.3	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.8%	44.5%	15.4%	45.1%	45.1%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	5.3	22.7	5.8	26.9	26.9	21.0	21.0	21.0	21.0	21.0	21.0
Actuated g/C Ratio	0.08	0.35	0.09	0.41	0.41	0.32	0.32	0.32	0.32	0.32	0.32
v/c Ratio	0.35	0.37	1.46	0.55	0.04	0.24	0.35	0.44	0.07	0.25	0.04
Control Delay	35.4	16.2	266.1	19.2	0.1	18.2	18.9	4.5	15.9	17.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.4	16.2	266.1	19.2	0.1	18.2	18.9	4.5	15.9	17.6	0.1
LOS	D	B	F	B	A	B	B	A	B	B	A
Approach Delay		18.2		101.3			11.4			15.0	
Approach LOS		B		F			B			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.46	
Intersection Signal Delay: 43.9	Intersection LOS: D
Intersection Capacity Utilization 57.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	337	32	188	348	24	77	173	262	20	124	23
Future Volume (veh/h)	42	337	32	188	348	24	77	173	262	20	124	23
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	51	411	37	229	424	22	94	211	181	24	151	11
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	1148	103	1532	2230	1896	432	602	512	345	602	505
Arrive On Green	0.05	0.35	0.35	0.86	1.00	1.00	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	3286	295	1774	1863	1583	1219	1863	1583	988	1863	1563
Grp Volume(v), veh/h	51	221	227	229	424	22	94	211	181	24	151	11
Grp Sat Flow(s),veh/h/ln	1774	1770	1811	1774	1863	1583	1219	1863	1583	988	1863	1563
Q Serve(g_s), s	1.8	6.0	6.1	1.3	0.0	0.0	4.0	5.6	5.7	1.2	3.9	0.3
Cycle Q Clear(g_c), s	1.8	6.0	6.1	1.3	0.0	0.0	7.9	5.6	5.7	6.9	3.9	0.3
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	82	618	632	1532	2230	1896	432	602	512	345	602	505
V/C Ratio(X)	0.62	0.36	0.36	0.15	0.19	0.01	0.22	0.35	0.35	0.07	0.25	0.02
Avail Cap(c_a), veh/h	147	618	632	1532	2230	1896	432	602	512	345	602	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	15.7	15.7	0.7	0.0	0.0	19.1	16.8	16.8	19.4	16.2	15.0
Incr Delay (d2), s/veh	2.4	1.3	1.3	0.0	0.1	0.0	1.2	1.6	1.9	0.4	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.2	3.3	0.6	0.0	0.0	1.5	3.1	2.7	0.4	2.1	0.1
LnGrp Delay(d),s/veh	32.8	17.1	17.1	0.7	0.1	0.0	20.3	18.4	18.7	19.8	17.2	15.1
LnGrp LOS	C	B	B	A	A	A	C	B	B	B	B	B
Approach Vol, veh/h		499			675			486			186	
Approach Delay, s/veh		18.7			0.3			18.9			17.4	
Approach LOS		B			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	63.1	28.9		26.1	7.2	84.8		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.8	* 23		21.0	* 5.4	23.1		21.0
Max Q Clear Time (g_c+I1), s	3.3	8.1		8.9	3.8	2.0		9.9
Green Ext Time (p_c), s	0.2	1.2		1.6	0.0	1.6		1.5

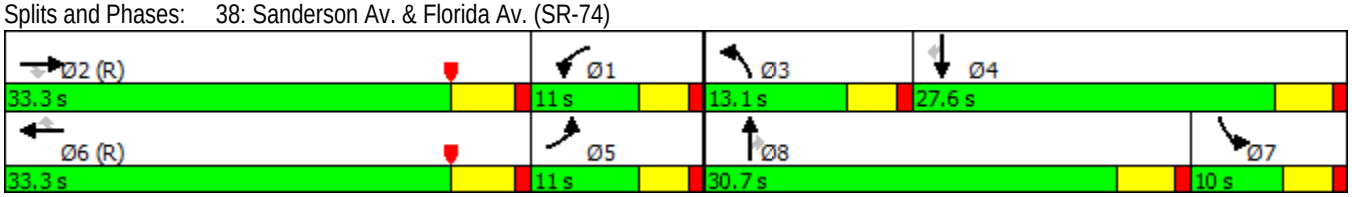
Intersection Summary	
HCM 2010 Ctrl Delay	11.9
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	301	955	151	180	761	155	355	1033	184	248	885	293
Future Volume (vph)	301	955	151	180	761	155	355	1033	184	248	885	293
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	11.0	33.3	33.3	11.0	33.3	33.3	13.1	30.7	30.7	10.0	27.6	27.6
Total Split (%)	12.9%	39.2%	39.2%	12.9%	39.2%	39.2%	15.4%	36.1%	36.1%	11.8%	32.5%	32.5%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	6.8	28.2	28.2	6.8	28.2	28.2	8.9	26.0	26.0	5.8	22.9	22.9
Actuated g/C Ratio	0.08	0.33	0.33	0.08	0.33	0.33	0.10	0.31	0.31	0.07	0.27	0.27
v/c Ratio	2.35	0.89	0.26	1.40	0.71	0.26	2.11	1.05	0.33	2.27	1.02	0.57
Control Delay	626.0	23.4	4.4	251.7	28.9	3.7	540.0	71.6	5.7	621.8	66.9	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	626.0	23.4	4.4	251.7	28.9	3.7	540.0	71.6	5.7	621.8	66.9	15.1
LOS	F	C	A	F	C	A	F	E	A	F	E	B
Approach Delay		150.4			62.0			169.7			152.9	
Approach LOS		F			E			F			F	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 81 (95%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.35	
Intersection Signal Delay: 138.9	Intersection LOS: F
Intersection Capacity Utilization 98.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	301	955	151	180	761	155	355	1033	184	248	885	293
Future Volume (veh/h)	301	955	151	180	761	155	355	1033	184	248	885	293
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	331	1049	137	198	836	111	390	1135	92	273	973	270
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	486	1174	516	486	1174	516	186	1083	469	121	974	436
Arrive On Green	0.27	0.33	0.33	0.27	0.33	0.33	0.10	0.31	0.31	0.07	0.28	0.28
Sat Flow, veh/h	1774	3539	1556	1774	3539	1555	1774	3539	1535	1774	3539	1583
Grp Volume(v), veh/h	331	1049	137	198	836	111	390	1135	92	273	973	270
Grp Sat Flow(s),veh/h/ln	1774	1770	1556	1774	1770	1555	1774	1770	1535	1774	1770	1583
Q Serve(g_s), s	14.2	23.9	5.4	7.8	17.6	4.4	8.9	26.0	3.8	5.8	23.4	9.5
Cycle Q Clear(g_c), s	14.2	23.9	5.4	7.8	17.6	4.4	8.9	26.0	3.8	5.8	23.4	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	486	1174	516	486	1174	516	186	1083	469	121	974	436
V/C Ratio(X)	0.68	0.89	0.27	0.41	0.71	0.22	2.10	1.05	0.20	2.26	1.00	0.62
Avail Cap(c_a), veh/h	486	1174	516	486	1174	516	186	1083	469	121	974	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	27.0	19.9	25.2	24.8	20.4	38.0	29.5	21.8	39.6	30.8	15.3
Incr Delay (d2), s/veh	3.2	10.5	1.3	0.2	3.7	1.0	512.7	40.9	0.9	590.4	28.5	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	13.4	2.5	3.8	9.2	2.0	30.8	18.8	1.7	22.7	15.2	4.9
LnGrp Delay(d),s/veh	30.7	37.5	21.2	25.4	28.5	21.4	550.7	70.4	22.7	630.0	59.3	21.7
LnGrp LOS	C	D	C	C	C	C	F	F	C	F	E	C
Approach Vol, veh/h		1517			1145			1617			1516	
Approach Delay, s/veh		34.6			27.3			183.6			155.4	
Approach LOS		C			C			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	33.3	13.1	28.1	28.0	33.3	10.5	30.7
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.7	* 4.7
Max Green Setting (Gmax), s	6.8	* 28	* 8.9	* 23	6.8	* 28	* 5.8	* 26
Max Q Clear Time (g_c+I1), s	9.8	25.9	10.9	25.4	16.2	19.6	7.8	28.0
Green Ext Time (p_c), s	0.0	1.7	0.0	0.0	0.0	4.8	0.0	0.0

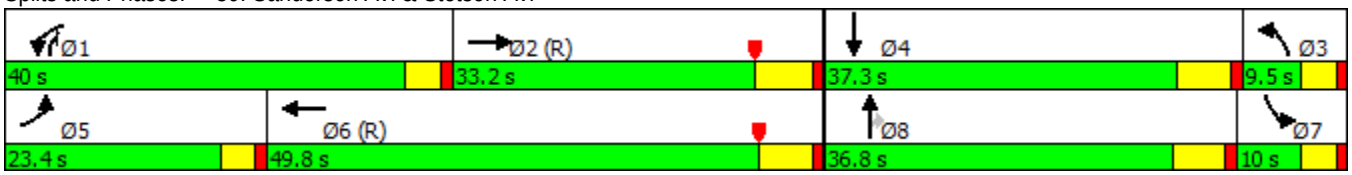
Intersection Summary		
HCM 2010 Ctrl Delay		106.3
HCM 2010 LOS		F

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	234	496	581	721	67	1146	735	149	1131
Future Volume (vph)	234	496	581	721	67	1146	735	149	1131
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	23.4	33.2	40.0	49.8	9.5	36.8	40.0	10.0	37.3
Total Split (%)	19.5%	27.7%	33.3%	41.5%	7.9%	30.7%	33.3%	8.3%	31.1%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	19.2	27.0	35.8	44.0	5.3	31.0	68.4	5.8	31.5
Actuated g/C Ratio	0.16	0.22	0.30	0.37	0.04	0.26	0.57	0.05	0.26
v/c Ratio	0.96	0.82	1.28	0.89	1.00	1.46	0.94	2.04	1.66
Control Delay	95.0	53.3	176.1	43.8	159.6	246.2	35.3	533.1	329.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.0	53.3	176.1	43.8	159.6	246.2	35.3	533.1	329.9
LOS	F	D	F	D	F	F	D	F	F
Approach Delay		65.6		93.3		163.7			350.6
Approach LOS		E		F		F			F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 77.8 (65%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.04	
Intersection Signal Delay: 178.6	Intersection LOS: F
Intersection Capacity Utilization 112.8%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	496	59	581	721	251	67	1146	735	149	1131	177
Future Volume (veh/h)	234	496	59	581	721	251	67	1146	735	149	1131	177
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	272	577	68	676	838	275	78	1333	475	173	1315	200
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	284	1075	126	529	1250	410	78	914	865	86	810	122
Arrive On Green	0.16	0.34	0.34	0.30	0.48	0.48	0.04	0.26	0.26	0.05	0.26	0.26
Sat Flow, veh/h	1774	3177	373	1774	2621	859	1774	3539	1521	1774	3084	465
Grp Volume(v), veh/h	272	321	324	676	565	548	78	1333	475	173	750	765
Grp Sat Flow(s),veh/h/ln	1774	1770	1781	1774	1770	1711	1774	1770	1521	1774	1770	1780
Q Serve(g_s), s	18.3	17.6	17.7	35.8	29.5	29.6	5.3	31.0	21.2	5.8	31.5	31.5
Cycle Q Clear(g_c), s	18.3	17.6	17.7	35.8	29.5	29.6	5.3	31.0	21.2	5.8	31.5	31.5
Prop In Lane	1.00		0.21	1.00		0.50	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	284	599	603	529	844	816	78	914	865	86	465	467
V/C Ratio(X)	0.96	0.54	0.54	1.28	0.67	0.67	1.00	1.46	0.55	2.02	1.61	1.64
Avail Cap(c_a), veh/h	284	599	603	529	844	816	78	914	865	86	465	467
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	32.1	32.1	42.1	24.1	24.2	57.3	44.5	13.9	57.1	44.3	44.3
Incr Delay (d2), s/veh	39.9	3.2	3.2	138.8	4.2	4.4	100.0	212.2	2.5	496.3	286.4	296.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	9.1	9.2	37.9	15.3	14.8	4.8	42.1	9.4	14.7	52.3	53.9
LnGrp Delay(d),s/veh	89.9	35.3	35.3	180.9	28.4	28.5	157.4	256.7	16.4	553.4	330.7	340.6
LnGrp LOS	F	D	D	F	C	C	F	F	B	F	F	F
Approach Vol, veh/h		917			1789			1886			1688	
Approach Delay, s/veh		51.5			86.1			192.0			358.0	
Approach LOS		D			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.0	47.2	9.5	37.3	23.4	63.8	10.0	36.8
Change Period (Y+Rc), s	* 4.2	6.2	4.2	* 5.8	* 4.2	* 6.2	4.2	* 5.8
Max Green Setting (Gmax), s	* 36	27.0	5.3	* 32	* 19	* 44	5.8	* 31
Max Q Clear Time (g_c+I1), s	37.8	19.7	7.3	33.5	20.3	31.6	7.8	33.0
Green Ext Time (p_c), s	0.0	5.2	0.0	0.0	0.0	7.8	0.0	0.0

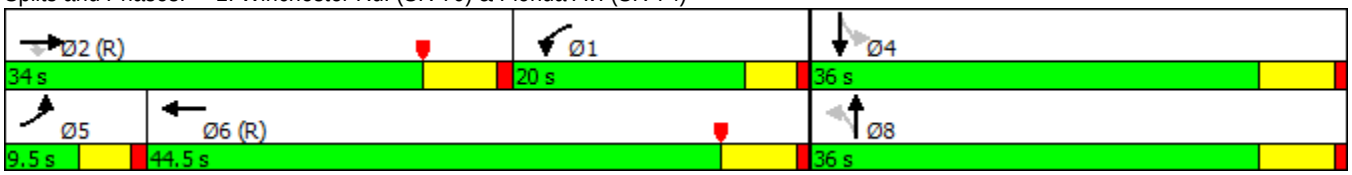
Intersection Summary	
HCM 2010 Ctrl Delay	185.9
HCM 2010 LOS	F

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	22	1745	166	709	1389	194	12	22	23
Future Volume (vph)	22	1745	166	709	1389	194	12	22	23
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max
Act Effct Green (s)	5.0	28.0	28.0	15.5	44.2	30.0	30.0	30.0	30.0
Actuated g/C Ratio	0.06	0.31	0.31	0.17	0.49	0.33	0.33	0.33	0.33
v/c Ratio	0.26	1.80	0.33	2.65	0.94	0.48	1.09	0.30	0.06
Control Delay	47.4	388.5	11.6	771.9	35.5	28.2	76.1	34.4	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.4	388.5	11.6	771.9	35.5	28.2	76.1	34.4	16.2
LOS	D	F	B	F	D	C	E	C	B
Approach Delay		352.2			279.1		66.4		23.5
Approach LOS		F			F		E		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.65	
Intersection Signal Delay: 264.0	Intersection LOS: F
Intersection Capacity Utilization 148.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	1745	166	709	1389	47	194	12	753	22	23	10
Future Volume (veh/h)	22	1745	166	709	1389	47	194	12	753	22	23	10
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	25	1983	142	806	1578	47	220	14	648	25	26	6
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	1101	493	1281	3595	107	519	11	518	80	488	113
Arrive On Green	0.03	0.31	0.31	0.72	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3510	104	1366	34	1555	770	1464	338
Grp Volume(v), veh/h	25	1983	142	806	794	831	220	0	662	25	0	32
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1844	1366	0	1588	770	0	1801
Q Serve(g_s), s	1.3	28.0	6.1	20.8	0.0	0.0	11.7	0.0	30.0	0.0	0.0	1.1
Cycle Q Clear(g_c), s	1.3	28.0	6.1	20.8	0.0	0.0	12.8	0.0	30.0	30.0	0.0	1.1
Prop In Lane	1.00		1.00	1.00		0.06	1.00		0.98	1.00		0.19
Lane Grp Cap(c), veh/h	46	1101	493	1281	1812	1889	519	0	529	80	0	600
V/C Ratio(X)	0.55	1.80	0.29	0.63	0.44	0.44	0.42	0.00	1.25	0.31	0.00	0.05
Avail Cap(c_a), veh/h	99	1101	493	1281	1812	1889	519	0	529	80	0	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.3	31.0	23.5	6.4	0.0	0.0	24.7	0.0	30.0	45.0	0.0	20.4
Incr Delay (d2), s/veh	3.7	364.1	1.5	0.8	0.8	0.7	2.5	0.0	127.6	9.9	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	69.3	2.9	10.1	0.4	0.4	4.8	0.0	31.9	0.8	0.0	0.6
LnGrp Delay(d),s/veh	47.0	395.1	24.9	7.1	0.8	0.7	27.2	0.0	157.6	54.9	0.0	20.5
LnGrp LOS	D	F	C	A	A	A	C		F	D		C
Approach Vol, veh/h		2150			2431			882			57	
Approach Delay, s/veh		366.6			2.9			125.1			35.6	
Approach LOS		F			A			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	72.5	34.0		36.0	6.8	99.7		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	22.8	30.0		32.0	3.3	2.0		32.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	10.2		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		164.4
HCM 2010 LOS		F

Notes

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	68	1	66	6	1	4	79	991	4	4	851	77
Future Vol, veh/h	68	1	66	6	1	4	79	991	4	4	851	77
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	72	1	70	6	1	4	84	1054	4	4	905	82

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2183	2183	947	2179	2221	1056	988	0	0	1059	0	0
Stage 1	956	956	-	1224	1224	-	-	-	-	-	-	-
Stage 2	1227	1227	-	955	997	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 0	~ 0	317	~ 0	~ 0	*247	699	-	-	*370	-	-
Stage 1	310	336	-	164	153	-	-	-	-	-	-	-
Stage 2	161	151	-	310	322	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	0	0	317	0	0	*247	699	-	-	*370	-	-
Mov Cap-2 Maneuver	0	0	-	0	0	-	-	-	-	-	-	-
Stage 1	272	332	-	144	135	-	-	-	-	-	-	-
Stage 2	138	133	-	238	318	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		20.3	0.8	0.1
HCM LOS	-	C		

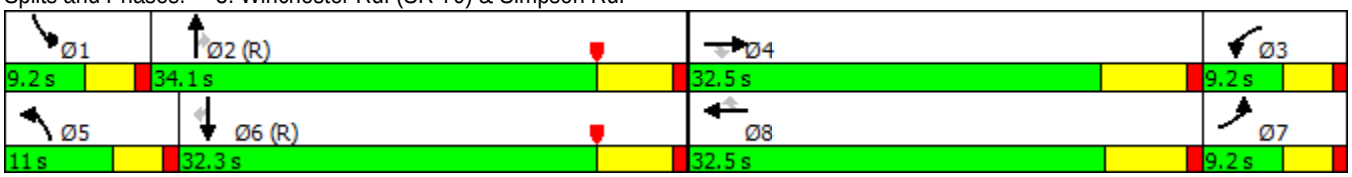
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	699	-	-	317	247	* 370	-	-	
HCM Lane V/C Ratio	0.12	-	-	0.221	0.047	0.012	-	-	
HCM Control Delay (s)	10.9	-	-	19.6	20.3	14.8	-	-	
HCM Lane LOS	B	-	-	C	C	B	-	-	
HCM 95th %tile Q(veh)	0.4	-	-	0.8	0.1	0	-	-	

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	324	86	80	224	69	108	933	162	71	651	178
Future Volume (vph)	107	324	86	80	224	69	108	933	162	71	651	178
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	9.2	32.5	32.5	9.2	32.5	32.5	11.0	34.1	34.1	9.2	32.3	32.3
Total Split (%)	10.8%	38.2%	38.2%	10.8%	38.2%	38.2%	12.9%	40.1%	40.1%	10.8%	38.0%	38.0%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	11.4	20.4	20.4	7.6	16.9	16.9	7.4	32.6	32.6	5.7	28.9	28.9
Actuated g/C Ratio	0.13	0.24	0.24	0.09	0.20	0.20	0.09	0.38	0.38	0.07	0.34	0.34
v/c Ratio	0.48	0.76	0.19	0.54	0.64	0.17	0.74	0.72	0.24	0.64	0.57	0.29
Control Delay	45.0	41.2	2.1	52.8	38.3	0.9	67.8	27.9	4.4	65.1	26.0	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	41.2	2.1	52.8	38.3	0.9	67.8	27.9	4.4	65.1	26.0	4.8
LOS	D	D	A	D	D	A	E	C	A	E	C	A
Approach Delay		35.5			34.5			28.3			24.9	
Approach LOS		D			C			C			C	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 29.3	Intersection LOS: C
Intersection Capacity Utilization 68.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	324	86	80	224	69	108	933	162	71	651	178
Future Volume (veh/h)	107	324	86	80	224	69	108	933	162	71	651	178
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	113	341	70	84	236	59	114	982	118	75	685	160
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	209	402	337	104	298	252	142	1514	678	96	1423	636
Arrive On Green	0.12	0.22	0.22	0.06	0.16	0.16	0.08	0.43	0.43	0.05	0.40	0.40
Sat Flow, veh/h	1774	1863	1563	1774	1863	1578	1774	3539	1583	1774	3539	1581
Grp Volume(v), veh/h	113	341	70	84	236	59	114	982	118	75	685	160
Grp Sat Flow(s),veh/h/ln	1774	1863	1563	1774	1863	1578	1774	1770	1583	1774	1770	1581
Q Serve(g_s), s	5.1	14.9	2.3	4.0	10.4	2.2	5.4	18.7	2.7	3.5	12.2	3.5
Cycle Q Clear(g_c), s	5.1	14.9	2.3	4.0	10.4	2.2	5.4	18.7	2.7	3.5	12.2	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	209	402	337	104	298	252	142	1514	678	96	1423	636
V/C Ratio(X)	0.54	0.85	0.21	0.80	0.79	0.23	0.80	0.65	0.17	0.78	0.48	0.25
Avail Cap(c_a), veh/h	209	570	478	104	576	488	142	1514	678	104	1423	636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	32.0	14.9	39.5	34.3	19.4	38.4	19.3	7.2	39.7	18.8	6.2
Incr Delay (d2), s/veh	1.5	8.3	0.3	33.1	4.7	0.5	18.5	1.5	0.4	25.5	1.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	8.6	1.0	2.9	5.7	1.0	3.4	9.4	1.2	2.4	6.1	1.7
LnGrp Delay(d),s/veh	36.9	40.3	15.2	72.7	39.1	19.9	57.0	20.7	7.6	65.2	20.0	7.2
LnGrp LOS	D	D	B	E	D	B	E	C	A	E	C	A
Approach Vol, veh/h		524			379			1214			920	
Approach Delay, s/veh		36.2			43.5			22.8			21.5	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	42.2	9.2	24.8	11.0	40.0	14.2	19.8
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 5	28.3	5.0	* 26	* 6.8	26.5	5.0	* 26
Max Q Clear Time (g_c+I1), s	5.5	20.7	6.0	16.9	7.4	14.2	7.1	12.4
Green Ext Time (p_c), s	0.0	6.5	0.0	1.3	0.0	10.0	0.0	1.1

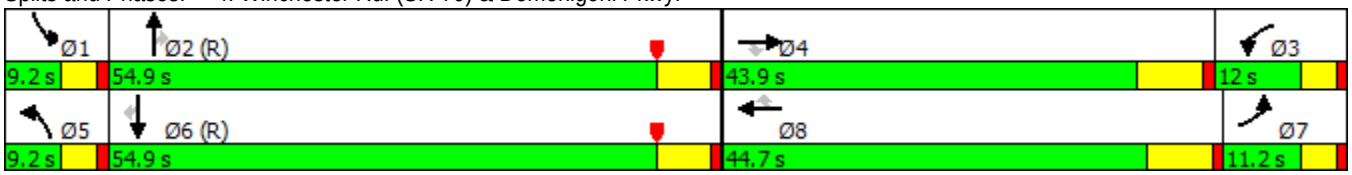
Intersection Summary	
HCM 2010 Ctrl Delay	27.3
HCM 2010 LOS	C

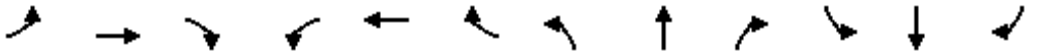
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	311	971	98	754	1026	83	112	819	1120	60	474	241
Future Volume (vph)	311	971	98	754	1026	83	112	819	1120	60	474	241
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	11.2	43.9	43.9	12.0	44.7	44.7	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.3%	36.6%	36.6%	10.0%	37.3%	37.3%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	11.4	36.8	36.8	8.0	33.4	33.4	5.0	49.1	49.1	5.0	49.1	49.1
Actuated g/C Ratio	0.10	0.31	0.31	0.07	0.28	0.28	0.04	0.41	0.41	0.04	0.41	0.41
v/c Ratio	1.02	0.95	0.19	3.52	0.77	0.17	1.63	0.60	1.58	0.88	0.35	0.34
Control Delay	108.1	58.8	6.9	1163.3	43.6	5.0	373.1	29.9	292.8	132.4	25.3	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	108.1	58.8	6.9	1163.3	43.6	5.0	373.1	29.9	292.8	132.4	25.3	10.0
LOS	F	E	A	F	D	A	F	C	F	F	C	A
Approach Delay		66.3			495.2			192.2			28.8	
Approach LOS		E			F			F			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.52	
Intersection Signal Delay: 235.7	Intersection LOS: F
Intersection Capacity Utilization 114.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	971	98	754	1026	83	112	819	1120	60	474	241
Future Volume (veh/h)	311	971	98	754	1026	83	112	819	1120	60	474	241
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	331	1033	73	802	1091	78	119	871	776	64	504	147
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	376	1084	485	224	1333	415	74	1455	651	74	1455	651
Arrive On Green	0.11	0.31	0.31	0.07	0.26	0.26	0.04	0.41	0.41	0.04	0.41	0.41
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	331	1033	73	802	1091	78	119	871	776	64	504	147
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	11.4	34.3	3.2	7.8	24.2	3.8	5.0	23.1	36.9	4.3	11.7	4.9
Cycle Q Clear(g_c), s	11.4	34.3	3.2	7.8	24.2	3.8	5.0	23.1	36.9	4.3	11.7	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	376	1084	485	224	1333	415	74	1455	651	74	1455	651
V/C Ratio(X)	0.88	0.95	0.15	3.59	0.82	0.19	1.61	0.60	1.19	0.87	0.35	0.23
Avail Cap(c_a), veh/h	376	1091	488	224	1602	499	74	1455	651	74	1455	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	52.7	40.8	19.7	56.1	41.6	23.0	57.5	27.6	19.8	57.2	24.3	10.4
Incr Delay (d2), s/veh	20.0	17.0	0.1	1174.3	2.9	0.2	328.2	1.8	101.1	52.9	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	19.4	1.4	40.2	11.7	1.7	9.2	11.6	34.3	3.2	5.9	2.2
LnGrp Delay(d),s/veh	72.6	57.8	19.8	1230.4	44.5	23.2	385.7	29.4	120.8	110.0	24.8	11.1
LnGrp LOS	E	E	B	F	D	C	F	C	F	F	C	B
Approach Vol, veh/h		1437			1971			1766			715	
Approach Delay, s/veh		59.3			526.2			93.6			29.6	
Approach LOS		E			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	55.1	12.0	43.7	9.2	55.1	17.3	38.3
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.9	* 4.2	5.8	4.2	* 6.9
Max Green Setting (Gmax), s	* 5	49.1	7.8	* 37	* 5	49.1	7.0	* 38
Max Q Clear Time (g_c+I1), s	6.3	38.9	9.8	36.3	7.0	13.7	13.4	26.2
Green Ext Time (p_c), s	0.0	8.9	0.0	0.4	0.0	24.9	0.0	5.3

Intersection Summary			
HCM 2010 Ctrl Delay		222.3	
HCM 2010 LOS		F	

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2148	4	0	1862	0	0	0	0	0	0	0
Future Vol, veh/h	0	2148	4	0	1862	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2170	4	0	1881	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	1087	-	-	940
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*217	0	0	265
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*217	-	-	265
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	-	0
HCM Lane LOS	A	-	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	142	6	2	11	11	108
Future Vol, veh/h	142	6	2	11	11	108
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	169	7	2	13	13	129

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	31	13	13	0	-	0
Stage 1	13	-	-	-	-	-
Stage 2	18	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	983	1067	1606	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	1005	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	982	1067	1606	-	-	-
Mov Cap-2 Maneuver	982	-	-	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	1004	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	1.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1606	-	985	-	-
HCM Lane V/C Ratio	0.001	-	0.179	-	-
HCM Control Delay (s)	7.2	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	289	2	2	209	0	1	1	2	1	2	2
Future Vol, veh/h	2	289	2	2	209	0	1	1	2	1	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	328	2	2	238	0	1	1	2	1	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	238	0	0	331	0	0	578	576	330	578	577	238
Stage 1	-	-	-	-	-	-	334	334	-	242	242	-
Stage 2	-	-	-	-	-	-	244	242	-	336	335	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1329	-	-	1228	-	-	427	428	712	427	427	801
Stage 1	-	-	-	-	-	-	680	643	-	762	705	-
Stage 2	-	-	-	-	-	-	760	705	-	678	643	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1329	-	-	1228	-	-	423	426	712	423	425	801
Mov Cap-2 Maneuver	-	-	-	-	-	-	423	426	-	423	425	-
Stage 1	-	-	-	-	-	-	679	642	-	760	704	-
Stage 2	-	-	-	-	-	-	754	704	-	673	642	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	11.8	12
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	532	1329	-	-	1228	-	-	523
HCM Lane V/C Ratio	0.009	0.002	-	-	0.002	-	-	0.011
HCM Control Delay (s)	11.8	7.7	0	-	7.9	0	-	12
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	7.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	29	0	0	19
Future Vol, veh/h	0	0	29	0	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	32	0	0	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1	0	64	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	63	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1622	-	942	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	960	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1622	-	923	1084
Mov Cap-2 Maneuver	-	-	-	-	923	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	941	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.3	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1084	-	-	1622	-
HCM Lane V/C Ratio	0.019	-	-	0.019	-
HCM Control Delay (s)	8.4	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	6.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	24	112	29	0	107
Future Vol, veh/h	0	24	112	29	0	107
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	26	122	32	0	116

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	26	0	288	13
Stage 1	-	-	-	-	13	-
Stage 2	-	-	-	-	275	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1588	-	702	1067
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	771	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1588	-	648	1067
Mov Cap-2 Maneuver	-	-	-	-	648	-
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	712	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.9	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1067	-	-	1588	-
HCM Lane V/C Ratio	0.109	-	-	0.077	-
HCM Control Delay (s)	8.8	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	86	16	65	141	0	65
Future Vol, veh/h	86	16	65	141	0	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	93	17	71	153	0	71

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	111	0	397	102
Stage 1	-	-	-	-	102	-
Stage 2	-	-	-	-	295	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1479	-	608	953
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	755	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1479	-	579	953
Mov Cap-2 Maneuver	-	-	-	-	579	-
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	719	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	953	-	-	1479	-
HCM Lane V/C Ratio	0.074	-	-	0.048	-
HCM Control Delay (s)	9.1	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Intersection Delay, s/veh	476.9
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	17	30	8	0	255	47	124	0	7	818	346
Future Vol, veh/h	0	17	30	8	0	255	47	124	0	7	818	346
Peak Hour Factor	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	17	30	8	0	258	47	125	0	7	826	349
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	21.2	54	601.7
HCM LOS	C	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	31%	60%	19%
Vol Thru, %	70%	55%	11%	77%
Vol Right, %	30%	15%	29%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1171	55	426	1061
LT Vol	7	17	255	197
Through Vol	818	30	47	815
RT Vol	346	8	124	49
Lane Flow Rate	1183	56	430	1072
Geometry Grp	1	1	1	1
Degree of Util (X)	2.278	0.142	0.872	2.12
Departure Headway (Hd)	8.609	15.617	10.212	9.024
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	438	231	357	418
Service Time	6.609	13.617	8.212	7.024
HCM Lane V/C Ratio	2.701	0.242	1.204	2.565
HCM Control Delay	601.7	21.2	54	532.6
HCM Lane LOS	F	C	F	F
HCM 95th-tile Q	71.8	0.5	8.3	61

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	197	815	49
Future Vol, veh/h	0	197	815	49
Peak Hour Factor	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	199	823	49
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	532.6
HCM LOS	F

Intersection	
Intersection Delay, s/veh	639.6
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	245	327	40	0	146	366	78	0	54	848	204	0	100	800	179
Future Vol, veh/h	0	245	327	40	0	146	366	78	0	54	848	204	0	100	800	179
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	255	341	42	0	152	381	81	0	56	883	213	0	104	833	186
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	393.4	364.1	619.1	950.8
HCM LOS	F	F	F	F

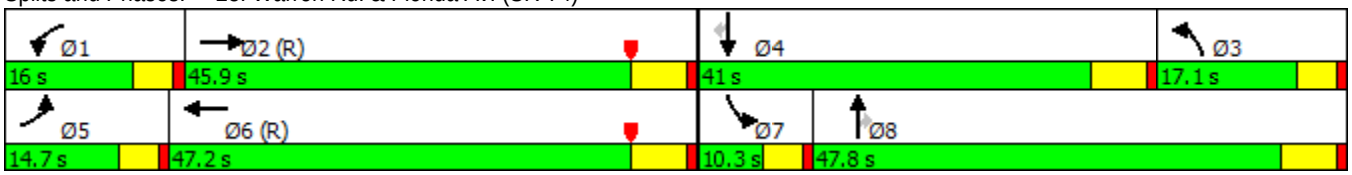
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	0%	40%	25%	9%
Vol Thru, %	94%	0%	53%	62%	74%
Vol Right, %	0%	100%	7%	13%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	902	204	612	590	1079
LT Vol	54	0	245	146	100
Through Vol	848	0	327	366	800
RT Vol	0	204	40	78	179
Lane Flow Rate	940	212	638	615	1124
Geometry Grp	7	7	2	2	5
Degree of Util (X)	2.548	0.533	1.712	1.639	3.012
Departure Headway (Hd)	19.591	18.806	22.609	23.104	17.257
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	197	196	166	166	225
Service Time	17.291	16.506	20.609	21.104	15.257
HCM Lane V/C Ratio	4.772	1.082	3.843	3.705	4.996
HCM Control Delay	749.8	41.1	393.4	364.1	950.8
HCM Lane LOS	F	E	F	F	F
HCM 95th-tile Q	40	2.7	19.4	17.8	56.6

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	304	1615	435	1534	344	693	520	118	557	294
Future Volume (vph)	304	1615	435	1534	344	693	520	118	557	294
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	14.7	45.9	16.0	47.2	17.1	47.8	47.8	10.3	41.0	41.0
Total Split (%)	12.3%	38.3%	13.3%	39.3%	14.3%	39.8%	39.8%	8.6%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	10.1	39.9	11.4	41.2	12.5	41.8	41.8	5.7	35.0	35.0
Actuated g/C Ratio	0.08	0.33	0.10	0.34	0.10	0.35	0.35	0.05	0.29	0.29
v/c Ratio	2.16	1.74	2.73	1.45	1.97	0.59	0.80	1.48	0.57	0.52
Control Delay	571.4	363.8	814.6	238.0	483.3	34.5	32.0	306.9	38.7	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	571.4	363.8	814.6	238.0	483.3	34.5	32.0	306.9	38.7	17.4
LOS	F	F	F	F	F	C	C	F	D	B
Approach Delay		392.2		357.8		132.8			64.9	
Approach LOS		F		F		F			E	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.73
Intersection Signal Delay: 276.4 — Intersection LOS: F
Intersection Capacity Utilization 130.5% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	304	1615	303	435	1534	125	344	693	520	118	557	294
Future Volume (veh/h)	304	1615	303	435	1534	125	344	693	520	118	557	294
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	320	1700	254	458	1615	126	362	729	431	124	586	241
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	2225	324	169	2425	188	185	1274	570	84	1032	462
Arrive On Green	0.08	0.72	0.72	0.09	0.73	0.73	0.10	0.36	0.36	0.05	0.29	0.29
Sat Flow, veh/h	1774	3101	452	1774	3329	258	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	320	952	1002	458	852	889	362	729	431	124	586	241
Grp Sat Flow(s),veh/h/ln	1774	1770	1783	1774	1770	1817	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	10.1	39.5	43.5	11.4	30.3	31.2	12.5	19.9	28.7	5.7	16.9	20.1
Cycle Q Clear(g_c), s	10.1	39.5	43.5	11.4	30.3	31.2	12.5	19.9	28.7	5.7	16.9	20.1
Prop In Lane	1.00		0.25	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	1270	1279	169	1289	1324	185	1274	570	84	1032	462
V/C Ratio(X)	2.14	0.75	0.78	2.72	0.66	0.67	1.96	0.57	0.76	1.47	0.57	0.52
Avail Cap(c_a), veh/h	149	1270	1279	169	1289	1324	185	1274	570	84	1032	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	10.4	10.9	54.3	8.5	8.7	53.8	31.0	33.8	57.2	36.1	61.5
Incr Delay (d2), s/veh	536.1	4.1	4.8	789.4	2.7	2.7	450.6	1.9	9.0	265.5	2.3	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.2	20.5	22.9	42.5	15.4	16.3	29.2	10.1	14.0	9.0	8.5	9.3
LnGrp Delay(d),s/veh	591.0	14.5	15.8	843.7	11.2	11.4	504.3	32.8	42.8	322.6	38.3	65.7
LnGrp LOS	F	B	B	F	B	B	F	C	D	F	D	E
Approach Vol, veh/h		2274			2199			1522			951	
Approach Delay, s/veh		96.2			184.7			147.8			82.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	93.5	18.5	41.0	14.7	94.8	10.3	49.2
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	11.4	39.9	12.5	* 35	10.1	41.2	5.7	41.8
Max Q Clear Time (g_c+I1), s	13.4	45.5	14.5	22.1	12.1	33.2	7.7	30.7
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	7.2	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	133.6
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	186.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	105	281	1299	81	134	1176
Future Vol, veh/h	105	281	1299	81	134	1176
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	122	327	1510	94	156	1367

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3189	1510	0	0	1510	0
Stage 1	1510	-	-	-	-	-
Stage 2	1679	-	-	-	-	-
Critical Hdwy	7.12	6.22	-	-	4.12	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 6	~ 148	-	-	443	-
Stage 1	150	-	-	-	-	-
Stage 2	~ 120	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 4	~ 148	-	-	443	-
Mov Cap-2 Maneuver	~ 64	-	-	-	-	-
Stage 1	150	-	-	-	-	-
Stage 2	~ 78	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 1483.4	0	1.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	109	443	-
HCM Lane V/C Ratio	-	-	4.118	0.352	-
HCM Control Delay (s)	-	-	$ 1483.4	17.5	-
HCM Lane LOS	-	-	F	C	-
HCM 95th %tile Q(veh)	-	-	46.1	1.6	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	47	1382	4	36	1396
Future Vol, veh/h	4	47	1382	4	36	1396
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	51	1502	4	39	1517

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3100	1504	0	0	1507	0
Stage 1	1504	-	-	-	-	-
Stage 2	1596	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	13	149	-	-	444	-
Stage 1	203	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	12	149	-	-	444	-
Mov Cap-2 Maneuver	119	-	-	-	-	-
Stage 1	203	-	-	-	-	-
Stage 2	167	-	-	-	-	-

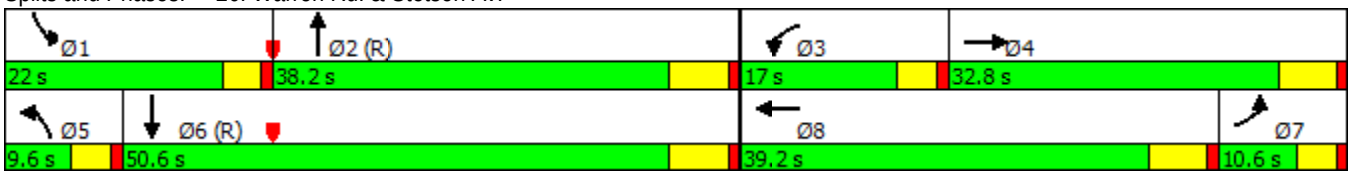
Approach	WB	NB	SB
HCM Control Delay, s	44	0	0.3
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	146	444	-
HCM Lane V/C Ratio	-	-	0.38	0.088	-
HCM Control Delay (s)	-	-	44	13.9	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	1.6	0.3	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	83	166	253	190	19	925	345	975
Future Volume (vph)	83	166	253	190	19	925	345	975
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	32.8	9.5	32.8
Total Split (s)	10.6	32.8	17.0	39.2	9.6	38.2	22.0	50.6
Total Split (%)	9.6%	29.8%	15.5%	35.6%	8.7%	34.7%	20.0%	46.0%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.4	27.0	12.8	33.4	5.2	32.4	17.8	50.6
Actuated g/C Ratio	0.06	0.25	0.12	0.30	0.05	0.29	0.16	0.46
v/c Ratio	0.83	0.41	1.26	0.99	0.23	1.10	1.23	0.68
Control Delay	104.7	37.3	190.3	68.6	57.1	96.7	170.3	26.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	104.7	37.3	190.3	68.6	57.1	96.7	170.3	26.6
LOS	F	D	F	E	E	F	F	C
Approach Delay		58.4		106.7		96.0		61.6
Approach LOS		E		F		F		E

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.26	
Intersection Signal Delay: 82.2	Intersection LOS: F
Intersection Capacity Utilization 104.4%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	166	17	253	190	366	19	925	188	345	975	99
Future Volume (veh/h)	83	166	17	253	190	366	19	925	188	345	975	99
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	85	169	17	258	194	373	19	944	192	352	995	101
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	433	44	206	173	333	36	2268	461	287	2970	301
Arrive On Green	0.06	0.26	0.26	0.12	0.30	0.30	0.02	0.77	0.77	0.16	0.92	0.92
Sat Flow, veh/h	1774	1666	168	1774	571	1098	1774	2932	596	1774	3245	329
Grp Volume(v), veh/h	85	0	186	258	0	567	19	569	567	352	542	554
Grp Sat Flow(s),veh/h/ln	1774	0	1833	1774	0	1669	1774	1770	1758	1774	1770	1805
Q Serve(g_s), s	5.2	0.0	9.2	12.8	0.0	33.4	1.2	11.8	11.8	17.8	4.1	4.1
Cycle Q Clear(g_c), s	5.2	0.0	9.2	12.8	0.0	33.4	1.2	11.8	11.8	17.8	4.1	4.1
Prop In Lane	1.00		0.09	1.00		0.66	1.00		0.34	1.00		0.18
Lane Grp Cap(c), veh/h	103	0	477	206	0	507	36	1369	1360	287	1620	1652
V/C Ratio(X)	0.82	0.00	0.39	1.25	0.00	1.12	0.53	0.42	0.42	1.23	0.33	0.34
Avail Cap(c_a), veh/h	103	0	477	206	0	507	87	1369	1360	287	1620	1652
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.55	0.55	0.55	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	0.0	33.5	48.6	0.0	38.3	53.4	4.2	4.2	46.1	0.6	0.6
Incr Delay (d2), s/veh	37.4	0.0	0.5	146.0	0.0	76.8	2.5	0.5	0.5	128.7	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	4.7	14.6	0.0	26.2	0.6	5.9	5.9	19.0	2.2	2.3
LnGrp Delay(d),s/veh	88.6	0.0	34.0	194.6	0.0	115.1	55.9	4.7	4.7	174.8	1.1	1.1
LnGrp LOS	F		C	F		F	E	A	A	F	A	A
Approach Vol, veh/h		271			825			1155			1448	
Approach Delay, s/veh		51.2			139.9			5.5			43.3	
Approach LOS		D			F			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	92.5	17.0	34.4	6.4	108.1	12.2	39.2
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 18	32.4	* 13	27.0	* 5.4	44.8	6.4	* 33
Max Q Clear Time (g_c+I1), s	19.8	13.8	14.8	11.2	3.2	6.1	7.2	35.4
Green Ext Time (p_c), s	0.0	15.3	0.0	0.8	0.0	27.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	53.6
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	125	27	38	1015	1091
Future Volume (vph)	125	27	38	1015	1091
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	34.8	34.8	9.2	15.8	34.8
Total Split (s)	34.8	34.8	9.3	49.3	40.0
Total Split (%)	41.4%	41.4%	11.1%	58.6%	47.6%
Yellow Time (s)	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	14.4	14.4	5.8	58.1	51.9
Actuated g/C Ratio	0.17	0.17	0.07	0.69	0.62
v/c Ratio	0.43	0.10	0.32	0.81	1.15
Control Delay	33.8	9.5	44.6	18.5	97.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.8	9.5	44.6	18.5	97.2
LOS	C	A	D	B	F
Approach Delay	29.5			19.4	97.2
Approach LOS	C			B	F

Intersection Summary	
Cycle Length: 84.1	
Actuated Cycle Length: 84.1	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 59.8	Intersection LOS: E
Intersection Capacity Utilization 85.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 27: Warren Rd. & New Stetson Av.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	125	27	38	1015	1091	168
Future Volume (veh/h)	125	27	38	1015	1091	168
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	129	28	39	1046	1125	173
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	206	184	63	1389	1042	160
Arrive On Green	0.12	0.12	0.04	0.75	0.66	0.66
Sat Flow, veh/h	1774	1583	1774	1863	1577	243
Grp Volume(v), veh/h	129	28	39	1046	0	1298
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	0	1820
Q Serve(g_s), s	5.8	1.3	1.8	27.3	0.0	55.5
Cycle Q Clear(g_c), s	5.8	1.3	1.8	27.3	0.0	55.5
Prop In Lane	1.00	1.00	1.00			0.13
Lane Grp Cap(c), veh/h	206	184	63	1389	0	1202
V/C Ratio(X)	0.63	0.15	0.62	0.75	0.00	1.08
Avail Cap(c_a), veh/h	612	547	108	1389	0	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.53
Uniform Delay (d), s/veh	35.4	33.4	39.9	6.2	0.0	14.3
Incr Delay (d2), s/veh	1.2	0.1	3.6	3.8	0.0	44.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	1.2	1.0	15.1	0.0	42.3
LnGrp Delay(d),s/veh	36.6	33.6	43.6	10.0	0.0	58.9
LnGrp LOS	D	C	D	A		F
Approach Vol, veh/h	157			1085	1298	
Approach Delay, s/veh	36.0			11.2	58.9	
Approach LOS	D			B	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		68.5		15.5	7.2	61.3		
Change Period (Y+Rc), s		5.8		5.8	* 4.2	5.8		
Max Green Setting (Gmax), s		43.5		29.0	* 5.1	34.2		
Max Q Clear Time (g_c+I1), s		29.3		7.8	3.8	57.5		
Green Ext Time (p_c), s		10.2		0.2	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	37.1
HCM 2010 LOS	D

Notes

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	99	68	954	1014
Future Volume (vph)	99	68	954	1014
Turn Type	Prot	Prot	NA	NA
Protected Phases	4	5	2	6
Permitted Phases				
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	10.8	23.8
Total Split (s)	14.0	10.0	46.0	36.0
Total Split (%)	23.3%	16.7%	76.7%	60.0%
Yellow Time (s)	3.6	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Min	C-Min
Act Effct Green (s)	7.9	5.5	44.8	38.6
Actuated g/C Ratio	0.13	0.09	0.75	0.64
v/c Ratio	0.61	0.46	0.75	1.02
Control Delay	29.9	36.8	3.9	52.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	29.9	36.8	3.9	52.5
LOS	C	D	A	D
Approach Delay	29.9		6.1	52.5
Approach LOS	C		A	D

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 30.3	Intersection LOS: C
Intersection Capacity Utilization 76.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 28: Warren Rd. & Street D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	99	44	68	954	1014	104
Future Volume (veh/h)	99	44	68	954	1014	104
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	108	48	74	1037	1102	113
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	135	60	105	1327	958	98
Arrive On Green	0.11	0.11	0.12	1.00	0.58	0.58
Sat Flow, veh/h	1177	523	1774	1863	1662	170
Grp Volume(v), veh/h	157	0	74	1037	0	1215
Grp Sat Flow(s),veh/h/ln	1712	0	1774	1863	0	1833
Q Serve(g_s), s	5.4	0.0	2.4	0.0	0.0	34.6
Cycle Q Clear(g_c), s	5.4	0.0	2.4	0.0	0.0	34.6
Prop In Lane	0.69	0.31	1.00			0.09
Lane Grp Cap(c), veh/h	196	0	105	1327	0	1056
V/C Ratio(X)	0.80	0.00	0.71	0.78	0.00	1.15
Avail Cap(c_a), veh/h	268	0	160	1327	0	1056
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.09	0.09	0.00	1.00
Uniform Delay (d), s/veh	25.9	0.0	26.0	0.0	0.0	12.7
Incr Delay (d2), s/veh	8.1	0.0	0.3	0.4	0.0	78.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	1.2	0.2	0.0	40.1
LnGrp Delay(d),s/veh	34.0	0.0	26.3	0.4	0.0	91.5
LnGrp LOS	C		C	A		F
Approach Vol, veh/h	157			1111	1215	
Approach Delay, s/veh	34.0			2.2	91.5	
Approach LOS	C			A	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		48.5		11.5	8.1	40.4		
Change Period (Y+Rc), s		5.8		4.6	4.6	5.8		
Max Green Setting (Gmax), s		40.2		9.4	5.4	30.2		
Max Q Clear Time (g_c+I1), s		2.0		7.4	4.4	36.6		
Green Ext Time (p_c), s		33.1		0.0	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	47.9
HCM 2010 LOS	D

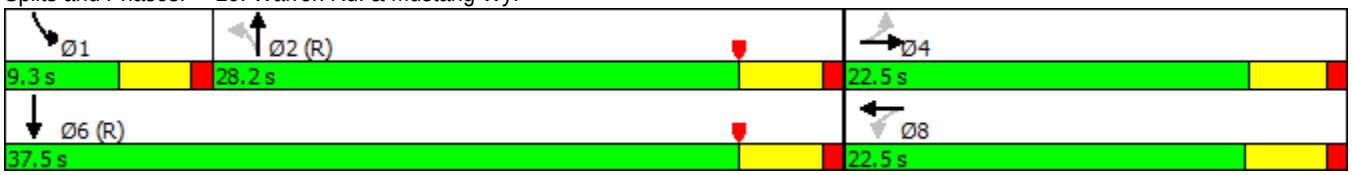
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	96	11	168	17	110	760	212	678
Future Volume (vph)	96	11	168	17	110	760	212	678
Turn Type	Perm	NA	Perm	NA	Perm	NA	Prot	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2			
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.5	22.5	21.6	21.6	21.7	21.7	9.2	14.7
Total Split (s)	22.5	22.5	22.5	22.5	28.2	28.2	9.3	37.5
Total Split (%)	37.5%	37.5%	37.5%	37.5%	47.0%	47.0%	15.5%	62.5%
Yellow Time (s)	3.5	3.5	3.6	3.6	3.7	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.6	4.6	4.7	4.7	4.2	4.7
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	13.6	13.6	13.5	13.5	23.5	23.5	9.5	37.2
Actuated g/C Ratio	0.23	0.23	0.22	0.22	0.39	0.39	0.16	0.62
v/c Ratio	0.38	0.19	0.58	0.37	0.49	1.51	0.77	0.75
Control Delay	22.8	7.2	28.1	6.6	22.6	256.3	38.5	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	7.2	28.1	6.6	22.6	256.3	38.5	5.7
LOS	C	A	C	A	C	F	D	A
Approach Delay		15.9		17.1		234.4		12.3
Approach LOS		B		B		F		B

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.51
Intersection Signal Delay: 108.3 — Intersection LOS: F
Intersection Capacity Utilization 101.1% — ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	11	67	168	17	159	110	760	300	212	678	156
Future Volume (veh/h)	96	11	67	168	17	159	110	760	300	212	678	156
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	98	11	68	171	17	135	112	776	282	216	692	159
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	287	49	303	353	39	311	239	616	224	151	920	211
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.47	0.47	0.47	0.03	0.21	0.21
Sat Flow, veh/h	1230	225	1392	1314	180	1430	645	1304	474	1774	1466	337
Grp Volume(v), veh/h	98	0	79	171	0	152	112	0	1058	216	0	851
Grp Sat Flow(s),veh/h/ln	1230	0	1617	1314	0	1610	645	0	1778	1774	0	1803
Q Serve(g_s), s	4.5	0.0	2.4	7.4	0.0	4.9	10.3	0.0	28.3	5.1	0.0	26.6
Cycle Q Clear(g_c), s	9.4	0.0	2.4	9.8	0.0	4.9	27.6	0.0	28.3	5.1	0.0	26.6
Prop In Lane	1.00		0.86	1.00		0.89	1.00		0.27	1.00		0.19
Lane Grp Cap(c), veh/h	287	0	352	353	0	351	239	0	840	151	0	1131
V/C Ratio(X)	0.34	0.00	0.22	0.48	0.00	0.43	0.47	0.00	1.26	1.43	0.00	0.75
Avail Cap(c_a), veh/h	389	0	485	459	0	480	239	0	840	151	0	1131
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.00	0.09
Uniform Delay (d), s/veh	24.3	0.0	19.3	23.3	0.0	20.3	24.2	0.0	15.8	29.2	0.0	19.4
Incr Delay (d2), s/veh	0.7	0.0	0.3	1.0	0.0	0.8	6.5	0.0	126.4	198.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	1.1	2.8	0.0	2.2	2.3	0.0	43.3	10.8	0.0	13.4
LnGrp Delay(d),s/veh	25.0	0.0	19.6	24.4	0.0	21.1	30.6	0.0	142.2	227.2	0.0	19.8
LnGrp LOS	C		B	C		C	C		F	F		B
Approach Vol, veh/h		177			323			1170			1067	
Approach Delay, s/veh		22.6			22.8			131.5			61.8	
Approach LOS		C			C			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	9.3	33.0		17.7		42.3		17.7
Change Period (Y+Rc), s	* 4.2	* 4.7		* 4.6		* 4.7		4.6
Max Green Setting (Gmax), s	* 5.1	* 24		* 18		* 33		17.9
Max Q Clear Time (g_c+I1), s	7.1	30.3		11.4		28.6		11.8
Green Ext Time (p_c), s	0.0	0.0		1.3		4.0		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	84.5
HCM 2010 LOS	F

Notes

Intersection	
Intersection Delay, s/veh	215.7
Intersection LOS	F

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	349	38	0	667	263	0	27	806
Future Vol, veh/h	0	349	38	0	667	263	0	27	806
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	367	40	0	702	277	0	28	848
Number of Lanes	0	1	0	0	1	1	0	1	1

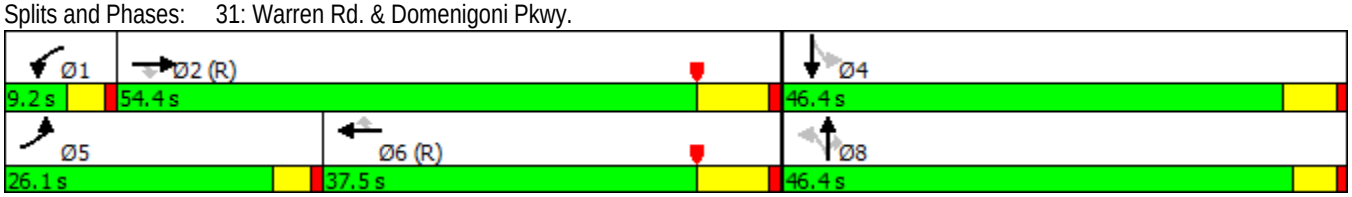
Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	44.8	210.7	300.7
HCM LOS	E	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	90%	0%	100%
Vol Right, %	0%	100%	10%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	806	387	667	263
LT Vol	27	0	0	667	0
Through Vol	0	0	349	0	263
RT Vol	0	806	38	0	0
Lane Flow Rate	28	848	407	702	277
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.064	1.627	0.833	1.55	0.573
Departure Headway (Hd)	8.676	7.437	9.331	9.646	9.123
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	415	501	391	386	399
Service Time	6.376	5.137	7.331	7.346	6.823
HCM Lane V/C Ratio	0.067	1.693	1.041	1.819	0.694
HCM Control Delay	12	310.4	44.8	284.6	23.4
HCM Lane LOS	B	F	E	F	C
HCM 95th-tile Q	0.2	44.6	7.7	32.4	3.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	673	2035	7	4	1698	148	4	11	1	124	9
Future Volume (vph)	673	2035	7	4	1698	148	4	11	1	124	9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	21.9	54.9	54.9	5.0	30.6	30.6		41.8	41.8		41.0
Actuated g/C Ratio	0.20	0.50	0.50	0.05	0.28	0.28		0.38	0.38		0.37
v/c Ratio	2.03	1.23	0.01	0.05	1.84	0.30		0.03	0.00		1.06
Control Delay	500.8	134.6	0.0	51.8	406.5	13.0		21.6	0.0		75.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	500.8	134.6	0.0	51.8	406.5	13.0		21.6	0.0		75.6
LOS	F	F	A	D	F	B		C	A		E
Approach Delay		225.0			374.4			20.3			75.6
Approach LOS		F			F			C			E

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.03	
Intersection Signal Delay: 256.2	Intersection LOS: F
Intersection Capacity Utilization 148.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	673	2035	7	4	1698	148	4	11	1	124	9	587
Future Volume (veh/h)	673	2035	7	4	1698	148	4	11	1	124	9	587
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	716	2165	5	4	1806	150	4	12	1	132	10	410
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	1682	753	9	996	446	129	365	585	166	22	424
Arrive On Green	0.20	0.48	0.48	0.01	0.28	0.28	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	238	989	1583	339	58	1149
Grp Volume(v), veh/h	716	2165	5	4	1806	150	16	0	1	552	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1227	0	1583	1546	0	0
Q Serve(g_s), s	21.9	52.3	0.2	0.2	31.0	8.3	0.0	0.0	0.0	35.3	0.0	0.0
Cycle Q Clear(g_c), s	21.9	52.3	0.2	0.2	31.0	8.3	0.6	0.0	0.0	38.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.25		1.00	0.24		0.74
Lane Grp Cap(c), veh/h	353	1682	753	9	996	446	494	0	585	612	0	0
V/C Ratio(X)	2.03	1.29	0.01	0.43	1.81	0.34	0.03	0.00	0.00	0.90	0.00	0.00
Avail Cap(c_a), veh/h	353	1682	753	81	996	446	510	0	602	617	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	28.9	15.2	54.5	39.5	31.4	22.1	0.0	21.9	33.9	0.0	0.0
Incr Delay (d2), s/veh	472.1	133.8	0.0	11.3	369.9	2.0	0.0	0.0	0.0	16.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	57.0	56.7	0.1	0.2	66.3	3.9	0.3	0.0	0.0	19.1	0.0	0.0
LnGrp Delay(d),s/veh	516.1	162.6	15.2	65.9	409.4	33.4	22.1	0.0	21.9	49.9	0.0	0.0
LnGrp LOS	F	F	B	E	F	C	C		C	D		
Approach Vol, veh/h		2886			1960			17			552	
Approach Delay, s/veh		250.1			379.9			22.1			49.9	
Approach LOS		F			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.8	59.2		46.0	26.1	37.9		46.0
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.2	54.3		40.5	23.9	33.0		2.6
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	0.0		2.6

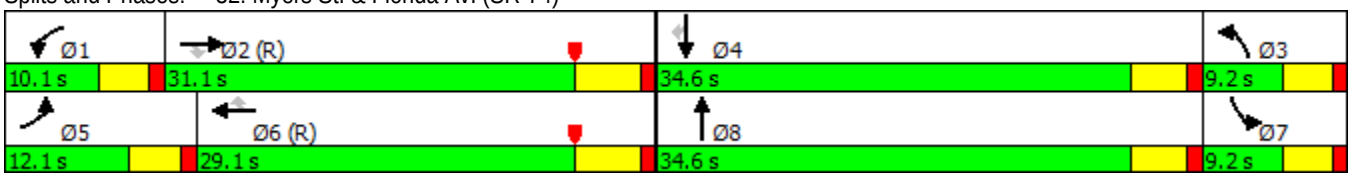
Intersection Summary		
HCM 2010 Ctrl Delay	276.0	
HCM 2010 LOS	F	

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	320	1837	31	57	1854	70	16	51	119	37	169
Future Volume (vph)	320	1837	31	57	1854	70	16	51	119	37	169
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.1	31.1	31.1	10.1	29.1	29.1	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.2%	36.6%	36.6%	11.9%	34.2%	34.2%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	7.9	28.0	28.0	5.7	24.0	24.0	5.0	30.0	5.0	35.5	35.5
Actuated g/C Ratio	0.09	0.33	0.33	0.07	0.28	0.28	0.06	0.35	0.06	0.42	0.42
v/c Ratio	2.10	1.69	0.05	0.52	2.00	0.14	0.16	0.16	1.23	0.05	0.24
Control Delay	537.8	340.1	0.2	53.2	468.3	0.8	41.8	12.0	200.3	17.1	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	537.8	340.1	0.2	53.2	468.3	0.8	41.8	12.0	200.3	17.1	4.1
LOS	F	F	A	D	F	A	D	B	F	B	A
Approach Delay		364.3			439.9			16.3		77.3	
Approach LOS		F			F			B		E	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 80.1 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.10	
Intersection Signal Delay: 368.3	Intersection LOS: F
Intersection Capacity Utilization 93.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	1837	31	57	1854	70	16	51	42	119	37	169
Future Volume (veh/h)	320	1837	31	57	1854	70	16	51	42	119	37	169
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	344	1975	23	61	1994	69	17	55	22	128	40	130
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1169	523	80	999	447	104	447	179	104	657	559
Arrive On Green	0.09	0.33	0.33	0.03	0.19	0.19	0.06	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	1267	507	1774	1863	1583
Grp Volume(v), veh/h	344	1975	23	61	1994	69	17	0	77	128	40	130
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	0	1773	1774	1863	1583
Q Serve(g_s), s	7.9	28.1	0.6	2.9	24.0	2.4	0.8	0.0	2.5	5.0	1.2	3.4
Cycle Q Clear(g_c), s	7.9	28.1	0.6	2.9	24.0	2.4	0.8	0.0	2.5	5.0	1.2	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	165	1169	523	80	999	447	104	0	626	104	657	559
V/C Ratio(X)	2.09	1.69	0.04	0.77	2.00	0.15	0.16	0.00	0.12	1.23	0.06	0.23
Avail Cap(c_a), veh/h	165	1169	523	123	999	447	104	0	626	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	28.5	10.8	40.8	34.5	15.2	38.0	0.0	18.6	40.0	18.2	9.4
Incr Delay (d2), s/veh	509.0	313.8	0.2	5.6	451.5	0.7	0.3	0.0	0.4	161.1	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.2	64.6	0.3	1.6	74.4	1.1	0.4	0.0	1.3	7.1	0.7	1.6
LnGrp Delay(d),s/veh	547.5	342.2	11.0	46.4	486.0	16.0	38.3	0.0	19.0	201.1	18.4	10.4
LnGrp LOS	F	F	B	D	F	B	D		B	F	B	B
Approach Vol, veh/h		2342			2124			94			298	
Approach Delay, s/veh		369.1			458.1			22.5			93.4	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	33.2	9.2	34.6	12.1	29.1	9.2	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.9	26.0	5.0	* 30	* 7.9	24.0	5.0	* 30
Max Q Clear Time (g_c+I1), s	4.9	30.1	2.8	5.4	9.9	26.0	7.0	4.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	384.4
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1716	471	1	2159	0	2
Future Vol, veh/h	1716	471	1	2159	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1826	501	1	2297	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1826	0	-	913
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*578	-	0	*386
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*578	-	-	*386
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.4
HCM LOS			B

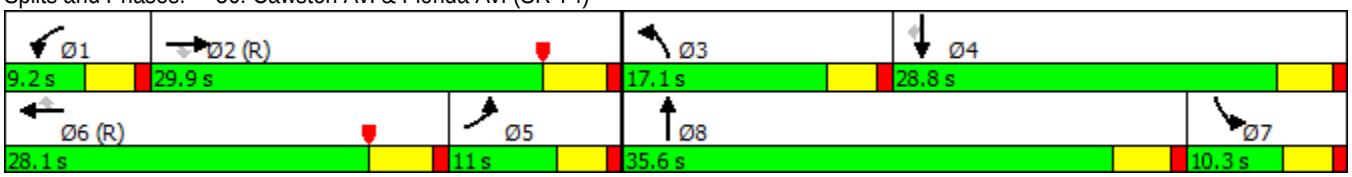
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	386	-	-	* 578	-
HCM Lane V/C Ratio	0.006	-	-	0.002	-
HCM Control Delay (s)	14.4	-	-	11.2	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	202	1502	15	70	1709	256	285	121	215	137	168
Future Volume (vph)	202	1502	15	70	1709	256	285	121	215	137	168
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	11.0	29.9	29.9	9.2	28.1	28.1	17.1	35.6	10.3	28.8	28.8
Total Split (%)	12.9%	35.2%	35.2%	10.8%	33.1%	33.1%	20.1%	41.9%	12.1%	33.9%	33.9%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	6.8	26.6	26.6	5.0	23.0	23.0	12.9	31.0	6.1	24.2	24.2
Actuated g/C Ratio	0.08	0.31	0.31	0.06	0.27	0.27	0.15	0.36	0.07	0.28	0.28
v/c Ratio	1.49	1.41	0.03	0.70	1.86	0.47	1.11	0.16	1.76	0.27	0.30
Control Delay	246.5	203.9	0.0	74.6	414.9	10.6	123.5	11.7	401.5	25.3	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	246.5	203.9	0.0	74.6	414.9	10.6	123.5	11.7	401.5	25.3	4.0
LOS	F	F	A	E	F	B	F	B	F	C	A
Approach Delay		207.1			352.2			78.5		173.9	
Approach LOS		F			F			E		F	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Offset: 35 (41%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.86	
Intersection Signal Delay: 252.7	Intersection LOS: F
Intersection Capacity Utilization 111.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	1502	15	70	1709	256	285	121	71	215	137	168
Future Volume (veh/h)	202	1502	15	70	1709	256	285	121	71	215	137	168
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	210	1565	14	73	1780	223	297	126	68	224	143	111
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	923	2649	1185	94	958	426	269	824	418	127	539	458
Arrive On Green	0.69	1.00	1.00	0.05	0.27	0.27	0.15	0.36	0.36	0.07	0.29	0.29
Sat Flow, veh/h	1774	3539	1583	1774	3539	1575	1774	2260	1145	1774	1863	1583
Grp Volume(v), veh/h	210	1565	14	73	1780	223	297	97	97	224	143	111
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1575	1774	1770	1636	1774	1863	1583
Q Serve(g_s), s	3.7	0.4	0.0	3.5	23.0	10.2	12.9	3.1	3.4	6.1	5.0	3.4
Cycle Q Clear(g_c), s	3.7	0.4	0.0	3.5	23.0	10.2	12.9	3.1	3.4	6.1	5.0	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.70	1.00		1.00
Lane Grp Cap(c), veh/h	923	2649	1185	94	958	426	269	645	597	127	539	458
V/C Ratio(X)	0.23	0.59	0.01	0.78	1.86	0.52	1.10	0.15	0.16	1.76	0.27	0.24
Avail Cap(c_a), veh/h	923	2649	1185	104	958	426	269	645	597	127	539	458
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.9	0.0	0.0	39.8	31.0	26.3	36.0	18.1	18.2	39.4	23.2	12.9
Incr Delay (d2), s/veh	0.0	1.0	0.0	24.5	390.4	4.5	85.3	0.5	0.6	371.8	1.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.4	0.0	2.3	63.1	5.0	12.7	1.6	1.6	16.1	2.8	1.6
LnGrp Delay(d),s/veh	6.9	1.0	0.1	64.3	421.4	30.9	121.4	18.6	18.8	411.3	24.4	14.2
LnGrp LOS	A	A	A	E	F	C	F	B	B	F	C	B
Approach Vol, veh/h		1789			2076			491			478	
Approach Delay, s/veh		1.7			366.9			80.8			203.3	
Approach LOS		A			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	69.0	17.1	29.2	49.6	28.1	10.7	35.6
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	5.1	* 5.1	4.6	* 4.6
Max Green Setting (Gmax), s	* 5	24.8	* 13	24.2	6.8	* 23	6.1	* 31
Max Q Clear Time (g_c+I1), s	5.5	2.4	14.9	7.0	5.7	25.0	8.1	5.4
Green Ext Time (p_c), s	0.0	16.1	0.0	1.4	0.1	0.0	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	186.5
HCM 2010 LOS	F

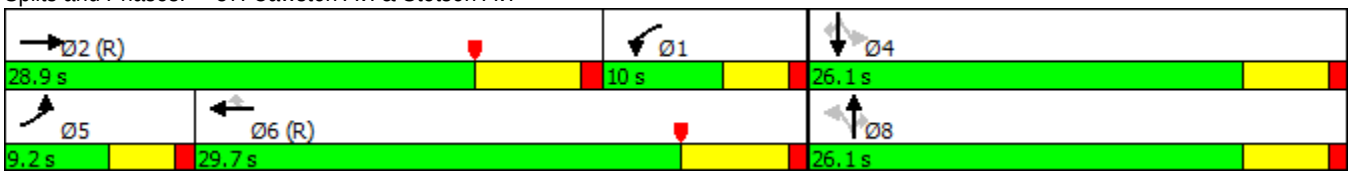
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	26	446	173	429	22	66	112	174	19	161	60
Future Volume (vph)	26	446	173	429	22	66	112	174	19	161	60
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.2	28.9	10.0	29.7	29.7	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.2%	44.5%	15.4%	45.7%	45.7%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	446	72	173	429	22	66	112	174	19	161	60
Future Volume (veh/h)	26	446	72	173	429	22	66	112	174	19	161	60
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	27	469	62	182	452	20	69	118	94	20	169	36
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	53	1042	137	1379	2100	1785	410	602	512	434	602	512
Arrive On Green	0.03	0.35	0.35	0.78	1.00	1.00	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	2984	393	1774	1863	1583	1172	1863	1583	1165	1863	1583
Grp Volume(v), veh/h	27	248	283	182	452	20	69	118	94	20	169	36
Grp Sat Flow(s),veh/h/ln	1774	1583	1793	1774	1863	1583	1172	1863	1583	1165	1863	1583
Q Serve(g_s), s	1.0	7.9	7.9	1.7	0.0	0.0	3.0	3.0	2.8	0.8	4.4	1.0
Cycle Q Clear(g_c), s	1.0	7.9	7.9	1.7	0.0	0.0	7.4	3.0	2.8	3.8	4.4	1.0
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	53	553	626	1379	2100	1785	410	602	512	434	602	512
V/C Ratio(X)	0.51	0.45	0.45	0.13	0.22	0.01	0.17	0.20	0.18	0.05	0.28	0.07
Avail Cap(c_a), veh/h	136	553	626	1379	2100	1785	410	602	512	434	602	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	0.60	0.60	0.60	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	16.3	16.3	1.8	0.0	0.0	19.1	15.9	15.8	17.3	16.4	15.2
Incr Delay (d2), s/veh	1.8	1.7	1.5	0.0	0.1	0.0	0.9	0.7	0.8	0.2	1.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.6	4.2	0.8	0.1	0.0	1.1	1.6	1.3	0.3	2.4	0.5
LnGrp Delay(d),s/veh	32.9	18.0	17.8	1.8	0.1	0.0	20.0	16.6	16.6	17.5	17.5	15.5
LnGrp LOS	C	B	B	A	A	A	C	B	B	B	B	B
Approach Vol, veh/h		558			654			281			225	
Approach Delay, s/veh		18.6			0.6			17.5			17.2	
Approach LOS		B			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	57.4	28.9		26.1	6.1	80.1		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.8	* 23		21.0	* 5	23.5		21.0
Max Q Clear Time (g_c+I1), s	3.7	9.9		6.4	3.0	2.0		9.4
Green Ext Time (p_c), s	0.1	1.4		1.2	0.0	1.7		1.1

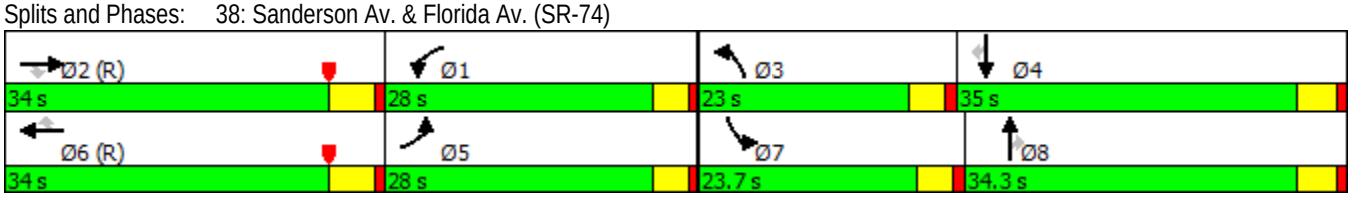
Intersection Summary	
HCM 2010 Ctrl Delay	11.4
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	509	1189	197	293	1124	287	547	1183	272	284	1194	374
Future Volume (vph)	509	1189	197	293	1124	287	547	1183	272	284	1194	374
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	28.0	34.0	34.0	28.0	34.0	34.0	23.0	34.3	34.3	23.7	35.0	35.0
Total Split (%)	23.3%	28.3%	28.3%	23.3%	28.3%	28.3%	19.2%	28.6%	28.6%	19.8%	29.2%	29.2%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	23.8	28.9	28.9	23.8	28.9	28.9	18.8	29.6	29.6	19.5	30.3	30.3
Actuated g/C Ratio	0.20	0.24	0.24	0.20	0.24	0.24	0.16	0.25	0.25	0.16	0.25	0.25
v/c Ratio	1.46	1.41	0.42	0.84	1.33	0.54	2.00	1.37	0.52	1.00	1.35	0.64
Control Delay	259.5	226.6	15.8	68.2	194.4	15.6	488.7	209.9	16.1	103.8	201.2	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	259.5	226.6	15.8	68.2	194.4	15.6	488.7	209.9	16.1	103.8	201.2	17.6
LOS	F	F	B	E	F	B	F	F	B	F	F	B
Approach Delay		213.5			142.6			259.8			149.2	
Approach LOS		F			F			F			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.00	
Intersection Signal Delay: 193.7	Intersection LOS: F
Intersection Capacity Utilization 137.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	509	1189	197	293	1124	287	547	1183	272	284	1194	374
Future Volume (veh/h)	509	1189	197	293	1124	287	547	1183	272	284	1194	374
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	514	1201	159	296	1135	233	553	1195	189	287	1206	320
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	852	374	352	852	375	278	873	382	288	894	394
Arrive On Green	0.20	0.24	0.24	0.20	0.24	0.24	0.16	0.25	0.25	0.16	0.25	0.25
Sat Flow, veh/h	1774	3539	1554	1774	3539	1555	1774	3539	1550	1774	3539	1559
Grp Volume(v), veh/h	514	1201	159	296	1135	233	553	1195	189	287	1206	320
Grp Sat Flow(s),veh/h/ln	1774	1770	1554	1774	1770	1555	1774	1770	1550	1774	1770	1559
Q Serve(g_s), s	23.8	28.9	7.2	19.3	28.9	11.0	18.8	29.6	8.0	19.4	30.3	14.7
Cycle Q Clear(g_c), s	23.8	28.9	7.2	19.3	28.9	11.0	18.8	29.6	8.0	19.4	30.3	14.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	852	374	352	852	375	278	873	382	288	894	394
V/C Ratio(X)	1.46	1.41	0.42	0.84	1.33	0.62	1.99	1.37	0.49	1.00	1.35	0.81
Avail Cap(c_a), veh/h	352	852	374	352	852	375	278	873	382	288	894	394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	45.5	18.4	46.3	45.5	19.0	50.6	45.2	15.8	50.2	44.8	17.0
Incr Delay (d2), s/veh	222.5	191.1	3.5	15.7	157.3	7.6	458.0	173.3	4.5	51.7	164.7	16.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	33.4	36.7	3.5	11.0	32.7	5.5	44.5	35.4	3.9	13.6	35.2	8.1
LnGrp Delay(d),s/veh	270.6	236.6	21.9	62.0	202.8	26.6	508.6	218.5	20.3	101.9	209.6	33.6
LnGrp LOS	F	F	C	E	F	C	F	F	C	F	F	C
Approach Vol, veh/h		1874			1664			1937			1813	
Approach Delay, s/veh		227.7			153.1			282.0			161.5	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	34.0	23.0	35.0	28.0	34.0	23.7	34.3
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	23.8	* 29	* 19	* 30	23.8	* 29	* 20	* 30
Max Q Clear Time (g_c+I1), s	21.3	30.9	20.8	32.3	25.8	30.9	21.4	31.6
Green Ext Time (p_c), s	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		208.6
HCM 2010 LOS		F

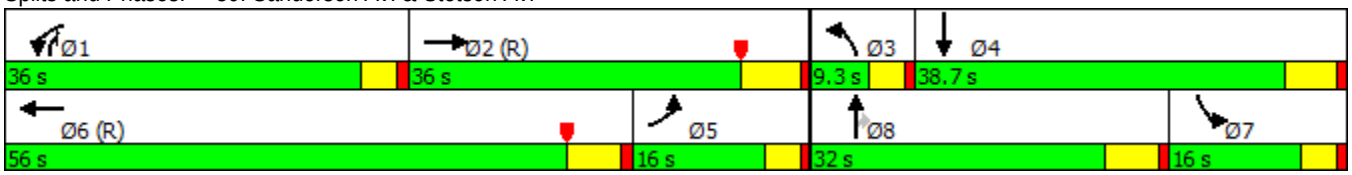
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	386	682	526	645	86	1236	542	378	1413
Future Volume (vph)	386	682	526	645	86	1236	542	378	1413
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	16.0	36.0	36.0	56.0	9.3	32.0	36.0	16.0	38.7
Total Split (%)	13.3%	30.0%	30.0%	46.7%	7.8%	26.7%	30.0%	13.3%	32.3%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 21.4 (18%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	386	682	91	526	645	336	86	1236	542	378	1413	334
Future Volume (veh/h)	386	682	91	526	645	336	86	1236	542	378	1413	334
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	398	703	92	542	665	325	89	1274	190	390	1457	333
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1626	3403	445	470	965	471	75	773	758	174	828	184
Arrive On Green	0.92	1.00	1.00	0.27	0.42	0.42	0.04	0.22	0.22	0.10	0.29	0.29
Sat Flow, veh/h	1774	3141	411	1774	2306	1127	1774	3539	1548	1774	2879	641
Grp Volume(v), veh/h	398	396	399	542	510	480	89	1274	190	390	880	910
Grp Sat Flow(s),veh/h/ln	1774	1770	1782	1774	1770	1663	1774	1770	1548	1774	1770	1750
Q Serve(g_s), s	2.9	0.0	0.0	31.8	28.3	28.3	5.1	26.2	19.1	11.8	34.5	34.5
Cycle Q Clear(g_c), s	2.9	0.0	0.0	31.8	28.3	28.3	5.1	26.2	19.1	11.8	34.5	34.5
Prop In Lane	1.00		0.23	1.00		0.68	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	1626	1917	1931	470	740	696	75	773	758	174	509	503
V/C Ratio(X)	0.24	0.21	0.21	1.15	0.69	0.69	1.18	1.65	0.25	2.24	1.73	1.81
Avail Cap(c_a), veh/h	1626	1917	1931	470	740	696	75	773	758	174	509	503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.5	0.0	0.0	44.1	28.5	28.5	57.5	46.9	89.6	54.1	42.8	42.8
Incr Delay (d2), s/veh	0.0	0.2	0.2	90.7	5.2	5.5	160.3	297.7	0.8	574.1	337.0	371.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.1	0.1	27.4	14.8	14.0	5.8	44.7	8.3	33.6	64.4	68.5
LnGrp Delay(d),s/veh	0.6	0.2	0.2	134.8	33.7	34.1	217.7	344.6	90.4	628.2	379.7	414.2
LnGrp LOS	A	A	A	F	C	C	F	F	F	F	F	F
Approach Vol, veh/h		1193			1532			1553			2180	
Approach Delay, s/veh		0.3			69.6			306.2			438.6	
Approach LOS		A			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.0	137.8	9.3	40.3	117.8	56.0	17.6	32.0
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	6.2	* 5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 32	29.8	* 5.1	32.9	11.8	* 50	11.8	* 26
Max Q Clear Time (g_c+I1), s	33.8	2.0	7.1	36.5	4.9	30.3	13.8	28.2
Green Ext Time (p_c), s	0.0	5.1	0.0	0.0	2.9	6.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	238.3
HCM 2010 LOS	F

Notes

APPENDIX 7.3:

OPENING YEAR CUMULATIVE (2026) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

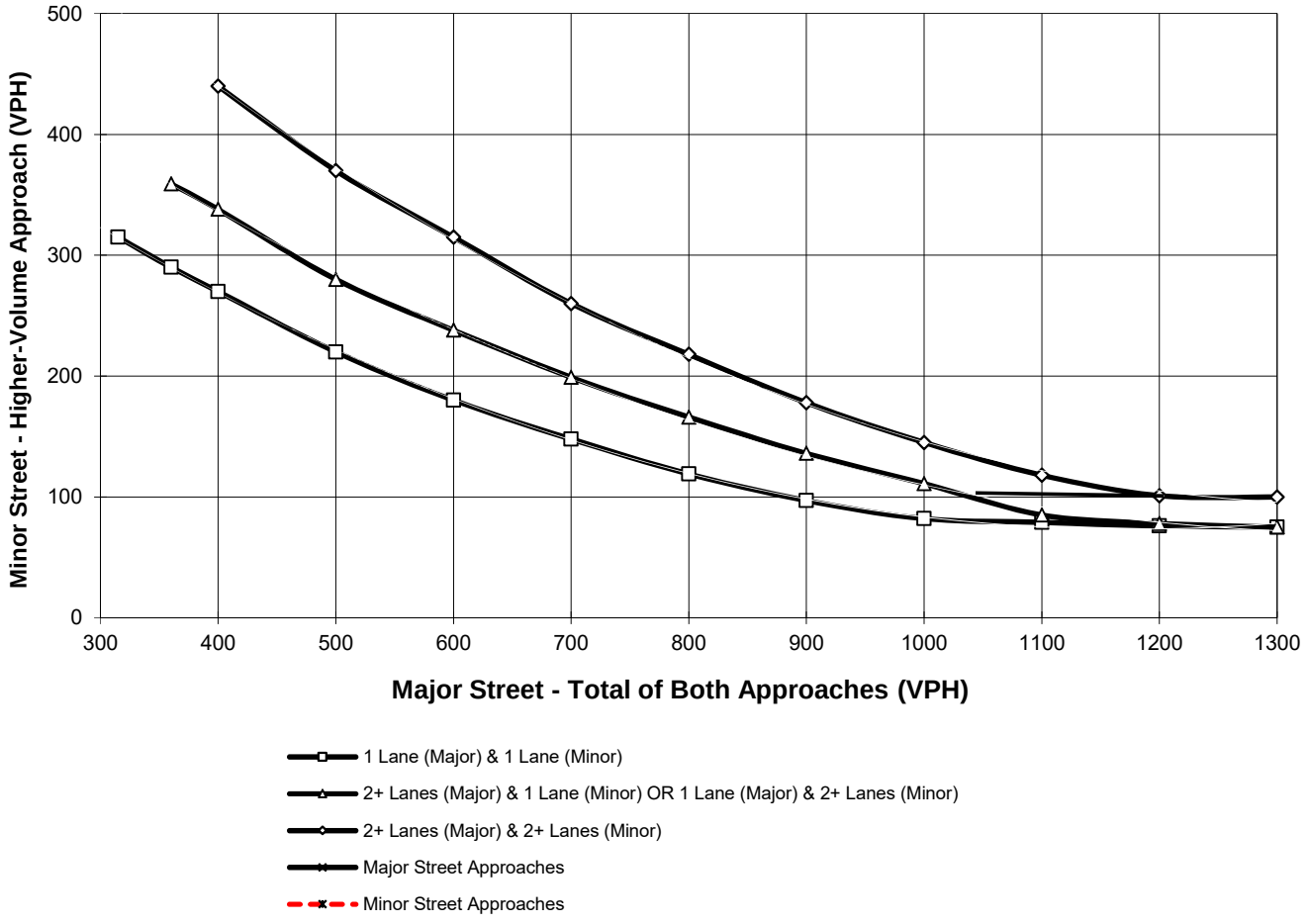
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year Cumulative (2026) Without Project Conditions - Weekday PM Peak Hou**

Major Street Name = **California Avenue** Total of Both Approaches (VPH) = **132**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Stowe Road** High Volume Approach (VPH) = **148**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

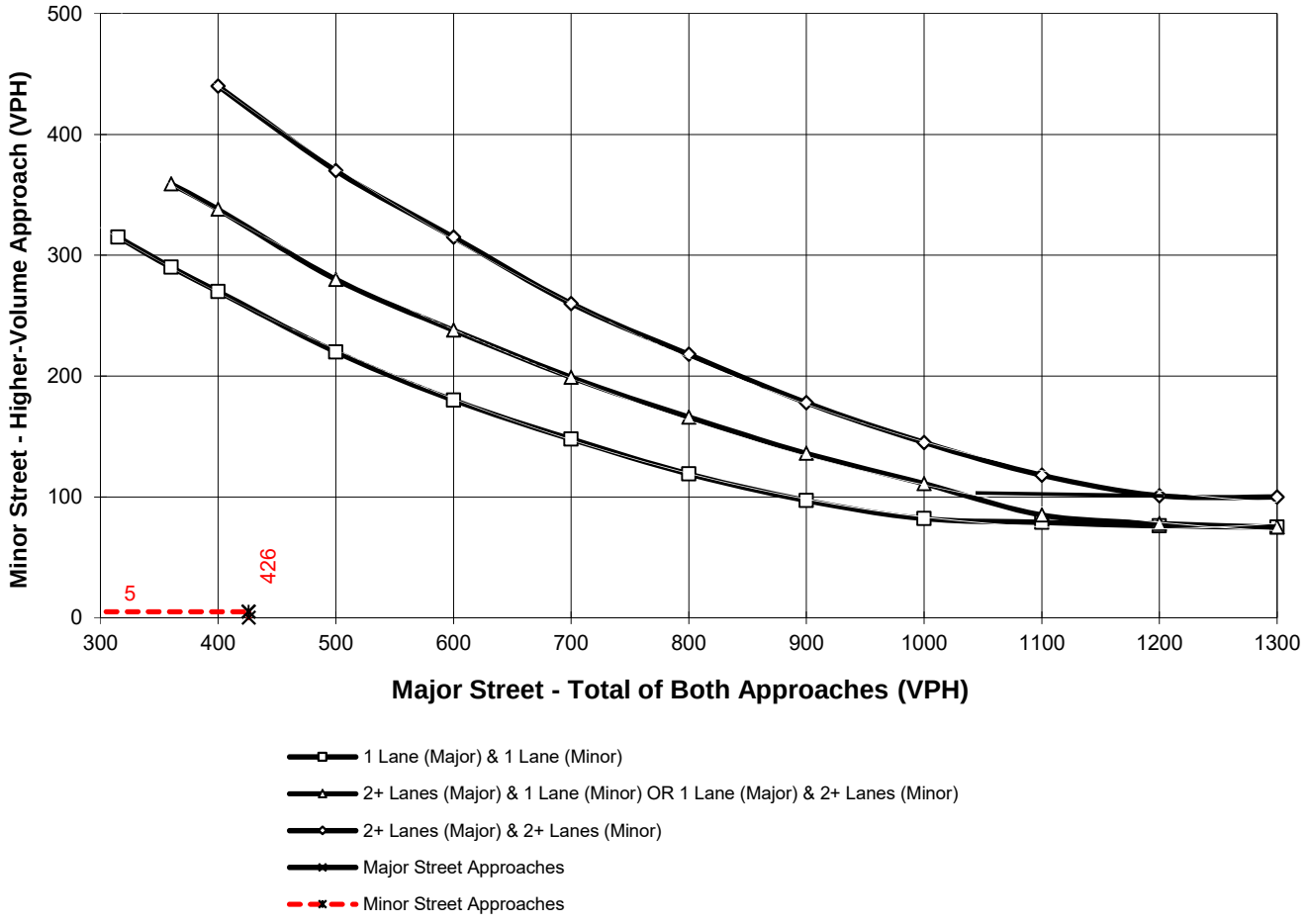
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year Cumulative (2026) Without Project Conditions - Weekday PM Peak Hou**

Major Street Name = **Simpson Road**
Total of Both Approaches (VPH) = **426**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **California Avenue**
High Volume Approach (VPH) = **5**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

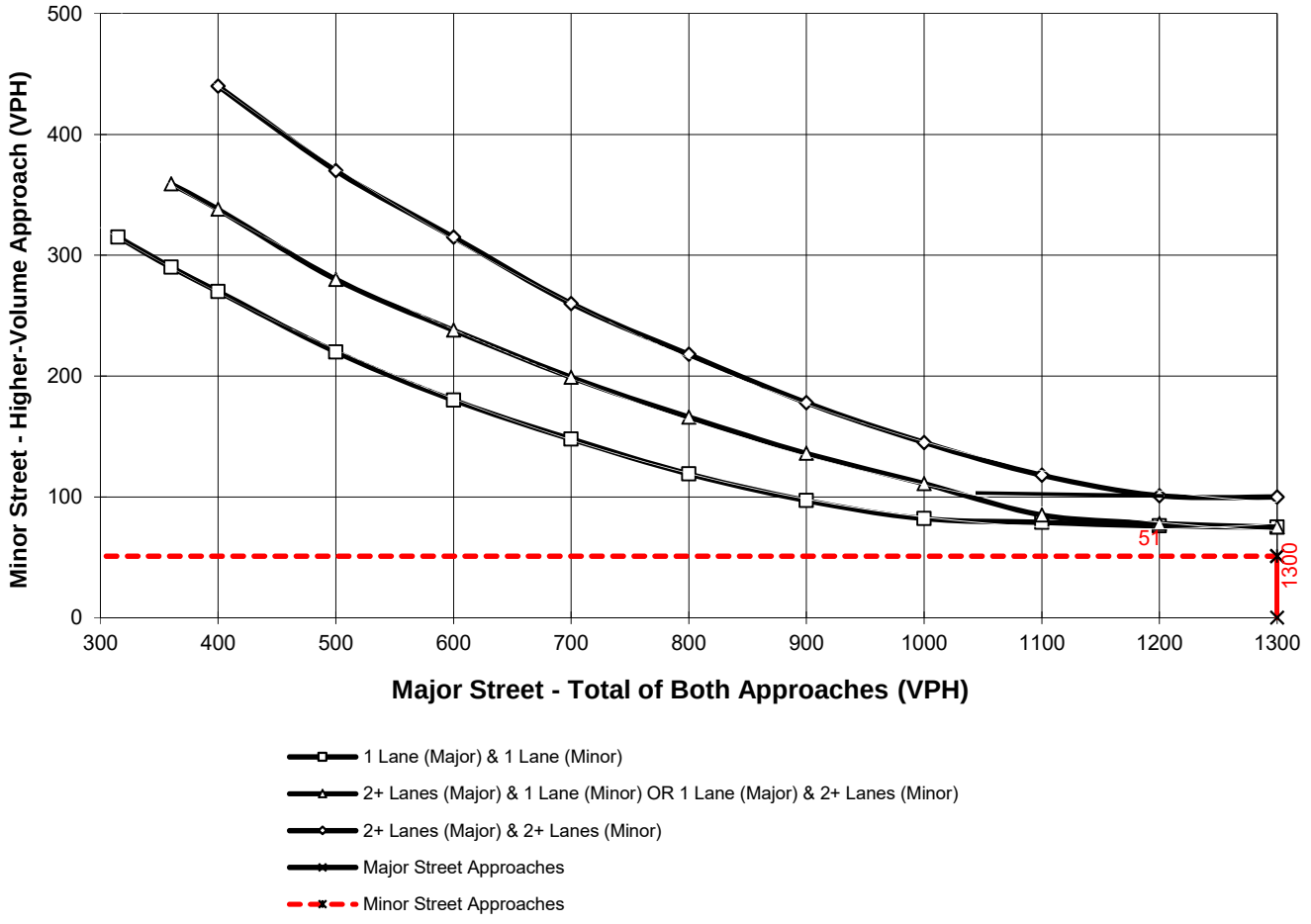
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year Cumulative (2026) Without Project Conditions - Weekday AM Peak Hou**

Major Street Name = **Warren Road**
Total of Both Approaches (VPH) = **2408**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Whittier Avenue**
High Volume Approach (VPH) = **51**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 7.4:

OPENING YEAR CUMULATIVE (2026) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

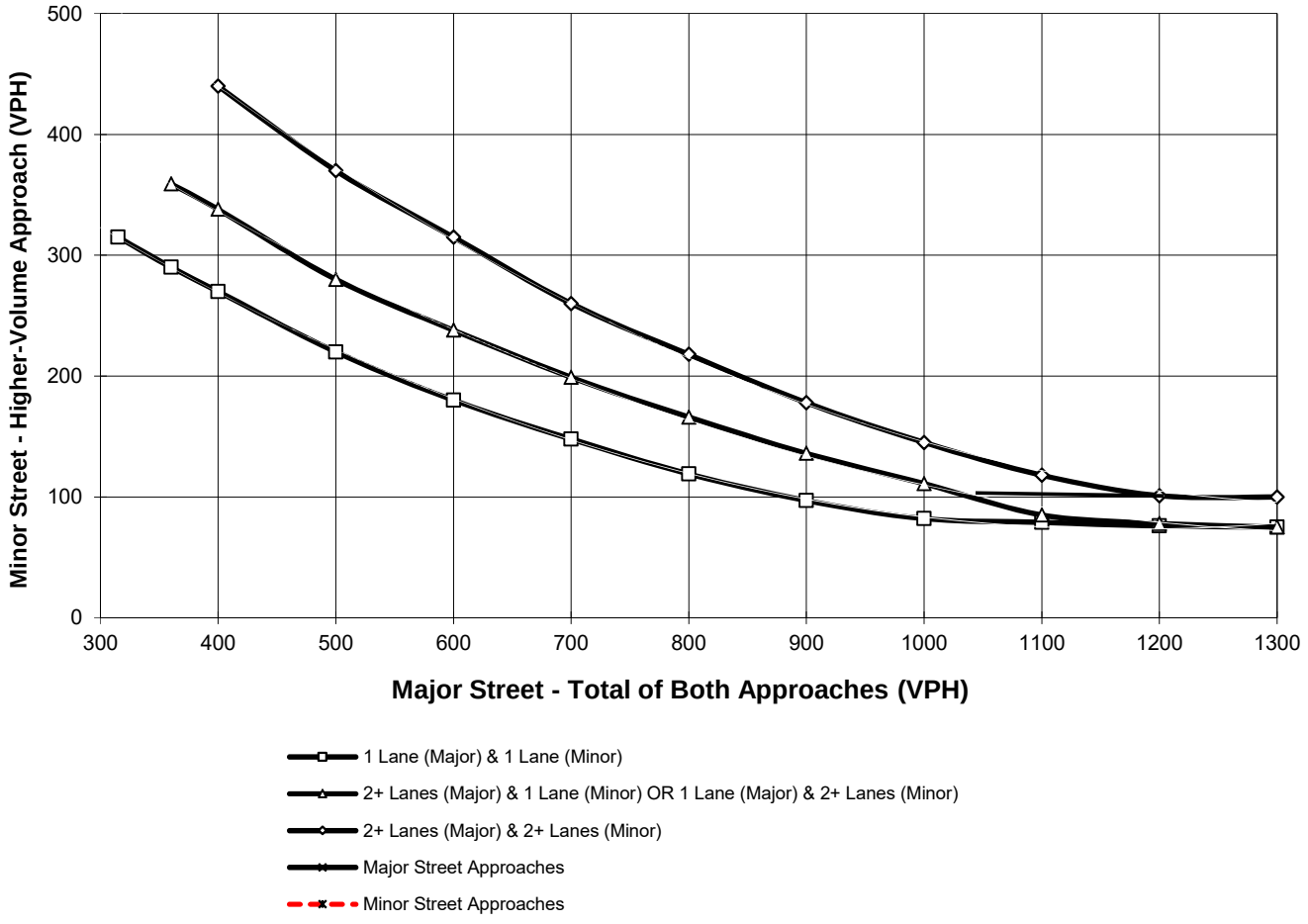
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year Cumulative (2026) With Project Conditions - Weekday PM Peak Hour**

Major Street Name = **California Avenue** — Total of Both Approaches (VPH) = **132**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Stowe Road** — High Volume Approach (VPH) = **148**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

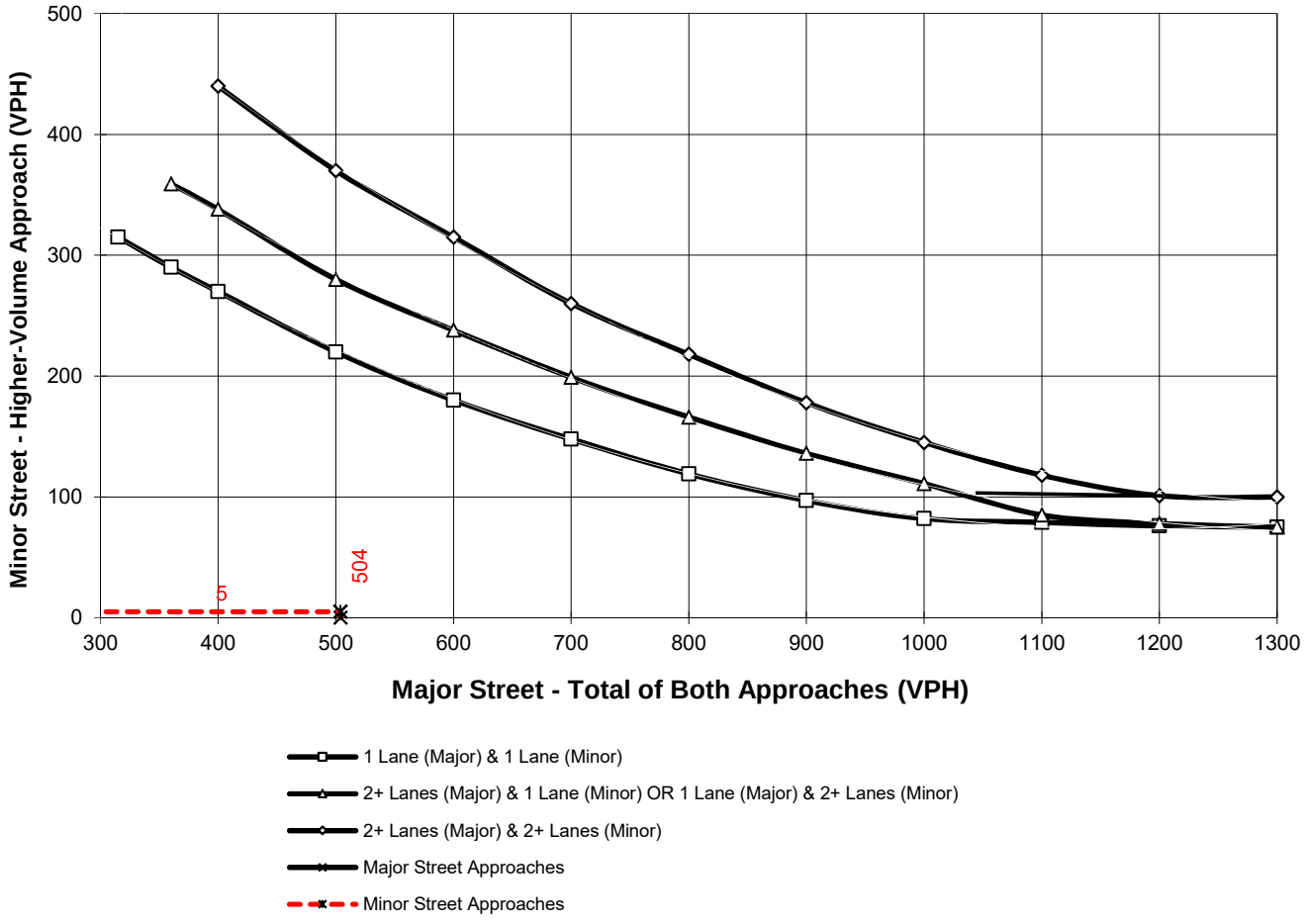
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year Cumulative (2026) With Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Simpson Road**
Total of Both Approaches (VPH) = **504**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **California Avenue**
High Volume Approach (VPH) = **5**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		2026 WP
				CALC RV	DATE	09/21/17
Jurisdiction: City of Hemet				CHK CHS	DATE	09/21/17
Major Street: New Stetson Avenue				Critical Approach Speed (Major)		45 mph
Minor Street: Street C				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **227** vpd Minor Street Future ADT = **280** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
		280		
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX / XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **227** / 1 **280**	8,000	5,600	2,400	1,680
2 + / 1	9,600	6,720	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **227** / 1 **280**	12,000	8,400	1,200	850
2 + / 1	14,400	10,080	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 4% B: 3%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

___ DIST	___ CO	___ RTE	___ PM		TRAFFIC CONDITIONS		2026 WP
				CALC	RV	DATE	09/21/17
Jurisdiction:	City of Hemet			CHK	CHS	DATE	09/21/17
Major Street:	New Stetson Avenue				Critical Approach Speed (Major)		45 mph
Minor Street:	Mustang Way				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **3,057** vpd Minor Street Future ADT = **1,570** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or **RURAL (R)**

In built up area of isolated community of < 10,000 population ……..

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied (XX)				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **3,057** / *1* **1,570**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				
Satisfied / Not Satisfied (XX)				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **3,057** / *1* **1,570**	12,000	8,400	1,200	850 *
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied (XX)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 55% B: 36%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		2026 WP
				CALC	RV	DATE	09/21/17
Jurisdiction:	City of Hemet			CHK	CHS	DATE	09/21/17
Major Street:	New Stetson Avenue				Critical Approach Speed (Major)		45 mph
Minor Street:	Street D				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **3,057** vpd Minor Street Future ADT = **971** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √

or

In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied: XX / XX (RURAL)				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **3,057** / 1 **971**	8,000	5,600	2,400	1,680
2 + / 1	9,600	6,720	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX (RURAL)				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **3,057** / 1 **971**	12,000	8,400	1,200	850 *
2 + / 1	14,400	10,080	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX (RURAL)				
No one condition satisfied, but following conditions fulfilled 80% of more ..... A: 55% B: 36%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

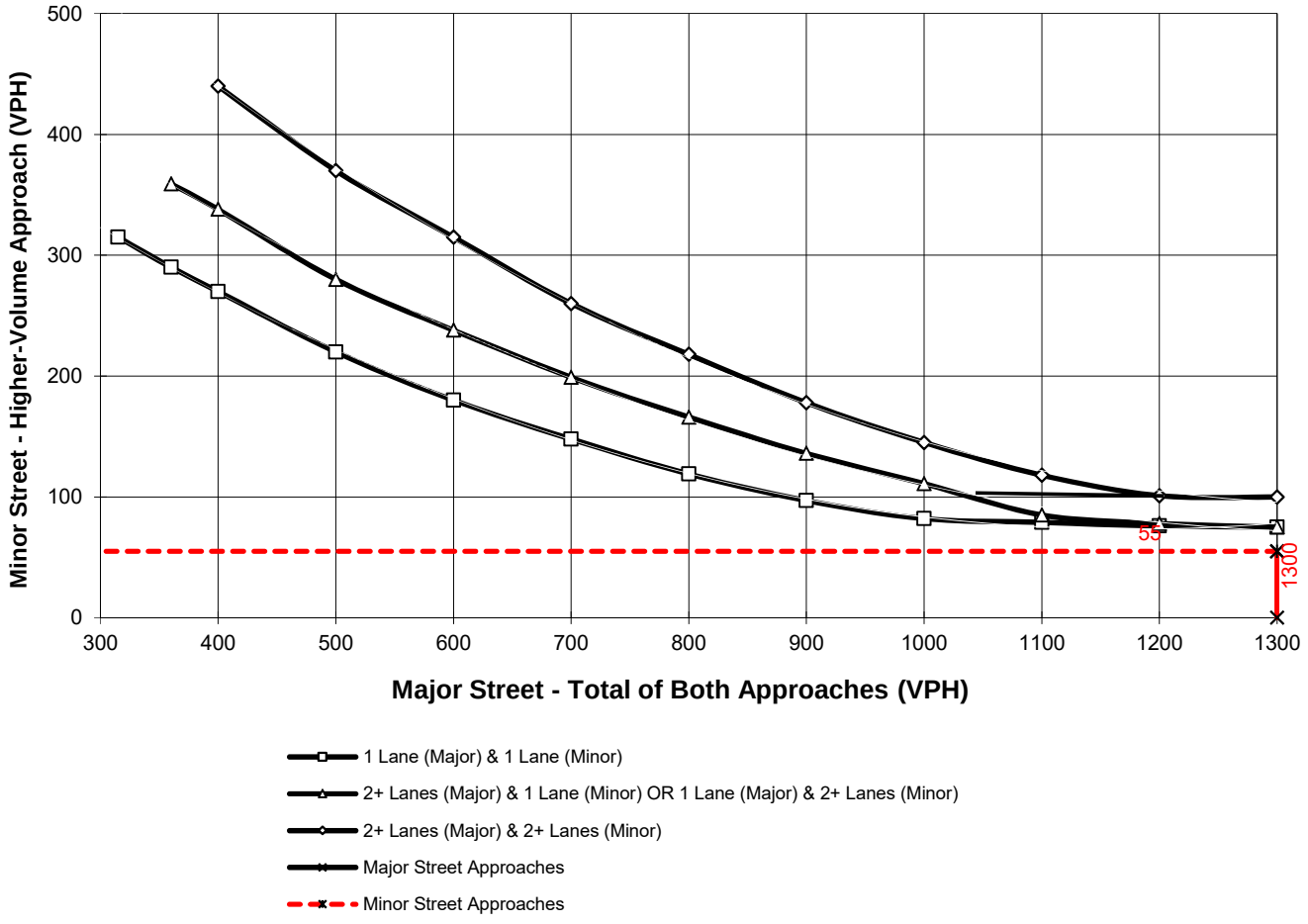
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year Cumulative (2026) With Project Conditions - Weekday AM Peak Hour**

Major Street Name = **Warren Road** — Total of Both Approaches (VPH) = **2332**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Whittier Avenue** — High Volume Approach (VPH) = **55**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 7.5:

OPENING YEAR CUMULATIVE (2026) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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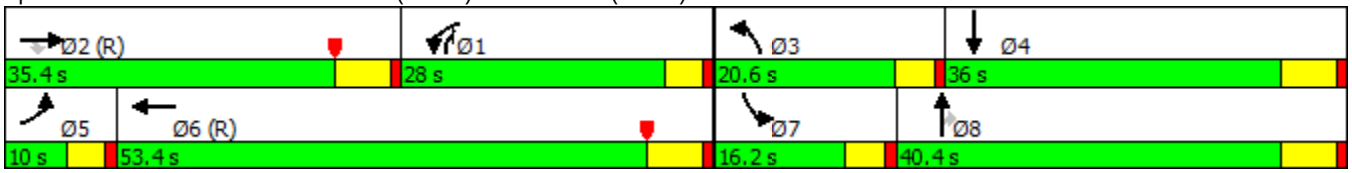
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	20	1163	142	583	1332	132	13	588	25	33
Future Volume (vph)	20	1163	142	583	1332	132	13	588	25	33
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2		1	6	3	8	1	7	4
Permitted Phases			2					8		
Detector Phase	5	2	2	1	6	3	8	1	7	4
Switch Phase										
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	5.0	25.0	5.0	5.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	16.2	31.0	9.5	16.2	36.0
Total Split (s)	10.0	35.4	35.4	28.0	53.4	20.6	40.4	28.0	16.2	36.0
Total Split (%)	8.3%	29.5%	29.5%	23.3%	44.5%	17.2%	33.7%	23.3%	13.5%	30.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.6	5.0	3.5	3.6	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	4.6	6.0	4.5	4.6	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	5.3	29.4	29.4	23.5	53.4	12.9	43.4	68.4	6.4	33.1
Actuated g/C Ratio	0.04	0.24	0.24	0.20	0.44	0.11	0.36	0.57	0.05	0.28
v/c Ratio	0.27	0.96	0.29	0.89	0.63	0.71	0.02	0.61	0.28	0.08
Control Delay	64.2	63.0	7.6	64.2	27.8	71.6	28.0	9.4	61.2	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.2	63.0	7.6	64.2	27.8	71.6	28.0	9.4	61.2	29.9
LOS	E	E	A	E	C	E	C	A	E	C
Approach Delay		57.1			38.7		20.9			42.0
Approach LOS		E			D		C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 33.3 (28%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 41.5	Intersection LOS: D
Intersection Capacity Utilization 78.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1163	142	583	1332	37	132	13	588	25	33	7
Future Volume (veh/h)	20	1163	142	583	1332	37	132	13	588	25	33	7
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	21	1199	107	601	1373	36	136	13	426	26	34	7
Adj No. of Lanes	1	3	1	2	3	0	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	1246	388	775	2352	62	163	591	859	43	375	77
Arrive On Green	0.02	0.25	0.25	0.23	0.46	0.46	0.09	0.32	0.32	0.02	0.25	0.25
Sat Flow, veh/h	1774	5085	1583	3442	5096	134	1774	1863	1582	1774	1499	309
Grp Volume(v), veh/h	21	1199	107	601	913	496	136	13	426	26	0	41
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1839	1774	1863	1582	1774	0	1808
Q Serve(g_s), s	1.4	28.0	5.0	19.7	23.8	23.8	9.1	0.6	2.8	1.7	0.0	2.1
Cycle Q Clear(g_c), s	1.4	28.0	5.0	19.7	23.8	23.8	9.1	0.6	2.8	1.7	0.0	2.1
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	37	1246	388	775	1565	849	163	591	859	43	0	452
V/C Ratio(X)	0.56	0.96	0.28	0.78	0.58	0.58	0.84	0.02	0.50	0.61	0.00	0.09
Avail Cap(c_a), veh/h	81	1246	388	775	1565	849	237	591	859	171	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.2	44.8	21.3	43.7	23.8	23.8	53.6	28.1	7.5	58.0	0.0	34.5
Incr Delay (d2), s/veh	4.9	17.9	1.8	4.5	1.6	2.9	10.8	0.1	2.0	5.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	15.2	2.4	9.8	11.5	12.8	4.9	0.3	6.0	0.9	0.0	1.1
LnGrp Delay(d),s/veh	63.1	62.7	23.0	48.2	25.4	26.7	64.4	28.2	9.5	63.0	0.0	34.9
LnGrp LOS	E	E	C	D	C	C	E	C	A	E		C
Approach Vol, veh/h		1327			2010			575			67	
Approach Delay, s/veh		59.5			32.5			22.9			45.8	
Approach LOS		E			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.0	35.4	15.6	36.0	7.0	61.4	7.5	44.1
Change Period (Y+Rc), s	6.0	* 6	4.6	6.0	4.5	6.0	4.6	6.0
Max Green Setting (Gmax), s	23.5	* 29	16.0	30.0	5.5	47.4	11.6	34.4
Max Q Clear Time (g_c+I1), s	21.7	30.0	11.1	4.1	3.4	25.8	3.7	4.8
Green Ext Time (p_c), s	0.4	0.0	0.1	0.9	0.0	7.2	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	40.4
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	70	1	0	37	639	4	903
Future Volume (vph)	70	1	0	37	639	4	903
Turn Type	Perm	NA	NA	Prot	NA	Prot	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4						
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	9.6	28.2	9.6	28.2
Total Split (s)	31.6	31.6	31.6	9.6	38.8	9.6	38.8
Total Split (%)	39.5%	39.5%	39.5%	12.0%	48.5%	12.0%	48.5%
Yellow Time (s)	3.6	3.6	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	4.6	4.6	6.2	4.6	6.2
Lead/Lag				Lead	Lag	Lead	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	Min
Act Effct Green (s)		13.0	13.0	5.1	41.1	5.1	39.2
Actuated g/C Ratio		0.21	0.21	0.08	0.67	0.08	0.63
v/c Ratio		0.40	0.01	0.27	0.56	0.03	0.87
Control Delay		16.8	0.0	35.4	13.6	31.8	27.4
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		16.8	0.0	35.4	13.6	31.8	27.4
LOS		B	A	D	B	C	C
Approach Delay		16.8			14.8		27.4
Approach LOS		B			B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 61.8	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 21.7	Intersection LOS: C
Intersection Capacity Utilization 73.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	1	61	0	0	3	37	639	1	4	903	48
Future Volume (veh/h)	70	1	61	0	0	3	37	639	1	4	903	48
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	75	1	66	0	0	3	40	687	1	4	971	52
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	23	108	0	0	242	72	1084	2	10	960	51
Arrive On Green	0.15	0.15	0.15	0.00	0.00	0.15	0.04	0.58	0.58	0.01	0.55	0.55
Sat Flow, veh/h	665	150	708	0	0	1583	1774	1860	3	1774	1752	94
Grp Volume(v), veh/h	142	0	0	0	0	3	40	0	688	4	0	1023
Grp Sat Flow(s),veh/h/ln	1523	0	0	0	0	1583	1774	0	1862	1774	0	1846
Q Serve(g_s), s	3.7	0.0	0.0	0.0	0.0	0.1	1.3	0.0	14.5	0.1	0.0	32.6
Cycle Q Clear(g_c), s	5.1	0.0	0.0	0.0	0.0	0.1	1.3	0.0	14.5	0.1	0.0	32.6
Prop In Lane	0.53		0.46	0.00		1.00	1.00		0.00	1.00		0.05
Lane Grp Cap(c), veh/h	325	0	0	0	0	242	72	0	1086	10	0	1011
V/C Ratio(X)	0.44	0.00	0.00	0.00	0.00	0.01	0.55	0.00	0.63	0.42	0.00	1.01
Avail Cap(c_a), veh/h	773	0	0	0	0	718	149	0	1086	149	0	1011
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	0.0	0.0	0.0	21.4	28.0	0.0	8.2	29.5	0.0	13.5
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.0	0.0	0.0	2.5	0.0	1.2	10.5	0.0	31.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	0.0	0.0	0.0	0.7	0.0	7.6	0.1	0.0	25.1
LnGrp Delay(d),s/veh	24.4	0.0	0.0	0.0	0.0	21.4	30.5	0.0	9.4	40.0	0.0	44.6
LnGrp LOS	C					C	C		A	D		F
Approach Vol, veh/h		142			3			728			1027	
Approach Delay, s/veh		24.4			21.4			10.6			44.6	
Approach LOS		C			C			B			D	

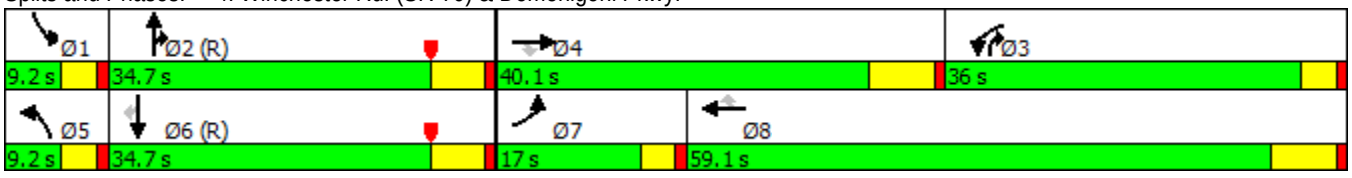
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.9	40.9		13.7	7.0	38.8		13.7
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6
Max Green Setting (Gmax), s	5.0	32.6		27.0	5.0	32.6		27.0
Max Q Clear Time (g_c+I1), s	2.1	16.5		7.1	3.3	34.6		2.1
Green Ext Time (p_c), s	0.0	10.4		0.8	0.0	0.0		0.8

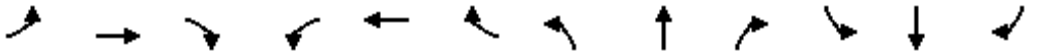
Intersection Summary	
HCM 2010 Ctrl Delay	30.0
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	960	88	852	948	52	54	354	693	80	655	249
Future Volume (vph)	169	960	88	852	948	52	54	354	693	80	655	249
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	2 3	1	6	
Permitted Phases			4			8						6
Detector Phase	7	4	4	3	8	8	5	2	2 3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8		9.2	33.8	33.8
Total Split (s)	17.0	40.1	40.1	36.0	59.1	59.1	9.2	34.7		9.2	34.7	34.7
Total Split (%)	14.2%	33.4%	33.4%	30.0%	49.3%	49.3%	7.7%	28.9%		7.7%	28.9%	28.9%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8		3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8		4.2	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	10.5	33.2	33.2	31.8	54.5	54.5	5.0	28.9	59.1	5.0	28.9	28.9
Actuated g/C Ratio	0.09	0.28	0.28	0.26	0.45	0.45	0.04	0.24	0.49	0.04	0.24	0.24
v/c Ratio	0.61	1.07	0.18	1.02	0.45	0.07	0.81	0.45	0.90	1.19	0.84	0.46
Control Delay	61.5	89.6	3.4	78.4	23.5	0.7	118.5	40.8	32.3	214.7	53.2	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.5	89.6	3.4	78.4	23.5	0.7	118.5	40.8	32.3	214.7	53.2	7.5
LOS	E	F	A	E	C	A	F	D	C	F	D	A
Approach Delay		79.4			48.1			39.3			54.8	
Approach LOS		E			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 54.9	Intersection LOS: D
Intersection Capacity Utilization 90.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	960	88	852	948	52	54	354	693	80	655	249
Future Volume (veh/h)	169	960	88	852	948	52	54	354	693	80	655	249
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	184	1043	59	926	1030	45	59	385	491	87	712	172
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	241	979	438	912	2513	782	74	3467	1971	74	3467	1551
Arrive On Green	0.07	0.28	0.28	0.26	0.49	0.49	0.04	0.98	0.98	0.04	0.98	0.98
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	184	1043	59	926	1030	45	59	385	491	87	712	172
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.3	33.2	6.3	31.8	15.4	1.8	4.0	0.3	0.3	5.0	0.6	0.3
Cycle Q Clear(g_c), s	6.3	33.2	6.3	31.8	15.4	1.8	4.0	0.3	0.3	5.0	0.6	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	241	979	438	912	2513	782	74	3467	1971	74	3467	1551
V/C Ratio(X)	0.76	1.07	0.13	1.02	0.41	0.06	0.80	0.11	0.25	1.18	0.21	0.11
Avail Cap(c_a), veh/h	367	979	438	912	2513	782	74	3467	1971	74	3467	1551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	54.8	43.4	113.7	44.1	19.3	15.8	57.0	0.0	0.6	57.5	0.0	0.0
Incr Delay (d2), s/veh	2.0	47.8	0.1	33.7	0.1	0.0	41.5	0.1	0.3	148.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	22.7	2.8	19.3	7.2	0.8	2.8	0.1	0.2	5.5	0.2	0.2
LnGrp Delay(d),s/veh	56.8	91.2	113.8	77.8	19.4	15.8	98.5	0.1	0.9	205.5	0.1	0.1
LnGrp LOS	E	F	F	F	B	B	F	A	A	F	A	A
Approach Vol, veh/h		1286			2001			935			971	
Approach Delay, s/veh		87.3			46.3			6.7			18.5	
Approach LOS		F			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	126.1	38.7	40.1	9.2	126.1	12.6	66.2
Change Period (Y+Rc), s	* 4.2	5.8	6.9	* 6.9	* 4.2	5.8	* 4.2	6.9
Max Green Setting (Gmax), s	* 5	28.9	31.8	* 33	* 5	28.9	* 13	52.2
Max Q Clear Time (g_c+I1), s	7.0	2.3	33.8	35.2	6.0	2.6	8.3	17.4
Green Ext Time (p_c), s	0.0	15.4	0.0	0.0	0.0	15.3	0.1	10.1

Intersection Summary	
HCM 2010 Ctrl Delay	44.1
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	30	37	303	18	19	813	78	648
Future Volume (vph)	30	37	303	18	19	813	78	648
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	27.8	9.6	27.8
Total Split (s)	32.3	32.3	32.3	32.3	10.2	77.5	10.2	77.5
Total Split (%)	26.9%	26.9%	26.9%	26.9%	8.5%	64.6%	8.5%	64.6%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	27.9	27.9	27.9	27.9	5.3	33.9	5.6	40.4
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.06	0.41	0.07	0.49
v/c Ratio	0.08	0.11	0.72	0.26	0.18	0.80	0.69	0.40
Control Delay	22.2	15.1	36.6	6.7	43.2	24.5	70.0	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	15.1	36.6	6.7	43.2	24.5	70.0	14.7
LOS	C	B	D	A	D	C	E	B
Approach Delay		17.5		26.3		24.8		20.6
Approach LOS		B		C		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 82.5	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 23.5	Intersection LOS: C
Intersection Capacity Utilization 72.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 20: Warren Rd. & Esplanade Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	37	24	303	18	140	19	813	269	78	648	8
Future Volume (veh/h)	30	37	24	303	18	140	19	813	269	78	648	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	32	39	26	322	19	149	20	865	286	83	689	9
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	340	307	205	438	54	420	39	1240	409	106	1830	24
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.02	0.47	0.47	0.06	0.51	0.51
Sat Flow, veh/h	1212	1044	696	1331	182	1428	1774	2616	863	1774	3577	47
Grp Volume(v), veh/h	32	0	65	322	0	168	20	585	566	83	341	357
Grp Sat Flow(s),veh/h/ln	1212	0	1740	1331	0	1611	1774	1770	1710	1774	1770	1855
Q Serve(g_s), s	1.9	0.0	2.4	20.4	0.0	7.2	1.0	22.6	22.7	4.0	10.1	10.1
Cycle Q Clear(g_c), s	9.0	0.0	2.4	22.8	0.0	7.2	1.0	22.6	22.7	4.0	10.1	10.1
Prop In Lane	1.00		0.40	1.00		0.89	1.00		0.50	1.00		0.03
Lane Grp Cap(c), veh/h	340	0	512	438	0	474	39	838	810	106	905	949
V/C Ratio(X)	0.09	0.00	0.13	0.74	0.00	0.35	0.51	0.70	0.70	0.78	0.38	0.38
Avail Cap(c_a), veh/h	369	0	554	470	0	512	114	1457	1409	114	1457	1527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	0.0	22.5	30.9	0.0	24.2	42.1	18.0	18.0	40.4	12.9	12.9
Incr Delay (d2), s/veh	0.1	0.0	0.1	5.5	0.0	0.5	3.8	1.1	1.1	24.3	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.2	8.1	0.0	3.2	0.5	11.3	10.9	2.7	5.0	5.2
LnGrp Delay(d),s/veh	27.9	0.0	22.6	36.4	0.0	24.7	45.9	19.1	19.1	64.7	13.1	13.1
LnGrp LOS	C		C	D		C	D	B	B	E	B	B
Approach Vol, veh/h		97			490			1171			781	
Approach Delay, s/veh		24.4			32.4			19.6			18.6	
Approach LOS		C			C			B			B	

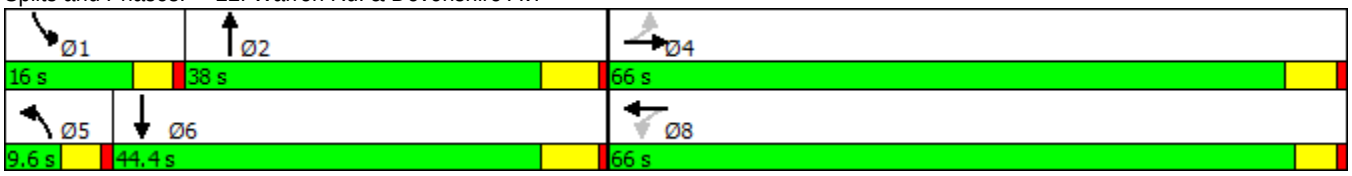
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.8	47.0		30.2	6.5	50.3		30.2
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6
Max Green Setting (Gmax), s	5.6	71.7		27.7	5.6	71.7		27.7
Max Q Clear Time (g_c+I1), s	6.0	24.7		11.0	3.0	12.1		24.8
Green Ext Time (p_c), s	0.0	16.6		2.5	0.0	17.5		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	21.9
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	265	255	188	389	16	685	153	649
Future Volume (vph)	265	255	188	389	16	685	153	649
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	31.8	31.8	9.6	28.2	9.6	28.2
Total Split (s)	66.0	66.0	66.0	66.0	9.6	38.0	16.0	44.4
Total Split (%)	55.0%	55.0%	55.0%	55.0%	8.0%	31.7%	13.3%	37.0%
Yellow Time (s)	4.8	4.8	3.8	3.8	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.8	4.8	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	60.2	60.2	61.2	61.2	5.0	31.1	11.4	43.3
Actuated g/C Ratio	0.50	0.50	0.51	0.51	0.04	0.26	0.10	0.36
v/c Ratio	1.10	0.33	0.41	0.62	0.23	0.92	0.96	0.69
Control Delay	117.3	18.5	21.4	23.5	63.4	58.8	114.9	35.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	117.3	18.5	21.4	23.5	63.4	58.8	114.9	35.5
LOS	F	B	C	C	E	E	F	D
Approach Delay		65.8		23.0		58.9		48.0
Approach LOS		E		C		E		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 119.3	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay: 48.1	Intersection LOS: D
Intersection Capacity Utilization 93.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	255	34	188	389	150	16	685	108	153	649	173
Future Volume (veh/h)	265	255	34	188	389	150	16	685	108	153	649	173
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	282	271	36	200	414	160	17	729	115	163	690	184
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	288	818	109	496	650	251	32	786	124	171	925	246
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.02	0.26	0.26	0.10	0.33	0.33
Sat Flow, veh/h	835	1611	214	1068	1281	495	1774	3064	483	1774	2765	737
Grp Volume(v), veh/h	282	0	307	200	0	574	17	421	423	163	441	433
Grp Sat Flow(s),veh/h/ln	835	0	1825	1068	0	1775	1774	1770	1777	1774	1770	1733
Q Serve(g_s), s	32.3	0.0	11.8	16.2	0.0	27.9	1.1	27.5	27.6	10.8	26.2	26.3
Cycle Q Clear(g_c), s	60.2	0.0	11.8	28.0	0.0	27.9	1.1	27.5	27.6	10.8	26.2	26.3
Prop In Lane	1.00		0.12	1.00		0.28	1.00		0.27	1.00		0.43
Lane Grp Cap(c), veh/h	288	0	926	496	0	901	32	454	456	171	592	579
V/C Ratio(X)	0.98	0.00	0.33	0.40	0.00	0.64	0.53	0.93	0.93	0.96	0.75	0.75
Avail Cap(c_a), veh/h	288	0	926	505	0	916	75	474	477	171	592	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	0.0	17.3	25.6	0.0	21.3	57.7	43.0	43.0	53.4	35.0	35.0
Incr Delay (d2), s/veh	47.0	0.0	0.2	0.5	0.0	1.4	5.0	24.1	24.1	55.4	5.1	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	0.0	6.0	4.9	0.0	13.9	0.6	16.5	16.6	7.9	13.6	13.3
LnGrp Delay(d),s/veh	93.3	0.0	17.5	26.1	0.0	22.7	62.7	67.1	67.2	108.8	40.1	40.3
LnGrp LOS	F		B	C		C	E	E	E	F	D	D
Approach Vol, veh/h		589			774			861			1037	
Approach Delay, s/veh		53.8			23.6			67.1			51.0	
Approach LOS		D			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.0	36.6		66.0	6.7	45.9		66.0
Change Period (Y+Rc), s	4.6	6.2		5.8	4.6	6.2		* 5.8
Max Green Setting (Gmax), s	11.4	31.8		60.2	5.0	38.2		* 61
Max Q Clear Time (g_c+I1), s	12.8	29.6		62.2	3.1	28.3		30.0
Green Ext Time (p_c), s	0.0	0.9		0.0	0.0	6.2		10.1

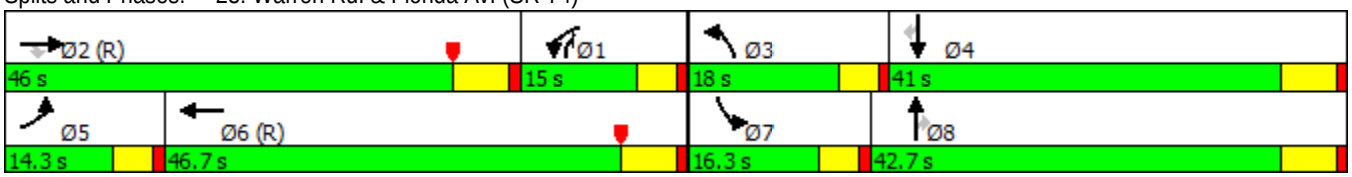
Intersection Summary			
HCM 2010 Ctrl Delay		49.2	
HCM 2010 LOS		D	

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	243	1281	281	371	1049	260	543	264	120	536	236
Future Volume (vph)	243	1281	281	371	1049	260	543	264	120	536	236
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8	1	7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	1	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	45.0	9.6	45.0	9.6	41.0	9.6	9.6	41.0	41.0
Total Split (s)	14.3	46.0	46.0	15.0	46.7	18.0	42.7	15.0	16.3	41.0	41.0
Total Split (%)	11.9%	38.3%	38.3%	12.5%	38.9%	15.0%	35.6%	12.5%	13.6%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	5.0	3.6	5.0	3.6	5.0	3.6	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	6.0	4.6	6.0	4.6	6.0	4.6	4.6	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	9.7	40.0	40.0	10.4	40.7	13.4	37.6	49.4	10.8	35.0	35.0
Actuated g/C Ratio	0.08	0.33	0.33	0.09	0.34	0.11	0.31	0.41	0.09	0.29	0.29
v/c Ratio	0.90	0.77	0.40	1.28	0.65	1.35	0.50	0.38	0.77	0.53	0.42
Control Delay	87.7	39.6	5.2	191.6	35.6	226.1	35.7	10.2	83.2	37.9	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.7	39.6	5.2	191.6	35.6	226.1	35.7	10.2	83.2	37.9	13.7
LOS	F	D	A	F	D	F	D	B	F	D	B
Approach Delay		40.7			75.1		75.8			37.5	
Approach LOS		D			E		E			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.35	
Intersection Signal Delay: 57.0	Intersection LOS: E
Intersection Capacity Utilization 100.7%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	243	1281	281	371	1049	49	260	543	264	120	536	236
Future Volume (veh/h)	243	1281	281	371	1049	49	260	543	264	120	536	236
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	248	1307	224	379	1070	46	265	554	224	122	547	177
Adj No. of Lanes	2	3	1	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	278	1695	528	1609	3658	157	198	1133	1246	147	1032	460
Arrive On Green	0.08	0.33	0.33	0.47	0.73	0.73	0.11	0.32	0.32	0.08	0.29	0.29
Sat Flow, veh/h	3442	5085	1583	3442	5000	215	1774	3539	1580	1774	3539	1578
Grp Volume(v), veh/h	248	1307	224	379	725	391	265	554	224	122	547	177
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1825	1774	1770	1580	1774	1770	1578
Q Serve(g_s), s	8.6	27.7	17.0	7.9	8.8	8.8	13.4	15.1	2.4	8.1	15.5	10.7
Cycle Q Clear(g_c), s	8.6	27.7	17.0	7.9	8.8	8.8	13.4	15.1	2.4	8.1	15.5	10.7
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	278	1695	528	1609	2480	1335	198	1133	1246	147	1032	460
V/C Ratio(X)	0.89	0.77	0.42	0.24	0.29	0.29	1.34	0.49	0.18	0.83	0.53	0.38
Avail Cap(c_a), veh/h	278	1695	528	1609	2480	1335	198	1133	1246	173	1032	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.57	0.57	0.57	0.72	0.72	0.72
Uniform Delay (d), s/veh	54.6	35.9	51.6	19.1	5.5	5.5	53.3	32.9	11.3	54.2	35.6	33.9
Incr Delay (d2), s/veh	27.3	3.5	2.5	0.0	0.3	0.6	170.3	0.9	0.2	16.1	1.4	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	13.5	7.8	3.7	4.1	4.5	15.9	7.5	3.3	4.7	7.8	4.9
LnGrp Delay(d),s/veh	81.9	39.4	54.1	19.1	5.8	6.1	223.6	33.7	11.5	70.3	37.0	35.7
LnGrp LOS	F	D	D	B	A	A	F	C	B	E	D	D
Approach Vol, veh/h		1779			1495			1043			846	
Approach Delay, s/veh		47.1			9.2			77.2			41.5	
Approach LOS		D			A			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	63.1	46.0	18.0	41.0	14.3	94.8	14.6	44.4
Change Period (Y+Rc), s	6.0	* 6	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	10.4	* 40	13.4	35.0	9.7	40.7	11.7	36.7
Max Q Clear Time (g_c+I1), s	9.9	29.7	15.4	17.5	10.6	10.8	10.1	17.1
Green Ext Time (p_c), s	0.1	4.5	0.0	4.6	0.0	5.3	0.0	4.7

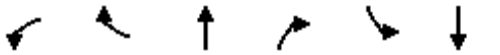
Intersection Summary	
HCM 2010 Ctrl Delay	41.3
HCM 2010 LOS	D

Notes

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	22	994	277	864
Future Volume (vph)	22	994	277	864
Turn Type	Prot	NA	Prot	NA
Protected Phases	8	2	1	6
Permitted Phases				
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	28.2	9.6	24.2
Total Split (s)	31.6	54.4	34.0	88.4
Total Split (%)	26.3%	45.3%	28.3%	73.7%
Yellow Time (s)	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	Min	None	Min
Act Effct Green (s)	13.4	37.0	19.8	64.0
Actuated g/C Ratio	0.16	0.45	0.24	0.78
v/c Ratio	0.29	0.76	0.69	0.33
Control Delay	16.3	24.8	41.4	4.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	16.3	24.8	41.4	4.8
LOS	B	C	D	A
Approach Delay	16.3	24.8		13.7
Approach LOS	B	C		B

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 81.9		
Natural Cycle: 90		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.76		
Intersection Signal Delay: 19.0	Intersection LOS: B	
Intersection Capacity Utilization 68.0%	ICU Level of Service C	
Analysis Period (min) 15		

Splits and Phases: 24: Warren Rd. & Auto Bl.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	22	69	994	125	277	864
Future Volume (veh/h)	22	69	994	125	277	864
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	23	73	1057	133	295	919
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	45	142	1541	194	340	2620
Arrive On Green	0.12	0.12	0.49	0.49	0.19	0.74
Sat Flow, veh/h	386	1225	3257	398	1774	3632
Grp Volume(v), veh/h	97	0	591	599	295	919
Grp Sat Flow(s),veh/h/ln	1627	0	1770	1792	1774	1770
Q Serve(g_s), s	4.2	0.0	19.3	19.3	12.1	6.8
Cycle Q Clear(g_c), s	4.2	0.0	19.3	19.3	12.1	6.8
Prop In Lane	0.24	0.75		0.22	1.00	
Lane Grp Cap(c), veh/h	188	0	862	873	340	2620
V/C Ratio(X)	0.52	0.00	0.69	0.69	0.87	0.35
Avail Cap(c_a), veh/h	586	0	1137	1152	695	3879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	0.0	14.8	14.8	29.4	3.4
Incr Delay (d2), s/veh	2.2	0.0	1.1	1.1	2.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	9.6	9.8	6.1	3.2
LnGrp Delay(d),s/veh	33.4	0.0	15.9	15.9	32.0	3.5
LnGrp LOS	C		B	B	C	A
Approach Vol, veh/h	97		1190			1214
Approach Delay, s/veh	33.4		15.9			10.4
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	19.0	42.7				61.7		13.3
Change Period (Y+Rc), s	4.6	6.2				6.2		4.6
Max Green Setting (Gmax), s	29.4	48.2				82.2		27.0
Max Q Clear Time (g_c+I1), s	14.1	21.3				8.8		6.2
Green Ext Time (p_c), s	0.3	15.2				22.2		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.9
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	55	1140	4	21	889
Future Vol, veh/h	0	55	1140	4	21	889
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	57	1175	4	22	916

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1679	590	0	0	1179	0
Stage 1	1177	-	-	-	-	-
Stage 2	502	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	86	451	-	-	588	-
Stage 1	255	-	-	-	-	-
Stage 2	573	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	83	451	-	-	588	-
Mov Cap-2 Maneuver	227	-	-	-	-	-
Stage 1	255	-	-	-	-	-
Stage 2	552	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.1	0	0.3
HCM LOS	B		

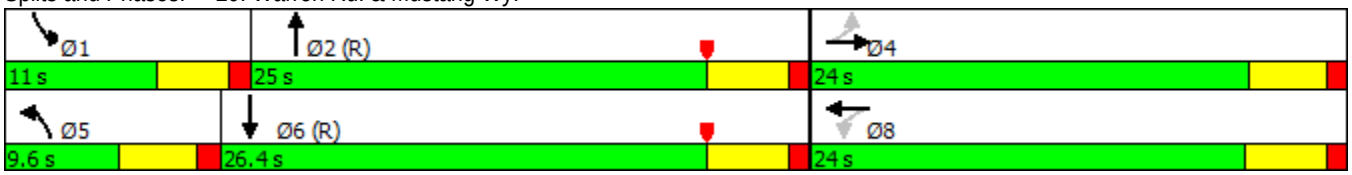
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	451	588	-
HCM Lane V/C Ratio	-	-	0.126	0.037	-
HCM Control Delay (s)	-	-	14.1	11.4	-
HCM Lane LOS	-	-	B	B	-
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	78	0	331	0	19	608	131	592
Future Volume (vph)	78	0	331	0	19	608	131	592
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	9.6	25.0	11.0	26.4
Total Split (%)	40.0%	40.0%	40.0%	40.0%	16.0%	41.7%	18.3%	44.0%
Yellow Time (s)	3.5	3.5	3.6	3.6	3.5	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.6	4.6	4.5	4.7	4.2	4.7
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	18.7	18.7	18.6	18.6	5.2	21.3	6.6	30.2
Actuated g/C Ratio	0.31	0.31	0.31	0.31	0.09	0.36	0.11	0.50
v/c Ratio	0.27	0.09	0.89	0.34	0.14	0.71	0.75	0.39
Control Delay	17.6	0.2	46.5	2.8	27.7	19.3	51.8	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	0.2	46.5	2.8	27.7	19.3	51.8	11.0
LOS	B	A	D	A	C	B	D	B
Approach Delay		10.4		29.7		19.5		18.1
Approach LOS		B		C		B		B

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 20.9 — Intersection LOS: C
Intersection Capacity Utilization 67.9% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	0	56	331	0	208	19	608	199	131	592	27
Future Volume (veh/h)	78	0	56	331	0	208	19	608	199	131	592	27
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	87	0	62	368	0	184	21	676	207	146	658	30
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	400	0	512	515	0	512	44	929	284	184	1455	66
Arrive On Green	0.32	0.00	0.32	0.32	0.00	0.32	0.02	0.35	0.35	0.10	0.42	0.42
Sat Flow, veh/h	1195	0	1583	1335	0	1583	1774	2671	817	1774	3448	157
Grp Volume(v), veh/h	87	0	62	368	0	184	21	448	435	146	338	350
Grp Sat Flow(s),veh/h/ln	1195	0	1583	1335	0	1583	1774	1770	1718	1774	1770	1835
Q Serve(g_s), s	3.6	0.0	1.7	16.1	0.0	5.3	0.7	13.3	13.3	4.8	8.2	8.2
Cycle Q Clear(g_c), s	8.9	0.0	1.7	17.7	0.0	5.3	0.7	13.3	13.3	4.8	8.2	8.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.48	1.00		0.09
Lane Grp Cap(c), veh/h	400	0	512	515	0	512	44	616	598	184	747	774
V/C Ratio(X)	0.22	0.00	0.12	0.71	0.00	0.36	0.48	0.73	0.73	0.79	0.45	0.45
Avail Cap(c_a), veh/h	402	0	515	515	0	512	151	616	598	201	747	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	14.3	20.5	0.0	15.5	28.9	17.1	17.1	26.3	12.4	12.4
Incr Delay (d2), s/veh	0.3	0.0	0.1	4.7	0.0	0.4	8.0	7.4	7.6	15.9	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.7	6.6	0.0	2.4	0.4	7.7	7.5	3.2	4.3	4.5
LnGrp Delay(d),s/veh	19.2	0.0	14.4	25.2	0.0	16.0	36.9	24.4	24.7	42.2	14.4	14.3
LnGrp LOS	B		B	C		B	D	C	C	D	B	B
Approach Vol, veh/h		149			552			904			834	
Approach Delay, s/veh		17.2			22.1			24.8			19.2	
Approach LOS		B			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.4	25.6		24.0	6.0	30.0		24.0
Change Period (Y+Rc), s	* 4.2	* 4.7		* 4.6	4.5	* 4.7		4.6
Max Green Setting (Gmax), s	* 6.8	* 20		* 20	5.1	* 22		19.4
Max Q Clear Time (g_c+I1), s	6.8	15.3		10.9	2.7	10.2		19.7
Green Ext Time (p_c), s	0.0	4.2		2.2	0.0	8.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C

Notes

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	212	712	259	45	593
Future Volume (vph)	212	712	259	45	593
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	4	3	8	2	3
Permitted Phases					2
Detector Phase	4	3	8	2	3
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	9.6	22.5	31.6	9.6
Total Split (s)	28.2	60.0	88.2	31.8	60.0
Total Split (%)	23.5%	50.0%	73.5%	26.5%	50.0%
Yellow Time (s)	5.2	3.6	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	5.2	4.6	4.6
Lead/Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	None	None	None	Min	None
Act Effct Green (s)	19.7	54.7	80.1	13.0	72.4
Actuated g/C Ratio	0.19	0.53	0.78	0.13	0.70
v/c Ratio	0.79	0.87	0.21	0.23	0.58
Control Delay	57.1	34.2	4.0	43.4	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	57.1	34.2	4.0	43.4	7.6
LOS	E	C	A	D	A
Approach Delay	57.1		26.2	10.2	
Approach LOS	E		C	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 103	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 24.7	Intersection LOS: C
Intersection Capacity Utilization 73.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 30: Warren Rd. & Simpson Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	212	33	712	259	45	593
Future Volume (veh/h)	212	33	712	259	45	593
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	244	38	818	298	52	682
Adj No. of Lanes	1	0	1	1	1	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	274	43	828	1266	407	1102
Arrive On Green	0.17	0.17	0.47	0.68	0.23	0.23
Sat Flow, veh/h	1574	245	1774	1863	1774	1583
Grp Volume(v), veh/h	0	282	818	298	52	682
Grp Sat Flow(s),veh/h/ln	0	1819	1774	1863	1774	1583
Q Serve(g_s), s	0.0	18.0	54.1	7.2	2.8	27.2
Cycle Q Clear(g_c), s	0.0	18.0	54.1	7.2	2.8	27.2
Prop In Lane		0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	316	828	1266	407	1102
V/C Ratio(X)	0.00	0.89	0.99	0.24	0.13	0.62
Avail Cap(c_a), veh/h	0	337	828	1303	407	1102
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	47.9	31.3	7.2	36.3	9.6
Incr Delay (d2), s/veh	0.0	23.4	28.0	0.1	0.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.1	32.8	3.8	1.4	12.1
LnGrp Delay(d),s/veh	0.0	71.3	59.3	7.3	36.4	10.7
LnGrp LOS		E	E	A	D	B
Approach Vol, veh/h	282			1116	734	
Approach Delay, s/veh	71.3			45.4	12.5	
Approach LOS	E			D	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		31.8	60.0	26.8				86.8
Change Period (Y+Rc), s		4.6	4.6	6.2				* 6.2
Max Green Setting (Gmax), s		27.2	55.4	22.0				* 83
Max Q Clear Time (g_c+I1), s		29.2	56.1	20.0				9.2
Green Ext Time (p_c), s		0.0	0.0	0.7				3.4

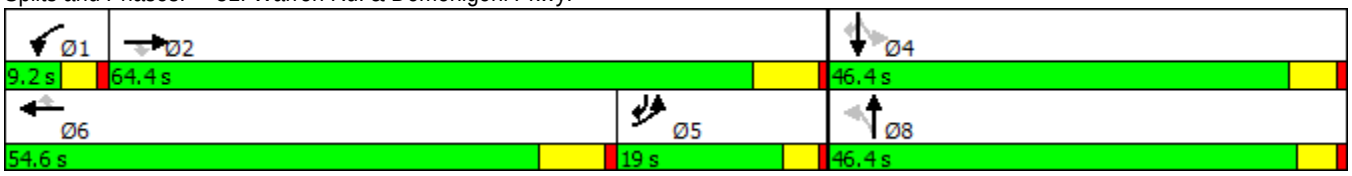
Intersection Summary	
HCM 2010 Ctrl Delay	37.5
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	520	1463	2	2	1762	106	4	22	138	16	588
Future Volume (vph)	520	1463	2	2	1762	106	4	22	138	16	588
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	5	2		1	6			8		4	5
Permitted Phases			2			6	8		4		4
Detector Phase	5	2	2	1	6	6	8	8	4	4	5
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	46.4	46.4	9.2
Total Split (s)	19.0	64.4	64.4	9.2	54.6	54.6	46.4	46.4	46.4	46.4	19.0
Total Split (%)	15.8%	53.7%	53.7%	7.7%	45.5%	45.5%	38.7%	38.7%	38.7%	38.7%	15.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	4.4	4.4	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.6	4.6	5.4	5.4	4.2
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead					Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None
Act Effct Green (s)	15.0	66.0	66.0	5.1	48.2	48.2	18.8	18.8	18.0	18.0	38.4
Actuated g/C Ratio	0.15	0.67	0.67	0.05	0.49	0.49	0.19	0.19	0.18	0.18	0.39
v/c Ratio	1.09	0.47	0.00	0.02	0.77	0.14	0.01	0.07	0.60	0.05	0.97
Control Delay	106.0	10.6	0.0	50.5	24.7	5.1	28.8	29.3	45.6	30.4	54.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	106.0	10.6	0.0	50.5	24.7	5.1	28.8	29.3	45.6	30.4	54.2
LOS	F	B	A	D	C	A	C	C	D	C	D
Approach Delay		35.6			23.6			29.3		52.1	
Approach LOS		D			C			C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97.9	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay: 33.4	Intersection LOS: C
Intersection Capacity Utilization 91.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	520	1463	2	2	1762	106	4	22	1	138	16	588
Future Volume (veh/h)	520	1463	2	2	1762	106	4	22	1	138	16	588
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	571	1608	2	2	1936	106	4	24	0	152	18	501
Adj No. of Lanes	2	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	504	3265	996	5	2399	731	233	358	0	322	358	536
Arrive On Green	0.15	0.64	0.64	0.00	0.47	0.47	0.19	0.19	0.00	0.19	0.19	0.19
Sat Flow, veh/h	3442	5085	1551	1774	5085	1550	879	1863	0	1381	1863	1583
Grp Volume(v), veh/h	571	1608	2	2	1936	106	4	24	0	152	18	501
Grp Sat Flow(s),veh/h/ln	1721	1695	1551	1774	1695	1550	879	1863	0	1381	1863	1583
Q Serve(g_s), s	14.8	16.7	0.0	0.1	32.8	3.9	0.4	1.1	0.0	10.2	0.8	16.2
Cycle Q Clear(g_c), s	14.8	16.7	0.0	0.1	32.8	3.9	1.2	1.1	0.0	11.3	0.8	16.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	504	3265	996	5	2399	731	233	358	0	322	358	536
V/C Ratio(X)	1.13	0.49	0.00	0.42	0.81	0.14	0.02	0.07	0.00	0.47	0.05	0.93
Avail Cap(c_a), veh/h	504	3265	996	88	2399	731	428	770	0	617	755	874
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.2	9.5	6.5	50.3	22.8	15.1	33.8	33.4	0.0	38.1	33.3	32.4
Incr Delay (d2), s/veh	82.3	0.5	0.0	20.1	3.0	0.4	0.0	0.0	0.0	0.4	0.0	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	7.9	0.0	0.1	15.9	1.8	0.1	0.5	0.0	3.9	0.4	12.3
LnGrp Delay(d),s/veh	125.4	10.0	6.5	70.4	25.8	15.6	33.8	33.5	0.0	38.5	33.3	40.5
LnGrp LOS	F	B	A	E	C	B	C	C		D	C	D
Approach Vol, veh/h		2181			2044			28			671	
Approach Delay, s/veh		40.2			25.3			33.5			39.9	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	71.8		24.8	21.7	54.6		24.8
Change Period (Y+Rc), s	* 4.2	6.9		5.4	6.9	* 6.9		* 5.4
Max Green Setting (Gmax), s	* 5	57.5		41.0	14.8	* 48		* 42
Max Q Clear Time (g_c+I1), s	2.1	18.7		18.2	16.8	34.8		3.2
Green Ext Time (p_c), s	0.0	10.2		1.3	0.0	7.2		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	34.0
HCM 2010 LOS	C

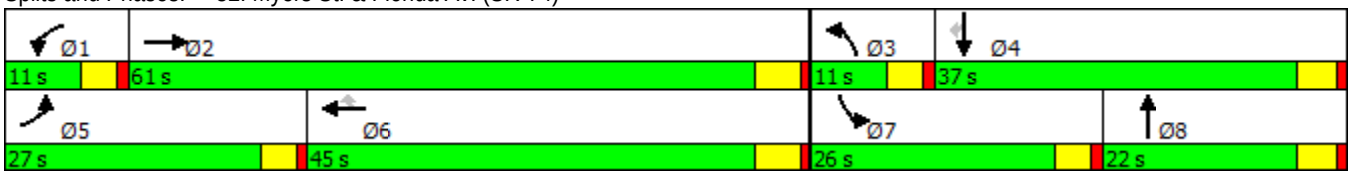
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	156	1402	18	1133	144	25	70	147	53	194
Future Volume (vph)	156	1402	18	1133	144	25	70	147	53	194
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	27.0	61.0	11.0	45.0	45.0	11.0	22.0	26.0	37.0	37.0
Total Split (%)	22.5%	50.8%	9.2%	37.5%	37.5%	9.2%	18.3%	21.7%	30.8%	30.8%
Yellow Time (s)	3.2	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	13.8	50.2	5.8	35.9	35.9	6.0	21.4	13.3	33.3	33.3
Actuated g/C Ratio	0.13	0.49	0.06	0.35	0.35	0.06	0.21	0.13	0.32	0.32
v/c Ratio	0.67	0.58	0.18	0.65	0.23	0.25	0.30	0.66	0.09	0.31
Control Delay	58.8	20.8	56.8	30.9	3.8	58.6	34.4	58.9	30.7	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.8	20.8	56.8	30.9	3.8	58.6	34.4	58.9	30.7	6.1
LOS	E	C	E	C	A	E	C	E	C	A
Approach Delay		24.6		28.3			38.9		29.1	
Approach LOS		C		C			D		C	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 103
Natural Cycle: 85
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 27.1 — Intersection LOS: C
Intersection Capacity Utilization 57.8% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	1402	5	18	1133	144	25	70	43	147	53	194
Future Volume (veh/h)	156	1402	5	18	1133	144	25	70	43	147	53	194
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	159	1431	5	18	1156	147	26	71	20	150	54	143
Adj No. of Lanes	1	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	190	2502	9	34	1986	616	45	321	90	181	570	485
Arrive On Green	0.11	0.48	0.48	0.02	0.39	0.39	0.03	0.23	0.23	0.10	0.31	0.31
Sat Flow, veh/h	1774	5231	18	1774	5085	1577	1774	1399	394	1774	1863	1583
Grp Volume(v), veh/h	159	927	509	18	1156	147	26	0	91	150	54	143
Grp Sat Flow(s),veh/h/ln	1774	1695	1859	1774	1695	1577	1774	0	1793	1774	1863	1583
Q Serve(g_s), s	9.3	20.8	20.8	1.1	19.0	6.6	1.5	0.0	4.4	8.8	2.2	7.3
Cycle Q Clear(g_c), s	9.3	20.8	20.8	1.1	19.0	6.6	1.5	0.0	4.4	8.8	2.2	7.3
Prop In Lane	1.00		0.01	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	190	1622	889	34	1986	616	45	0	411	181	570	485
V/C Ratio(X)	0.84	0.57	0.57	0.52	0.58	0.24	0.58	0.00	0.22	0.83	0.09	0.30
Avail Cap(c_a), veh/h	382	1790	982	114	1986	616	114	0	411	365	570	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	19.8	19.8	51.4	25.4	21.7	51.0	0.0	33.1	46.6	26.3	28.0
Incr Delay (d2), s/veh	3.7	0.5	0.9	4.5	0.5	0.3	4.4	0.0	1.2	3.7	0.3	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	9.8	10.8	0.6	9.0	2.9	0.8	0.0	2.3	4.5	1.2	3.4
LnGrp Delay(d),s/veh	50.0	20.3	20.7	55.9	26.0	22.0	55.4	0.0	34.4	50.3	26.6	29.6
LnGrp LOS	D	C	C	E	C	C	E		C	D	C	C
Approach Vol, veh/h		1595			1321			117			347	
Approach Delay, s/veh		23.4			25.9			39.0			38.1	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	55.7	6.9	37.0	15.5	46.4	15.0	28.9
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 6.8	55.9	* 6.8	32.4	* 23	39.9	* 22	17.4
Max Q Clear Time (g_c+I1), s	3.1	22.8	3.5	9.3	11.3	21.0	10.8	6.4
Green Ext Time (p_c), s	0.0	27.8	0.0	1.3	0.2	17.5	0.1	1.0

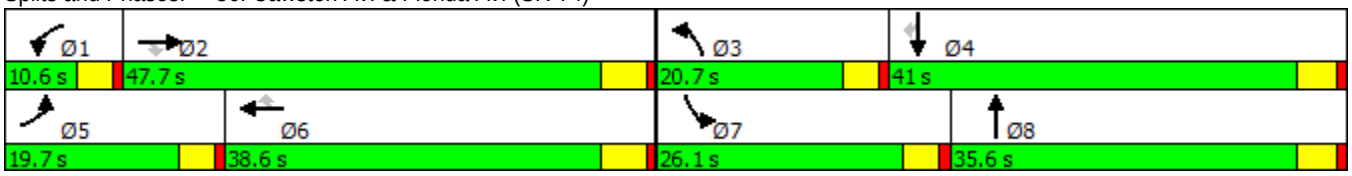
Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	122	1258	10	31	1201	93	131	68	195	82	125
Future Volume (vph)	122	1258	10	31	1201	93	131	68	195	82	125
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	19.7	47.7	47.7	10.6	38.6	38.6	20.7	35.6	26.1	41.0	41.0
Total Split (%)	16.4%	39.8%	39.8%	8.8%	32.2%	32.2%	17.3%	29.7%	21.8%	34.2%	34.2%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	11.9	43.7	43.7	5.9	33.6	33.6	12.5	32.5	16.6	36.6	36.6
Actuated g/C Ratio	0.11	0.39	0.39	0.05	0.30	0.30	0.11	0.29	0.15	0.32	0.32
v/c Ratio	0.68	0.66	0.01	0.35	0.82	0.16	0.69	0.09	0.77	0.14	0.21
Control Delay	67.7	31.5	0.0	64.5	42.7	0.6	67.3	24.6	66.5	30.0	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.7	31.5	0.0	64.5	42.7	0.6	67.3	24.6	66.5	30.0	5.7
LOS	E	C	A	E	D	A	E	C	E	C	A
Approach Delay		34.4			40.2			49.8		40.1	
Approach LOS		C			D			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 112.8	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 38.4	Intersection LOS: D
Intersection Capacity Utilization 67.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	1258	10	31	1201	93	131	68	23	195	82	125
Future Volume (veh/h)	122	1258	10	31	1201	93	131	68	23	195	82	125
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	126	1297	9	32	1238	80	135	70	21	201	85	61
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	154	1906	593	51	1609	501	164	809	233	232	627	533
Arrive On Green	0.09	0.37	0.37	0.03	0.32	0.32	0.09	0.30	0.30	0.13	0.34	0.34
Sat Flow, veh/h	1774	5085	1583	1774	5085	1583	1774	2712	781	1774	1863	1583
Grp Volume(v), veh/h	126	1297	9	32	1238	80	135	45	46	201	85	61
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1583	1774	1770	1724	1774	1863	1583
Q Serve(g_s), s	7.5	23.1	0.4	1.9	23.8	3.9	8.1	2.0	2.1	12.0	3.4	2.9
Cycle Q Clear(g_c), s	7.5	23.1	0.4	1.9	23.8	3.9	8.1	2.0	2.1	12.0	3.4	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	154	1906	593	51	1609	501	164	528	514	232	627	533
V/C Ratio(X)	0.82	0.68	0.02	0.63	0.77	0.16	0.82	0.08	0.09	0.87	0.14	0.11
Avail Cap(c_a), veh/h	254	2004	624	105	1609	501	271	528	514	359	627	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	28.4	21.2	51.9	33.4	26.6	48.2	27.3	27.4	46.0	24.9	24.7
Incr Delay (d2), s/veh	4.0	1.0	0.0	4.8	2.5	0.2	3.9	0.3	0.3	8.3	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	11.0	0.2	1.0	11.5	1.7	4.2	1.0	1.0	6.4	1.8	1.3
LnGrp Delay(d),s/veh	52.5	29.4	21.3	56.7	35.9	26.8	52.1	27.6	27.7	54.3	25.4	25.2
LnGrp LOS	D	C	C	E	D	C	D	C	C	D	C	C
Approach Vol, veh/h		1432			1350			226			347	
Approach Delay, s/veh		31.4			35.8			42.3			42.1	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	45.6	14.2	41.0	13.6	39.3	18.4	36.8
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 6.4	42.6	* 17	36.4	* 16	33.5	* 22	31.0
Max Q Clear Time (g_c+I1), s	3.9	25.1	10.1	5.4	9.5	25.8	14.0	4.1
Green Ext Time (p_c), s	0.0	15.4	0.1	1.3	0.1	7.4	0.2	1.2

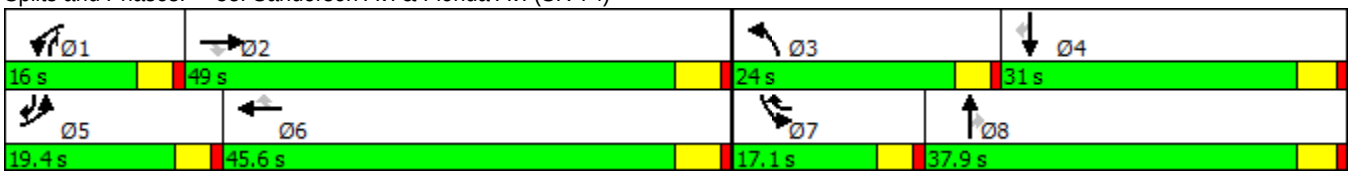
Intersection Summary	
HCM 2010 Ctrl Delay	35.0
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	288	929	151	180	749	155	355	1020	184	248	881	285
Future Volume (vph)	288	929	151	180	749	155	355	1020	184	248	881	285
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	9.2	9.2	30.7	9.2	9.2	14.7	9.2
Total Split (s)	19.4	49.0	49.0	16.0	45.6	17.1	24.0	37.9	16.0	17.1	31.0	19.4
Total Split (%)	16.2%	40.8%	40.8%	13.3%	38.0%	14.3%	20.0%	31.6%	13.3%	14.3%	25.8%	16.2%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	3.2	3.2	3.7	3.2	3.2	3.7	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	4.2	4.2	4.7	4.2	4.2	4.7	4.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	None	Max	None
Act Effct Green (s)	13.7	40.5	40.5	10.3	37.1	49.9	16.8	33.4	44.1	11.9	28.5	47.0
Actuated g/C Ratio	0.12	0.35	0.35	0.09	0.32	0.44	0.15	0.29	0.39	0.10	0.25	0.41
v/c Ratio	0.77	0.81	0.25	0.64	0.72	0.23	0.78	0.76	0.32	0.76	0.76	0.44
Control Delay	62.8	39.8	5.4	61.4	38.2	9.0	58.7	41.6	17.8	65.3	45.8	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.8	39.8	5.4	61.4	38.2	9.0	58.7	41.6	17.8	65.3	45.8	19.9
LOS	E	D	A	E	D	A	E	D	B	E	D	B
Approach Delay		40.8			37.9			42.7			44.0	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.4	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 41.6	Intersection LOS: D
Intersection Capacity Utilization 74.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	288	929	151	180	749	155	355	1020	184	248	881	285
Future Volume (veh/h)	288	929	151	180	749	155	355	1020	184	248	881	285
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	316	1021	137	198	823	111	390	1121	92	273	968	261
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	377	1318	580	258	1196	679	455	1497	570	333	1316	583
Arrive On Green	0.11	0.37	0.37	0.08	0.34	0.34	0.13	0.29	0.29	0.10	0.26	0.26
Sat Flow, veh/h	3442	3539	1557	3442	3539	1555	3442	5085	1534	3442	5085	1583
Grp Volume(v), veh/h	316	1021	137	198	823	111	390	1121	92	273	968	261
Grp Sat Flow(s),veh/h/ln	1721	1770	1557	1721	1770	1555	1721	1695	1534	1721	1695	1583
Q Serve(g_s), s	10.2	28.7	6.8	6.4	22.6	4.9	12.5	22.5	4.5	8.8	19.7	14.1
Cycle Q Clear(g_c), s	10.2	28.7	6.8	6.4	22.6	4.9	12.5	22.5	4.5	8.8	19.7	14.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	377	1318	580	258	1196	679	455	1497	570	333	1316	583
V/C Ratio(X)	0.84	0.77	0.24	0.77	0.69	0.16	0.86	0.75	0.16	0.82	0.74	0.45
Avail Cap(c_a), veh/h	464	1378	606	360	1271	712	604	1497	570	394	1316	583
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	31.2	24.3	51.2	32.2	19.4	47.9	36.0	23.8	50.0	38.3	26.9
Incr Delay (d2), s/veh	9.1	2.9	0.3	3.8	1.7	0.2	7.4	3.5	0.6	9.6	3.7	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	14.6	3.0	3.2	11.4	2.1	6.4	11.0	2.0	4.6	9.7	6.5
LnGrp Delay(d),s/veh	58.3	34.1	24.6	55.0	33.9	19.6	55.2	39.5	24.4	59.6	41.9	29.4
LnGrp LOS	E	C	C	D	C	B	E	D	C	E	D	C
Approach Vol, veh/h		1474			1132			1603			1502	
Approach Delay, s/veh		38.4			36.2			42.5			43.0	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	47.1	19.1	33.9	16.6	43.2	15.1	37.9
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	* 4.7	* 4.2	5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	* 12	43.9	* 20	* 26	* 15	40.5	* 13	* 33
Max Q Clear Time (g_c+I1), s	8.4	30.7	14.5	21.7	12.2	24.6	10.8	24.5
Green Ext Time (p_c), s	0.1	11.3	0.4	4.2	0.2	13.3	0.1	7.5

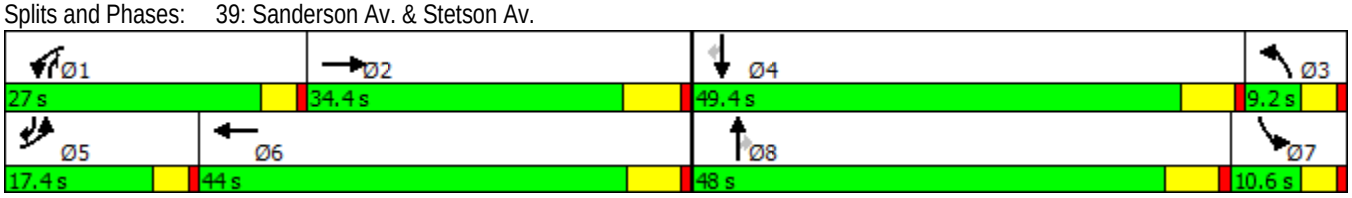
Intersection Summary	
HCM 2010 Ctrl Delay	40.3
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	211	470	581	709	56	1146	735	149	1131	169
Future Volume (vph)	211	470	581	709	56	1146	735	149	1131	169
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8	1	7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8	9.2
Total Split (s)	17.4	34.4	27.0	44.0	9.2	48.0	27.0	10.6	49.4	17.4
Total Split (%)	14.5%	28.7%	22.5%	36.7%	7.7%	40.0%	22.5%	8.8%	41.2%	14.5%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	None
Act Effct Green (s)	11.5	21.1	22.9	32.8	5.0	42.3	66.8	6.4	45.7	58.8
Actuated g/C Ratio	0.10	0.19	0.20	0.29	0.04	0.37	0.59	0.06	0.40	0.52
v/c Ratio	0.70	0.63	0.98	0.76	0.43	1.01	0.92	0.89	0.92	0.23
Control Delay	61.0	44.5	74.4	37.6	63.3	62.7	29.2	95.5	44.9	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.0	44.5	74.4	37.6	63.3	62.7	29.2	95.5	44.9	5.7
LOS	E	D	E	D	E	E	C	F	D	A
Approach Delay		49.3		51.5		50.0			45.5	
Approach LOS		D		D		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 113.1	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 49.2	Intersection LOS: D
Intersection Capacity Utilization 86.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	211	470	39	581	709	251	56	1146	735	149	1131	169
Future Volume (veh/h)	211	470	39	581	709	251	56	1146	735	149	1131	169
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	245	547	44	676	824	275	65	1333	475	173	1315	191
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	304	986	78	679	1190	395	149	1292	872	190	1334	736
Arrive On Green	0.09	0.21	0.21	0.20	0.32	0.32	0.04	0.36	0.36	0.06	0.38	0.38
Sat Flow, veh/h	3442	4783	380	3442	3779	1253	3442	3539	1534	3442	3539	1582
Grp Volume(v), veh/h	245	386	205	676	739	360	65	1333	475	173	1315	191
Grp Sat Flow(s),veh/h/ln	1721	1695	1772	1721	1695	1642	1721	1770	1534	1721	1770	1582
Q Serve(g_s), s	8.1	11.8	12.0	22.7	22.1	22.3	2.1	42.2	13.5	5.8	42.6	5.9
Cycle Q Clear(g_c), s	8.1	11.8	12.0	22.7	22.1	22.3	2.1	42.2	13.5	5.8	42.6	5.9
Prop In Lane	1.00		0.21	1.00		0.76	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	304	699	365	679	1068	517	149	1292	872	190	1334	736
V/C Ratio(X)	0.81	0.55	0.56	1.00	0.69	0.70	0.44	1.03	0.54	0.91	0.99	0.26
Avail Cap(c_a), veh/h	393	827	432	679	1120	542	149	1292	872	190	1334	736
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	41.1	41.2	46.4	34.7	34.8	53.9	36.7	6.3	54.3	35.7	9.4
Incr Delay (d2), s/veh	7.0	0.7	1.4	33.5	1.7	3.7	0.8	33.7	2.4	39.7	21.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	5.6	6.0	13.9	10.6	10.6	1.0	26.5	6.3	3.8	24.8	2.9
LnGrp Delay(d),s/veh	58.8	41.8	42.6	79.9	36.4	38.4	54.7	70.4	8.8	94.0	57.1	10.2
LnGrp LOS	E	D	D	E	D	D	D	F	A	F	E	B
Approach Vol, veh/h		836			1775			1873			1679	
Approach Delay, s/veh		47.0			53.4			54.2			55.6	
Approach LOS		D			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	30.0	9.2	49.4	14.4	42.6	10.6	48.0
Change Period (Y+Rc), s	* 4.2	6.2	4.2	* 5.8	* 4.2	* 6.2	4.2	* 5.8
Max Green Setting (Gmax), s	* 23	28.2	5.0	* 44	* 13	* 38	6.4	* 42
Max Q Clear Time (g_c+I1), s	24.7	14.0	4.1	44.6	10.1	24.3	7.8	44.2
Green Ext Time (p_c), s	0.0	8.5	0.0	0.0	0.1	8.4	0.0	0.0

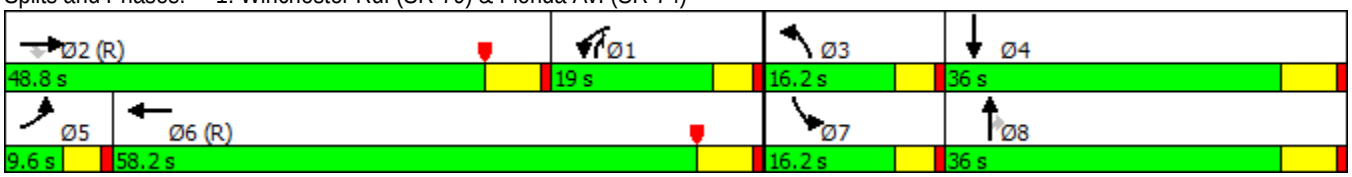
Intersection Summary	
HCM 2010 Ctrl Delay	53.4
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	22	1724	157	701	1374	188	12	744	22	23
Future Volume (vph)	22	1724	157	701	1374	188	12	744	22	23
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2		1	6	3	8	1	7	4
Permitted Phases			2					8		
Detector Phase	5	2	2	1	6	3	8	1	7	4
Switch Phase										
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	5.0	25.0	5.0	5.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	16.2	31.0	9.5	16.2	36.0
Total Split (s)	9.6	48.8	48.8	19.0	58.2	16.2	36.0	19.0	16.2	36.0
Total Split (%)	8.0%	40.7%	40.7%	15.8%	48.5%	13.5%	30.0%	15.8%	13.5%	30.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.6	5.0	3.5	3.6	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	4.6	6.0	4.5	4.6	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	5.1	42.8	42.8	14.5	56.0	11.6	39.1	56.9	6.4	30.0
Actuated g/C Ratio	0.04	0.36	0.36	0.12	0.47	0.10	0.33	0.47	0.05	0.25
v/c Ratio	0.33	1.08	0.28	1.93	0.68	1.25	0.02	1.00	0.27	0.08
Control Delay	68.1	83.8	10.0	454.4	27.4	196.4	31.1	55.0	61.0	27.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.1	83.8	10.0	454.4	27.4	196.4	31.1	55.0	61.0	27.1
LOS	E	F	B	F	C	F	C	E	E	C
Approach Delay		77.6			168.6		82.9			40.8
Approach LOS		E			F		F			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 19 (16%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.93	
Intersection Signal Delay: 116.6	Intersection LOS: F
Intersection Capacity Utilization 96.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	1724	157	701	1374	47	188	12	744	22	23	10
Future Volume (veh/h)	22	1724	157	701	1374	47	188	12	744	22	23	10
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	25	1959	131	797	1561	47	214	14	637	25	26	6
Adj No. of Lanes	1	3	1	2	3	0	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	42	1814	565	1836	4459	134	171	602	1356	42	366	84
Arrive On Green	0.02	0.36	0.36	0.53	0.88	0.88	0.10	0.32	0.32	0.02	0.25	0.25
Sat Flow, veh/h	1774	5085	1583	3442	5073	153	1774	1863	1583	1774	1463	338
Grp Volume(v), veh/h	25	1959	131	797	1043	565	214	14	637	25	0	32
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1836	1774	1863	1583	1774	0	1801
Q Serve(g_s), s	1.7	42.8	9.6	16.9	6.5	6.5	11.6	0.6	5.0	1.7	0.0	1.6
Cycle Q Clear(g_c), s	1.7	42.8	9.6	16.9	6.5	6.5	11.6	0.6	5.0	1.7	0.0	1.6
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	42	1814	565	1836	2980	1614	171	602	1356	42	0	450
V/C Ratio(X)	0.60	1.08	0.23	0.43	0.35	0.35	1.25	0.02	0.47	0.60	0.00	0.07
Avail Cap(c_a), veh/h	75	1814	565	1836	2980	1614	171	602	1356	171	0	450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.0	38.6	51.0	17.0	1.3	1.3	54.2	27.7	17.0	58.0	0.0	34.4
Incr Delay (d2), s/veh	5.0	46.4	1.0	0.1	0.3	0.6	150.7	0.1	1.2	5.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	27.8	4.3	8.0	3.0	3.4	12.8	0.3	14.6	0.9	0.0	0.8
LnGrp Delay(d),s/veh	63.0	85.0	52.0	17.1	1.6	1.9	204.9	27.8	18.2	63.0	0.0	34.7
LnGrp LOS	E	F	D	B	A	A	F	C	B	E		C
Approach Vol, veh/h		2115			2405			865			57	
Approach Delay, s/veh		82.7			6.8			64.5			47.1	
Approach LOS		F			A			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	71.5	48.8	16.2	36.0	7.3	113.0	7.4	44.8
Change Period (Y+Rc), s	6.0	* 6	4.6	6.0	4.5	6.0	4.6	6.0
Max Green Setting (Gmax), s	14.5	* 43	11.6	30.0	5.1	52.2	11.6	30.0
Max Q Clear Time (g_c+I1), s	18.9	44.8	13.6	3.6	3.7	8.5	3.7	7.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.3	0.0	10.8	0.0	1.3

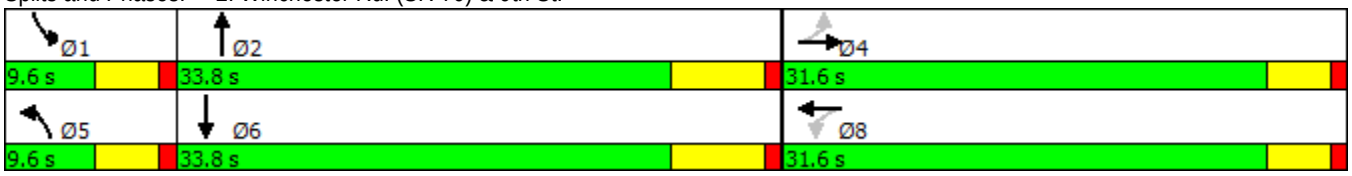
Intersection Summary	
HCM 2010 Ctrl Delay	45.9
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	68	1	2	1	76	985	4	842
Future Volume (vph)	68	1	2	1	76	985	4	842
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	28.2	9.6	28.2
Total Split (s)	31.6	31.6	31.6	31.6	9.6	33.8	9.6	33.8
Total Split (%)	42.1%	42.1%	42.1%	42.1%	12.8%	45.1%	12.8%	45.1%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		12.9		12.9	5.1	39.2	5.1	33.3
Actuated g/C Ratio		0.22		0.22	0.09	0.66	0.09	0.56
v/c Ratio		0.38		0.02	0.54	0.86	0.03	0.95
Control Delay		14.6		13.7	44.9	23.8	29.8	41.1
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		14.6		13.7	44.9	23.8	29.8	41.1
LOS		B		B	D	C	C	D
Approach Delay		14.6		13.7		25.3		41.1
Approach LOS		B		B		C		D

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 59.6	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 31.5	Intersection LOS: C
Intersection Capacity Utilization 82.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	1	62	2	1	4	76	985	1	4	842	77
Future Volume (veh/h)	68	1	62	2	1	4	76	985	1	4	842	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	72	1	66	2	1	4	81	1048	1	4	896	82
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	27	117	124	71	150	114	1035	1	10	836	77
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.06	0.56	0.56	0.01	0.50	0.50
Sat Flow, veh/h	635	167	726	254	442	928	1774	1861	2	1774	1682	154
Grp Volume(v), veh/h	139	0	0	7	0	0	81	0	1049	4	0	978
Grp Sat Flow(s),veh/h/ln	1528	0	0	1624	0	0	1774	0	1862	1774	0	1835
Q Serve(g_s), s	3.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	30.9	0.1	0.0	27.6
Cycle Q Clear(g_c), s	4.5	0.0	0.0	0.2	0.0	0.0	2.5	0.0	30.9	0.1	0.0	27.6
Prop In Lane	0.52		0.47	0.29		0.57	1.00		0.00	1.00		0.08
Lane Grp Cap(c), veh/h	345	0	0	345	0	0	114	0	1036	10	0	913
V/C Ratio(X)	0.40	0.00	0.00	0.02	0.00	0.00	0.71	0.00	1.01	0.42	0.00	1.07
Avail Cap(c_a), veh/h	828	0	0	843	0	0	160	0	1036	160	0	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.4	0.0	0.0	19.6	0.0	0.0	25.5	0.0	12.3	27.5	0.0	14.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	0.0	3.5	0.0	31.2	10.5	0.0	51.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	0.1	0.0	0.0	1.3	0.0	24.5	0.1	0.0	26.6
LnGrp Delay(d),s/veh	22.1	0.0	0.0	19.6	0.0	0.0	29.0	0.0	43.5	38.0	0.0	64.9
LnGrp LOS	C			B			C		F	D		F
Approach Vol, veh/h		139			7			1130			982	
Approach Delay, s/veh		22.1			19.6			42.5			64.8	
Approach LOS		C			B			D			E	

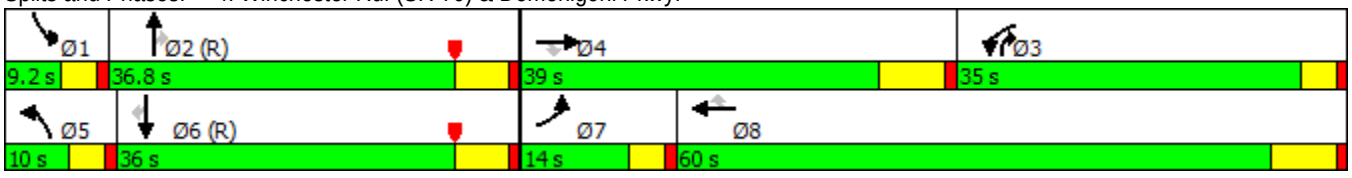
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.9	37.1		13.5	8.2	33.8		13.5
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6
Max Green Setting (Gmax), s	5.0	27.6		27.0	5.0	27.6		27.0
Max Q Clear Time (g_c+I1), s	2.1	32.9		6.5	4.5	29.6		2.2
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	0.0		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	50.9
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	311	949	98	738	1011	83	112	819	1096	60	474	241
Future Volume (vph)	311	949	98	738	1011	83	112	819	1096	60	474	241
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8	9.2	9.2	33.8	33.8
Total Split (s)	14.0	39.0	39.0	35.0	60.0	60.0	10.0	36.8	35.0	9.2	36.0	36.0
Total Split (%)	11.7%	32.5%	32.5%	29.2%	50.0%	50.0%	8.3%	30.7%	29.2%	7.7%	30.0%	30.0%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	3.2	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	4.2	4.2	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	C-Max
Act Effct Green (s)	9.8	32.1	32.1	30.8	53.1	53.1	5.8	31.0	63.4	5.0	30.2	30.2
Actuated g/C Ratio	0.08	0.27	0.27	0.26	0.44	0.44	0.05	0.26	0.53	0.04	0.25	0.25
v/c Ratio	1.18	1.07	0.20	0.89	0.48	0.12	1.40	0.95	1.31	0.88	0.57	0.46
Control Delay	159.7	91.3	4.5	56.6	24.5	3.2	277.9	64.4	170.2	132.4	42.1	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	159.7	91.3	4.5	56.6	24.5	3.2	277.9	64.4	170.2	132.4	42.1	11.3
LOS	F	F	A	E	C	A	F	E	F	F	D	B
Approach Delay		100.7			36.5			133.4			39.6	
Approach LOS		F			D			F			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 18.4 (15%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.40	
Intersection Signal Delay: 84.2	Intersection LOS: F
Intersection Capacity Utilization 111.0%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	949	98	738	1011	83	112	819	1096	60	474	241
Future Volume (veh/h)	311	949	98	738	1011	83	112	819	1096	60	474	241
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	331	1010	73	785	1076	78	119	871	751	64	504	147
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	947	424	843	2305	718	86	2193	1369	74	2170	971
Arrive On Green	0.08	0.27	0.27	0.25	0.45	0.45	0.05	0.62	0.62	0.04	0.61	0.61
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	331	1010	73	785	1076	78	119	871	751	64	504	147
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	9.8	32.1	5.6	26.8	17.6	3.4	5.8	14.9	14.1	4.3	7.7	4.8
Cycle Q Clear(g_c), s	9.8	32.1	5.6	26.8	17.6	3.4	5.8	14.9	14.1	4.3	7.7	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	281	947	424	843	2305	718	86	2193	1369	74	2170	971
V/C Ratio(X)	1.18	1.07	0.17	0.93	0.47	0.11	1.39	0.40	0.55	0.87	0.23	0.15
Avail Cap(c_a), veh/h	281	947	424	883	2305	718	86	2193	1369	74	2170	971
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	55.1	43.9	58.4	44.3	22.7	18.9	57.1	11.5	13.7	57.2	10.5	9.9
Incr Delay (d2), s/veh	110.6	48.8	0.2	15.3	0.1	0.1	231.2	0.5	1.6	53.1	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	22.1	2.5	14.6	8.2	1.5	8.3	7.4	6.6	3.2	3.8	2.1
LnGrp Delay(d),s/veh	165.7	92.7	58.6	59.6	22.9	18.9	288.3	12.1	15.2	110.2	10.7	10.2
LnGrp LOS	F	F	E	E	C	B	F	B	B	F	B	B
Approach Vol, veh/h		1414			1939			1741			715	
Approach Delay, s/veh		108.1			37.6			32.3			19.5	
Approach LOS		F			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	81.5	36.3	39.0	10.0	80.7	14.0	61.3
Change Period (Y+Rc), s	* 4.2	5.8	6.9	* 6.9	* 4.2	5.8	* 4.2	6.9
Max Green Setting (Gmax), s	* 5	31.0	30.8	* 32	* 5.8	30.2	* 9.8	53.1
Max Q Clear Time (g_c+I1), s	6.3	16.9	28.8	34.1	7.8	9.7	11.8	19.6
Green Ext Time (p_c), s	0.0	11.8	0.6	0.0	0.0	16.2	0.0	10.2

Intersection Summary	
HCM 2010 Ctrl Delay	50.9
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	17	30	226	47	7	797	197	786
Future Volume (vph)	17	30	226	47	7	797	197	786
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	27.8	9.6	27.8
Total Split (s)	31.8	31.8	31.8	31.8	9.6	71.2	17.0	78.6
Total Split (%)	26.5%	26.5%	26.5%	26.5%	8.0%	59.3%	14.2%	65.5%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	19.3	19.3	19.3	19.3	5.2	34.6	12.8	50.6
Actuated g/C Ratio	0.23	0.23	0.23	0.23	0.06	0.42	0.16	0.62
v/c Ratio	0.07	0.09	0.71	0.37	0.06	0.77	0.72	0.39
Control Delay	27.5	22.8	43.6	14.9	45.0	23.0	53.8	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.5	22.8	43.6	14.9	45.0	23.0	53.8	9.6
LOS	C	C	D	B	D	C	D	A
Approach Delay		24.3		31.2		23.1		18.0
Approach LOS		C		C		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 82.2	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 22.4	Intersection LOS: C
Intersection Capacity Utilization 75.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 20: Warren Rd. & Esplanade Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	30	8	226	47	124	7	797	325	197	786	49
Future Volume (veh/h)	17	30	8	226	47	124	7	797	325	197	786	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	17	30	8	228	47	125	7	805	328	199	794	49
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	235	308	82	356	98	261	16	1177	479	234	2038	126
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.01	0.48	0.48	0.13	0.60	0.60
Sat Flow, veh/h	1208	1418	378	1364	451	1200	1774	2457	999	1774	3387	209
Grp Volume(v), veh/h	17	0	38	228	0	172	7	579	554	199	415	428
Grp Sat Flow(s),veh/h/ln	1208	0	1796	1364	0	1651	1774	1770	1686	1774	1770	1826
Q Serve(g_s), s	1.1	0.0	1.5	14.0	0.0	8.0	0.3	22.2	22.2	9.6	10.7	10.7
Cycle Q Clear(g_c), s	9.0	0.0	1.5	15.5	0.0	8.0	0.3	22.2	22.2	9.6	10.7	10.7
Prop In Lane	1.00		0.21	1.00		0.73	1.00		0.59	1.00		0.11
Lane Grp Cap(c), veh/h	235	0	391	356	0	359	16	848	808	234	1065	1099
V/C Ratio(X)	0.07	0.00	0.10	0.64	0.00	0.48	0.44	0.68	0.69	0.85	0.39	0.39
Avail Cap(c_a), veh/h	348	0	559	484	0	514	102	1324	1262	252	1474	1521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	0.0	27.3	33.5	0.0	29.9	43.1	17.6	17.7	37.1	9.0	9.0
Incr Delay (d2), s/veh	0.1	0.0	0.1	1.9	0.0	1.0	7.0	1.0	1.0	20.7	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.7	5.4	0.0	3.7	0.2	11.0	10.5	6.0	5.3	5.4
LnGrp Delay(d),s/veh	33.9	0.0	27.4	35.4	0.0	30.9	50.1	18.6	18.7	57.8	9.3	9.3
LnGrp LOS	C		C	D		C	D	B	B	E	A	A
Approach Vol, veh/h		55			400			1140			1042	
Approach Delay, s/veh		29.4			33.5			18.8			18.5	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.1	47.7		23.6	5.4	58.4		23.6
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6
Max Green Setting (Gmax), s	12.4	65.4		27.2	5.0	72.8		27.2
Max Q Clear Time (g_c+I1), s	11.6	24.2		11.0	2.3	12.7		17.5
Green Ext Time (p_c), s	0.0	17.6		1.9	0.0	19.7		1.5

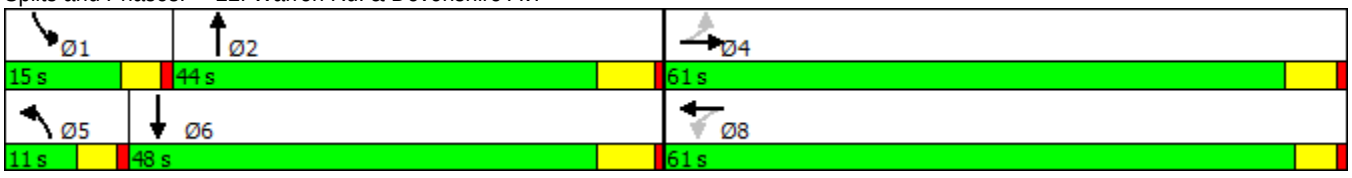
Intersection Summary	
HCM 2010 Ctrl Delay	21.2
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	245	327	137	366	49	806	100	742
Future Volume (vph)	245	327	137	366	49	806	100	742
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	31.8	31.8	9.6	28.2	9.6	28.2
Total Split (s)	61.0	61.0	61.0	61.0	11.0	44.0	15.0	48.0
Total Split (%)	50.8%	50.8%	50.8%	50.8%	9.2%	36.7%	12.5%	40.0%
Yellow Time (s)	4.8	4.8	3.8	3.8	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.8	4.8	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	47.8	47.8	48.8	48.8	6.2	36.1	9.4	41.9
Actuated g/C Ratio	0.43	0.43	0.44	0.44	0.06	0.33	0.09	0.38
v/c Ratio	0.98	0.47	0.42	0.57	0.52	0.91	0.69	0.73
Control Delay	83.6	24.0	25.5	25.5	73.5	48.9	76.0	34.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.6	24.0	25.5	25.5	73.5	48.9	76.0	34.5
LOS	F	C	C	C	E	D	E	C
Approach Delay		48.1		25.5		50.1		38.5
Approach LOS		D		C		D		D

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 41.7 — Intersection LOS: D
Intersection Capacity Utilization 89.5% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	327	34	137	366	78	49	806	196	100	742	179
Future Volume (veh/h)	245	327	34	137	366	78	49	806	196	100	742	179
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	255	341	35	143	381	81	51	840	204	104	773	186
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	326	778	80	393	698	148	66	900	218	128	1002	241
Arrive On Green	0.47	0.47	0.47	0.47	0.47	0.47	0.04	0.32	0.32	0.07	0.35	0.35
Sat Flow, veh/h	926	1662	171	1003	1490	317	1774	2825	686	1774	2831	681
Grp Volume(v), veh/h	255	0	376	143	0	462	51	526	518	104	483	476
Grp Sat Flow(s),veh/h/ln	926	0	1833	1003	0	1807	1774	1770	1742	1774	1770	1743
Q Serve(g_s), s	32.0	0.0	16.2	13.1	0.0	21.5	3.4	34.0	34.0	6.8	28.6	28.6
Cycle Q Clear(g_c), s	53.5	0.0	16.2	29.3	0.0	21.5	3.4	34.0	34.0	6.8	28.6	28.6
Prop In Lane	1.00		0.09	1.00		0.18	1.00		0.39	1.00		0.39
Lane Grp Cap(c), veh/h	326	0	858	393	0	846	66	563	555	128	626	617
V/C Ratio(X)	0.78	0.00	0.44	0.36	0.00	0.55	0.78	0.93	0.93	0.81	0.77	0.77
Avail Cap(c_a), veh/h	326	0	858	402	0	862	96	568	559	157	628	618
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	0.0	21.0	30.8	0.0	22.4	56.3	39.0	39.0	53.9	33.8	33.8
Incr Delay (d2), s/veh	11.7	0.0	0.4	0.6	0.0	0.7	11.6	22.6	22.9	18.7	5.9	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	0.0	8.2	3.7	0.0	10.8	1.9	20.1	19.9	4.0	15.0	14.8
LnGrp Delay(d),s/veh	53.2	0.0	21.3	31.3	0.0	23.1	67.9	61.6	61.9	72.6	39.7	39.8
LnGrp LOS	D		C	C		C	E	E	E	E	D	D
Approach Vol, veh/h		631			605			1095			1063	
Approach Delay, s/veh		34.2			25.0			62.0			43.0	
Approach LOS		C			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.1	43.7		61.0	9.0	47.9		61.0
Change Period (Y+Rc), s	4.6	6.2		5.8	4.6	6.2		* 5.8
Max Green Setting (Gmax), s	10.4	37.8		55.2	6.4	41.8		* 56
Max Q Clear Time (g_c+I1), s	8.8	36.0		55.5	5.4	30.6		31.3
Green Ext Time (p_c), s	0.0	1.5		0.0	0.0	7.8		7.9

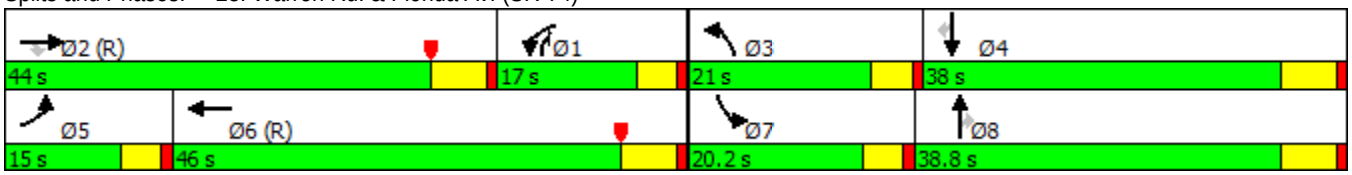
Intersection Summary		
HCM 2010 Ctrl Delay		44.3
HCM 2010 LOS		D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	304	1615	255	327	1534	306	639	441	118	483	294
Future Volume (vph)	304	1615	255	327	1534	306	639	441	118	483	294
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8	1	7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	1	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	43.0	43.0	9.6	43.0	9.6	38.0	9.6	9.6	38.0	38.0
Total Split (s)	15.0	44.0	44.0	17.0	46.0	21.0	38.8	17.0	20.2	38.0	38.0
Total Split (%)	12.5%	36.7%	36.7%	14.2%	38.3%	17.5%	32.3%	14.2%	16.8%	31.7%	31.7%
Yellow Time (s)	3.6	5.0	5.0	3.6	5.0	3.6	5.0	3.6	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	6.0	4.6	6.0	4.6	6.0	4.6	4.6	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	10.4	38.0	38.0	12.4	40.0	16.4	36.1	49.9	12.3	32.0	32.0
Actuated g/C Ratio	0.09	0.32	0.32	0.10	0.33	0.14	0.30	0.42	0.10	0.27	0.27
v/c Ratio	1.08	1.02	0.39	0.97	1.00	1.34	0.61	0.62	0.69	0.52	0.53
Control Delay	125.7	68.3	6.8	95.1	62.3	217.0	39.4	18.8	70.8	39.8	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	125.7	68.3	6.8	95.1	62.3	217.0	39.4	18.8	70.8	39.8	16.5
LOS	F	E	A	F	E	F	D	B	E	D	B
Approach Delay		69.1			67.7		72.0			36.2	
Approach LOS		E			E		E			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 135	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.34	
Intersection Signal Delay: 64.7	Intersection LOS: E
Intersection Capacity Utilization 89.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	304	1615	255	327	1534	125	306	639	441	118	483	294
Future Volume (veh/h)	304	1615	255	327	1534	125	306	639	441	118	483	294
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1937	1937	1863	1937	1976	1863	1937	1937	1863	1937	1937
Adj Flow Rate, veh/h	320	1700	203	344	1615	126	322	673	348	124	508	241
Adj No. of Lanes	2	3	1	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	298	1675	521	1129	2851	222	242	1173	1065	150	982	439
Arrive On Green	0.09	0.32	0.32	0.33	0.57	0.57	0.14	0.32	0.32	0.08	0.27	0.27
Sat Flow, veh/h	3442	5289	1647	3442	5004	390	1774	3681	1647	1774	3681	1647
Grp Volume(v), veh/h	320	1700	203	344	1137	604	322	673	348	124	508	241
Grp Sat Flow(s),veh/h/ln	1721	1763	1647	1721	1763	1868	1774	1840	1647	1774	1840	1647
Q Serve(g_s), s	10.4	38.0	11.7	9.0	24.6	24.6	16.4	18.3	4.0	8.3	14.1	15.1
Cycle Q Clear(g_c), s	10.4	38.0	11.7	9.0	24.6	24.6	16.4	18.3	4.0	8.3	14.1	15.1
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	298	1675	521	1129	2008	1064	242	1173	1065	150	982	439
V/C Ratio(X)	1.07	1.02	0.39	0.30	0.57	0.57	1.33	0.57	0.33	0.83	0.52	0.55
Avail Cap(c_a), veh/h	298	1675	521	1129	2008	1064	242	1173	1065	231	982	439
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.37	0.37	0.37	0.67	0.67	0.67
Uniform Delay (d), s/veh	54.8	41.0	33.0	30.1	16.4	16.4	51.8	34.1	11.4	54.1	37.4	37.8
Incr Delay (d2), s/veh	72.8	25.8	2.2	0.1	1.2	2.2	157.9	0.8	0.3	5.4	1.3	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	22.5	5.6	4.3	12.2	13.2	18.6	9.4	5.3	4.3	7.3	7.2
LnGrp Delay(d),s/veh	127.6	66.8	35.2	30.2	17.6	18.6	209.7	34.8	11.7	59.4	38.7	41.1
LnGrp LOS	F	F	D	C	B	B	F	C	B	E	D	D
Approach Vol, veh/h		2223			2085			1343			873	
Approach Delay, s/veh		72.7			19.9			70.8			42.3	
Approach LOS		E			B			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	45.5	44.0	21.0	38.0	15.0	74.5	14.7	44.3
Change Period (Y+Rc), s	6.0	* 6	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	12.4	* 38	16.4	32.0	10.4	40.0	15.6	32.8
Max Q Clear Time (g_c+I1), s	11.0	40.0	18.4	17.1	12.4	26.6	10.3	20.3
Green Ext Time (p_c), s	0.2	0.0	0.0	5.1	0.0	6.8	0.1	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	51.4
HCM 2010 LOS	D

Notes

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	99	1128	134	947
Future Volume (vph)	99	1128	134	947
Turn Type	Prot	NA	Prot	NA
Protected Phases	8	2	1	6
Permitted Phases				
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	28.2	9.6	24.2
Total Split (s)	39.0	60.0	21.0	81.0
Total Split (%)	32.5%	50.0%	17.5%	67.5%
Yellow Time (s)	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	Min	None	Min
Act Effct Green (s)	26.7	46.9	13.0	64.7
Actuated g/C Ratio	0.26	0.46	0.13	0.63
v/c Ratio	0.85	0.87	0.70	0.49
Control Delay	43.8	33.5	63.5	11.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	43.8	33.5	63.5	11.6
LOS	D	C	E	B
Approach Delay	43.8	33.5		18.0
Approach LOS	D	C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 102.7	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 28.7	Intersection LOS: C
Intersection Capacity Utilization 76.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 24: Warren Rd. & Auto Bl.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	99	281	1128	77	134	947
Future Volume (veh/h)	99	281	1128	77	134	947
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	115	327	1312	90	156	1101
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	122	348	1565	107	185	2166
Arrive On Green	0.29	0.29	0.47	0.47	0.10	0.61
Sat Flow, veh/h	423	1203	3455	230	1774	3632
Grp Volume(v), veh/h	443	0	689	713	156	1101
Grp Sat Flow(s),veh/h/ln	1629	0	1770	1822	1774	1770
Q Serve(g_s), s	29.0	0.0	37.3	37.5	9.4	19.1
Cycle Q Clear(g_c), s	29.0	0.0	37.3	37.5	9.4	19.1
Prop In Lane	0.26	0.74		0.13	1.00	
Lane Grp Cap(c), veh/h	471	0	824	848	185	2166
V/C Ratio(X)	0.94	0.00	0.84	0.84	0.84	0.51
Avail Cap(c_a), veh/h	513	0	871	897	266	2422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	0.0	25.6	25.6	48.1	11.9
Incr Delay (d2), s/veh	24.7	0.0	6.9	6.9	10.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.3	0.0	19.8	20.4	5.2	9.4
LnGrp Delay(d),s/veh	62.7	0.0	32.4	32.5	58.8	12.1
LnGrp LOS	E		C	C	E	B
Approach Vol, veh/h	443		1402			1257
Approach Delay, s/veh	62.7		32.5			17.9
Approach LOS	E		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.0	57.1				73.1		36.2
Change Period (Y+Rc), s	4.6	6.2				6.2		4.6
Max Green Setting (Gmax), s	16.4	53.8				74.8		34.4
Max Q Clear Time (g_c+I1), s	11.4	39.5				21.1		31.0
Green Ext Time (p_c), s	0.1	11.4				28.0		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	30.9
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	47	1207	4	36	1161
Future Vol, veh/h	4	47	1207	4	36	1161
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	51	1312	4	39	1262

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2023	658	0	0	1316	0
Stage 1	1314	-	-	-	-	-
Stage 2	709	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	50	407	-	-	521	-
Stage 1	216	-	-	-	-	-
Stage 2	449	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	46	407	-	-	521	-
Mov Cap-2 Maneuver	185	-	-	-	-	-
Stage 1	216	-	-	-	-	-
Stage 2	415	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.4	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	372	521	-
HCM Lane V/C Ratio	-	-	0.149	0.075	-
HCM Control Delay (s)	-	-	16.4	12.5	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.5	0.2	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	52	0	168	0	64	692	203	628
Future Volume (vph)	52	0	168	0	64	692	203	628
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	11.4	28.5	14.0	31.1
Total Split (%)	34.6%	34.6%	34.6%	34.6%	17.5%	43.8%	21.5%	47.8%
Yellow Time (s)	3.5	3.5	3.6	3.6	3.5	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.6	4.6	4.5	4.7	4.2	4.7
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.7	13.7	13.6	13.6	7.1	27.3	10.6	34.8
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.11	0.42	0.16	0.54
v/c Ratio	0.21	0.06	0.60	0.26	0.34	0.68	0.72	0.39
Control Delay	21.8	0.2	31.9	1.1	31.6	17.3	42.3	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.8	0.2	31.9	1.1	31.6	17.3	42.3	11.3
LOS	C	A	C	A	C	B	D	B
Approach Delay		12.8		17.5		18.2		18.1
Approach LOS		B		B		B		B

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 17.9 — Intersection LOS: B
Intersection Capacity Utilization 68.5% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 29: Warren Rd. & Mustang Wy.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	0	37	168	0	148	64	692	300	203	628	89
Future Volume (veh/h)	52	0	37	168	0	148	64	692	300	203	628	89
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	53	0	38	171	0	124	65	706	282	207	641	91
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	257	0	293	336	0	293	94	1151	460	250	1710	242
Arrive On Green	0.19	0.00	0.19	0.19	0.00	0.19	0.05	0.47	0.47	0.14	0.55	0.55
Sat Flow, veh/h	1262	0	1583	1364	0	1583	1774	2470	987	1774	3113	441
Grp Volume(v), veh/h	53	0	38	171	0	124	65	506	482	207	364	368
Grp Sat Flow(s),veh/h/ln	1262	0	1583	1364	0	1583	1774	1770	1687	1774	1770	1785
Q Serve(g_s), s	2.5	0.0	1.3	7.8	0.0	4.5	2.3	13.9	13.9	7.4	7.6	7.6
Cycle Q Clear(g_c), s	7.0	0.0	1.3	9.1	0.0	4.5	2.3	13.9	13.9	7.4	7.6	7.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.58	1.00		0.25
Lane Grp Cap(c), veh/h	257	0	293	336	0	293	94	825	786	250	972	980
V/C Ratio(X)	0.21	0.00	0.13	0.51	0.00	0.42	0.69	0.61	0.61	0.83	0.37	0.38
Avail Cap(c_a), veh/h	373	0	438	459	0	436	188	825	786	267	972	980
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	0.0	22.1	25.9	0.0	23.4	30.2	13.0	13.0	27.1	8.3	8.3
Incr Delay (d2), s/veh	0.4	0.0	0.2	1.2	0.0	1.0	8.6	3.4	3.6	16.6	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.6	3.0	0.0	2.0	1.4	7.5	7.2	4.8	3.9	4.0
LnGrp Delay(d),s/veh	26.9	0.0	22.3	27.1	0.0	24.4	38.9	16.4	16.5	43.7	9.4	9.4
LnGrp LOS	C		C	C		C	D	B	B	D	A	A
Approach Vol, veh/h		91			295			1053			939	
Approach Delay, s/veh		25.0			25.9			17.8			17.0	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.4	35.0		16.6	8.0	40.4		16.6
Change Period (Y+Rc), s	* 4.2	* 4.7		* 4.6	4.5	* 4.7		4.6
Max Green Setting (Gmax), s	* 9.8	* 24		* 18	6.9	* 26		17.9
Max Q Clear Time (g_c+I1), s	9.4	15.9		9.0	4.3	9.6		11.1
Green Ext Time (p_c), s	0.0	6.6		1.2	0.0	12.6		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Notes

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	304	620	230	27	736
Future Volume (vph)	304	620	230	27	736
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	4	3	8	2	3
Permitted Phases					2
Detector Phase	4	3	8	2	3
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	9.6	22.5	31.6	9.6
Total Split (s)	34.2	53.0	87.2	32.8	53.0
Total Split (%)	28.5%	44.2%	72.7%	27.3%	44.2%
Yellow Time (s)	5.2	3.6	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	5.2	4.6	4.6
Lead/Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	None	None	None	Min	None
Act Effct Green (s)	23.5	40.1	69.4	13.0	57.9
Actuated g/C Ratio	0.25	0.43	0.75	0.14	0.63
v/c Ratio	0.77	0.85	0.17	0.11	0.73
Control Delay	45.8	37.0	4.1	39.3	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	45.8	37.0	4.1	39.3	13.8
LOS	D	D	A	D	B
Approach Delay	45.8		28.1	14.7	
Approach LOS	D		C	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 92.6	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 26.0	Intersection LOS: C
Intersection Capacity Utilization 73.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 30: Warren Rd. & Simpson Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	304	38	620	230	27	736
Future Volume (veh/h)	304	38	620	230	27	736
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	320	40	653	242	28	775
Adj No. of Lanes	1	0	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	360	45	681	1206	452	1011
Arrive On Green	0.22	0.22	0.38	0.65	0.26	0.26
Sat Flow, veh/h	1624	203	1774	1863	1774	1583
Grp Volume(v), veh/h	0	360	653	242	28	775
Grp Sat Flow(s),veh/h/ln	0	1827	1774	1863	1774	1583
Q Serve(g_s), s	0.0	21.1	39.7	5.8	1.3	28.2
Cycle Q Clear(g_c), s	0.0	21.1	39.7	5.8	1.3	28.2
Prop In Lane		0.11	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	406	681	1206	452	1011
V/C Ratio(X)	0.00	0.89	0.96	0.20	0.06	0.77
Avail Cap(c_a), veh/h	0	463	777	1382	452	1011
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	41.7	33.2	7.9	31.2	14.1
Incr Delay (d2), s/veh	0.0	17.1	20.7	0.1	0.1	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.5	23.3	3.0	0.7	17.6
LnGrp Delay(d),s/veh	0.0	58.8	53.9	8.0	31.2	17.7
LnGrp LOS		E	D	A	C	B
Approach Vol, veh/h	360			895	803	
Approach Delay, s/veh	58.8			41.5	18.2	
Approach LOS	E			D	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		32.8	47.0	30.7				77.8
Change Period (Y+Rc), s		4.6	4.6	6.2				* 6.2
Max Green Setting (Gmax), s		28.2	48.4	28.0				* 82
Max Q Clear Time (g_c+I1), s		30.2	41.7	23.1				7.8
Green Ext Time (p_c), s		0.0	0.7	1.4				3.5

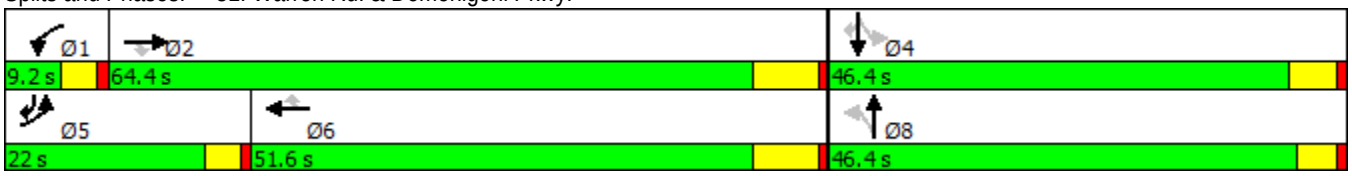
Intersection Summary	
HCM 2010 Ctrl Delay	35.4
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	627	2035	7	4	1698	124	4	11	108	9	556
Future Volume (vph)	627	2035	7	4	1698	124	4	11	108	9	556
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	5	2		1	6			8		4	5
Permitted Phases			2			6	8		4		4
Detector Phase	5	2	2	1	6	6	8	8	4	4	5
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	46.4	46.4	9.2
Total Split (s)	22.0	64.4	64.4	9.2	51.6	51.6	46.4	46.4	46.4	46.4	22.0
Total Split (%)	18.3%	53.7%	53.7%	7.7%	43.0%	43.0%	38.7%	38.7%	38.7%	38.7%	18.3%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	4.4	4.4	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.6	4.6	5.4	5.4	4.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None
Act Effct Green (s)	18.0	66.1	66.1	5.1	45.3	45.3	17.1	17.1	16.3	16.3	39.8
Actuated g/C Ratio	0.19	0.69	0.69	0.05	0.47	0.47	0.18	0.18	0.17	0.17	0.41
v/c Ratio	1.04	0.62	0.01	0.04	0.76	0.16	0.02	0.04	0.49	0.03	0.88
Control Delay	85.6	12.4	0.0	50.0	25.2	5.0	29.2	28.4	41.9	30.3	39.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.6	12.4	0.0	50.0	25.2	5.0	29.2	28.4	41.9	30.3	39.2
LOS	F	B	A	D	C	A	C	C	D	C	D
Approach Delay		29.5			23.9			28.6		39.5	
Approach LOS		C			C			C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 96.4	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 28.8	Intersection LOS: C
Intersection Capacity Utilization 88.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	627	2035	7	4	1698	124	4	11	1	108	9	556
Future Volume (veh/h)	627	2035	7	4	1698	124	4	11	1	108	9	556
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	667	2165	5	4	1806	125	4	12	1	115	10	377
Adj No. of Lanes	2	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	607	3121	972	9	2251	701	283	369	31	367	406	624
Arrive On Green	0.18	0.61	0.61	0.01	0.44	0.44	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	3442	5085	1583	1774	5085	1583	992	1696	141	1395	1863	1583
Grp Volume(v), veh/h	667	2165	5	4	1806	125	4	0	13	115	10	377
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1774	1695	1583	992	0	1838	1395	1863	1583
Q Serve(g_s), s	17.8	28.9	0.1	0.2	31.0	4.8	0.3	0.0	0.6	7.1	0.4	19.1
Cycle Q Clear(g_c), s	17.8	28.9	0.1	0.2	31.0	4.8	0.7	0.0	0.6	7.7	0.4	19.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	607	3121	972	9	2251	701	283	0	400	367	406	624
V/C Ratio(X)	1.10	0.69	0.01	0.43	0.80	0.18	0.01	0.00	0.03	0.31	0.02	0.60
Avail Cap(c_a), veh/h	607	3121	972	88	2251	701	478	0	761	630	756	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	13.1	7.6	50.1	24.3	17.0	31.4	0.0	31.1	34.2	31.1	24.3
Incr Delay (d2), s/veh	66.8	1.3	0.0	11.2	3.1	0.6	0.0	0.0	0.0	0.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.1	13.8	0.1	0.1	15.0	2.2	0.1	0.0	0.3	2.8	0.2	8.4
LnGrp Delay(d),s/veh	108.4	14.4	7.6	61.2	27.5	17.6	31.4	0.0	31.1	34.3	31.1	24.7
LnGrp LOS	F	B	A	E	C	B	C		C	C	C	C
Approach Vol, veh/h		2837			1935			17			502	
Approach Delay, s/veh		36.5			26.9			31.2			27.0	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.7	68.9		27.4	22.0	51.6		27.4
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	57.5		41.0	* 18	44.7		* 42
Max Q Clear Time (g_c+I1), s	2.2	30.9		21.1	19.8	33.0		2.7
Green Ext Time (p_c), s	0.0	22.1		0.9	0.0	10.7		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	32.1
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	314	1771	57	1764	70	7	51	119	37	160
Future Volume (vph)	314	1771	57	1764	70	7	51	119	37	160
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	26.2	65.0	11.2	50.0	50.0	9.2	23.4	20.4	34.6	34.6
Total Split (%)	21.8%	54.2%	9.3%	41.7%	41.7%	7.7%	19.5%	17.0%	28.8%	28.8%
Yellow Time (s)	3.2	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	22.0	62.3	6.6	44.9	44.9	5.0	18.8	12.3	33.6	33.6
Actuated g/C Ratio	0.19	0.54	0.06	0.39	0.39	0.04	0.16	0.11	0.29	0.29
v/c Ratio	1.01	0.71	0.61	0.96	0.11	0.11	0.33	0.68	0.07	0.30
Control Delay	99.3	23.0	79.6	49.0	0.3	58.1	34.6	68.6	31.6	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.3	23.0	79.6	49.0	0.3	58.1	34.6	68.6	31.6	6.4
LOS	F	C	E	D	A	E	C	E	C	A
Approach Delay		34.4		48.1			36.4		32.8	
Approach LOS		C		D			D		C	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 116.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 40.2 — Intersection LOS: D
Intersection Capacity Utilization 76.3% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	1771	23	57	1764	70	7	51	42	119	37	160
Future Volume (veh/h)	314	1771	23	57	1764	70	7	51	42	119	37	160
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	338	1904	15	61	1897	69	8	55	22	128	40	120
Adj No. of Lanes	1	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	337	2764	22	78	1959	610	17	230	92	155	482	410
Arrive On Green	0.19	0.53	0.53	0.04	0.39	0.39	0.01	0.18	0.18	0.09	0.26	0.26
Sat Flow, veh/h	1774	5205	41	1774	5085	1583	1774	1267	507	1774	1863	1583
Grp Volume(v), veh/h	338	1240	679	61	1897	69	8	0	77	128	40	120
Grp Sat Flow(s),veh/h/ln	1774	1695	1856	1774	1695	1583	1774	0	1773	1774	1863	1583
Q Serve(g_s), s	22.0	31.3	31.4	3.9	42.4	3.2	0.5	0.0	4.3	8.2	1.9	7.0
Cycle Q Clear(g_c), s	22.0	31.3	31.4	3.9	42.4	3.2	0.5	0.0	4.3	8.2	1.9	7.0
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	337	1800	985	78	1959	610	17	0	321	155	482	410
V/C Ratio(X)	1.00	0.69	0.69	0.78	0.97	0.11	0.46	0.00	0.24	0.83	0.08	0.29
Avail Cap(c_a), veh/h	337	1800	985	107	1970	614	77	0	321	248	482	410
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	20.1	20.1	54.8	34.9	22.9	57.1	0.0	40.6	52.0	32.5	34.4
Incr Delay (d2), s/veh	49.9	1.2	2.3	14.7	13.6	0.1	6.9	0.0	1.8	5.6	0.3	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.3	15.0	16.7	2.3	22.3	1.4	0.3	0.0	2.3	4.3	1.0	3.3
LnGrp Delay(d),s/veh	96.9	21.3	22.4	69.5	48.5	23.0	64.0	0.0	42.4	57.6	32.9	36.2
LnGrp LOS	F	C	C	E	D	C	E		D	E	C	D
Approach Vol, veh/h		2257			2027			85			288	
Approach Delay, s/veh		33.0			48.3			44.4			45.3	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	66.6	5.3	34.6	26.2	49.7	14.3	25.6
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 7	59.9	* 5	30.0	* 22	44.9	* 16	18.8
Max Q Clear Time (g_c+I1), s	5.9	33.4	2.5	9.0	24.0	44.4	10.2	6.3
Green Ext Time (p_c), s	0.0	26.1	0.0	1.0	0.0	0.3	0.1	0.8

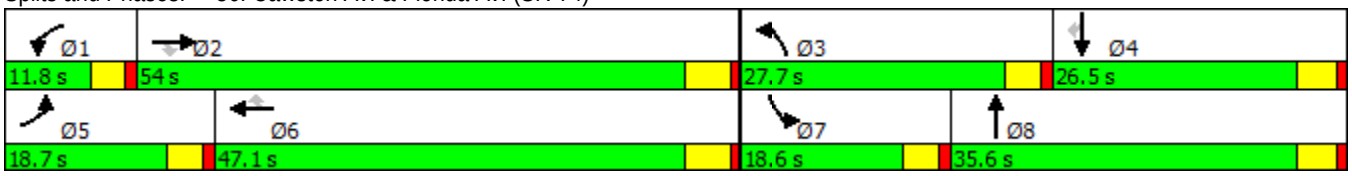
Intersection Summary	
HCM 2010 Ctrl Delay	40.6
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	193	1460	13	70	1651	256	264	121	215	137	157
Future Volume (vph)	193	1460	13	70	1651	256	264	121	215	137	157
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	18.7	54.0	54.0	11.8	47.1	47.1	27.7	35.6	18.6	26.5	26.5
Total Split (%)	15.6%	45.0%	45.0%	9.8%	39.3%	39.3%	23.1%	29.7%	15.5%	22.1%	22.1%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	14.5	51.3	51.3	7.2	42.0	42.0	21.4	31.0	14.4	24.0	24.0
Actuated g/C Ratio	0.12	0.43	0.43	0.06	0.35	0.35	0.18	0.26	0.12	0.20	0.20
v/c Ratio	0.94	0.70	0.02	0.69	0.97	0.39	0.88	0.22	1.06	0.38	0.36
Control Delay	101.4	30.8	0.1	86.1	53.4	8.5	75.0	22.4	128.1	46.1	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.4	30.8	0.1	86.1	53.4	8.5	75.0	22.4	128.1	46.1	7.9
LOS	F	C	A	F	D	A	E	C	F	D	A
Approach Delay		38.8			48.7			52.9		68.9	
Approach LOS		D			D			D		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 47.8	Intersection LOS: D
Intersection Capacity Utilization 95.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	1460	13	70	1651	256	264	121	71	215	137	157
Future Volume (veh/h)	193	1460	13	70	1651	256	264	121	71	215	137	157
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	201	1521	12	73	1720	223	275	126	68	224	143	100
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	2127	662	93	1778	551	302	584	295	213	388	330
Arrive On Green	0.12	0.42	0.42	0.05	0.35	0.35	0.17	0.26	0.26	0.12	0.21	0.21
Sat Flow, veh/h	1774	5085	1583	1774	5085	1577	1774	2259	1143	1774	1863	1583
Grp Volume(v), veh/h	201	1521	12	73	1720	223	275	97	97	224	143	100
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1577	1774	1770	1632	1774	1863	1583
Q Serve(g_s), s	13.5	29.8	0.5	4.9	39.9	12.9	18.3	5.2	5.6	14.4	7.9	6.4
Cycle Q Clear(g_c), s	13.5	29.8	0.5	4.9	39.9	12.9	18.3	5.2	5.6	14.4	7.9	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.70	1.00		1.00
Lane Grp Cap(c), veh/h	214	2127	662	93	1778	551	302	457	422	213	388	330
V/C Ratio(X)	0.94	0.72	0.02	0.79	0.97	0.40	0.91	0.21	0.23	1.05	0.37	0.30
Avail Cap(c_a), veh/h	214	2127	662	112	1781	552	348	457	422	213	388	330
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	29.0	20.5	56.2	38.3	29.5	48.9	34.9	35.1	52.8	40.7	40.1
Incr Delay (d2), s/veh	43.6	1.3	0.0	20.8	14.4	0.7	23.6	1.1	1.3	75.9	2.7	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	14.2	0.2	2.9	21.0	5.7	10.9	2.7	2.7	11.5	4.3	3.0
LnGrp Delay(d),s/veh	95.8	30.2	20.5	77.0	52.7	30.2	72.5	35.9	36.3	128.7	43.4	42.5
LnGrp LOS	F	C	C	E	D	C	E	D	D	F	D	D
Approach Vol, veh/h		1734			2016			469			467	
Approach Delay, s/veh		37.8			51.1			57.5			84.1	
Approach LOS		D			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	55.3	24.6	29.6	18.7	47.0	18.6	35.6
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 7.6	48.9	* 24	21.9	* 15	42.0	* 14	31.0
Max Q Clear Time (g_c+I1), s	6.9	31.8	20.3	9.9	15.5	41.9	16.4	7.6
Green Ext Time (p_c), s	0.0	16.8	0.2	1.9	0.0	0.1	0.0	2.4

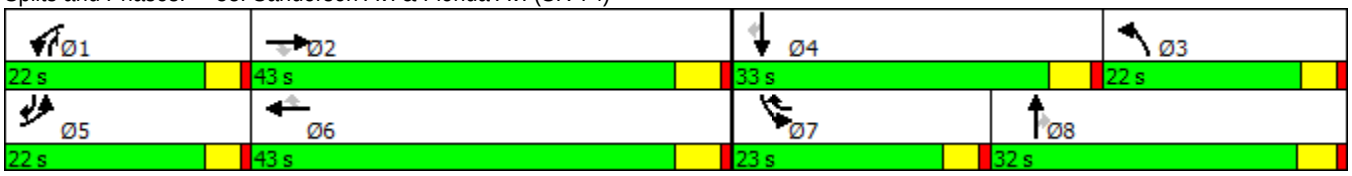
Intersection Summary	
HCM 2010 Ctrl Delay	50.1
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	496	1168	197	293	1095	287	547	1175	272	284	1182	356
Future Volume (vph)	496	1168	197	293	1095	287	547	1175	272	284	1182	356
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	9.2	9.2	30.7	9.2	9.2	14.7	9.2
Total Split (s)	22.0	43.0	43.0	22.0	43.0	23.0	22.0	32.0	22.0	23.0	33.0	22.0
Total Split (%)	18.3%	35.8%	35.8%	18.3%	35.8%	19.2%	18.3%	26.7%	18.3%	19.2%	27.5%	18.3%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	3.2	3.2	3.7	3.2	3.2	3.7	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	4.2	4.2	4.7	4.2	4.2	4.7	4.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	None	Max	None
Act Effct Green (s)	17.8	41.5	41.5	14.2	37.9	52.8	17.8	32.1	46.8	14.0	28.3	46.6
Actuated g/C Ratio	0.15	0.35	0.35	0.12	0.32	0.44	0.15	0.27	0.39	0.12	0.24	0.39
v/c Ratio	0.95	0.93	0.30	0.70	0.96	0.38	1.05	0.85	0.41	0.69	0.96	0.54
Control Delay	80.0	52.4	9.3	60.1	58.7	14.0	102.5	48.8	20.8	59.7	63.8	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.0	52.4	9.3	60.1	58.7	14.0	102.5	48.8	20.8	59.7	63.8	15.9
LOS	F	D	A	E	E	B	F	D	C	E	E	B
Approach Delay		55.2			51.3			59.7			53.8	
Approach LOS		E			D			E			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 55.2	Intersection LOS: E
Intersection Capacity Utilization 98.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	496	1168	197	293	1095	287	547	1175	272	284	1182	356
Future Volume (veh/h)	496	1168	197	293	1095	287	547	1175	272	284	1182	356
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1937	1937	1937	1937	1937	1937	1937	1937	1937	1937	1937	1937
Adj Flow Rate, veh/h	501	1180	199	296	1106	290	553	1187	275	287	1194	360
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	530	1329	585	359	1153	669	530	1530	632	351	1244	625
Arrive On Green	0.15	0.36	0.36	0.10	0.31	0.31	0.15	0.29	0.29	0.10	0.24	0.24
Sat Flow, veh/h	3579	3681	1620	3579	3681	1620	3579	5289	1614	3579	5289	1621
Grp Volume(v), veh/h	501	1180	199	296	1106	290	553	1187	275	287	1194	360
Grp Sat Flow(s),veh/h/ln	1790	1840	1620	1790	1840	1620	1790	1763	1614	1790	1763	1621
Q Serve(g_s), s	16.7	36.3	6.9	9.8	35.5	15.4	17.8	24.7	15.1	9.5	26.8	12.2
Cycle Q Clear(g_c), s	16.7	36.3	6.9	9.8	35.5	15.4	17.8	24.7	15.1	9.5	26.8	12.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	530	1329	585	359	1153	669	530	1530	632	351	1244	625
V/C Ratio(X)	0.95	0.89	0.34	0.82	0.96	0.43	1.04	0.78	0.43	0.82	0.96	0.58
Avail Cap(c_a), veh/h	530	1329	585	530	1160	672	530	1530	632	559	1244	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	36.1	11.5	53.1	40.5	25.4	51.2	39.2	27.0	53.2	45.4	12.5
Incr Delay (d2), s/veh	25.9	7.9	0.5	4.2	17.5	0.6	51.1	3.9	2.2	2.3	17.5	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	19.8	4.2	5.0	20.8	7.0	12.5	12.5	7.1	4.8	15.1	6.0
LnGrp Delay(d),s/veh	76.7	44.0	12.0	57.3	58.1	26.0	102.3	43.1	29.2	55.5	62.9	16.3
LnGrp LOS	E	D	B	E	E	C	F	D	C	E	E	B
Approach Vol, veh/h		1880			1692			2015			1841	
Approach Delay, s/veh		49.3			52.4			57.4			52.7	
Approach LOS		D			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	48.5	22.5	33.0	22.0	42.8	16.0	39.5
Change Period (Y+Rc), s	* 4.2	5.1	* 4.7	* 4.7	* 4.2	5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	* 18	37.9	* 18	* 28	* 18	37.9	* 19	* 27
Max Q Clear Time (g_c+I1), s	11.8	38.3	19.8	28.8	18.7	37.5	11.5	26.7
Green Ext Time (p_c), s	0.3	0.0	0.0	0.0	0.0	0.2	0.3	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	53.1
HCM 2010 LOS	D

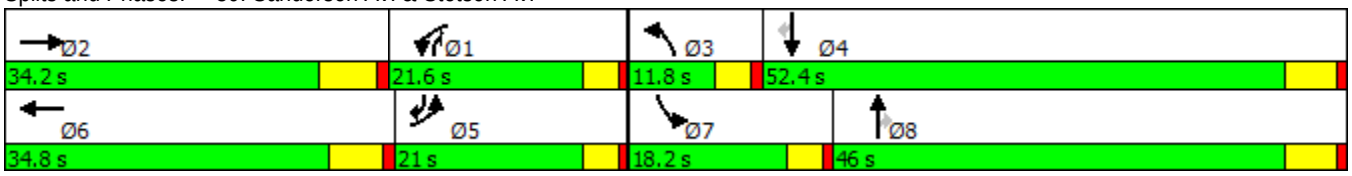
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	373	661	526	616	61	1236	542	378	1413	314
Future Volume (vph)	373	661	526	616	61	1236	542	378	1413	314
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8	1	7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8	9.2
Total Split (s)	21.0	34.2	21.6	34.8	11.8	46.0	21.6	18.2	52.4	21.0
Total Split (%)	17.5%	28.5%	18.0%	29.0%	9.8%	38.3%	18.0%	15.2%	43.7%	17.5%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 116.8
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	373	661	72	526	616	336	61	1236	542	378	1413	314
Future Volume (veh/h)	373	661	72	526	616	336	61	1236	542	378	1413	314
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1937	1976	1863	1937	1976	1863	1937	1937	1863	1937	1937
Adj Flow Rate, veh/h	385	681	72	542	635	325	63	1274	190	390	1457	313
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	444	914	96	571	808	377	129	1280	836	417	1588	923
Arrive On Green	0.13	0.19	0.19	0.17	0.23	0.23	0.04	0.35	0.35	0.12	0.43	0.43
Sat Flow, veh/h	3442	4845	507	3442	3526	1645	3442	3681	1616	3442	3681	1647
Grp Volume(v), veh/h	385	494	259	542	635	325	63	1274	190	390	1457	313
Grp Sat Flow(s),veh/h/ln	1721	1763	1826	1721	1763	1645	1721	1840	1616	1721	1840	1647
Q Serve(g_s), s	12.7	15.3	15.5	18.0	19.6	21.9	2.1	39.9	2.4	13.0	43.1	2.0
Cycle Q Clear(g_c), s	12.7	15.3	15.5	18.0	19.6	21.9	2.1	39.9	2.4	13.0	43.1	2.0
Prop In Lane	1.00		0.28	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	444	665	344	571	808	377	129	1280	836	417	1588	923
V/C Ratio(X)	0.87	0.74	0.75	0.95	0.79	0.86	0.49	1.00	0.23	0.94	0.92	0.34
Avail Cap(c_a), veh/h	500	854	442	571	884	413	226	1280	836	417	1588	923
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.4	44.2	44.3	47.7	41.9	42.8	54.5	37.6	5.5	50.4	30.9	6.0
Incr Delay (d2), s/veh	12.6	2.6	5.3	25.2	4.4	15.9	1.1	24.1	0.6	28.1	10.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	7.6	8.4	10.6	10.0	11.6	1.0	24.5	1.7	7.8	24.1	3.6
LnGrp Delay(d),s/veh	62.0	46.8	49.7	72.9	46.3	58.7	55.6	61.7	6.1	78.5	40.9	7.0
LnGrp LOS	E	D	D	E	D	E	E	E	A	E	D	A
Approach Vol, veh/h		1138			1502			1527			2160	
Approach Delay, s/veh		52.6			58.6			54.5			42.8	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.4	28.0	8.5	55.7	19.1	32.3	18.2	46.0
Change Period (Y+Rc), s	4.2	* 6.2	* 4.2	5.8	4.2	* 5.8	* 4.2	5.8
Max Green Setting (Gmax), s	17.4	* 28	* 7.6	46.6	16.8	* 29	* 14	40.2
Max Q Clear Time (g_c+I1), s	20.0	17.5	4.1	45.1	14.7	23.9	15.0	41.9
Green Ext Time (p_c), s	0.0	3.2	0.0	1.5	0.2	2.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	51.1
HCM 2010 LOS	D

Notes

APPENDIX 7.6:

OPENING YEAR CUMULATIVE (2026) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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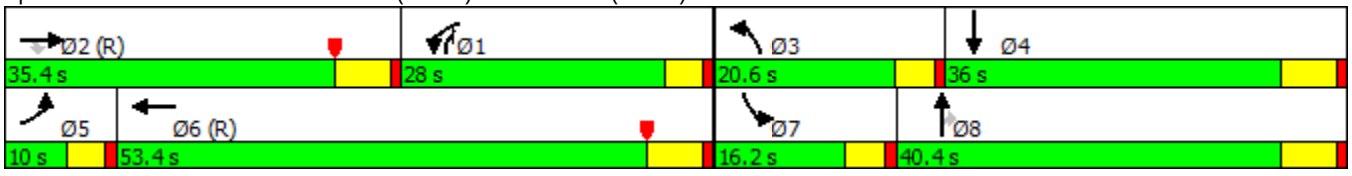
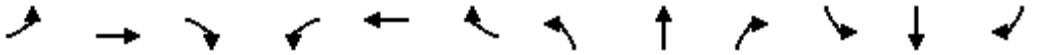
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	20	1172	145	586	1348	142	13	593	25	33
Future Volume (vph)	20	1172	145	586	1348	142	13	593	25	33
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2		1	6	3	8	1	7	4
Permitted Phases			2					8		
Detector Phase	5	2	2	1	6	3	8	1	7	4
Switch Phase										
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	5.0	25.0	5.0	5.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	16.2	31.0	9.5	16.2	36.0
Total Split (s)	10.0	35.4	35.4	28.0	53.4	20.6	40.4	28.0	16.2	36.0
Total Split (%)	8.3%	29.5%	29.5%	23.3%	44.5%	17.2%	33.7%	23.3%	13.5%	30.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.6	5.0	3.5	3.6	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	4.6	6.0	4.5	4.6	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	5.3	29.4	29.4	23.5	53.4	13.3	43.4	68.4	6.4	32.7
Actuated g/C Ratio	0.04	0.24	0.24	0.20	0.44	0.11	0.36	0.57	0.05	0.27
v/c Ratio	0.27	0.97	0.30	0.90	0.63	0.74	0.02	0.61	0.28	0.08
Control Delay	64.2	64.4	7.7	64.7	28.0	73.7	28.0	9.5	61.2	30.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.2	64.4	7.7	64.7	28.0	73.7	28.0	9.5	61.2	30.1
LOS	E	E	A	E	C	E	C	A	E	C
Approach Delay		58.2			38.9		22.0			42.1
Approach LOS		E			D		C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 33.3 (28%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 42.2	Intersection LOS: D
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1172	145	586	1348	37	142	13	593	25	33	7
Future Volume (veh/h)	20	1172	145	586	1348	37	142	13	593	25	33	7
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	21	1208	110	604	1390	36	146	13	431	26	34	7
Adj No. of Lanes	1	3	1	2	3	0	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	1246	388	755	2324	60	173	602	859	43	375	77
Arrive On Green	0.02	0.25	0.25	0.22	0.46	0.46	0.10	0.32	0.32	0.02	0.25	0.25
Sat Flow, veh/h	1774	5085	1583	3442	5097	132	1774	1863	1582	1774	1499	309
Grp Volume(v), veh/h	21	1208	110	604	924	502	146	13	431	26	0	41
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1839	1774	1863	1582	1774	0	1808
Q Serve(g_s), s	1.4	28.2	5.1	19.9	24.5	24.5	9.7	0.6	2.8	1.7	0.0	2.1
Cycle Q Clear(g_c), s	1.4	28.2	5.1	19.9	24.5	24.5	9.7	0.6	2.8	1.7	0.0	2.1
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	37	1246	388	755	1545	838	173	602	859	43	0	452
V/C Ratio(X)	0.56	0.97	0.28	0.80	0.60	0.60	0.85	0.02	0.50	0.61	0.00	0.09
Avail Cap(c_a), veh/h	81	1246	388	755	1545	838	237	602	859	171	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.2	44.9	20.9	44.4	24.4	24.4	53.3	27.7	7.5	58.0	0.0	34.5
Incr Delay (d2), s/veh	4.9	19.2	1.8	5.7	1.7	3.1	14.0	0.1	2.1	5.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	15.4	2.4	10.1	11.8	13.1	5.5	0.3	6.2	0.9	0.0	1.1
LnGrp Delay(d),s/veh	63.1	64.0	22.7	50.0	26.1	27.6	67.3	27.7	9.6	63.0	0.0	34.9
LnGrp LOS	E	E	C	D	C	C	E	C	A	E		C
Approach Vol, veh/h		1339			2030			590			67	
Approach Delay, s/veh		60.6			33.6			24.3			45.8	
Approach LOS		E			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.3	35.4	16.3	36.0	7.0	60.7	7.5	44.8
Change Period (Y+Rc), s	6.0	* 6	4.6	6.0	4.5	6.0	4.6	6.0
Max Green Setting (Gmax), s	23.5	* 29	16.0	30.0	5.5	47.4	11.6	34.4
Max Q Clear Time (g_c+I1), s	21.9	30.2	11.7	4.1	3.4	26.5	3.7	4.8
Green Ext Time (p_c), s	0.3	0.0	0.1	0.9	0.0	7.2	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	41.4
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	70	1	2	0	38	649	4	906
Future Volume (vph)	70	1	2	0	38	649	4	906
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	28.2	9.6	28.2
Total Split (s)	31.6	31.6	31.6	31.6	9.6	38.8	9.6	38.8
Total Split (%)	39.5%	39.5%	39.5%	39.5%	12.0%	48.5%	12.0%	48.5%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		13.0		13.0	5.1	41.0	5.1	39.2
Actuated g/C Ratio		0.21		0.21	0.08	0.66	0.08	0.63
v/c Ratio		0.41		0.01	0.28	0.57	0.03	0.88
Control Delay		16.6		0.0	35.6	13.8	31.8	27.7
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		16.6		0.0	35.6	13.8	31.8	27.7
LOS		B		A	D	B	C	C
Approach Delay		16.6				15.0		27.7
Approach LOS		B				B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 61.8	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 21.9	Intersection LOS: C
Intersection Capacity Utilization 70.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	1	63	2	0	3	38	649	2	4	906	48
Future Volume (veh/h)	70	1	63	2	0	3	38	649	2	4	906	48
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	75	1	68	2	0	3	41	698	2	4	974	52
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	23	110	154	31	150	73	1082	3	10	958	51
Arrive On Green	0.15	0.15	0.15	0.15	0.00	0.15	0.04	0.58	0.58	0.01	0.55	0.55
Sat Flow, veh/h	655	149	720	452	200	977	1774	1856	5	1774	1753	94
Grp Volume(v), veh/h	144	0	0	5	0	0	41	0	700	4	0	1026
Grp Sat Flow(s),veh/h/ln	1524	0	0	1629	0	0	1774	0	1862	1774	0	1846
Q Serve(g_s), s	3.7	0.0	0.0	0.0	0.0	0.0	1.4	0.0	15.0	0.1	0.0	32.6
Cycle Q Clear(g_c), s	5.2	0.0	0.0	0.2	0.0	0.0	1.4	0.0	15.0	0.1	0.0	32.6
Prop In Lane	0.52		0.47	0.40		0.60	1.00		0.00	1.00		0.05
Lane Grp Cap(c), veh/h	326	0	0	335	0	0	73	0	1085	10	0	1010
V/C Ratio(X)	0.44	0.00	0.00	0.01	0.00	0.00	0.56	0.00	0.65	0.42	0.00	1.02
Avail Cap(c_a), veh/h	771	0	0	775	0	0	149	0	1085	149	0	1010
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	0.0	21.4	0.0	0.0	28.0	0.0	8.3	29.6	0.0	13.5
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.0	0.0	0.0	2.5	0.0	1.3	10.5	0.0	32.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	0.1	0.0	0.0	0.7	0.0	8.0	0.1	0.0	25.4
LnGrp Delay(d),s/veh	24.4	0.0	0.0	21.4	0.0	0.0	30.5	0.0	9.6	40.1	0.0	46.0
LnGrp LOS	C			C			C		A	D		F
Approach Vol, veh/h		144			5			741			1030	
Approach Delay, s/veh		24.4			21.4			10.8			45.9	
Approach LOS		C			C			B			D	

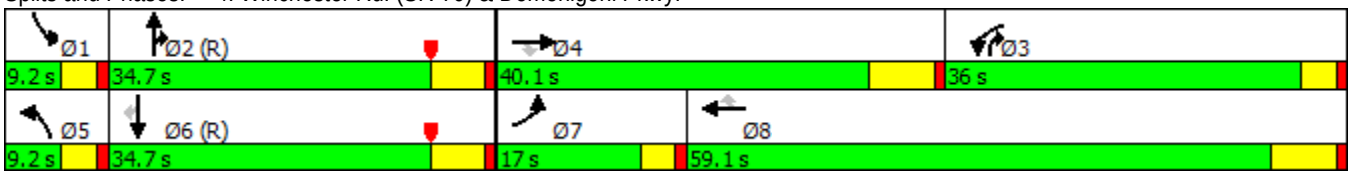
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.9	40.9		13.8	7.1	38.8		13.8
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6
Max Green Setting (Gmax), s	5.0	32.6		27.0	5.0	32.6		27.0
Max Q Clear Time (g_c+I1), s	2.1	17.0		7.2	3.4	34.6		2.2
Green Ext Time (p_c), s	0.0	10.3		0.8	0.0	0.0		0.9

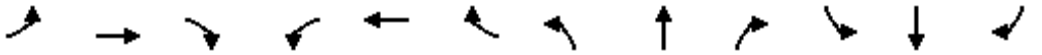
Intersection Summary	
HCM 2010 Ctrl Delay	30.7
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	969	88	876	971	52	54	354	703	80	655	249
Future Volume (vph)	169	969	88	876	971	52	54	354	703	80	655	249
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	2 3	1	6	
Permitted Phases			4			8						6
Detector Phase	7	4	4	3	8	8	5	2	2 3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8		9.2	33.8	33.8
Total Split (s)	17.0	40.1	40.1	36.0	59.1	59.1	9.2	34.7		9.2	34.7	34.7
Total Split (%)	14.2%	33.4%	33.4%	30.0%	49.3%	49.3%	7.7%	28.9%		7.7%	28.9%	28.9%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8		3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8		4.2	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	10.5	33.2	33.2	31.8	54.5	54.5	5.0	28.9	59.1	5.0	28.9	28.9
Actuated g/C Ratio	0.09	0.28	0.28	0.26	0.45	0.45	0.04	0.24	0.49	0.04	0.24	0.24
v/c Ratio	0.61	1.08	0.18	1.05	0.46	0.07	0.81	0.45	0.91	1.19	0.84	0.47
Control Delay	61.5	92.9	3.4	85.9	23.6	0.7	118.5	40.8	34.1	214.7	53.2	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.5	92.9	3.4	85.9	23.6	0.7	118.5	40.8	34.1	214.7	53.2	7.8
LOS	E	F	A	F	C	A	F	D	C	F	D	A
Approach Delay		82.1			51.7			40.4			54.8	
Approach LOS		F			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 57.0	Intersection LOS: E
Intersection Capacity Utilization 91.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	969	88	876	971	52	54	354	703	80	655	249
Future Volume (veh/h)	169	969	88	876	971	52	54	354	703	80	655	249
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	184	1053	59	952	1055	45	59	385	502	87	712	172
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	241	979	438	912	2513	782	74	3467	1971	74	3467	1551
Arrive On Green	0.07	0.28	0.28	0.26	0.49	0.49	0.04	0.98	0.98	0.04	0.98	0.98
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	184	1053	59	952	1055	45	59	385	502	87	712	172
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.3	33.2	6.3	31.8	15.9	1.8	4.0	0.3	0.3	5.0	0.6	0.3
Cycle Q Clear(g_c), s	6.3	33.2	6.3	31.8	15.9	1.8	4.0	0.3	0.3	5.0	0.6	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	241	979	438	912	2513	782	74	3467	1971	74	3467	1551
V/C Ratio(X)	0.76	1.08	0.13	1.04	0.42	0.06	0.80	0.11	0.25	1.18	0.21	0.11
Avail Cap(c_a), veh/h	367	979	438	912	2513	782	74	3467	1971	74	3467	1551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78
Uniform Delay (d), s/veh	54.8	43.4	113.7	44.1	19.4	15.8	57.0	0.0	0.6	57.5	0.0	0.0
Incr Delay (d2), s/veh	2.0	51.3	0.1	41.9	0.1	0.0	41.5	0.1	0.3	148.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	23.2	2.8	20.4	7.5	0.8	2.8	0.1	0.2	5.5	0.2	0.2
LnGrp Delay(d),s/veh	56.8	94.7	113.8	86.0	19.5	15.8	98.5	0.1	0.9	205.5	0.1	0.1
LnGrp LOS	E	F	F	F	B	B	F	A	A	F	A	A
Approach Vol, veh/h		1296			2052			946			971	
Approach Delay, s/veh		90.2			50.2			6.6			18.5	
Approach LOS		F			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	126.1	38.7	40.1	9.2	126.1	12.6	66.2
Change Period (Y+Rc), s	* 4.2	5.8	6.9	* 6.9	* 4.2	5.8	* 4.2	6.9
Max Green Setting (Gmax), s	* 5	28.9	31.8	* 33	* 5	28.9	* 13	52.2
Max Q Clear Time (g_c+I1), s	7.0	2.3	33.8	35.2	6.0	2.6	8.3	17.9
Green Ext Time (p_c), s	0.0	15.5	0.0	0.0	0.0	15.4	0.1	10.5

Intersection Summary	
HCM 2010 Ctrl Delay	46.4
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	30	37	315	18	19	839	78	660
Future Volume (vph)	30	37	315	18	19	839	78	660
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	27.8	9.6	27.8
Total Split (s)	32.3	32.3	32.3	32.3	10.2	77.5	10.2	77.5
Total Split (%)	26.9%	26.9%	26.9%	26.9%	8.5%	64.6%	8.5%	64.6%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	27.9	27.9	27.9	27.9	5.3	36.8	5.6	43.3
Actuated g/C Ratio	0.33	0.33	0.33	0.33	0.06	0.43	0.07	0.51
v/c Ratio	0.09	0.11	0.77	0.27	0.18	0.80	0.72	0.40
Control Delay	23.8	16.2	41.8	7.1	45.2	24.1	75.1	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.8	16.2	41.8	7.1	45.2	24.1	75.1	14.3
LOS	C	B	D	A	D	C	E	B
Approach Delay		18.7		30.2		24.5		20.6
Approach LOS		B		C		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 85.4	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 74.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 20: Warren Rd. & Esplanade Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	37	24	315	18	140	19	839	295	78	660	8
Future Volume (veh/h)	30	37	24	315	18	140	19	839	295	78	660	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	32	39	26	335	19	149	20	893	314	83	702	9
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	336	309	206	434	54	422	38	1244	436	106	1867	24
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.02	0.48	0.48	0.06	0.52	0.52
Sat Flow, veh/h	1212	1044	696	1331	182	1428	1774	2572	901	1774	3578	46
Grp Volume(v), veh/h	32	0	65	335	0	168	20	613	594	83	347	364
Grp Sat Flow(s),veh/h/ln	1212	0	1740	1331	0	1611	1774	1770	1704	1774	1770	1855
Q Serve(g_s), s	2.0	0.0	2.5	22.9	0.0	7.6	1.0	25.5	25.7	4.3	10.9	10.9
Cycle Q Clear(g_c), s	9.6	0.0	2.5	25.5	0.0	7.6	1.0	25.5	25.7	4.3	10.9	10.9
Prop In Lane	1.00		0.40	1.00		0.89	1.00		0.53	1.00		0.02
Lane Grp Cap(c), veh/h	336	0	514	434	0	476	38	856	824	106	923	967
V/C Ratio(X)	0.10	0.00	0.13	0.77	0.00	0.35	0.52	0.72	0.72	0.78	0.38	0.38
Avail Cap(c_a), veh/h	338	0	517	437	0	479	107	1362	1311	107	1362	1427
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	0.0	24.0	33.3	0.0	25.8	45.1	19.0	19.1	43.2	13.3	13.3
Incr Delay (d2), s/veh	0.1	0.0	0.1	8.2	0.0	0.4	4.0	1.1	1.2	28.2	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.2	9.4	0.0	3.5	0.6	12.7	12.3	2.9	5.4	5.6
LnGrp Delay(d),s/veh	29.7	0.0	24.1	41.5	0.0	26.2	49.1	20.2	20.3	71.4	13.5	13.5
LnGrp LOS	C		C	D		C	D	C	C	E	B	B
Approach Vol, veh/h		97			503			1227			794	
Approach Delay, s/veh		26.0			36.4			20.7			19.6	
Approach LOS		C			D			C			B	

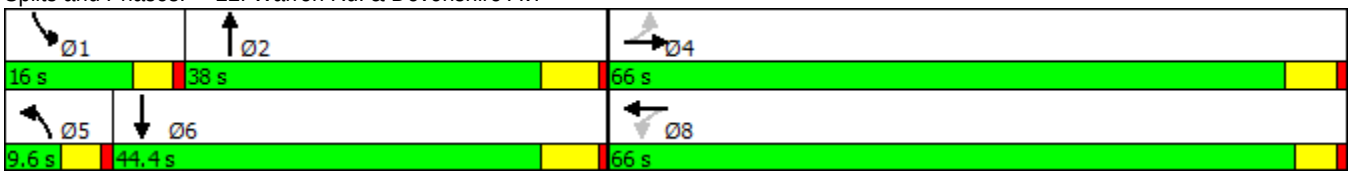
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.2	50.9		32.1	6.6	54.4		32.1
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6
Max Green Setting (Gmax), s	5.6	71.7		27.7	5.6	71.7		27.7
Max Q Clear Time (g_c+I1), s	6.3	27.7		11.6	3.0	12.9		27.5
Green Ext Time (p_c), s	0.0	17.3		2.5	0.0	18.8		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	265	255	193	389	20	736	153	674
Future Volume (vph)	265	255	193	389	20	736	153	674
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	31.8	31.8	9.6	28.2	9.6	28.2
Total Split (s)	66.0	66.0	66.0	66.0	9.6	38.0	16.0	44.4
Total Split (%)	55.0%	55.0%	55.0%	55.0%	8.0%	31.7%	13.3%	37.0%
Yellow Time (s)	4.8	4.8	3.8	3.8	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.8	4.8	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	60.2	60.2	61.2	61.2	5.0	31.8	11.4	44.0
Actuated g/C Ratio	0.50	0.50	0.51	0.51	0.04	0.26	0.10	0.37
v/c Ratio	1.12	0.34	0.43	0.62	0.29	0.97	0.97	0.71
Control Delay	124.5	18.6	22.0	23.8	66.0	66.3	116.6	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	124.5	18.6	22.0	23.8	66.0	66.3	116.6	36.0
LOS	F	B	C	C	E	E	F	D
Approach Delay		69.1		23.3		66.3		48.3
Approach LOS		E		C		E		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay: 51.1	Intersection LOS: D
Intersection Capacity Utilization 94.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	255	37	193	389	150	20	736	111	153	674	173
Future Volume (veh/h)	265	255	37	193	389	150	20	736	111	153	674	173
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	282	271	39	205	414	160	21	783	118	163	717	184
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	280	799	115	486	642	248	37	818	123	169	946	243
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.02	0.27	0.27	0.09	0.34	0.34
Sat Flow, veh/h	835	1593	229	1065	1281	495	1774	3085	465	1774	2790	716
Grp Volume(v), veh/h	282	0	310	205	0	574	21	449	452	163	455	446
Grp Sat Flow(s),veh/h/ln	835	0	1822	1065	0	1775	1774	1770	1781	1774	1770	1736
Q Serve(g_s), s	31.6	0.0	12.3	17.2	0.0	28.6	1.4	30.0	30.0	11.0	27.4	27.4
Cycle Q Clear(g_c), s	60.2	0.0	12.3	29.4	0.0	28.6	1.4	30.0	30.0	11.0	27.4	27.4
Prop In Lane	1.00		0.13	1.00		0.28	1.00		0.26	1.00		0.41
Lane Grp Cap(c), veh/h	280	0	914	486	0	891	37	469	472	169	600	589
V/C Ratio(X)	1.01	0.00	0.34	0.42	0.00	0.64	0.56	0.96	0.96	0.97	0.76	0.76
Avail Cap(c_a), veh/h	280	0	914	494	0	905	74	469	472	169	600	589
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.6	0.0	18.0	26.8	0.0	22.0	58.2	43.4	43.4	54.1	35.3	35.3
Incr Delay (d2), s/veh	55.4	0.0	0.2	0.6	0.0	1.5	4.9	30.9	30.8	59.1	5.5	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.6	0.0	6.2	5.1	0.0	14.3	0.7	18.6	18.7	8.2	14.3	14.1
LnGrp Delay(d),s/veh	103.0	0.0	18.2	27.4	0.0	23.6	63.1	74.3	74.3	113.2	40.8	40.9
LnGrp LOS	F		B	C		C	E	E	E	F	D	D
Approach Vol, veh/h		592			779			922			1064	
Approach Delay, s/veh		58.6			24.6			74.0			52.0	
Approach LOS		E			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.0	38.0		66.0	7.1	46.9		66.0
Change Period (Y+Rc), s	4.6	6.2		5.8	4.6	6.2		* 5.8
Max Green Setting (Gmax), s	11.4	31.8		60.2	5.0	38.2		* 61
Max Q Clear Time (g_c+I1), s	13.0	32.0		62.2	3.4	29.4		31.4
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	5.9		10.0

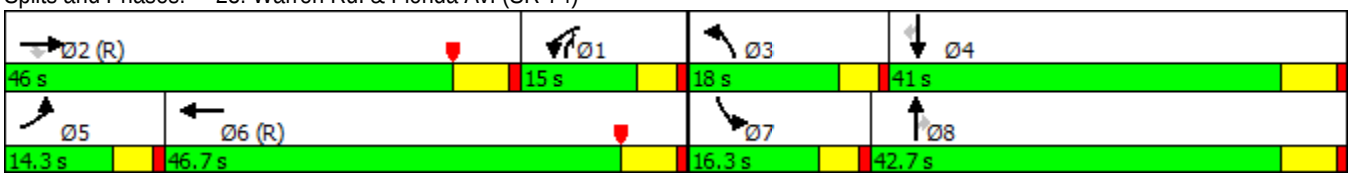
Intersection Summary	
HCM 2010 Ctrl Delay	52.8
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	243	1281	304	419	1049	284	602	347	120	568	236
Future Volume (vph)	243	1281	304	419	1049	284	602	347	120	568	236
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8	1	7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	1	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	45.0	9.6	45.0	9.6	41.0	9.6	9.6	41.0	41.0
Total Split (s)	14.3	46.0	46.0	15.0	46.7	18.0	42.7	15.0	16.3	41.0	41.0
Total Split (%)	11.9%	38.3%	38.3%	12.5%	38.9%	15.0%	35.6%	12.5%	13.6%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	5.0	3.6	5.0	3.6	5.0	3.6	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	6.0	4.6	6.0	4.6	6.0	4.6	4.6	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	9.7	40.0	40.0	10.4	40.7	13.4	37.6	49.4	10.8	35.0	35.0
Actuated g/C Ratio	0.08	0.33	0.33	0.09	0.34	0.11	0.31	0.41	0.09	0.29	0.29
v/c Ratio	0.90	0.77	0.44	1.44	0.65	1.47	0.55	0.50	0.77	0.56	0.42
Control Delay	87.7	39.6	7.2	255.7	35.6	275.5	36.7	14.4	83.2	38.5	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.7	39.6	7.2	255.7	35.6	275.5	36.7	14.4	83.2	38.5	13.7
LOS	F	D	A	F	D	F	D	B	F	D	B
Approach Delay		40.6			96.5		85.5			38.0	
Approach LOS		D			F		F			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.47	
Intersection Signal Delay: 65.6	Intersection LOS: E
Intersection Capacity Utilization 102.0%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	243	1281	304	419	1049	49	284	602	347	120	568	236
Future Volume (veh/h)	243	1281	304	419	1049	49	284	602	347	120	568	236
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	248	1307	247	428	1070	46	290	614	309	122	580	177
Adj No. of Lanes	2	3	1	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	278	1695	528	1623	3679	158	198	1133	1253	147	1032	460
Arrive On Green	0.08	0.33	0.33	0.47	0.74	0.74	0.11	0.32	0.32	0.08	0.29	0.29
Sat Flow, veh/h	3442	5085	1583	3442	5000	215	1774	3539	1580	1774	3539	1578
Grp Volume(v), veh/h	248	1307	247	428	725	391	290	614	309	122	580	177
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1825	1774	1770	1580	1774	1770	1578
Q Serve(g_s), s	8.6	27.7	19.1	9.0	8.6	8.6	13.4	17.1	3.5	8.1	16.7	10.7
Cycle Q Clear(g_c), s	8.6	27.7	19.1	9.0	8.6	8.6	13.4	17.1	3.5	8.1	16.7	10.7
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	278	1695	528	1623	2495	1343	198	1133	1253	147	1032	460
V/C Ratio(X)	0.89	0.77	0.47	0.26	0.29	0.29	1.46	0.54	0.25	0.83	0.56	0.38
Avail Cap(c_a), veh/h	278	1695	528	1623	2495	1343	198	1133	1253	173	1032	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.53	0.53	0.53	0.71	0.71	0.71
Uniform Delay (d), s/veh	54.6	35.9	53.0	19.1	5.3	5.3	53.3	33.5	12.1	54.2	36.0	33.9
Incr Delay (d2), s/veh	27.3	3.5	3.0	0.0	0.3	0.5	223.1	1.0	0.3	15.8	1.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	13.5	8.8	4.3	4.1	4.5	18.8	8.5	4.9	4.6	8.4	4.9
LnGrp Delay(d),s/veh	81.9	39.4	56.0	19.2	5.6	5.9	276.4	34.5	12.3	69.9	37.6	35.6
LnGrp LOS	F	D	E	B	A	A	F	C	B	E	D	D
Approach Vol, veh/h		1802			1544			1213			879	
Approach Delay, s/veh		47.5			9.4			86.7			41.7	
Approach LOS		D			A			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	64.0	46.0	18.0	41.0	14.3	95.7	14.6	44.4
Change Period (Y+Rc), s	6.0	* 6	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	10.4	* 40	13.4	35.0	9.7	40.7	11.7	36.7
Max Q Clear Time (g_c+I1), s	11.0	29.7	15.4	18.7	10.6	10.6	10.1	19.1
Green Ext Time (p_c), s	0.0	4.5	0.0	5.1	0.0	5.4	0.0	5.2

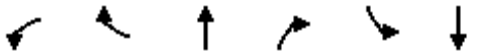
Intersection Summary	
HCM 2010 Ctrl Delay	44.5
HCM 2010 LOS	D

Notes

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	24	1160	277	967
Future Volume (vph)	24	1160	277	967
Turn Type	Prot	NA	Prot	NA
Protected Phases	8	2	1	6
Permitted Phases				
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	28.2	9.6	24.2
Total Split (s)	31.6	54.4	34.0	88.4
Total Split (%)	26.3%	45.3%	28.3%	73.7%
Yellow Time (s)	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	Min	None	Min
Act Effct Green (s)	13.1	46.0	20.0	72.8
Actuated g/C Ratio	0.14	0.51	0.22	0.80
v/c Ratio	0.33	0.78	0.76	0.36
Control Delay	18.0	25.0	48.9	4.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	18.0	25.0	48.9	4.7
LOS	B	C	D	A
Approach Delay	18.0	25.0		14.5
Approach LOS	B	C		B

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 90.9			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 19.8		Intersection LOS: B	
Intersection Capacity Utilization 72.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 24: Warren Rd. & Auto Bl.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	24	69	1160	132	277	967
Future Volume (veh/h)	24	69	1160	132	277	967
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	26	73	1234	140	295	1029
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	46	130	1645	186	337	2686
Arrive On Green	0.11	0.11	0.51	0.51	0.19	0.76
Sat Flow, veh/h	424	1191	3299	362	1774	3632
Grp Volume(v), veh/h	100	0	679	695	295	1029
Grp Sat Flow(s),veh/h/ln	1631	0	1770	1798	1774	1770
Q Serve(g_s), s	4.8	0.0	24.9	25.1	13.3	8.1
Cycle Q Clear(g_c), s	4.8	0.0	24.9	25.1	13.3	8.1
Prop In Lane	0.26	0.73		0.20	1.00	
Lane Grp Cap(c), veh/h	178	0	908	923	337	2686
V/C Ratio(X)	0.56	0.00	0.75	0.75	0.88	0.38
Avail Cap(c_a), veh/h	537	0	1040	1057	636	3546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	0.0	15.8	15.8	32.3	3.4
Incr Delay (d2), s/veh	2.7	0.0	2.6	2.7	2.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	12.7	13.0	6.7	3.9
LnGrp Delay(d),s/veh	37.4	0.0	18.4	18.5	35.2	3.5
LnGrp LOS	D		B	B	D	A
Approach Vol, veh/h	100		1374			1324
Approach Delay, s/veh	37.4		18.5			10.5
Approach LOS	D		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	20.2	48.3				68.5		13.6
Change Period (Y+Rc), s	4.6	6.2				6.2		4.6
Max Green Setting (Gmax), s	29.4	48.2				82.2		27.0
Max Q Clear Time (g_c+I1), s	15.3	27.1				10.1		6.8
Green Ext Time (p_c), s	0.3	15.0				29.2		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	55	1313	4	21	994
Future Vol, veh/h	0	55	1313	4	21	994
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	57	1354	4	22	1025

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1912	679	0	0	1358	0
Stage 1	1356	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	60	394	-	-	502	-
Stage 1	205	-	-	-	-	-
Stage 2	538	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	57	394	-	-	502	-
Mov Cap-2 Maneuver	184	-	-	-	-	-
Stage 1	205	-	-	-	-	-
Stage 2	514	-	-	-	-	-

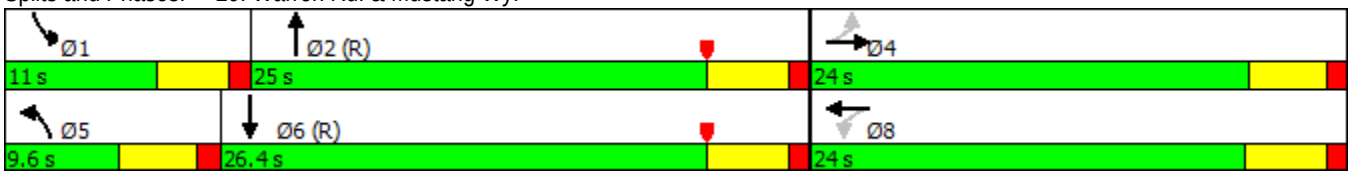
Approach	WB	NB	SB
HCM Control Delay, s	15.7	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	394	502	-
HCM Lane V/C Ratio	-	-	0.144	0.043	-
HCM Control Delay (s)	-	-	15.7	12.5	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	153	20	331	7	37	638	134	649
Future Volume (vph)	153	20	331	7	37	638	134	649
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	9.6	25.0	11.0	26.4
Total Split (%)	40.0%	40.0%	40.0%	40.0%	16.0%	41.7%	18.3%	44.0%
Yellow Time (s)	3.5	3.5	3.6	3.6	3.5	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.6	4.6	4.5	4.7	4.2	4.7
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	19.2	19.2	19.1	19.1	5.2	20.8	6.7	27.8
Actuated g/C Ratio	0.32	0.32	0.32	0.32	0.09	0.35	0.11	0.46
v/c Ratio	0.52	0.24	0.93	0.37	0.27	0.76	0.76	0.48
Control Delay	23.4	5.7	55.1	4.6	30.5	21.0	53.2	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	5.7	55.1	4.6	30.5	21.0	53.2	13.4
LOS	C	A	E	A	C	C	D	B
Approach Delay		15.4		34.8		21.4		19.8
Approach LOS		B		C		C		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 23.1	Intersection LOS: C
Intersection Capacity Utilization 72.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	20	108	331	7	214	37	638	199	134	649	52
Future Volume (veh/h)	153	20	108	331	7	214	37	638	199	134	649	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	170	22	120	368	8	191	41	709	207	149	721	58
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	387	81	443	441	21	494	73	935	273	188	1345	108
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.04	0.35	0.35	0.11	0.41	0.41
Sat Flow, veh/h	1179	251	1370	1241	64	1529	1774	2704	789	1774	3318	267
Grp Volume(v), veh/h	170	0	142	368	0	199	41	464	452	149	384	395
Grp Sat Flow(s),veh/h/ln	1179	0	1621	1241	0	1593	1774	1770	1723	1774	1770	1816
Q Serve(g_s), s	7.8	0.0	3.9	15.5	0.0	5.8	1.4	13.9	14.0	4.9	9.9	9.9
Cycle Q Clear(g_c), s	13.6	0.0	3.9	19.4	0.0	5.8	1.4	13.9	14.0	4.9	9.9	9.9
Prop In Lane	1.00		0.85	1.00		0.96	1.00		0.46	1.00		0.15
Lane Grp Cap(c), veh/h	387	0	524	441	0	515	73	612	596	188	717	736
V/C Ratio(X)	0.44	0.00	0.27	0.83	0.00	0.39	0.56	0.76	0.76	0.79	0.54	0.54
Avail Cap(c_a), veh/h	389	0	527	441	0	515	151	612	596	201	717	736
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	0.0	15.1	23.2	0.0	15.7	28.2	17.4	17.4	26.2	13.5	13.6
Incr Delay (d2), s/veh	0.8	0.0	0.3	13.0	0.0	0.5	6.6	8.5	8.8	16.5	2.9	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	1.8	7.6	0.0	2.6	0.8	8.2	8.0	3.3	5.4	5.5
LnGrp Delay(d),s/veh	21.7	0.0	15.3	36.3	0.0	16.2	34.8	25.9	26.2	42.7	16.4	16.3
LnGrp LOS	C		B	D		B	C	C	C	D	B	B
Approach Vol, veh/h		312			567			957			928	
Approach Delay, s/veh		18.8			29.2			26.4			20.6	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.5	25.5		24.0	7.0	29.0		24.0
Change Period (Y+Rc), s	* 4.2	* 4.7		* 4.6	4.5	* 4.7		4.6
Max Green Setting (Gmax), s	* 6.8	* 20		* 20	5.1	* 22		19.4
Max Q Clear Time (g_c+I1), s	6.9	16.0		15.6	3.4	11.9		21.4
Green Ext Time (p_c), s	0.0	3.8		1.6	0.0	7.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.2
HCM 2010 LOS	C

Notes

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	349	667	263	27	806
Future Volume (vph)	349	667	263	27	806
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	4	3	8	2	3
Permitted Phases					2
Detector Phase	4	3	8	2	3
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	9.6	22.5	31.6	9.6
Total Split (s)	34.2	53.0	87.2	32.8	53.0
Total Split (%)	28.5%	44.2%	72.7%	27.3%	44.2%
Yellow Time (s)	5.2	3.6	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	5.2	4.6	4.6
Lead/Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	None	None	None	Min	None
Act Effct Green (s)	27.1	47.1	79.8	13.0	64.7
Actuated g/C Ratio	0.26	0.46	0.78	0.13	0.63
v/c Ratio	0.84	0.87	0.19	0.12	0.81
Control Delay	52.7	38.8	4.0	41.0	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	52.7	38.8	4.0	41.0	19.1
LOS	D	D	A	D	B
Approach Delay	52.7		29.0	19.8	
Approach LOS	D		C	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 102.7	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 29.7	Intersection LOS: C
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 30: Warren Rd. & Simpson Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	349	38	667	263	27	806
Future Volume (veh/h)	349	38	667	263	27	806
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	367	40	702	277	28	848
Adj No. of Lanes	1	0	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	385	42	716	1257	417	1011
Arrive On Green	0.23	0.23	0.40	0.67	0.23	0.23
Sat Flow, veh/h	1651	180	1774	1863	1774	1583
Grp Volume(v), veh/h	0	407	702	277	28	848
Grp Sat Flow(s),veh/h/ln	0	1831	1774	1863	1774	1583
Q Serve(g_s), s	0.0	26.3	46.9	6.8	1.5	28.2
Cycle Q Clear(g_c), s	0.0	26.3	46.9	6.8	1.5	28.2
Prop In Lane		0.10	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	427	716	1257	417	1011
V/C Ratio(X)	0.00	0.95	0.98	0.22	0.07	0.84
Avail Cap(c_a), veh/h	0	427	716	1273	417	1011
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	45.3	35.3	7.4	35.7	16.9
Incr Delay (d2), s/veh	0.0	31.6	28.8	0.1	0.1	6.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	17.1	28.5	3.5	0.7	23.3
LnGrp Delay(d),s/veh	0.0	76.9	64.1	7.5	35.7	23.3
LnGrp LOS		E	E	A	D	C
Approach Vol, veh/h	407			979	876	
Approach Delay, s/veh	76.9			48.1	23.7	
Approach LOS	E			D	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		32.8	53.0	34.2				87.2
Change Period (Y+Rc), s		4.6	4.6	6.2				* 6.2
Max Green Setting (Gmax), s		28.2	48.4	28.0				* 82
Max Q Clear Time (g_c+I1), s		30.2	48.9	28.3				8.8
Green Ext Time (p_c), s		0.0	0.0	0.0				4.1

Intersection Summary	
HCM 2010 Ctrl Delay	43.8
HCM 2010 LOS	D

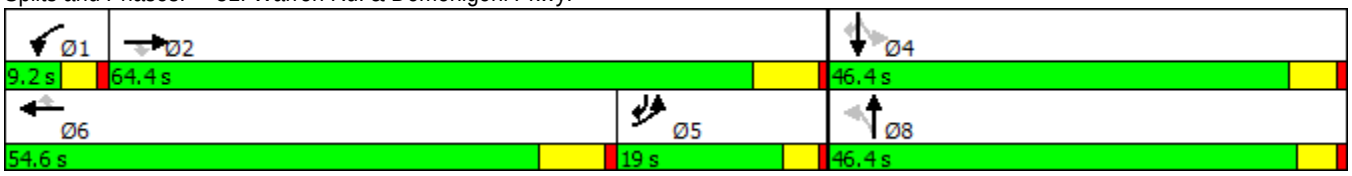
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	538	1463	2	2	1762	116	4	22	162	16	635
Future Volume (vph)	538	1463	2	2	1762	116	4	22	162	16	635
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	5	2		1	6			8		4	5
Permitted Phases			2			6	8		4		4
Detector Phase	5	2	2	1	6	6	8	8	4	4	5
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	46.4	46.4	9.2
Total Split (s)	19.0	64.4	64.4	9.2	54.6	54.6	46.4	46.4	46.4	46.4	19.0
Total Split (%)	15.8%	53.7%	53.7%	7.7%	45.5%	45.5%	38.7%	38.7%	38.7%	38.7%	15.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	4.4	4.4	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.6	4.6	5.4	5.4	4.2
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead					Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None
Act Effct Green (s)	15.0	65.9	65.9	5.1	48.2	48.2	20.1	20.1	19.3	19.3	39.7
Actuated g/C Ratio	0.15	0.66	0.66	0.05	0.49	0.49	0.20	0.20	0.19	0.19	0.40
v/c Ratio	1.14	0.48	0.00	0.02	0.78	0.16	0.01	0.07	0.66	0.05	1.03
Control Delay	124.3	11.1	0.0	51.5	25.6	5.0	28.2	29.0	48.1	30.0	69.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	124.3	11.1	0.0	51.5	25.6	5.0	28.2	29.0	48.1	30.0	69.0
LOS	F	B	A	D	C	A	C	C	D	C	E
Approach Delay		41.5			24.4			28.9		64.1	
Approach LOS		D			C			C		E	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 99.2
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.14
Intersection Signal Delay: 38.5 — Intersection LOS: D
Intersection Capacity Utilization 94.8% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	538	1463	2	2	1762	116	4	22	1	162	16	635
Future Volume (veh/h)	538	1463	2	2	1762	116	4	22	1	162	16	635
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	591	1608	2	2	1936	117	4	24	0	178	18	553
Adj No. of Lanes	2	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	480	3109	948	5	2284	696	255	430	0	373	430	586
Arrive On Green	0.14	0.61	0.61	0.00	0.45	0.45	0.23	0.23	0.00	0.23	0.23	0.23
Sat Flow, veh/h	3442	5085	1551	1774	5085	1550	838	1863	0	1381	1863	1583
Grp Volume(v), veh/h	591	1608	2	2	1936	117	4	24	0	178	18	553
Grp Sat Flow(s),veh/h/ln	1721	1695	1551	1774	1695	1550	838	1863	0	1381	1863	1583
Q Serve(g_s), s	14.8	19.1	0.1	0.1	36.0	4.8	0.4	1.1	0.0	12.2	0.8	21.1
Cycle Q Clear(g_c), s	14.8	19.1	0.1	0.1	36.0	4.8	1.2	1.1	0.0	13.3	0.8	21.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	480	3109	948	5	2284	696	255	430	0	373	430	586
V/C Ratio(X)	1.23	0.52	0.00	0.42	0.85	0.17	0.02	0.06	0.00	0.48	0.04	0.94
Avail Cap(c_a), veh/h	480	3109	948	84	2284	696	391	733	0	587	719	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.7	11.7	8.0	52.9	26.0	17.4	32.2	31.8	0.0	37.0	31.7	32.4
Incr Delay (d2), s/veh	121.5	0.6	0.0	20.1	4.1	0.5	0.0	0.0	0.0	0.4	0.0	13.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.1	9.0	0.0	0.1	17.5	2.1	0.1	0.5	0.0	4.7	0.4	14.4
LnGrp Delay(d),s/veh	167.2	12.3	8.0	73.0	30.1	17.9	32.2	31.9	0.0	37.4	31.8	45.5
LnGrp LOS	F	B	A	E	C	B	C	C		D	C	D
Approach Vol, veh/h		2201			2055			28			749	
Approach Delay, s/veh		53.9			29.5			31.9			43.2	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	71.8		29.9	21.7	54.6		29.9
Change Period (Y+Rc), s	* 4.2	6.9		5.4	6.9	* 6.9		* 5.4
Max Green Setting (Gmax), s	* 5	57.5		41.0	14.8	* 48		* 42
Max Q Clear Time (g_c+I1), s	2.1	21.1		23.1	16.8	38.0		3.2
Green Ext Time (p_c), s	0.0	10.2		1.4	0.0	6.0		1.4

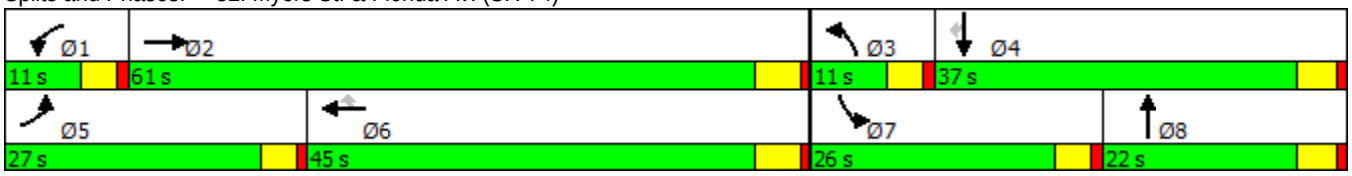
Intersection Summary	
HCM 2010 Ctrl Delay	42.2
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	166	1473	18	1173	144	30	70	147	53	197
Future Volume (vph)	166	1473	18	1173	144	30	70	147	53	197
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	27.0	61.0	11.0	45.0	45.0	11.0	22.0	26.0	37.0	37.0
Total Split (%)	22.5%	50.8%	9.2%	37.5%	37.5%	9.2%	18.3%	21.7%	30.8%	30.8%
Yellow Time (s)	3.2	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	14.5	51.6	5.8	36.5	36.5	6.1	21.3	13.4	33.3	33.3
Actuated g/C Ratio	0.14	0.49	0.06	0.35	0.35	0.06	0.20	0.13	0.32	0.32
v/c Ratio	0.69	0.60	0.18	0.67	0.23	0.30	0.31	0.66	0.09	0.31
Control Delay	59.3	21.1	57.5	31.7	3.8	60.5	35.1	59.7	31.3	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.3	21.1	57.5	31.7	3.8	60.5	35.1	59.7	31.3	6.2
LOS	E	C	E	C	A	E	D	E	C	A
Approach Delay		24.9		29.1			40.4		29.4	
Approach LOS		C		C			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 104.4	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 27.6	Intersection LOS: C
Intersection Capacity Utilization 59.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	1473	8	18	1173	144	30	70	43	147	53	197
Future Volume (veh/h)	166	1473	8	18	1173	144	30	70	43	147	53	197
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	169	1503	8	18	1197	147	31	71	20	150	54	146
Adj No. of Lanes	1	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	200	2510	13	34	1970	611	50	320	90	181	564	479
Arrive On Green	0.11	0.48	0.48	0.02	0.39	0.39	0.03	0.23	0.23	0.10	0.30	0.30
Sat Flow, veh/h	1774	5220	28	1774	5085	1577	1774	1399	394	1774	1863	1583
Grp Volume(v), veh/h	169	976	535	18	1197	147	31	0	91	150	54	146
Grp Sat Flow(s),veh/h/ln	1774	1695	1857	1774	1695	1577	1774	0	1793	1774	1863	1583
Q Serve(g_s), s	10.0	22.5	22.5	1.1	20.2	6.7	1.9	0.0	4.4	8.9	2.2	7.6
Cycle Q Clear(g_c), s	10.0	22.5	22.5	1.1	20.2	6.7	1.9	0.0	4.4	8.9	2.2	7.6
Prop In Lane	1.00		0.01	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	200	1630	893	34	1970	611	50	0	411	181	564	479
V/C Ratio(X)	0.84	0.60	0.60	0.52	0.61	0.24	0.62	0.00	0.22	0.83	0.10	0.30
Avail Cap(c_a), veh/h	378	1770	970	113	1970	611	113	0	411	361	564	479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.6	20.3	20.3	52.0	26.3	22.2	51.5	0.0	33.5	47.2	26.8	28.7
Incr Delay (d2), s/veh	3.7	0.6	1.1	4.5	0.6	0.3	4.6	0.0	1.2	3.7	0.3	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	10.6	11.7	0.6	9.5	3.0	1.0	0.0	2.3	4.5	1.2	3.5
LnGrp Delay(d),s/veh	50.3	20.9	21.4	56.5	26.9	22.4	56.1	0.0	34.8	50.9	27.2	30.3
LnGrp LOS	D	C	C	E	C	C	E		C	D	C	C
Approach Vol, veh/h		1680			1362			122			350	
Approach Delay, s/veh		24.0			26.8			40.2			38.7	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	56.6	7.2	37.0	16.3	46.6	15.1	29.1
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 6.8	55.9	* 6.8	32.4	* 23	39.9	* 22	17.4
Max Q Clear Time (g_c+I1), s	3.1	24.5	3.9	9.6	12.0	22.2	10.9	6.4
Green Ext Time (p_c), s	0.0	27.0	0.0	1.3	0.2	16.6	0.1	1.0

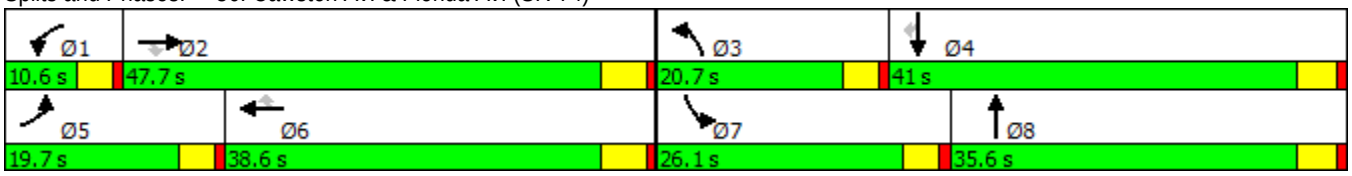
Intersection Summary	
HCM 2010 Ctrl Delay	27.1
HCM 2010 LOS	C

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	125	1309	13	31	1226	93	140	68	195	82	131
Future Volume (vph)	125	1309	13	31	1226	93	140	68	195	82	131
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	19.7	47.7	47.7	10.6	38.6	38.6	20.7	35.6	26.1	41.0	41.0
Total Split (%)	16.4%	39.8%	39.8%	8.8%	32.2%	32.2%	17.3%	29.7%	21.8%	34.2%	34.2%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	12.1	43.9	43.9	5.9	33.7	33.7	13.0	32.8	16.7	36.6	36.6
Actuated g/C Ratio	0.11	0.39	0.39	0.05	0.30	0.30	0.11	0.29	0.15	0.32	0.32
v/c Ratio	0.69	0.69	0.02	0.35	0.84	0.16	0.71	0.09	0.77	0.14	0.22
Control Delay	68.3	32.3	0.1	64.9	44.0	0.6	68.6	24.5	66.9	30.2	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.3	32.3	0.1	64.9	44.0	0.6	68.6	24.5	66.9	30.2	6.1
LOS	E	C	A	E	D	A	E	C	E	C	A
Approach Delay		35.1			41.5			51.2		40.0	
Approach LOS		D			D			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 113.5	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 39.3	Intersection LOS: D
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	1309	13	31	1226	93	140	68	23	195	82	131
Future Volume (veh/h)	125	1309	13	31	1226	93	140	68	23	195	82	131
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	129	1349	12	32	1264	80	144	70	21	201	85	67
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	1903	593	50	1597	497	173	815	235	232	622	528
Arrive On Green	0.09	0.37	0.37	0.03	0.31	0.31	0.10	0.30	0.30	0.13	0.33	0.33
Sat Flow, veh/h	1774	5085	1583	1774	5085	1583	1774	2712	781	1774	1863	1583
Grp Volume(v), veh/h	129	1349	12	32	1264	80	144	45	46	201	85	67
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1583	1774	1770	1724	1774	1863	1583
Q Serve(g_s), s	7.8	24.6	0.5	1.9	24.7	4.0	8.7	2.0	2.1	12.1	3.5	3.2
Cycle Q Clear(g_c), s	7.8	24.6	0.5	1.9	24.7	4.0	8.7	2.0	2.1	12.1	3.5	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	157	1903	593	50	1597	497	173	532	518	232	622	528
V/C Ratio(X)	0.82	0.71	0.02	0.63	0.79	0.16	0.83	0.08	0.09	0.87	0.14	0.13
Avail Cap(c_a), veh/h	252	1986	618	104	1597	497	268	532	518	356	622	528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.8	29.1	21.5	52.4	34.1	27.0	48.3	27.4	27.4	46.5	25.4	25.3
Incr Delay (d2), s/veh	5.0	1.3	0.0	4.8	2.9	0.2	6.9	0.3	0.3	8.7	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	11.7	0.2	1.0	12.0	1.8	4.6	1.0	1.1	6.5	1.9	1.5
LnGrp Delay(d),s/veh	53.9	30.3	21.5	57.2	37.1	27.2	55.3	27.7	27.8	55.2	25.8	25.8
LnGrp LOS	D	C	C	E	D	C	E	C	C	E	C	C
Approach Vol, veh/h		1490			1376			235			353	
Approach Delay, s/veh		32.3			37.0			44.6			42.5	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	45.9	14.8	41.0	13.9	39.4	18.5	37.4
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 6.4	42.6	* 17	36.4	* 16	33.5	* 22	31.0
Max Q Clear Time (g_c+I1), s	3.9	26.6	10.7	5.5	9.8	26.7	14.1	4.1
Green Ext Time (p_c), s	0.0	14.2	0.1	1.3	0.1	6.5	0.2	1.3

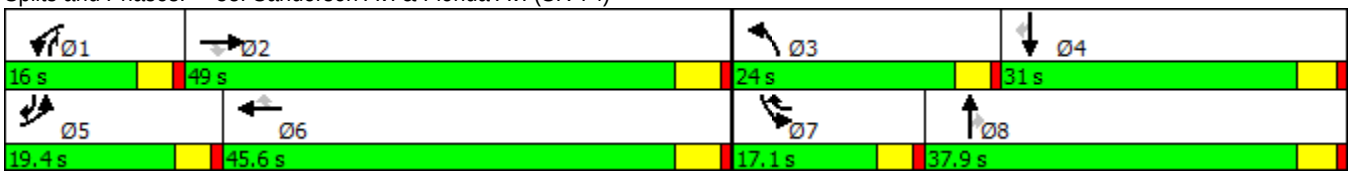
Intersection Summary	
HCM 2010 Ctrl Delay	36.1
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	301	955	151	180	761	155	355	1033	184	248	885	293
Future Volume (vph)	301	955	151	180	761	155	355	1033	184	248	885	293
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	9.2	9.2	30.7	9.2	9.2	14.7	9.2
Total Split (s)	19.4	49.0	49.0	16.0	45.6	17.1	24.0	37.9	16.0	17.1	31.0	19.4
Total Split (%)	16.2%	40.8%	40.8%	13.3%	38.0%	14.3%	20.0%	31.6%	13.3%	14.3%	25.8%	16.2%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	3.2	3.2	3.7	3.2	3.2	3.7	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	4.2	4.2	4.7	4.2	4.2	4.7	4.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	None	Max	None
Act Effct Green (s)	14.0	41.2	41.2	10.3	37.5	50.4	16.8	33.3	44.2	12.0	28.5	47.2
Actuated g/C Ratio	0.12	0.36	0.36	0.09	0.33	0.44	0.15	0.29	0.38	0.10	0.25	0.41
v/c Ratio	0.80	0.83	0.25	0.64	0.73	0.23	0.78	0.77	0.32	0.76	0.77	0.46
Control Delay	64.5	40.6	5.8	61.6	38.6	9.0	59.0	42.4	17.9	65.7	46.5	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.5	40.6	5.8	61.6	38.6	9.0	59.0	42.4	17.9	65.7	46.5	20.4
LOS	E	D	A	E	D	A	E	D	B	E	D	C
Approach Delay		42.0			38.2			43.3			44.5	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 115.1	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 42.2	Intersection LOS: D
Intersection Capacity Utilization 75.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	301	955	151	180	761	155	355	1033	184	248	885	293
Future Volume (veh/h)	301	955	151	180	761	155	355	1033	184	248	885	293
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	331	1049	137	198	836	111	390	1135	92	273	973	270
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	391	1329	585	258	1192	677	455	1488	567	332	1307	587
Arrive On Green	0.11	0.38	0.38	0.07	0.34	0.34	0.13	0.29	0.29	0.10	0.26	0.26
Sat Flow, veh/h	3442	3539	1557	3442	3539	1555	3442	5085	1533	3442	5085	1583
Grp Volume(v), veh/h	331	1049	137	198	836	111	390	1135	92	273	973	270
Grp Sat Flow(s),veh/h/ln	1721	1770	1557	1721	1770	1555	1721	1695	1533	1721	1695	1583
Q Serve(g_s), s	10.7	29.8	6.8	6.4	23.3	4.9	12.6	23.1	4.6	8.8	19.9	14.7
Cycle Q Clear(g_c), s	10.7	29.8	6.8	6.4	23.3	4.9	12.6	23.1	4.6	8.8	19.9	14.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	391	1329	585	258	1192	677	455	1488	567	332	1307	587
V/C Ratio(X)	0.85	0.79	0.23	0.77	0.70	0.16	0.86	0.76	0.16	0.82	0.74	0.46
Avail Cap(c_a), veh/h	461	1369	602	358	1263	708	601	1488	567	391	1307	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	31.4	24.3	51.5	32.7	19.6	48.2	36.5	24.1	50.3	38.7	27.1
Incr Delay (d2), s/veh	10.6	3.3	0.3	4.0	1.9	0.2	7.6	3.8	0.6	9.9	3.9	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	15.2	3.0	3.2	11.7	2.1	6.4	11.3	2.0	4.7	9.8	6.8
LnGrp Delay(d),s/veh	59.9	34.8	24.5	55.5	34.5	19.8	55.8	40.3	24.8	60.2	42.6	29.7
LnGrp LOS	E	C	C	E	C	B	E	D	C	E	D	C
Approach Vol, veh/h		1517			1145			1617			1516	
Approach Delay, s/veh		39.3			36.7			43.1			43.5	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	47.7	19.2	33.9	17.1	43.3	15.2	37.9
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	* 4.7	* 4.2	5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	* 12	43.9	* 20	* 26	* 15	40.5	* 13	* 33
Max Q Clear Time (g_c+I1), s	8.4	31.8	14.6	21.9	12.7	25.3	10.8	25.1
Green Ext Time (p_c), s	0.1	10.5	0.4	4.0	0.2	13.0	0.1	7.1

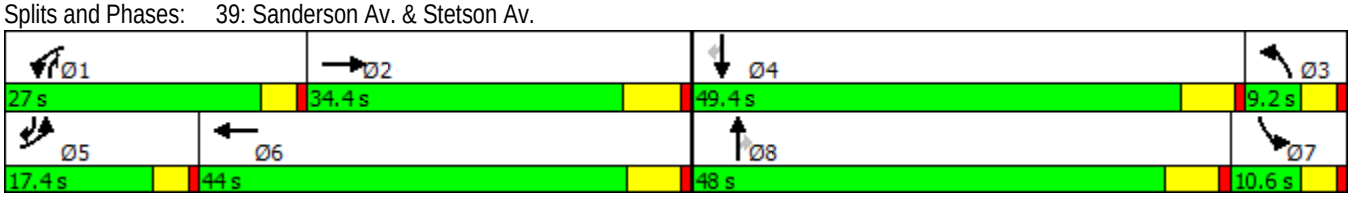
Intersection Summary	
HCM 2010 Ctrl Delay	41.0
HCM 2010 LOS	D

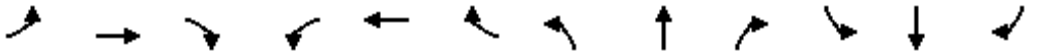
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	234	496	581	721	67	1146	735	149	1131	177
Future Volume (vph)	234	496	581	721	67	1146	735	149	1131	177
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8	1	7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8	9.2
Total Split (s)	17.4	34.4	27.0	44.0	9.2	48.0	27.0	10.6	49.4	17.4
Total Split (%)	14.5%	28.7%	22.5%	36.7%	7.7%	40.0%	22.5%	8.8%	41.2%	14.5%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	None
Act Effct Green (s)	12.1	22.1	22.8	33.3	5.0	42.3	66.7	6.4	45.7	59.3
Actuated g/C Ratio	0.11	0.19	0.20	0.29	0.04	0.37	0.58	0.06	0.40	0.52
v/c Ratio	0.75	0.66	0.98	0.76	0.52	1.02	0.92	0.90	0.93	0.24
Control Delay	63.7	44.7	76.9	38.0	67.4	65.5	30.6	97.5	46.5	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.7	44.7	76.9	38.0	67.4	65.5	30.6	97.5	46.5	6.0
LOS	E	D	E	D	E	E	C	F	D	A
Approach Delay		50.3		52.6		52.4			46.7	
Approach LOS		D		D		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.1	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 50.7	Intersection LOS: D
Intersection Capacity Utilization 86.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 39: Sanderson Av. & Stetson Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	496	59	581	721	251	67	1146	735	149	1131	177
Future Volume (veh/h)	234	496	59	581	721	251	67	1146	735	149	1131	177
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	272	577	68	676	838	275	78	1333	475	173	1315	200
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	330	971	113	674	1182	386	148	1283	866	189	1326	744
Arrive On Green	0.10	0.21	0.21	0.20	0.31	0.31	0.04	0.36	0.36	0.05	0.37	0.37
Sat Flow, veh/h	3442	4594	533	3442	3796	1238	3442	3539	1534	3442	3539	1582
Grp Volume(v), veh/h	272	423	222	676	748	365	78	1333	475	173	1315	200
Grp Sat Flow(s),veh/h/ln	1721	1695	1737	1721	1695	1644	1721	1770	1534	1721	1770	1582
Q Serve(g_s), s	9.0	13.1	13.4	22.8	22.7	22.9	2.6	42.2	13.8	5.8	43.0	6.1
Cycle Q Clear(g_c), s	9.0	13.1	13.4	22.8	22.7	22.9	2.6	42.2	13.8	5.8	43.0	6.1
Prop In Lane	1.00		0.31	1.00		0.75	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	330	717	367	674	1056	512	148	1283	866	189	1326	744
V/C Ratio(X)	0.83	0.59	0.60	1.00	0.71	0.71	0.53	1.04	0.55	0.91	0.99	0.27
Avail Cap(c_a), veh/h	390	821	421	674	1113	540	148	1283	866	189	1326	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	41.4	41.5	46.8	35.4	35.5	54.5	37.1	6.6	54.7	36.2	9.3
Incr Delay (d2), s/veh	10.1	0.9	1.9	35.4	2.0	4.2	1.8	35.8	2.5	41.3	22.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	6.2	6.7	14.1	10.9	10.9	1.3	26.9	6.4	3.8	25.2	3.0
LnGrp Delay(d),s/veh	61.8	42.2	43.4	82.2	37.4	39.6	56.3	72.9	9.1	96.0	59.1	10.2
LnGrp LOS	E	D	D	F	D	D	E	F	A	F	E	B
Approach Vol, veh/h		917			1789			1886			1688	
Approach Delay, s/veh		48.3			54.8			56.2			57.1	
Approach LOS		D			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	30.8	9.2	49.4	15.3	42.5	10.6	48.0
Change Period (Y+Rc), s	* 4.2	6.2	4.2	* 5.8	* 4.2	* 6.2	4.2	* 5.8
Max Green Setting (Gmax), s	* 23	28.2	5.0	* 44	* 13	* 38	6.4	* 42
Max Q Clear Time (g_c+I1), s	24.8	15.4	4.6	45.0	11.0	24.9	7.8	44.2
Green Ext Time (p_c), s	0.0	8.1	0.0	0.0	0.1	8.4	0.0	0.0

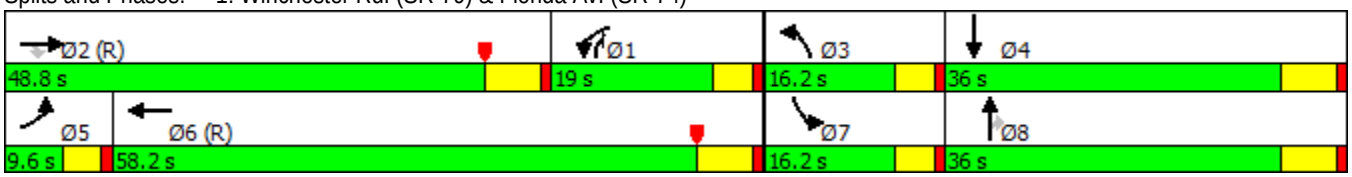
Intersection Summary	
HCM 2010 Ctrl Delay	54.9
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	22	1745	166	709	1389	194	12	753	22	23
Future Volume (vph)	22	1745	166	709	1389	194	12	753	22	23
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2		1	6	3	8	1	7	4
Permitted Phases			2					8		
Detector Phase	5	2	2	1	6	3	8	1	7	4
Switch Phase										
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	5.0	25.0	5.0	5.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	16.2	31.0	9.5	16.2	36.0
Total Split (s)	9.6	48.8	48.8	19.0	58.2	16.2	36.0	19.0	16.2	36.0
Total Split (%)	8.0%	40.7%	40.7%	15.8%	48.5%	13.5%	30.0%	15.8%	13.5%	30.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.6	5.0	3.5	3.6	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	4.6	6.0	4.5	4.6	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max
Act Effct Green (s)	5.1	42.8	42.8	14.5	56.0	11.6	39.1	56.9	6.4	30.0
Actuated g/C Ratio	0.04	0.36	0.36	0.12	0.47	0.10	0.33	0.47	0.05	0.25
v/c Ratio	0.33	1.09	0.29	1.95	0.69	1.29	0.02	1.01	0.27	0.08
Control Delay	68.1	88.6	10.2	463.7	27.6	208.9	31.1	58.3	61.0	27.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.1	88.6	10.2	463.7	27.6	208.9	31.1	58.3	61.0	27.1
LOS	E	F	B	F	C	F	C	E	E	C
Approach Delay		81.6			171.9		88.3			40.8
Approach LOS		F			F		F			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 19 (16%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.95	
Intersection Signal Delay: 120.5	Intersection LOS: F
Intersection Capacity Utilization 97.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	1745	166	709	1389	47	194	12	753	22	23	10
Future Volume (veh/h)	22	1745	166	709	1389	47	194	12	753	22	23	10
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	25	1983	142	806	1578	47	220	14	648	25	26	6
Adj No. of Lanes	1	3	1	2	3	0	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	42	1814	565	1836	4461	133	171	602	1356	42	366	84
Arrive On Green	0.02	0.36	0.36	0.53	0.88	0.88	0.10	0.32	0.32	0.02	0.25	0.25
Sat Flow, veh/h	1774	5085	1583	3442	5075	151	1774	1863	1583	1774	1463	338
Grp Volume(v), veh/h	25	1983	142	806	1054	571	220	14	648	25	0	32
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1836	1774	1863	1583	1774	0	1801
Q Serve(g_s), s	1.7	42.8	10.4	17.1	6.6	6.6	11.6	0.6	5.1	1.7	0.0	1.6
Cycle Q Clear(g_c), s	1.7	42.8	10.4	17.1	6.6	6.6	11.6	0.6	5.1	1.7	0.0	1.6
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	42	1814	565	1836	2980	1614	171	602	1356	42	0	450
V/C Ratio(X)	0.60	1.09	0.25	0.44	0.35	0.35	1.28	0.02	0.48	0.60	0.00	0.07
Avail Cap(c_a), veh/h	75	1814	565	1836	2980	1614	171	602	1356	171	0	450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.0	38.6	51.4	17.1	1.3	1.3	54.2	27.7	17.2	58.0	0.0	34.4
Incr Delay (d2), s/veh	5.0	51.5	1.1	0.1	0.3	0.6	164.2	0.1	1.2	5.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	28.6	4.7	8.1	3.1	3.4	13.5	0.3	2.5	0.9	0.0	0.8
LnGrp Delay(d),s/veh	63.0	90.1	52.5	17.1	1.6	1.9	218.4	27.8	18.4	63.0	0.0	34.7
LnGrp LOS	E	F	D	B	A	A	F	C	B	E		C
Approach Vol, veh/h		2150			2431			882			57	
Approach Delay, s/veh		87.3			6.8			68.4			47.1	
Approach LOS		F			A			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	71.5	48.8	16.2	36.0	7.3	113.0	7.4	44.8
Change Period (Y+Rc), s	6.0	* 6	4.6	6.0	4.5	6.0	4.6	6.0
Max Green Setting (Gmax), s	14.5	* 43	11.6	30.0	5.1	52.2	11.6	30.0
Max Q Clear Time (g_c+I1), s	19.1	44.8	13.6	3.6	3.7	8.6	3.7	7.1
Green Ext Time (p_c), s	0.0	0.0	0.0	1.3	0.0	11.0	0.0	1.3

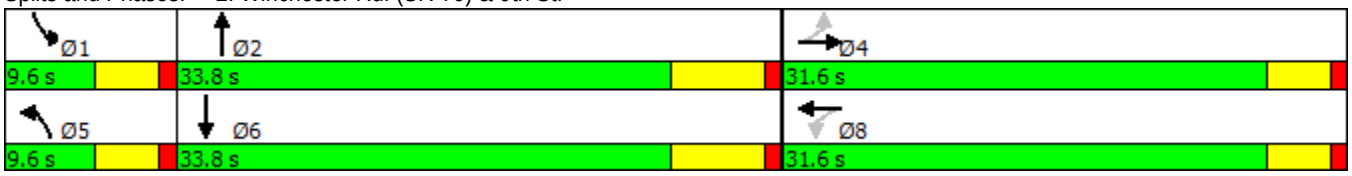
Intersection Summary	
HCM 2010 Ctrl Delay	48.4
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	68	1	6	1	79	991	4	851
Future Volume (vph)	68	1	6	1	79	991	4	851
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	28.2	9.6	28.2
Total Split (s)	31.6	31.6	31.6	31.6	9.6	33.8	9.6	33.8
Total Split (%)	42.1%	42.1%	42.1%	42.1%	12.8%	45.1%	12.8%	45.1%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		12.9		12.9	5.1	39.2	5.1	33.3
Actuated g/C Ratio		0.22		0.22	0.09	0.66	0.09	0.56
v/c Ratio		0.39		0.03	0.56	0.86	0.03	0.96
Control Delay		14.4		15.0	46.1	24.4	29.8	42.5
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		14.4		15.0	46.1	24.4	29.8	42.5
LOS		B		B	D	C	C	D
Approach Delay		14.4		15.0		26.0		42.5
Approach LOS		B		B		C		D

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 59.6	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 32.3	Intersection LOS: C
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	1	66	6	1	4	79	991	4	4	851	77
Future Volume (veh/h)	68	1	66	6	1	4	79	991	4	4	851	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	72	1	70	6	1	4	84	1054	4	4	905	82
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	27	122	217	52	96	116	1030	4	10	834	76
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.07	0.56	0.56	0.01	0.50	0.50
Sat Flow, veh/h	617	164	749	716	318	591	1774	1854	7	1774	1683	153
Grp Volume(v), veh/h	143	0	0	11	0	0	84	0	1058	4	0	987
Grp Sat Flow(s),veh/h/ln	1530	0	0	1625	0	0	1774	0	1862	1774	0	1836
Q Serve(g_s), s	3.1	0.0	0.0	0.0	0.0	0.0	2.6	0.0	30.9	0.1	0.0	27.6
Cycle Q Clear(g_c), s	4.7	0.0	0.0	0.3	0.0	0.0	2.6	0.0	30.9	0.1	0.0	27.6
Prop In Lane	0.50		0.49	0.55		0.36	1.00		0.00	1.00		0.08
Lane Grp Cap(c), veh/h	346	0	0	365	0	0	116	0	1034	10	0	909
V/C Ratio(X)	0.41	0.00	0.00	0.03	0.00	0.00	0.73	0.00	1.02	0.42	0.00	1.09
Avail Cap(c_a), veh/h	826	0	0	831	0	0	159	0	1034	159	0	909
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.4	0.0	0.0	19.6	0.0	0.0	25.5	0.0	12.4	27.6	0.0	14.1
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	0.0	5.2	0.0	34.1	10.5	0.0	55.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	0.1	0.0	0.0	1.4	0.0	25.3	0.1	0.0	27.7
LnGrp Delay(d),s/veh	22.2	0.0	0.0	19.7	0.0	0.0	30.7	0.0	46.5	38.1	0.0	69.8
LnGrp LOS	C			B			C		F	D		F
Approach Vol, veh/h		143			11			1142			991	
Approach Delay, s/veh		22.2			19.7			45.3			69.7	
Approach LOS		C			B			D			E	

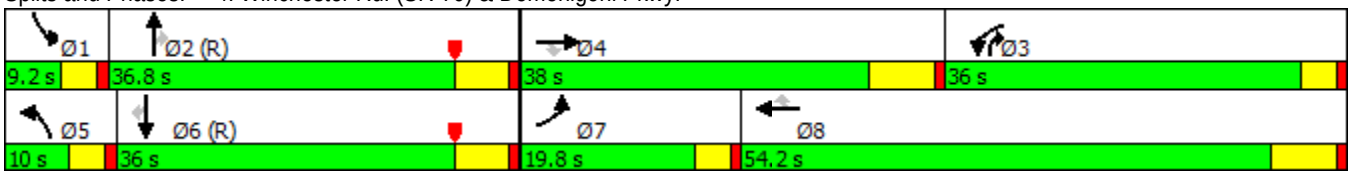
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.9	37.1		13.7	8.2	33.8		13.7
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6
Max Green Setting (Gmax), s	5.0	27.6		27.0	5.0	27.6		27.0
Max Q Clear Time (g_c+I1), s	2.1	32.9		6.7	4.6	29.6		2.3
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	0.0		0.9

Intersection Summary		
HCM 2010 Ctrl Delay	54.3	
HCM 2010 LOS	D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	311	971	98	754	1026	83	112	819	1120	60	474	241
Future Volume (vph)	311	971	98	754	1026	83	112	819	1120	60	474	241
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8	9.2	9.2	33.8	33.8
Total Split (s)	19.8	38.0	38.0	36.0	54.2	54.2	10.0	36.8	36.0	9.2	36.0	36.0
Total Split (%)	16.5%	31.7%	31.7%	30.0%	45.2%	45.2%	8.3%	30.7%	30.0%	7.7%	30.0%	30.0%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	3.2	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	4.2	4.2	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	C-Max
Act Effct Green (s)	14.5	31.1	31.1	31.8	48.4	48.4	5.8	31.0	64.4	5.0	30.2	30.2
Actuated g/C Ratio	0.12	0.26	0.26	0.26	0.40	0.40	0.05	0.26	0.54	0.04	0.25	0.25
v/c Ratio	0.80	1.13	0.21	0.88	0.53	0.13	1.40	0.95	1.32	0.88	0.57	0.43
Control Delay	66.1	112.0	4.7	54.8	28.6	3.7	277.9	64.4	174.3	132.4	42.1	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.1	112.0	4.7	54.8	28.6	3.7	277.9	64.4	174.3	132.4	42.1	6.8
LOS	E	F	A	D	C	A	F	E	F	F	D	A
Approach Delay		94.0			38.1			136.1			38.2	
Approach LOS		F			D			F			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 9.2 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.40	
Intersection Signal Delay: 83.9	Intersection LOS: F
Intersection Capacity Utilization 113.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	971	98	754	1026	83	112	819	1120	60	474	241
Future Volume (veh/h)	311	971	98	754	1026	83	112	819	1120	60	474	241
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	331	1033	73	802	1091	78	119	871	776	64	504	147
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	387	917	410	863	2136	665	86	1885	1240	74	1862	833
Arrive On Green	0.11	0.26	0.26	0.25	0.42	0.42	0.05	0.53	0.53	0.04	0.53	0.53
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	331	1033	73	802	1091	78	119	871	776	64	504	147
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	11.3	31.1	5.1	27.3	19.0	3.6	5.8	18.3	15.3	4.3	9.4	5.8
Cycle Q Clear(g_c), s	11.3	31.1	5.1	27.3	19.0	3.6	5.8	18.3	15.3	4.3	9.4	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	387	917	410	863	2136	665	86	1885	1240	74	1862	833
V/C Ratio(X)	0.86	1.13	0.18	0.93	0.51	0.12	1.39	0.46	0.63	0.87	0.27	0.18
Avail Cap(c_a), veh/h	447	917	410	912	2136	665	86	1885	1240	74	1862	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	52.3	44.5	49.0	43.9	25.7	21.2	57.1	17.4	13.5	57.2	15.7	14.9
Incr Delay (d2), s/veh	12.1	70.8	0.2	14.6	0.2	0.1	231.2	0.8	2.4	52.9	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	24.2	2.3	14.8	8.9	1.6	8.3	9.2	7.3	3.2	4.7	2.6
LnGrp Delay(d),s/veh	64.4	115.3	49.2	58.6	25.9	21.3	288.3	18.2	15.9	110.0	16.0	15.2
LnGrp LOS	E	F	D	E	C	C	F	B	B	F	B	B
Approach Vol, veh/h		1437			1971			1766			715	
Approach Delay, s/veh		100.2			39.0			35.4			24.3	
Approach LOS		F			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	70.7	37.0	38.0	10.0	69.9	17.7	57.3
Change Period (Y+Rc), s	* 4.2	5.8	6.9	* 6.9	* 4.2	5.8	* 4.2	6.9
Max Green Setting (Gmax), s	* 5	31.0	31.8	* 31	* 5.8	30.2	* 16	47.3
Max Q Clear Time (g_c+I1), s	6.3	20.3	29.3	33.1	7.8	11.4	13.3	21.0
Green Ext Time (p_c), s	0.0	9.3	0.8	0.0	0.0	15.2	0.2	9.7

Intersection Summary	
HCM 2010 Ctrl Delay	51.1
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	17	30	255	47	7	818	197	815
Future Volume (vph)	17	30	255	47	7	818	197	815
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	27.8	9.6	27.8
Total Split (s)	31.8	31.8	31.8	31.8	9.6	71.2	17.0	78.6
Total Split (%)	26.5%	26.5%	26.5%	26.5%	8.0%	59.3%	14.2%	65.5%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	22.0	22.0	22.0	22.0	5.1	37.5	12.7	53.4
Actuated g/C Ratio	0.25	0.25	0.25	0.25	0.06	0.43	0.14	0.61
v/c Ratio	0.06	0.08	0.75	0.35	0.07	0.79	0.77	0.41
Control Delay	28.4	23.4	47.0	14.9	47.3	24.2	61.4	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.4	23.4	47.0	14.9	47.3	24.2	61.4	10.3
LOS	C	C	D	B	D	C	E	B
Approach Delay		25.0		34.1		24.4		19.8
Approach LOS		C		C		C		B

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 87.6
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 24.1 — Intersection LOS: C
Intersection Capacity Utilization 77.9% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 20: Warren Rd. & Esplanade Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	30	8	255	47	124	7	818	346	197	815	49
Future Volume (veh/h)	17	30	8	255	47	124	7	818	346	197	815	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	17	30	8	258	47	125	7	826	349	199	823	49
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	330	88	371	105	280	16	1164	490	231	2039	121
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.01	0.48	0.48	0.13	0.60	0.60
Sat Flow, veh/h	1208	1418	378	1364	451	1200	1774	2429	1023	1774	3395	202
Grp Volume(v), veh/h	17	0	38	258	0	172	7	601	574	199	429	443
Grp Sat Flow(s),veh/h/ln	1208	0	1796	1364	0	1651	1774	1770	1682	1774	1770	1827
Q Serve(g_s), s	1.2	0.0	1.6	17.4	0.0	8.5	0.4	25.5	25.7	10.5	12.2	12.2
Cycle Q Clear(g_c), s	9.7	0.0	1.6	19.0	0.0	8.5	0.4	25.5	25.7	10.5	12.2	12.2
Prop In Lane	1.00		0.21	1.00		0.73	1.00		0.61	1.00		0.11
Lane Grp Cap(c), veh/h	249	0	419	371	0	385	16	848	806	231	1063	1097
V/C Ratio(X)	0.07	0.00	0.09	0.70	0.00	0.45	0.44	0.71	0.71	0.86	0.40	0.40
Avail Cap(c_a), veh/h	313	0	513	442	0	471	93	1215	1155	231	1352	1396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	0.0	28.6	36.1	0.0	31.3	47.0	19.6	19.6	40.6	10.0	10.0
Incr Delay (d2), s/veh	0.1	0.0	0.1	3.7	0.0	0.8	7.1	1.1	1.2	25.6	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.8	6.9	0.0	4.0	0.2	12.6	12.1	6.8	5.9	6.1
LnGrp Delay(d),s/veh	35.5	0.0	28.7	39.8	0.0	32.1	54.1	20.7	20.8	66.2	10.3	10.3
LnGrp LOS	D		C	D		C	D	C	C	E	B	B
Approach Vol, veh/h		55			430			1182			1071	
Approach Delay, s/veh		30.8			36.7			20.9			20.7	
Approach LOS		C			D			C			C	

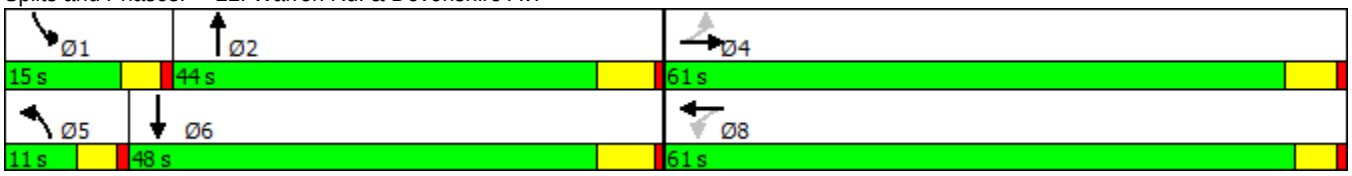
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.0	51.5		26.8	5.4	63.0		26.8
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6
Max Green Setting (Gmax), s	12.4	65.4		27.2	5.0	72.8		27.2
Max Q Clear Time (g_c+I1), s	12.5	27.7		11.7	2.4	14.2		21.0
Green Ext Time (p_c), s	0.0	18.0		2.0	0.0	21.0		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	23.5
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	245	327	146	366	54	848	100	800
Future Volume (vph)	245	327	146	366	54	848	100	800
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	31.8	31.8	9.6	28.2	9.6	28.2
Total Split (s)	61.0	61.0	61.0	61.0	11.0	44.0	15.0	48.0
Total Split (%)	50.8%	50.8%	50.8%	50.8%	9.2%	36.7%	12.5%	40.0%
Yellow Time (s)	4.8	4.8	3.8	3.8	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.8	4.8	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	44.8	44.8	45.9	45.9	6.2	37.8	9.3	43.4
Actuated g/C Ratio	0.41	0.41	0.42	0.42	0.06	0.35	0.09	0.40
v/c Ratio	1.09	0.50	0.49	0.60	0.56	0.91	0.69	0.73
Control Delay	116.0	25.3	28.4	26.8	75.9	46.7	74.9	34.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	116.0	25.3	28.4	26.8	75.9	46.7	74.9	34.0
LOS	F	C	C	C	E	D	E	C
Approach Delay		61.5		27.2		48.1		37.7
Approach LOS		E		C		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 108.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay: 43.6	Intersection LOS: D
Intersection Capacity Utilization 90.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	327	40	146	366	78	54	848	204	100	800	179
Future Volume (veh/h)	245	327	40	146	366	78	54	848	204	100	800	179
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	255	341	42	152	381	81	56	883	212	104	833	186
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	324	760	94	386	696	148	72	906	217	128	1012	226
Arrive On Green	0.47	0.47	0.47	0.47	0.47	0.47	0.04	0.32	0.32	0.07	0.35	0.35
Sat Flow, veh/h	926	1627	200	996	1490	317	1774	2833	680	1774	2877	642
Grp Volume(v), veh/h	255	0	383	152	0	462	56	551	544	104	512	507
Grp Sat Flow(s),veh/h/ln	926	0	1827	996	0	1807	1774	1770	1743	1774	1770	1749
Q Serve(g_s), s	32.1	0.0	16.7	14.3	0.0	21.6	3.7	36.4	36.4	6.8	31.2	31.2
Cycle Q Clear(g_c), s	53.8	0.0	16.7	31.0	0.0	21.6	3.7	36.4	36.4	6.8	31.2	31.2
Prop In Lane	1.00		0.11	1.00		0.18	1.00		0.39	1.00		0.37
Lane Grp Cap(c), veh/h	324	0	854	386	0	844	72	566	558	128	622	615
V/C Ratio(X)	0.79	0.00	0.45	0.39	0.00	0.55	0.78	0.97	0.97	0.81	0.82	0.82
Avail Cap(c_a), veh/h	324	0	854	394	0	859	96	566	558	156	626	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	0.0	21.2	31.7	0.0	22.5	56.2	39.7	39.7	54.0	34.9	34.9
Incr Delay (d2), s/veh	12.1	0.0	0.4	0.7	0.0	0.7	17.4	31.2	31.7	18.9	8.7	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	0.0	8.5	4.0	0.0	10.9	2.2	22.7	22.4	4.0	16.7	16.6
LnGrp Delay(d),s/veh	53.9	0.0	21.6	32.3	0.0	23.2	73.6	70.8	71.4	72.9	43.6	43.7
LnGrp LOS	D		C	C		C	E	E	E	E	D	D
Approach Vol, veh/h		638			614			1151			1123	
Approach Delay, s/veh		34.5			25.5			71.2			46.4	
Approach LOS		C			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.1	44.0		61.0	9.4	47.8		61.0
Change Period (Y+Rc), s	4.6	6.2		5.8	4.6	6.2		* 5.8
Max Green Setting (Gmax), s	10.4	37.8		55.2	6.4	41.8		* 56
Max Q Clear Time (g_c+I1), s	8.8	38.4		55.8	5.7	33.2		33.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	6.5		7.9

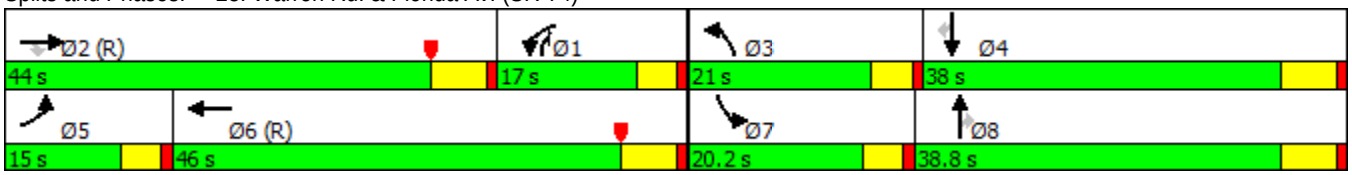
Intersection Summary	
HCM 2010 Ctrl Delay	48.7
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	304	1615	303	435	1534	344	693	520	118	557	294
Future Volume (vph)	304	1615	303	435	1534	344	693	520	118	557	294
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8	1	7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	1	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	43.0	43.0	9.6	43.0	9.6	38.0	9.6	9.6	38.0	38.0
Total Split (s)	15.0	44.0	44.0	17.0	46.0	21.0	38.8	17.0	20.2	38.0	38.0
Total Split (%)	12.5%	36.7%	36.7%	14.2%	38.3%	17.5%	32.3%	14.2%	16.8%	31.7%	31.7%
Yellow Time (s)	3.6	5.0	5.0	3.6	5.0	3.6	5.0	3.6	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	6.0	4.6	6.0	4.6	6.0	4.6	4.6	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	10.4	38.0	38.0	12.4	40.0	16.4	36.1	49.9	12.3	32.0	32.0
Actuated g/C Ratio	0.09	0.32	0.32	0.10	0.33	0.14	0.30	0.42	0.10	0.27	0.27
v/c Ratio	1.08	1.02	0.44	1.29	1.00	1.50	0.66	0.73	0.69	0.60	0.54
Control Delay	125.7	68.3	6.9	194.4	62.3	282.7	40.7	24.7	70.8	41.5	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	125.7	68.3	6.9	194.4	62.3	282.7	40.7	24.7	70.8	41.5	18.0
LOS	F	E	A	F	E	F	D	C	E	D	B
Approach Delay		67.8			89.8		88.8			37.9	
Approach LOS		E			F		F			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.50	
Intersection Signal Delay: 75.1	Intersection LOS: E
Intersection Capacity Utilization 95.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	304	1615	303	435	1534	125	344	693	520	118	557	294
Future Volume (veh/h)	304	1615	303	435	1534	125	344	693	520	118	557	294
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1937	1937	1863	1937	1976	1863	1937	1937	1863	1937	1937
Adj Flow Rate, veh/h	320	1700	254	458	1615	126	362	729	431	124	586	241
Adj No. of Lanes	2	3	1	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	298	1675	521	1643	3598	280	242	1173	1311	150	982	439
Arrive On Green	0.09	0.32	0.32	0.48	0.72	0.72	0.14	0.32	0.32	0.08	0.27	0.27
Sat Flow, veh/h	3442	5289	1647	3442	5004	390	1774	3681	1647	1774	3681	1647
Grp Volume(v), veh/h	320	1700	254	458	1137	604	362	729	431	124	586	241
Grp Sat Flow(s),veh/h/ln	1721	1763	1647	1721	1763	1868	1774	1840	1647	1774	1840	1647
Q Serve(g_s), s	10.4	38.0	18.5	9.6	16.1	16.1	16.4	20.2	5.2	8.3	16.7	15.1
Cycle Q Clear(g_c), s	10.4	38.0	18.5	9.6	16.1	16.1	16.4	20.2	5.2	8.3	16.7	15.1
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	298	1675	521	1643	2535	1344	242	1173	1311	150	982	439
V/C Ratio(X)	1.07	1.02	0.49	0.28	0.45	0.45	1.49	0.62	0.33	0.83	0.60	0.55
Avail Cap(c_a), veh/h	298	1675	521	1643	2535	1344	242	1173	1311	231	982	439
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.24	0.24	0.24	0.63	0.63	0.63
Uniform Delay (d), s/veh	54.8	41.0	50.5	18.9	7.0	7.0	51.8	34.7	12.2	54.1	38.4	37.8
Incr Delay (d2), s/veh	72.8	25.8	3.2	0.0	0.6	1.1	227.2	0.6	0.2	5.1	1.7	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	22.5	8.9	4.6	7.9	8.6	23.3	10.3	7.0	4.3	8.7	7.2
LnGrp Delay(d),s/veh	127.6	66.8	53.8	18.9	7.6	8.1	279.0	35.3	12.3	59.1	40.1	40.9
LnGrp LOS	F	F	D	B	A	A	F	D	B	E	D	D
Approach Vol, veh/h		2274			2199			1522			951	
Approach Delay, s/veh		73.9			10.1			86.8			42.8	
Approach LOS		E			B			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	64.0	44.0	21.0	38.0	15.0	93.0	14.7	44.3
Change Period (Y+Rc), s	6.0	* 6	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	12.4	* 38	16.4	32.0	10.4	40.0	15.6	32.8
Max Q Clear Time (g_c+I1), s	11.6	40.0	18.4	18.7	12.4	18.1	10.3	22.2
Green Ext Time (p_c), s	0.1	0.0	0.0	5.5	0.0	8.9	0.1	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	52.3
HCM 2010 LOS	D

Notes

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	105	1299	134	1176
Future Volume (vph)	105	1299	134	1176
Turn Type	Prot	NA	Prot	NA
Protected Phases	8	2	1	6
Permitted Phases				
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	28.2	9.6	24.2
Total Split (s)	39.0	60.0	21.0	81.0
Total Split (%)	32.5%	50.0%	17.5%	67.5%
Yellow Time (s)	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	Min	None	Min
Act Effct Green (s)	27.9	54.2	13.2	72.1
Actuated g/C Ratio	0.25	0.49	0.12	0.65
v/c Ratio	0.90	0.93	0.74	0.59
Control Delay	51.4	39.3	69.7	13.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	51.4	39.3	69.7	13.2
LOS	D	D	E	B
Approach Delay	51.4	39.3		19.0
Approach LOS	D	D		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 110.9	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 32.2	Intersection LOS: C
Intersection Capacity Utilization 81.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 24: Warren Rd. & Auto Bl.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	105	281	1299	81	134	1176
Future Volume (veh/h)	105	281	1299	81	134	1176
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	122	327	1510	94	156	1367
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	128	344	1593	99	184	2176
Arrive On Green	0.29	0.29	0.47	0.47	0.10	0.61
Sat Flow, veh/h	442	1186	3479	210	1774	3632
Grp Volume(v), veh/h	450	0	786	818	156	1367
Grp Sat Flow(s),veh/h/ln	1631	0	1770	1826	1774	1770
Q Serve(g_s), s	30.8	0.0	48.3	49.0	9.9	27.6
Cycle Q Clear(g_c), s	30.8	0.0	48.3	49.0	9.9	27.6
Prop In Lane	0.27	0.73		0.11	1.00	
Lane Grp Cap(c), veh/h	474	0	833	859	184	2176
V/C Ratio(X)	0.95	0.00	0.94	0.95	0.85	0.63
Avail Cap(c_a), veh/h	492	0	835	861	255	2321
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	0.0	28.7	28.9	50.2	13.8
Incr Delay (d2), s/veh	27.8	0.0	18.9	19.9	13.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.5	0.0	27.7	29.3	5.5	13.6
LnGrp Delay(d),s/veh	67.5	0.0	47.6	48.8	63.2	14.3
LnGrp LOS	E		D	D	E	B
Approach Vol, veh/h	450		1604			1523
Approach Delay, s/veh	67.5		48.2			19.3
Approach LOS	E		D			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.4	59.9				76.3		37.7
Change Period (Y+Rc), s	4.6	6.2				6.2		4.6
Max Green Setting (Gmax), s	16.4	53.8				74.8		34.4
Max Q Clear Time (g_c+I1), s	11.9	51.0				29.6		32.8
Green Ext Time (p_c), s	0.1	2.7				32.6		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	38.3
HCM 2010 LOS	D

Notes

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	47	1382	4	36	1396
Future Vol, veh/h	4	47	1382	4	36	1396
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	51	1502	4	39	1517

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2341	753	0	0	1507	0
Stage 1	1504	-	-	-	-	-
Stage 2	837	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	30	352	-	-	440	-
Stage 1	170	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	27	352	-	-	440	-
Mov Cap-2 Maneuver	145	-	-	-	-	-
Stage 1	170	-	-	-	-	-
Stage 2	351	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.7	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	317	440	-
HCM Lane V/C Ratio	-	-	0.175	0.089	-
HCM Control Delay (s)	-	-	18.7	14	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.6	0.3	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	96	11	168	17	110	760	212	678
Future Volume (vph)	96	11	168	17	110	760	212	678
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	11.4	28.5	14.0	31.1
Total Split (%)	34.6%	34.6%	34.6%	34.6%	17.5%	43.8%	21.5%	47.8%
Yellow Time (s)	3.5	3.5	3.6	3.6	3.5	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.6	4.6	4.5	4.7	4.2	4.7
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	14.0	14.0	13.9	13.9	7.8	26.9	10.7	31.7
Actuated g/C Ratio	0.22	0.22	0.21	0.21	0.12	0.41	0.16	0.49
v/c Ratio	0.41	0.20	0.61	0.38	0.53	0.74	0.74	0.50
Control Delay	26.3	8.1	32.1	7.2	38.0	19.8	44.2	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.3	8.1	32.1	7.2	38.0	19.8	44.2	13.4
LOS	C	A	C	A	D	B	D	B
Approach Delay		18.2		19.4		21.5		19.6
Approach LOS		B		B		C		B

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 20.3 — Intersection LOS: C
Intersection Capacity Utilization 73.4% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 29: Warren Rd. & Mustang Wy.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	11	67	168	17	159	110	760	300	212	678	156
Future Volume (veh/h)	96	11	67	168	17	159	110	760	300	212	678	156
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	98	11	68	171	17	135	112	776	282	216	692	159
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	271	48	296	337	38	304	143	1103	401	259	1414	325
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.08	0.43	0.43	0.15	0.49	0.49
Sat Flow, veh/h	1230	225	1392	1314	180	1430	1774	2544	924	1774	2860	657
Grp Volume(v), veh/h	98	0	79	171	0	152	112	540	518	216	428	423
Grp Sat Flow(s),veh/h/ln	1230	0	1617	1314	0	1610	1774	1770	1698	1774	1770	1747
Q Serve(g_s), s	4.9	0.0	2.6	8.0	0.0	5.3	4.0	16.2	16.2	7.7	10.5	10.5
Cycle Q Clear(g_c), s	10.2	0.0	2.6	10.7	0.0	5.3	4.0	16.2	16.2	7.7	10.5	10.5
Prop In Lane	1.00		0.86	1.00		0.89	1.00		0.54	1.00		0.38
Lane Grp Cap(c), veh/h	271	0	344	337	0	342	143	767	736	259	875	864
V/C Ratio(X)	0.36	0.00	0.23	0.51	0.00	0.44	0.78	0.70	0.70	0.83	0.49	0.49
Avail Cap(c_a), veh/h	350	0	448	420	0	443	188	767	736	267	875	864
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.7	0.0	21.2	25.6	0.0	22.3	29.3	15.0	15.0	27.0	11.0	11.0
Incr Delay (d2), s/veh	0.8	0.0	0.3	1.2	0.0	0.9	14.4	5.3	5.6	18.0	2.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	1.2	3.0	0.0	2.5	2.5	8.9	8.6	5.1	5.6	5.5
LnGrp Delay(d),s/veh	27.5	0.0	21.5	26.8	0.0	23.2	43.7	20.3	20.6	45.0	12.9	12.9
LnGrp LOS	C		C	C		C	D	C	C	D	B	B
Approach Vol, veh/h		177			323			1170			1067	
Approach Delay, s/veh		24.8			25.1			22.7			19.4	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.7	32.9		18.4	9.7	36.8		18.4
Change Period (Y+Rc), s	* 4.2	* 4.7		* 4.6	4.5	* 4.7		4.6
Max Green Setting (Gmax), s	* 9.8	* 24		* 18	6.9	* 26		17.9
Max Q Clear Time (g_c+I1), s	9.7	18.2		12.2	6.0	12.5		12.7
Green Ext Time (p_c), s	0.0	5.0		1.2	0.0	11.5		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C

Notes

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	349	667	263	27	806
Future Volume (vph)	349	667	263	27	806
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	4	3	8	2	3
Permitted Phases					2
Detector Phase	4	3	8	2	3
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	9.6	22.5	31.6	9.6
Total Split (s)	34.2	53.0	87.2	32.8	53.0
Total Split (%)	28.5%	44.2%	72.7%	27.3%	44.2%
Yellow Time (s)	5.2	3.6	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	5.2	4.6	4.6
Lead/Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	None	None	None	Min	None
Act Effct Green (s)	27.1	47.1	79.8	13.0	64.7
Actuated g/C Ratio	0.26	0.46	0.78	0.13	0.63
v/c Ratio	0.84	0.87	0.19	0.12	0.81
Control Delay	52.7	38.8	4.0	41.0	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	52.7	38.8	4.0	41.0	19.1
LOS	D	D	A	D	B
Approach Delay	52.7		29.0	19.8	
Approach LOS	D		C	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 102.7	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 29.7	Intersection LOS: C
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 30: Warren Rd. & Simpson Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	349	38	667	263	27	806
Future Volume (veh/h)	349	38	667	263	27	806
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	367	40	702	277	28	848
Adj No. of Lanes	1	0	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	385	42	716	1257	417	1011
Arrive On Green	0.23	0.23	0.40	0.67	0.23	0.23
Sat Flow, veh/h	1651	180	1774	1863	1774	1583
Grp Volume(v), veh/h	0	407	702	277	28	848
Grp Sat Flow(s),veh/h/ln	0	1831	1774	1863	1774	1583
Q Serve(g_s), s	0.0	26.3	46.9	6.8	1.5	28.2
Cycle Q Clear(g_c), s	0.0	26.3	46.9	6.8	1.5	28.2
Prop In Lane		0.10	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	427	716	1257	417	1011
V/C Ratio(X)	0.00	0.95	0.98	0.22	0.07	0.84
Avail Cap(c_a), veh/h	0	427	716	1273	417	1011
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	45.3	35.3	7.4	35.7	16.9
Incr Delay (d2), s/veh	0.0	31.6	28.8	0.1	0.1	6.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	17.1	28.5	3.5	0.7	23.3
LnGrp Delay(d),s/veh	0.0	76.9	64.1	7.5	35.7	23.3
LnGrp LOS		E	E	A	D	C
Approach Vol, veh/h	407			979	876	
Approach Delay, s/veh	76.9			48.1	23.7	
Approach LOS	E			D	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		32.8	53.0	34.2				87.2
Change Period (Y+Rc), s		4.6	4.6	6.2				* 6.2
Max Green Setting (Gmax), s		28.2	48.4	28.0				* 82
Max Q Clear Time (g_c+I1), s		30.2	48.9	28.3				8.8
Green Ext Time (p_c), s		0.0	0.0	0.0				4.1

Intersection Summary	
HCM 2010 Ctrl Delay	43.8
HCM 2010 LOS	D

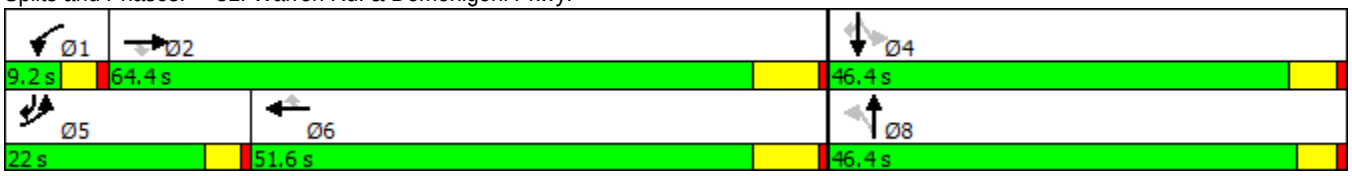
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	673	2035	7	4	1698	148	4	11	124	9	587
Future Volume (vph)	673	2035	7	4	1698	148	4	11	124	9	587
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	5	2		1	6			8		4	5
Permitted Phases			2			6	8		4		4
Detector Phase	5	2	2	1	6	6	8	8	4	4	5
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	46.4	46.4	9.2
Total Split (s)	22.0	64.4	64.4	9.2	51.6	51.6	46.4	46.4	46.4	46.4	22.0
Total Split (%)	18.3%	53.7%	53.7%	7.7%	43.0%	43.0%	38.7%	38.7%	38.7%	38.7%	18.3%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	4.4	4.4	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.6	4.6	5.4	5.4	4.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None
Act Effct Green (s)	18.0	66.0	66.0	5.1	45.2	45.2	17.8	17.8	17.0	17.0	40.5
Actuated g/C Ratio	0.19	0.68	0.68	0.05	0.47	0.47	0.18	0.18	0.18	0.18	0.42
v/c Ratio	1.12	0.63	0.01	0.04	0.76	0.19	0.02	0.04	0.54	0.03	0.92
Control Delay	112.3	12.7	0.0	50.8	25.7	4.8	29.0	28.2	43.5	30.1	44.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	112.3	12.7	0.0	50.8	25.7	4.8	29.0	28.2	43.5	30.1	44.2
LOS	F	B	A	D	C	A	C	C	D	C	D
Approach Delay		37.3			24.1			28.4		43.9	
Approach LOS		D			C			C		D	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 97
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.12
Intersection Signal Delay: 33.6 — Intersection LOS: C
Intersection Capacity Utilization 90.6% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	673	2035	7	4	1698	148	4	11	1	124	9	587
Future Volume (veh/h)	673	2035	7	4	1698	148	4	11	1	124	9	587
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	716	2165	5	4	1806	150	4	12	1	132	10	410
Adj No. of Lanes	2	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	593	3049	949	9	2200	685	292	399	33	391	438	645
Arrive On Green	0.17	0.60	0.60	0.01	0.43	0.43	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	3442	5085	1583	1774	5085	1583	963	1696	141	1395	1863	1583
Grp Volume(v), veh/h	716	2165	5	4	1806	150	4	0	13	132	10	410
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1774	1695	1583	963	0	1838	1395	1863	1583
Q Serve(g_s), s	17.8	30.7	0.1	0.2	32.3	6.1	0.3	0.0	0.6	8.3	0.4	21.4
Cycle Q Clear(g_c), s	17.8	30.7	0.1	0.2	32.3	6.1	0.8	0.0	0.6	8.9	0.4	21.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	593	3049	949	9	2200	685	292	0	433	391	438	645
V/C Ratio(X)	1.21	0.71	0.01	0.43	0.82	0.22	0.01	0.00	0.03	0.34	0.02	0.64
Avail Cap(c_a), veh/h	593	3049	949	86	2200	685	455	0	744	616	739	901
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	14.4	8.3	51.2	25.8	18.4	30.7	0.0	30.4	33.8	30.4	24.5
Incr Delay (d2), s/veh	108.6	1.4	0.0	11.2	3.6	0.7	0.0	0.0	0.0	0.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.3	14.6	0.1	0.1	15.8	2.8	0.1	0.0	0.3	3.2	0.2	9.4
LnGrp Delay(d),s/veh	151.4	15.8	8.3	62.4	29.4	19.1	30.7	0.0	30.4	34.0	30.4	24.8
LnGrp LOS	F	B	A	E	C	B	C		C	C	C	C
Approach Vol, veh/h		2886			1960			17			552	
Approach Delay, s/veh		49.5			28.7			30.5			27.1	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.7	68.9		29.7	22.0	51.6		29.7
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	57.5		41.0	* 18	44.7		* 42
Max Q Clear Time (g_c+I1), s	2.2	32.7		23.4	19.8	34.3		2.8
Green Ext Time (p_c), s	0.0	20.9		0.9	0.0	9.6		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.6
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	320	1837	57	1854	70	16	51	119	37	169
Future Volume (vph)	320	1837	57	1854	70	16	51	119	37	169
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	26.2	65.0	11.2	50.0	50.0	9.2	23.4	20.4	34.6	34.6
Total Split (%)	21.8%	54.2%	9.3%	41.7%	41.7%	7.7%	19.5%	17.0%	28.8%	28.8%
Yellow Time (s)	3.2	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	22.0	62.3	6.6	44.9	44.9	5.0	19.0	12.3	32.0	32.0
Actuated g/C Ratio	0.19	0.54	0.06	0.39	0.39	0.04	0.16	0.11	0.27	0.27
v/c Ratio	1.03	0.74	0.61	1.02	0.11	0.23	0.33	0.68	0.08	0.32
Control Delay	104.0	24.0	79.9	60.4	0.3	62.5	34.5	68.7	33.5	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	104.0	24.0	79.9	60.4	0.3	62.5	34.5	68.7	33.5	6.8
LOS	F	C	E	E	A	E	C	E	C	A
Approach Delay		35.7		58.8			38.6		32.5	
Approach LOS		D		E			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 116.4	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 45.5	Intersection LOS: D
Intersection Capacity Utilization 78.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	1837	31	57	1854	70	16	51	42	119	37	169
Future Volume (veh/h)	320	1837	31	57	1854	70	16	51	42	119	37	169
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	344	1975	23	61	1994	69	17	55	22	128	40	130
Adj No. of Lanes	1	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	333	2731	32	78	1949	607	32	237	95	155	477	406
Arrive On Green	0.19	0.53	0.53	0.04	0.38	0.38	0.02	0.19	0.19	0.09	0.26	0.26
Sat Flow, veh/h	1774	5182	60	1774	5085	1583	1774	1267	507	1774	1863	1583
Grp Volume(v), veh/h	344	1292	706	61	1994	69	17	0	77	128	40	130
Grp Sat Flow(s),veh/h/ln	1774	1695	1852	1774	1695	1583	1774	0	1773	1774	1863	1583
Q Serve(g_s), s	22.0	34.1	34.1	4.0	44.9	3.3	1.1	0.0	4.3	8.3	1.9	7.8
Cycle Q Clear(g_c), s	22.0	34.1	34.1	4.0	44.9	3.3	1.1	0.0	4.3	8.3	1.9	7.8
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	333	1787	976	78	1949	607	32	0	332	155	477	406
V/C Ratio(X)	1.03	0.72	0.72	0.78	1.02	0.11	0.53	0.00	0.23	0.83	0.08	0.32
Avail Cap(c_a), veh/h	333	1787	976	106	1949	607	76	0	332	245	477	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.6	21.2	21.2	55.4	36.1	23.3	57.0	0.0	40.5	52.6	33.1	35.3
Incr Delay (d2), s/veh	57.9	1.6	2.9	15.4	26.4	0.1	4.9	0.0	1.6	6.1	0.3	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.1	16.2	18.1	2.3	25.7	1.5	0.6	0.0	2.3	4.4	1.0	3.6
LnGrp Delay(d),s/veh	105.5	22.8	24.1	70.8	62.5	23.4	61.9	0.0	42.1	58.7	33.5	37.4
LnGrp LOS	F	C	C	E	F	C	E		D	E	C	D
Approach Vol, veh/h		2342			2124			94			298	
Approach Delay, s/veh		35.3			61.5			45.7			46.0	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	66.8	6.3	34.6	26.2	50.0	14.4	26.5
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 7	59.9	* 5	30.0	* 22	44.9	* 16	18.8
Max Q Clear Time (g_c+I1), s	6.0	36.1	3.1	9.8	24.0	46.9	10.3	6.3
Green Ext Time (p_c), s	0.0	23.5	0.0	1.0	0.0	0.0	0.1	0.8

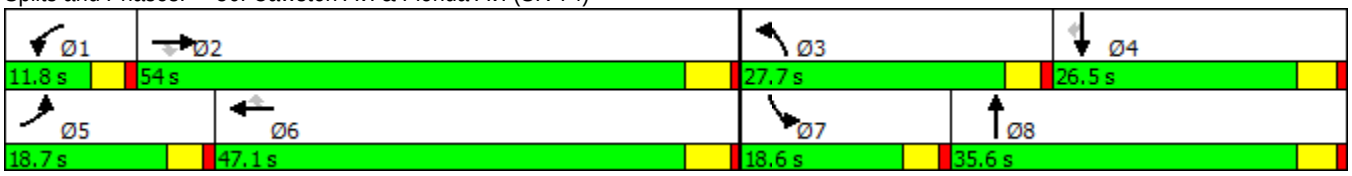
Intersection Summary	
HCM 2010 Ctrl Delay	47.6
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	202	1502	15	70	1709	256	285	121	215	137	168
Future Volume (vph)	202	1502	15	70	1709	256	285	121	215	137	168
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	18.7	54.0	54.0	11.8	47.1	47.1	27.7	35.6	18.6	26.5	26.5
Total Split (%)	15.6%	45.0%	45.0%	9.8%	39.3%	39.3%	23.1%	29.7%	15.5%	22.1%	22.1%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	14.5	51.3	51.3	7.2	42.0	42.0	22.2	31.0	14.4	23.2	23.2
Actuated g/C Ratio	0.12	0.43	0.43	0.06	0.35	0.35	0.18	0.26	0.12	0.19	0.19
v/c Ratio	0.99	0.72	0.02	0.69	1.00	0.39	0.91	0.22	1.06	0.40	0.39
Control Delay	111.2	31.4	0.1	86.1	60.6	9.1	79.2	22.4	128.1	46.8	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	111.2	31.4	0.1	86.1	60.6	9.1	79.2	22.4	128.1	46.8	8.9
LOS	F	C	A	F	E	A	E	C	F	D	A
Approach Delay		40.5			55.0			56.3		68.2	
Approach LOS		D			E			E		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 51.3	Intersection LOS: D
Intersection Capacity Utilization 97.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	1502	15	70	1709	256	285	121	71	215	137	168
Future Volume (veh/h)	202	1502	15	70	1709	256	285	121	71	215	137	168
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	210	1565	14	73	1780	223	297	126	68	224	143	111
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	2128	663	93	1780	552	323	583	295	213	366	311
Arrive On Green	0.12	0.42	0.42	0.05	0.35	0.35	0.18	0.26	0.26	0.12	0.20	0.20
Sat Flow, veh/h	1774	5085	1583	1774	5085	1577	1774	2259	1143	1774	1863	1583
Grp Volume(v), veh/h	210	1565	14	73	1780	223	297	97	97	224	143	111
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1577	1774	1770	1632	1774	1863	1583
Q Serve(g_s), s	14.2	31.0	0.6	4.9	42.0	12.9	19.7	5.2	5.6	14.4	8.0	7.3
Cycle Q Clear(g_c), s	14.2	31.0	0.6	4.9	42.0	12.9	19.7	5.2	5.6	14.4	8.0	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.70	1.00		1.00
Lane Grp Cap(c), veh/h	214	2128	663	93	1780	552	323	457	422	213	366	311
V/C Ratio(X)	0.98	0.74	0.02	0.79	1.00	0.40	0.92	0.21	0.23	1.05	0.39	0.36
Avail Cap(c_a), veh/h	214	2128	663	112	1780	552	347	457	422	213	366	311
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	29.3	20.5	56.2	39.0	29.5	48.2	34.9	35.1	52.8	42.0	41.7
Incr Delay (d2), s/veh	55.3	1.5	0.0	20.8	21.4	0.7	26.9	1.1	1.3	76.1	3.1	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	14.8	0.3	2.9	23.1	5.7	12.1	2.7	2.7	11.5	4.4	3.5
LnGrp Delay(d),s/veh	107.9	30.8	20.5	77.0	60.4	30.2	75.1	36.0	36.4	128.9	45.1	44.9
LnGrp LOS	F	C	C	E	F	C	E	D	D	F	D	D
Approach Vol, veh/h		1789			2076			491			478	
Approach Delay, s/veh		39.8			57.7			59.7			84.3	
Approach LOS		D			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	55.3	26.0	28.2	18.7	47.1	18.6	35.6
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 7.6	48.9	* 24	21.9	* 15	42.0	* 14	31.0
Max Q Clear Time (g_c+I1), s	6.9	33.0	21.7	10.0	16.2	44.0	16.4	7.6
Green Ext Time (p_c), s	0.0	15.6	0.1	1.9	0.0	0.0	0.0	2.5

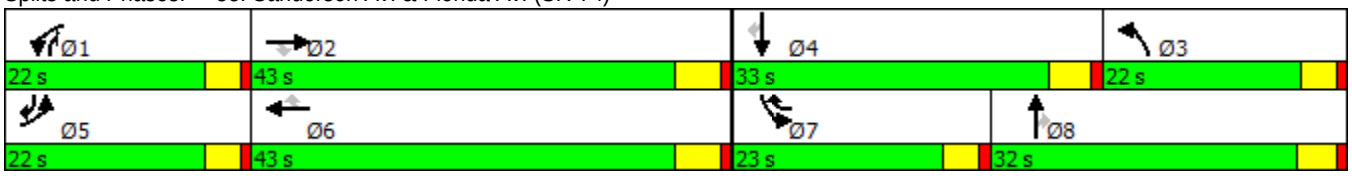
Intersection Summary			
HCM 2010 Ctrl Delay		53.9	
HCM 2010 LOS		D	

Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	509	1189	197	293	1124	287	547	1183	272	284	1194	374
Future Volume (vph)	509	1189	197	293	1124	287	547	1183	272	284	1194	374
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	9.2	9.2	30.7	9.2	9.2	14.7	9.2
Total Split (s)	22.0	43.0	43.0	22.0	43.0	23.0	22.0	32.0	22.0	23.0	33.0	22.0
Total Split (%)	18.3%	35.8%	35.8%	18.3%	35.8%	19.2%	18.3%	26.7%	18.3%	19.2%	27.5%	18.3%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	3.2	3.2	3.7	3.2	3.2	3.7	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	4.2	4.2	4.7	4.2	4.2	4.7	4.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	None	Max	None
Act Effct Green (s)	17.8	41.5	41.5	14.2	37.9	52.8	17.8	32.1	46.8	14.0	28.3	46.6
Actuated g/C Ratio	0.15	0.35	0.35	0.12	0.32	0.44	0.15	0.27	0.39	0.12	0.24	0.39
v/c Ratio	0.98	0.95	0.30	0.70	0.98	0.38	1.05	0.85	0.41	0.69	0.97	0.57
Control Delay	85.1	54.9	9.7	60.1	63.6	14.0	102.5	49.1	20.8	59.7	65.6	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.1	54.9	9.7	60.1	63.6	14.0	102.5	49.1	20.8	59.7	65.6	16.6
LOS	F	D	A	E	E	B	F	D	C	E	E	B
Approach Delay		58.3			54.7			59.8			54.8	
Approach LOS		E			D			E			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 57.0	Intersection LOS: E
Intersection Capacity Utilization 99.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	509	1189	197	293	1124	287	547	1183	272	284	1194	374
Future Volume (veh/h)	509	1189	197	293	1124	287	547	1183	272	284	1194	374
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1937	1937	1937	1937	1937	1937	1937	1937	1937	1937	1937	1937
Adj Flow Rate, veh/h	514	1201	199	296	1135	290	553	1195	275	287	1206	378
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	529	1332	586	359	1158	671	529	1527	631	351	1242	624
Arrive On Green	0.15	0.36	0.36	0.10	0.31	0.31	0.15	0.29	0.29	0.10	0.23	0.23
Sat Flow, veh/h	3579	3681	1620	3579	3681	1620	3579	5289	1614	3579	5289	1621
Grp Volume(v), veh/h	514	1201	199	296	1135	290	553	1195	275	287	1206	378
Grp Sat Flow(s),veh/h/ln	1790	1840	1620	1790	1840	1620	1790	1763	1614	1790	1763	1621
Q Serve(g_s), s	17.2	37.2	6.9	9.8	36.8	15.4	17.8	25.0	15.1	9.5	27.2	13.1
Cycle Q Clear(g_c), s	17.2	37.2	6.9	9.8	36.8	15.4	17.8	25.0	15.1	9.5	27.2	13.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	529	1332	586	359	1158	671	529	1527	631	351	1242	624
V/C Ratio(X)	0.97	0.90	0.34	0.83	0.98	0.43	1.05	0.78	0.44	0.82	0.97	0.61
Avail Cap(c_a), veh/h	529	1332	586	529	1158	671	529	1527	631	558	1242	624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	36.4	11.5	53.2	40.9	25.3	51.3	39.4	27.1	53.3	45.7	12.7
Incr Delay (d2), s/veh	31.8	8.9	0.5	4.3	21.8	0.6	51.7	4.1	2.2	2.4	19.5	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	20.5	4.3	5.1	22.1	7.0	12.5	12.7	7.1	4.8	15.5	6.5
LnGrp Delay(d),s/veh	82.9	45.3	12.0	57.4	62.7	26.0	103.0	43.5	29.3	55.7	65.2	17.1
LnGrp LOS	F	D	B	E	E	C	F	D	C	E	E	B
Approach Vol, veh/h		1914			1721			2023			1871	
Approach Delay, s/veh		51.9			55.6			57.8			54.0	
Approach LOS		D			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	48.7	22.5	33.0	22.0	43.0	16.0	39.5
Change Period (Y+Rc), s	* 4.2	5.1	* 4.7	* 4.7	* 4.2	5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	* 18	37.9	* 18	* 28	* 18	37.9	* 19	* 27
Max Q Clear Time (g_c+I1), s	11.8	39.2	19.8	29.2	19.2	38.8	11.5	27.0
Green Ext Time (p_c), s	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	54.9
HCM 2010 LOS	D

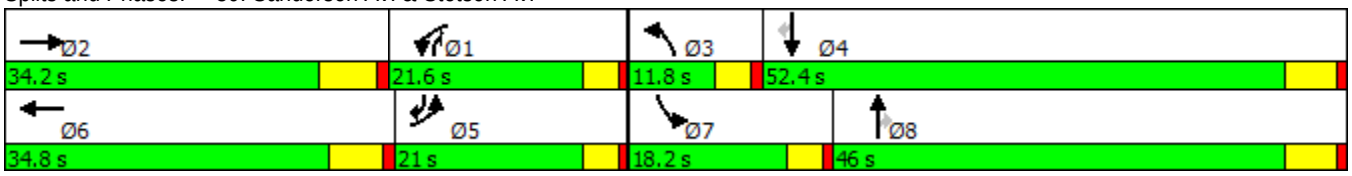
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	386	682	526	645	86	1236	542	378	1413	334
Future Volume (vph)	386	682	526	645	86	1236	542	378	1413	334
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8	1	7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8	9.2
Total Split (s)	21.0	34.2	21.6	34.8	11.8	46.0	21.6	18.2	52.4	21.0
Total Split (%)	17.5%	28.5%	18.0%	29.0%	9.8%	38.3%	18.0%	15.2%	43.7%	17.5%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 117.5
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	386	682	91	526	645	336	86	1236	542	378	1413	334
Future Volume (veh/h)	386	682	91	526	645	336	86	1236	542	378	1413	334
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1937	1976	1863	1937	1976	1863	1937	1937	1863	1937	1937
Adj Flow Rate, veh/h	398	703	92	542	665	325	89	1274	190	390	1457	333
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	455	921	119	560	808	377	140	1273	827	415	1567	919
Arrive On Green	0.13	0.20	0.20	0.16	0.23	0.23	0.04	0.35	0.35	0.12	0.43	0.43
Sat Flow, veh/h	3442	4719	611	3442	3526	1645	3442	3681	1616	3442	3681	1647
Grp Volume(v), veh/h	398	523	272	542	665	325	89	1274	190	390	1457	333
Grp Sat Flow(s),veh/h/ln	1721	1763	1804	1721	1763	1645	1721	1840	1616	1721	1840	1647
Q Serve(g_s), s	13.2	16.3	16.6	18.2	20.8	22.1	3.0	40.2	2.4	13.1	43.7	2.3
Cycle Q Clear(g_c), s	13.2	16.3	16.6	18.2	20.8	22.1	3.0	40.2	2.4	13.1	43.7	2.3
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	455	688	352	560	808	377	140	1273	827	415	1567	919
V/C Ratio(X)	0.87	0.76	0.77	0.97	0.82	0.86	0.64	1.00	0.23	0.94	0.93	0.36
Avail Cap(c_a), veh/h	498	850	435	560	880	410	225	1273	827	415	1567	919
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	44.2	44.3	48.3	42.6	43.0	54.9	38.0	5.7	50.7	31.7	6.1
Incr Delay (d2), s/veh	13.9	3.2	6.7	29.6	6.0	16.0	1.8	25.3	0.6	29.2	11.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	8.2	9.0	11.0	10.8	11.7	1.4	24.8	1.8	7.9	24.5	3.9
LnGrp Delay(d),s/veh	63.4	47.4	51.0	77.9	48.5	59.1	56.7	63.3	6.3	79.9	42.9	7.2
LnGrp LOS	E	D	D	E	D	E	E	F	A	E	D	A
Approach Vol, veh/h		1193			1532			1553			2180	
Approach Delay, s/veh		53.5			61.1			56.0			44.1	
Approach LOS		D			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.1	28.9	8.9	55.3	19.6	32.4	18.2	46.0
Change Period (Y+Rc), s	4.2	* 6.2	* 4.2	5.8	4.2	* 5.8	* 4.2	5.8
Max Green Setting (Gmax), s	17.4	* 28	* 7.6	46.6	16.8	* 29	* 14	40.2
Max Q Clear Time (g_c+I1), s	20.2	18.6	5.0	45.7	15.2	24.1	15.1	42.2
Green Ext Time (p_c), s	0.0	3.2	0.0	0.9	0.2	2.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.7
HCM 2010 LOS	D

Notes

APPENDIX 8.1:

GENERAL PLAN BUILDOUT (2040) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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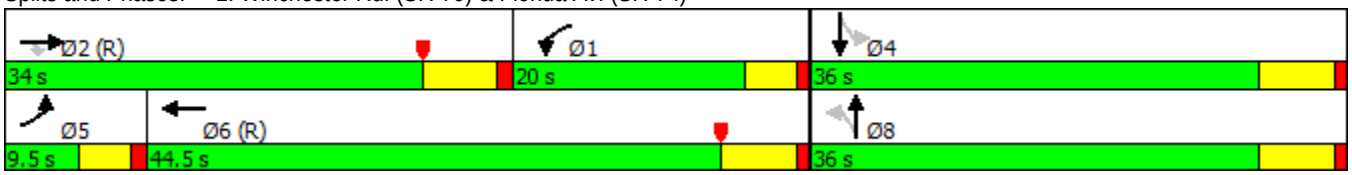
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	75	1692	456	333	1309	189	79	226	382
Future Volume (vph)	75	1692	456	333	1309	189	79	226	382
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	1692	456	333	1309	62	189	79	310	226	382	188
Future Volume (veh/h)	75	1692	456	333	1309	62	189	79	310	226	382	188
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	77	1744	431	343	1349	62	195	81	140	233	394	194
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	99	1101	493	826	2542	117	80	205	354	348	393	194
Arrive On Green	0.06	0.31	0.31	0.47	0.74	0.74	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3446	158	824	614	1061	1155	1179	581
Grp Volume(v), veh/h	77	1744	431	343	692	719	195	0	221	233	0	588
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1835	824	0	1674	1155	0	1760
Q Serve(g_s), s	3.9	28.0	23.2	11.5	15.2	15.2	0.0	0.0	9.1	17.5	0.0	30.0
Cycle Q Clear(g_c), s	3.9	28.0	23.2	11.5	15.2	15.2	30.0	0.0	9.1	26.6	0.0	30.0
Prop In Lane	1.00		1.00	1.00		0.09	1.00		0.63	1.00		0.33
Lane Grp Cap(c), veh/h	99	1101	493	826	1305	1353	80	0	558	348	0	587
V/C Ratio(X)	0.78	1.58	0.87	0.42	0.53	0.53	2.44	0.00	0.40	0.67	0.00	1.00
Avail Cap(c_a), veh/h	99	1101	493	826	1305	1353	80	0	558	348	0	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.0	31.0	29.3	15.9	5.1	5.1	45.0	0.0	23.0	33.3	0.0	30.0
Incr Delay (d2), s/veh	29.9	267.1	19.1	0.1	1.5	1.5	683.0	0.0	2.1	9.8	0.0	37.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	54.5	12.7	5.6	7.9	8.2	17.2	0.0	4.5	6.5	0.0	20.7
LnGrp Delay(d),s/veh	71.9	298.1	48.4	16.1	6.6	6.6	728.0	0.0	25.1	43.1	0.0	67.8
LnGrp LOS	E	F	D	B	A	A	F		C	D		F
Approach Vol, veh/h		2252			1754			416			821	
Approach Delay, s/veh		242.6			8.5			354.6			60.8	
Approach LOS		F			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	48.0	34.0		36.0	9.5	72.5		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	13.5	30.0		32.0	5.9	17.2		32.0
Green Ext Time (p_c), s	0.6	0.0		0.0	0.0	6.1		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		144.7
HCM 2010 LOS		F

Notes

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	150	532	189	25	25	175	53	649	103	258	740	297
Future Vol, veh/h	150	532	189	25	25	175	53	649	103	258	740	297
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	161	572	203	27	27	188	57	698	111	277	796	319

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2485	2433	955	2663	2537	753	1115	0	0	809	0	0
Stage 1	1510	1510	-	867	867	-	-	-	-	-	-	-
Stage 2	975	923	-	1796	1670	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 2	~ 4	313	~ 1	~ 3	538	626	-	-	735	-	-
Stage 1	~ 150	~ 183	-	384	356	-	-	-	-	-	-	-
Stage 2	294	~ 318	-	103	153	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	-	~ 2	313	-	~ 2	538	626	-	-	735	-	-
Mov Cap-2 Maneuver	-	~ 2	-	-	~ 2	-	-	-	-	-	-	-
Stage 1	~ 136	~ 114	-	349	323	-	-	-	-	-	-	-
Stage 2	~ 159	~ 289	-	-	95	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.7	2.6
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	626	-	-	-	313	-	735	-	-
HCM Lane V/C Ratio	0.091	-	-	-	0.649	-	0.377	-	-
HCM Control Delay (s)	11.3	-	-	-	35.5	-	12.8	-	-
HCM Lane LOS	B	-	-	-	E	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	4.2	-	1.8	-	-

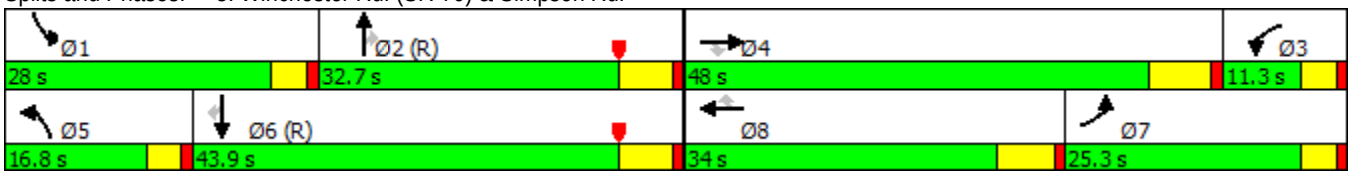
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	267	603	172	87	132	145	82	281	46	316	559	151
Future Volume (vph)	267	603	172	87	132	145	82	281	46	316	559	151
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	25.3	48.0	48.0	11.3	34.0	34.0	16.8	32.7	32.7	28.0	43.9	43.9
Total Split (%)	21.1%	40.0%	40.0%	9.4%	28.3%	28.3%	14.0%	27.3%	27.3%	23.3%	36.6%	36.6%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 76.5 (64%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	267	603	172	87	132	145	82	281	46	316	559	151
Future Volume (veh/h)	267	603	172	87	132	145	82	281	46	316	559	151
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	290	655	162	95	143	141	89	305	38	343	608	119
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	519	644	538	105	215	179	112	793	343	352	1272	562
Arrive On Green	0.29	0.35	0.35	0.06	0.12	0.12	0.06	0.22	0.22	0.20	0.36	0.36
Sat Flow, veh/h	1774	1863	1557	1774	1863	1556	1774	3539	1530	1774	3539	1564
Grp Volume(v), veh/h	290	655	162	95	143	141	89	305	38	343	608	119
Grp Sat Flow(s),veh/h/ln	1774	1863	1557	1774	1863	1556	1774	1770	1530	1774	1770	1564
Q Serve(g_s), s	16.6	41.5	7.0	6.4	8.8	7.2	5.9	8.8	1.9	23.1	15.9	2.6
Cycle Q Clear(g_c), s	16.6	41.5	7.0	6.4	8.8	7.2	5.9	8.8	1.9	23.1	15.9	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	519	644	538	105	215	179	112	793	343	352	1272	562
V/C Ratio(X)	0.56	1.02	0.30	0.91	0.67	0.79	0.80	0.38	0.11	0.97	0.48	0.21
Avail Cap(c_a), veh/h	519	644	538	105	432	360	186	793	343	352	1272	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	39.3	16.9	56.1	50.9	23.7	55.5	39.5	24.7	47.8	29.7	4.6
Incr Delay (d2), s/veh	0.8	39.7	0.3	57.5	3.5	7.4	3.6	1.1	0.5	40.9	1.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	28.4	3.0	4.8	4.7	3.5	3.0	4.4	0.9	15.3	8.0	1.3
LnGrp Delay(d),s/veh	36.8	79.0	17.2	113.6	54.4	31.2	59.1	40.6	25.2	88.8	31.0	5.4
LnGrp LOS	D	F	B	F	D	C	E	D	C	F	C	A
Approach Vol, veh/h		1107			379			432			1070	
Approach Delay, s/veh		58.9			60.6			43.0			46.7	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	32.7	11.3	48.0	11.8	48.9	39.3	20.0
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 24	26.9	7.1	* 42	* 13	38.1	21.1	* 28
Max Q Clear Time (g_c+I1), s	25.1	10.8	8.4	43.5	7.9	17.9	18.6	10.8
Green Ext Time (p_c), s	0.0	7.5	0.0	0.0	0.0	8.5	0.2	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.4
HCM 2010 LOS	D

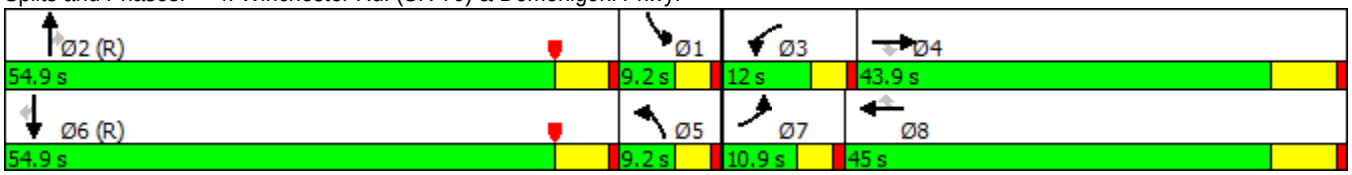
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	206	1562	86	495	657	67	45	165	633	118	382	302
Future Volume (vph)	206	1562	86	495	657	67	45	165	633	118	382	302
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	10.9	43.9	43.9	12.0	45.0	45.0	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.1%	36.6%	36.6%	10.0%	37.5%	37.5%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	206	1562	86	495	657	67	45	165	633	118	382	302
Future Volume (veh/h)	206	1562	86	495	657	67	45	165	633	118	382	302
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	224	1698	56	538	714	61	49	179	426	128	415	229
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	1091	488	224	1615	503	74	1448	648	74	1448	648
Arrive On Green	0.06	0.31	0.31	0.07	0.32	0.32	0.04	0.41	0.41	0.04	0.41	0.41
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	224	1698	56	538	714	61	49	179	426	128	415	229
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.7	37.0	2.5	7.8	13.4	2.6	3.3	3.8	19.5	5.0	9.4	9.2
Cycle Q Clear(g_c), s	6.7	37.0	2.5	7.8	13.4	2.6	3.3	3.8	19.5	5.0	9.4	9.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	1091	488	224	1615	503	74	1448	648	74	1448	648
V/C Ratio(X)	1.17	1.56	0.11	2.40	0.44	0.12	0.66	0.12	0.66	1.73	0.29	0.35
Avail Cap(c_a), veh/h	192	1091	488	224	1615	503	74	1448	648	74	1448	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	56.6	41.5	19.3	56.1	32.5	18.8	56.7	22.1	16.1	57.5	23.7	14.3
Incr Delay (d2), s/veh	116.7	254.7	0.1	645.7	0.2	0.1	16.4	0.2	5.2	372.7	0.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	56.6	1.1	23.8	6.3	1.2	1.9	1.9	9.5	10.1	4.7	4.2
LnGrp Delay(d),s/veh	173.3	296.2	19.4	701.8	32.7	18.9	73.1	22.2	21.2	430.2	24.2	15.6
LnGrp LOS	F	F	B	F	C	B	E	C	C	F	C	B
Approach Vol, veh/h		1978			1313			654			772	
Approach Delay, s/veh		274.5			306.2			25.4			88.9	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	54.9	12.0	43.9	9.2	54.9	10.9	45.0
Change Period (Y+Rc), s	4.2	* 5.8	* 4.2	6.9	4.2	* 5.8	* 4.2	6.9
Max Green Setting (Gmax), s	5.0	* 49	* 7.8	37.0	5.0	* 49	* 6.7	38.1
Max Q Clear Time (g_c+I1), s	7.0	21.5	9.8	39.0	5.3	11.4	8.7	15.4
Green Ext Time (p_c), s	0.0	4.1	0.0	0.0	0.0	5.3	0.0	17.1

Intersection Summary	
HCM 2010 Ctrl Delay	218.4
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	243.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	43	2064	206	547	709	113	247	86	535	166	129	263
Future Vol, veh/h	43	2064	206	547	709	113	247	86	535	166	129	263
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	2293	229	608	788	126	274	96	594	184	143	292

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	913	0	0	2522	0	0	4184	4632	1261	3356	4684	457
Stage 1	-	-	-	-	-	-	2503	2503	-	2066	2066	-
Stage 2	-	-	-	-	-	-	1681	2129	-	1290	2618	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	742	-	-	~ 161	-	-	0	0	*~ 266	*0	0	551
Stage 1	-	-	-	-	-	-	~ 66	~ 80	-	*~ 56	~ 95	-
Stage 2	-	-	-	-	-	-	~ 98	~ 89	-	*251	~ 48	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	742	-	-	~ 161	-	-	-	0	*~ 266	-	0	551
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	~ 66	~ 80	-	*~ 56	0	-
Stage 2	-	-	-	-	-	-	-	0	-	*~ 60	~ 48	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	$ 521.8	$ 597.7	18.7
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	266	742	-	-	~ 161	-	-	551
HCM Lane V/C Ratio	2.235	0.064	-	-	3.775	-	-	0.53
HCM Control Delay (s)	$ 597.7	10.2	-		$ 1305.8	-	-	18.7
HCM Lane LOS	F	B	-	-	F	-	-	C
HCM 95th %tile Q(veh)	45.9	0.2	-	-	59.7	-	-	3.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	81.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	102	420	65	358	383	107
Future Vol, veh/h	102	420	65	358	383	107
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	124	512	79	437	467	130

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1062	467	467	0	-	0
Stage 1	467	-	-	-	-	-
Stage 2	595	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	247	596	1094	-	-	-
Stage 1	631	-	-	-	-	-
Stage 2	551	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	224	596	1094	-	-	-
Mov Cap-2 Maneuver	224	-	-	-	-	-
Stage 1	631	-	-	-	-	-
Stage 2	499	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	223.8	1.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1094	-	450	-	-
HCM Lane V/C Ratio	0.072	-	1.415	-	-
HCM Control Delay (s)	8.5	0	223.8	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.2	-	31	-	-

Intersection	
Int Delay, s/veh	334

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	149	359	48	0	385	8	252	39	7	49	36	1007
Future Vol, veh/h	149	359	48	0	385	8	252	39	7	49	36	1007
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	164	395	53	0	423	9	277	43	8	54	40	1107

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	432	0	0	447	0	0	1749	1180	421	1201	1202	427
Stage 1	-	-	-	-	-	-	748	748	-	427	427	-
Stage 2	-	-	-	-	-	-	1001	432	-	774	775	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1128	-	-	1113	-	-	~ 67	190	632	162	185	~ 628
Stage 1	-	-	-	-	-	-	404	420	-	606	585	-
Stage 2	-	-	-	-	-	-	293	582	-	391	408	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1128	-	-	1113	-	-	-	153	632	107	149	~ 628
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	153	-	107	149	-
Stage 1	-	-	-	-	-	-	325	338	-	488	585	-
Stage 2	-	-	-	-	-	-	-	582	-	271	328	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.3	0		$ 714.2
HCM LOS			-	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1128	-	-	1113	-	-	474
HCM Lane V/C Ratio	-	0.145	-	-	-	-	-	2.532
HCM Control Delay (s)	-	8.7	0	-	0	-	-	$ 714.2
HCM Lane LOS	-	A	A	-	A	-	-	F
HCM 95th %tile Q(veh)	-	0.5	-	-	0	-	-	95.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	1197.7
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	200	466	506	0	448	492	170	0	192	660	152
Future Vol, veh/h	0	200	466	506	0	448	492	170	0	192	660	152
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	213	496	538	0	477	523	181	0	204	702	162
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	1149.3	1107.6	983
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	17%	40%	8%
Vol Thru, %	66%	40%	44%	81%
Vol Right, %	15%	43%	15%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1004	1172	1110	1413
LT Vol	192	200	448	114
Through Vol	660	466	492	1139
RT Vol	152	506	170	160
Lane Flow Rate	1068	1247	1181	1503
Geometry Grp	1	1	1	1
Degree of Util (X)	2.842	3.258	3.155	4
Departure Headway (Hd)	63.108	55.546	57.26	47.549
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	75	87	83	105
Service Time	61.108	53.546	55.26	45.549
HCM Lane V/C Ratio	14.24	14.333	14.229	14.314
HCM Control Delay	983	1149.3	1107.6	1461.2
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	16.8	21.9	20.6	31.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	114	1139	160
Future Vol, veh/h	0	114	1139	160
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	121	1212	170
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	1461.2
HCM LOS	F

Intersection	
Intersection Delay, s/veh	1598.3
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	330	364	130	0	192	293	140	0	44	356	113
Future Vol, veh/h	0	330	364	130	0	192	293	140	0	44	356	113
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	351	387	138	0	204	312	149	0	47	379	120
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	693.2	462.1	183
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	0%	40%	31%	12%
Vol Thru, %	89%	0%	44%	47%	72%
Vol Right, %	0%	100%	16%	22%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	400	113	824	625	2304
LT Vol	44	0	330	192	280
Through Vol	356	0	364	293	1656
RT Vol	0	113	130	140	368
Lane Flow Rate	426	120	877	665	2451
Geometry Grp	7	7	2	2	5
Degree of Util (X)	1.157	0.302	2.339	1.763	6.57
Departure Headway (Hd)	37.366	36.56	33.681	40.014	16.521
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	102	100	123	100	245
Service Time	35.066	34.26	31.681	38.014	14.521
HCM Lane V/C Ratio	4.176	1.2	7.13	6.65	10.004
HCM Control Delay	219.3	54.4	693.2	462.1	2545.4
HCM Lane LOS	F	F	F	F	F
HCM 95th-tile Q	7.5	1.1	22.1	13.1	155.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	280	1656	368
Future Vol, veh/h	0	280	1656	368
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	298	1762	391
Number of Lanes	0	0	1	0

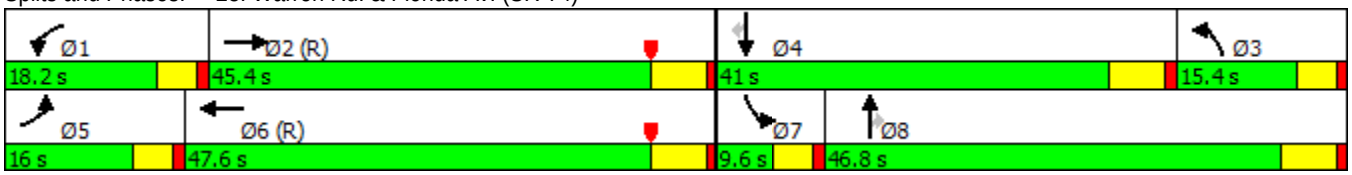
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	2545.4
HCM LOS	F

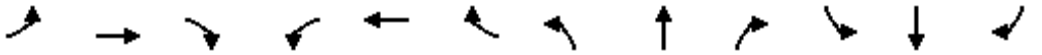
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	111	1968	694	1261	244	312	423	536	964	247
Future Volume (vph)	111	1968	694	1261	244	312	423	536	964	247
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	16.0	45.4	18.2	47.6	15.4	46.8	46.8	9.6	41.0	41.0
Total Split (%)	13.3%	37.8%	15.2%	39.7%	12.8%	39.0%	39.0%	8.0%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 18.2 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	1968	365	694	1261	192	244	312	423	536	964	247
Future Volume (veh/h)	111	1968	365	694	1261	192	244	312	423	536	964	247
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	113	2008	309	708	1287	192	249	318	387	547	984	188
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	2202	330	201	2316	343	160	1245	556	74	1032	460
Arrive On Green	0.08	0.71	0.71	0.11	0.75	0.75	0.09	0.35	0.35	0.04	0.29	0.29
Sat Flow, veh/h	1774	3087	463	1774	3093	458	1774	3539	1581	1774	3539	1578
Grp Volume(v), veh/h	113	1129	1188	708	733	746	249	318	387	547	984	188
Grp Sat Flow(s),veh/h/ln	1774	1770	1781	1774	1770	1781	1774	1770	1581	1774	1770	1578
Q Serve(g_s), s	7.5	60.6	69.0	13.6	21.3	21.7	10.8	7.7	25.2	5.0	32.7	15.2
Cycle Q Clear(g_c), s	7.5	60.6	69.0	13.6	21.3	21.7	10.8	7.7	25.2	5.0	32.7	15.2
Prop In Lane	1.00		0.26	1.00		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	138	1262	1270	201	1325	1334	160	1245	556	74	1032	460
V/C Ratio(X)	0.82	0.89	0.94	3.52	0.55	0.56	1.56	0.26	0.70	7.40	0.95	0.41
Avail Cap(c_a), veh/h	169	1262	1270	201	1325	1334	160	1245	556	74	1032	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	13.6	14.8	53.2	6.5	6.5	54.6	27.7	33.4	57.5	41.7	60.0
Incr Delay (d2), s/veh	18.9	10.0	13.9	1147.0	1.7	1.7	280.0	0.5	7.1	2907.9	18.8	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	32.7	38.2	70.7	10.8	11.2	17.7	3.8	12.0	62.2	18.7	7.0
LnGrp Delay(d),s/veh	73.4	23.6	28.7	1200.2	8.1	8.2	334.6	28.2	40.5	2965.4	60.5	62.7
LnGrp LOS	E	C	C	F	A	A	F	C	D	F	E	E
Approach Vol, veh/h		2430			2187			954			1719	
Approach Delay, s/veh		28.4			394.1			113.2			985.1	
Approach LOS		C			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.2	93.0	16.8	41.0	13.9	97.3	9.6	48.2
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	13.6	39.4	10.8	* 35	11.4	41.6	5.0	40.8
Max Q Clear Time (g_c+I1), s	15.6	71.0	12.8	34.7	9.5	23.7	7.0	27.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	0.0	15.5	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	374.8
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	20.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	95	996	103	308	1906
Future Vol, veh/h	34	95	996	103	308	1906
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	101	1060	110	328	2028

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3744	1061	0	0	1061	0
Stage 1	1061	-	-	-	-	-
Stage 2	2683	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 5	272	-	-	657	-
Stage 1	333	-	-	-	-	-
Stage 2	51	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 3	272	-	-	657	-
Mov Cap-2 Maneuver	~ 25	-	-	-	-	-
Stage 1	333	-	-	-	-	-
Stage 2	~ 26	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 512.4	0	2.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	75	657	-
HCM Lane V/C Ratio	-	-	1.83	0.499	-
HCM Control Delay (s)	-	-	$ 512.4	15.8	-
HCM Lane LOS	-	-	F	C	-
HCM 95th %tile Q(veh)	-	-	12.1	2.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	26	950	11	199	1320
Future Vol, veh/h	19	26	950	11	199	1320
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	27	979	11	205	1361

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2756	985	0	0	991	0
Stage 1	985	-	-	-	-	-
Stage 2	1771	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	22	301	-	-	698	-
Stage 1	362	-	-	-	-	-
Stage 2	150	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 16	301	-	-	698	-
Mov Cap-2 Maneuver	96	-	-	-	-	-
Stage 1	362	-	-	-	-	-
Stage 2	106	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	37	0	1.6
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	158	698	-
HCM Lane V/C Ratio	-	-	0.294	0.294	-
HCM Control Delay (s)	-	-	37	12.3	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	1.2	1.2	-

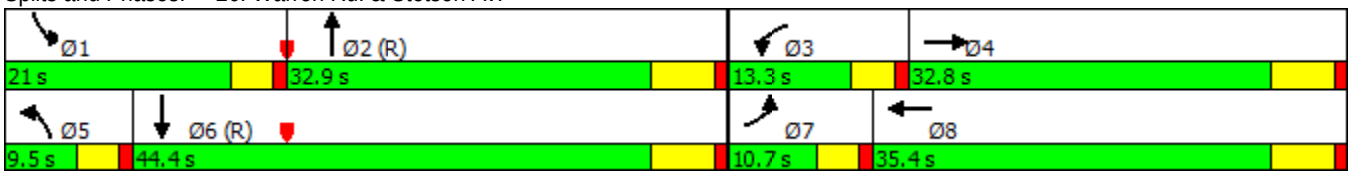
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	202	713	127	973	198	693	226	856
Future Volume (vph)	202	713	127	973	198	693	226	856
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	32.8	9.5	32.8
Total Split (s)	10.7	32.8	13.3	35.4	9.5	32.9	21.0	44.4
Total Split (%)	10.7%	32.8%	13.3%	35.4%	9.5%	32.9%	21.0%	44.4%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	713	251	127	973	264	198	693	154	226	856	347
Future Volume (veh/h)	202	713	251	127	973	264	198	693	154	226	856	347
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	210	743	261	132	1014	275	206	722	160	235	892	361
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	356	125	161	418	113	94	832	184	266	952	383
Arrive On Green	0.06	0.27	0.27	0.09	0.30	0.30	0.05	0.29	0.29	0.15	0.39	0.39
Sat Flow, veh/h	1774	1318	463	1774	1412	383	1774	2881	638	1774	2465	992
Grp Volume(v), veh/h	210	0	1004	132	0	1289	206	443	439	235	639	614
Grp Sat Flow(s),veh/h/ln	1774	0	1781	1774	0	1795	1774	1770	1750	1774	1770	1688
Q Serve(g_s), s	6.5	0.0	27.0	7.3	0.0	29.6	5.3	23.8	23.8	13.0	34.7	35.1
Cycle Q Clear(g_c), s	6.5	0.0	27.0	7.3	0.0	29.6	5.3	23.8	23.8	13.0	34.7	35.1
Prop In Lane	1.00		0.26	1.00		0.21	1.00		0.36	1.00		0.59
Lane Grp Cap(c), veh/h	115	0	481	161	0	531	94	511	505	266	683	651
V/C Ratio(X)	1.82	0.00	2.09	0.82	0.00	2.43	2.19	0.87	0.87	0.88	0.94	0.94
Avail Cap(c_a), veh/h	115	0	481	161	0	531	94	511	505	298	683	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	0.0	36.5	44.7	0.0	35.2	47.3	33.7	33.7	41.6	29.5	29.6
Incr Delay (d2), s/veh	401.4	0.0	495.6	25.7	0.0	647.3	561.9	14.3	14.5	21.9	21.8	23.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.0	0.0	79.5	4.7	0.0	110.2	17.3	13.6	13.5	8.0	21.0	20.5
LnGrp Delay(d),s/veh	448.1	0.0	532.1	70.4	0.0	682.5	609.2	48.1	48.3	63.5	51.3	53.3
LnGrp LOS	F		F	E		F	F	D	D	E	D	D
Approach Vol, veh/h		1214			1421			1088			1488	
Approach Delay, s/veh		517.6			625.7			154.4			54.1	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.2	34.7	13.3	32.8	9.5	44.4	10.7	35.4
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8
Max Green Setting (Gmax), s	* 17	27.1	* 9.1	27.0	* 5.3	38.6	* 6.5	29.6
Max Q Clear Time (g_c+I1), s	15.0	25.8	9.3	29.0	7.3	37.1	8.5	31.6
Green Ext Time (p_c), s	0.1	1.2	0.0	0.0	0.0	1.4	0.0	0.0

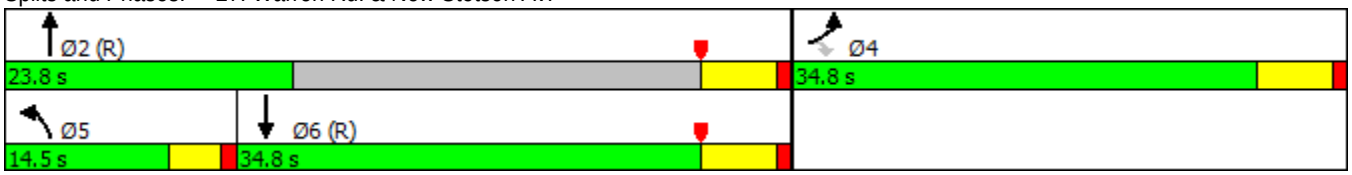
Intersection Summary		
HCM 2010 Ctrl Delay		338.9
HCM 2010 LOS		F

Notes

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	365	225	103	381	639
Future Volume (vph)	365	225	103	381	639
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	34.8	34.8	9.2	15.8	34.8
Total Split (s)	34.8	34.8	14.5	23.8	34.8
Total Split (%)	41.4%	41.4%	17.2%	28.3%	41.4%
Yellow Time (s)	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max

Intersection Summary
Cycle Length: 84.1
Actuated Cycle Length: 84.1
Offset: 16.7 (20%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 140
Control Type: Actuated-Coordinated

Splits and Phases: 27: Warren Rd. & New Stetson Av.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	365	225	103	381	639	342
Future Volume (veh/h)	365	225	103	381	639	342
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	397	245	112	414	695	372
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	442	395	142	1141	552	295
Arrive On Green	0.25	0.25	0.08	0.61	0.48	0.48
Sat Flow, veh/h	1774	1583	1774	1863	1143	612
Grp Volume(v), veh/h	397	245	112	414	0	1067
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	0	1755
Q Serve(g_s), s	18.2	11.5	5.2	9.3	0.0	40.5
Cycle Q Clear(g_c), s	18.2	11.5	5.2	9.3	0.0	40.5
Prop In Lane	1.00	1.00	1.00			0.35
Lane Grp Cap(c), veh/h	442	395	142	1141	0	847
V/C Ratio(X)	0.90	0.62	0.79	0.36	0.00	1.26
Avail Cap(c_a), veh/h	612	547	218	1141	0	847
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.27
Uniform Delay (d), s/veh	30.5	28.0	38.0	8.1	0.0	21.7
Incr Delay (d2), s/veh	10.3	0.6	4.9	0.9	0.0	119.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	10.0	2.7	5.0	0.0	47.7
LnGrp Delay(d),s/veh	40.7	28.6	42.8	9.0	0.0	141.4
LnGrp LOS	D	C	D	A		F
Approach Vol, veh/h	642			526	1067	
Approach Delay, s/veh	36.1			16.2	141.4	
Approach LOS	D			B	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		57.2		26.8	10.9	46.3		
Change Period (Y+Rc), s		5.8		5.8	* 4.2	5.8		
Max Green Setting (Gmax), s		18.0		29.0	* 10	29.0		
Max Q Clear Time (g_c+I1), s		11.3		20.2	7.2	42.5		
Green Ext Time (p_c), s		3.8		0.8	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	81.7
HCM 2010 LOS	F

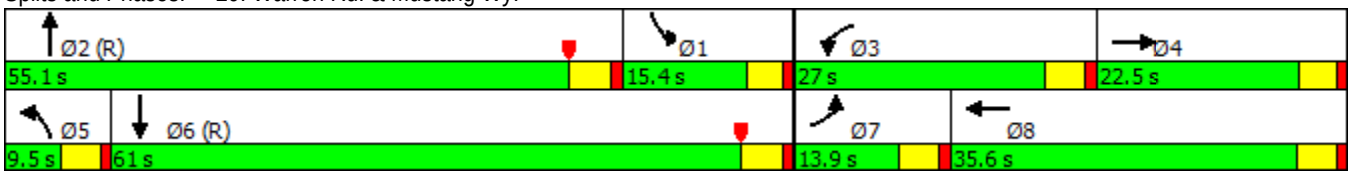
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	57	81	320	69	28	421	144	884
Future Volume (vph)	57	81	320	69	28	421	144	884
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	4.9	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	9.5	21.6	9.5	21.7	9.5	14.7
Total Split (s)	13.9	22.5	27.0	35.6	9.5	55.1	15.4	61.0
Total Split (%)	11.6%	18.8%	22.5%	29.7%	7.9%	45.9%	12.8%	50.8%
Yellow Time (s)	3.5	3.5	3.6	3.6	3.5	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.6	4.6	4.5	4.7	4.2	4.7
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 15.4 (13%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	81	60	320	69	122	28	421	190	144	884	46
Future Volume (veh/h)	57	81	60	320	69	122	28	421	190	144	884	46
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	63	90	67	356	77	89	31	468	197	160	982	51
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	112	83	331	201	232	48	523	220	223	914	47
Arrive On Green	0.05	0.11	0.11	0.19	0.25	0.25	0.03	0.42	0.42	0.13	0.52	0.52
Sat Flow, veh/h	1774	993	739	1774	789	912	1774	1246	524	1774	1755	91
Grp Volume(v), veh/h	63	0	157	356	0	166	31	0	665	160	0	1033
Grp Sat Flow(s),veh/h/ln	1774	0	1732	1774	0	1702	1774	0	1770	1774	0	1847
Q Serve(g_s), s	4.2	0.0	10.6	22.4	0.0	9.7	2.1	0.0	41.9	10.4	0.0	62.5
Cycle Q Clear(g_c), s	4.2	0.0	10.6	22.4	0.0	9.7	2.1	0.0	41.9	10.4	0.0	62.5
Prop In Lane	1.00		0.43	1.00		0.54	1.00		0.30	1.00		0.05
Lane Grp Cap(c), veh/h	81	0	195	331	0	433	48	0	743	223	0	962
V/C Ratio(X)	0.78	0.00	0.81	1.08	0.00	0.38	0.65	0.00	0.89	0.72	0.00	1.07
Avail Cap(c_a), veh/h	139	0	260	331	0	440	74	0	743	223	0	962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.7	0.0	52.0	48.8	0.0	37.0	57.8	0.0	32.3	50.4	0.0	28.8
Incr Delay (d2), s/veh	14.7	0.0	12.8	70.9	0.0	0.6	5.5	0.0	15.5	9.1	0.0	51.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	5.8	17.5	0.0	4.6	1.1	0.0	23.5	5.7	0.0	45.4
LnGrp Delay(d),s/veh	71.3	0.0	64.7	119.7	0.0	37.5	63.3	0.0	47.8	59.4	0.0	79.8
LnGrp LOS	E		E	F		D	E		D	E		F
Approach Vol, veh/h		220			522			696			1193	
Approach Delay, s/veh		66.6			93.5			48.5			77.1	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	55.1	27.0	18.1	7.7	67.2	10.0	35.1
Change Period (Y+Rc), s	* 4.7	* 4.7	4.6	* 4.6	4.5	* 4.7	4.5	4.6
Max Green Setting (Gmax), s	* 11	* 50	22.4	* 18	5.0	* 56	9.4	31.0
Max Q Clear Time (g_c+I1), s	12.4	43.9	24.4	12.6	4.1	64.5	6.2	11.7
Green Ext Time (p_c), s	0.0	3.1	0.0	0.9	0.0	0.0	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	71.9
HCM 2010 LOS	E

Notes

Intersection	
Intersection Delay, s/veh	75.8
Intersection LOS	F

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	42	287	0	16	46	0	571	24
Future Vol, veh/h	0	42	287	0	16	46	0	571	24
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	48	330	0	18	53	0	656	28
Number of Lanes	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	18.7	11.3	114.1
HCM LOS	C	B	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	13%	0%	100%
Vol Right, %	0%	100%	87%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	571	24	329	16	46
LT Vol	571	0	0	16	0
Through Vol	0	0	42	0	46
RT Vol	0	24	287	0	0
Lane Flow Rate	656	28	378	18	53
Geometry Grp	7	7	4	7	7
Degree of Util (X)	1.174	0.04	0.613	0.039	0.105
Departure Headway (Hd)	6.442	5.23	6.287	8.226	7.711
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	571	689	579	438	467
Service Time	4.143	2.932	4.287	5.926	5.411
HCM Lane V/C Ratio	1.149	0.041	0.653	0.041	0.113
HCM Control Delay	118.6	8.1	18.7	11.3	11.3
HCM Lane LOS	F	A	C	B	B
HCM 95th-tile Q	22.9	0.1	4.1	0.1	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	292	1148	11	11	1328	508	11	11	11	321	286
Future Volume (vph)	292	1148	11	11	1328	508	11	11	11	321	286
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	292	1148	11	11	1328	508	11	11	11	321	286	412
Future Volume (veh/h)	292	1148	11	11	1328	508	11	11	11	321	286	412
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	321	1262	12	12	1459	548	12	12	11	353	314	308
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	348	1640	718	25	996	436	226	210	590	253	185	182
Arrive On Green	0.20	0.46	0.46	0.01	0.28	0.28	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1774	3539	1550	1774	3539	1550	474	565	1583	558	497	487
Grp Volume(v), veh/h	321	1262	12	12	1459	548	24	0	11	975	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1550	1038	0	1583	1542	0	0
Q Serve(g_s), s	19.5	32.7	0.5	0.7	30.9	30.9	0.0	0.0	0.5	40.1	0.0	0.0
Cycle Q Clear(g_c), s	19.5	32.7	0.5	0.7	30.9	30.9	0.9	0.0	0.5	41.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.50		1.00	0.36		0.32
Lane Grp Cap(c), veh/h	348	1640	718	25	996	436	436	0	590	619	0	0
V/C Ratio(X)	0.92	0.77	0.02	0.48	1.47	1.26	0.06	0.00	0.02	1.57	0.00	0.00
Avail Cap(c_a), veh/h	353	1640	718	81	996	436	444	0	602	619	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	43.4	24.6	16.0	53.8	39.5	39.5	21.9	0.0	21.8	36.4	0.0	0.0
Incr Delay (d2), s/veh	28.4	3.5	0.0	5.4	215.1	133.3	0.0	0.0	0.0	266.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.3	16.8	0.2	0.4	44.8	29.3	0.5	0.0	0.2	64.5	0.0	0.0
LnGrp Delay(d),s/veh	71.8	28.2	16.0	59.2	254.6	172.8	21.9	0.0	21.8	302.5	0.0	0.0
LnGrp LOS	E	C	B	E	F	F	C		C	F		
Approach Vol, veh/h		1595			2019			35			975	
Approach Delay, s/veh		36.9			231.2			21.9			302.5	
Approach LOS		D			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	57.9		46.4	25.8	37.8		46.4
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.7	34.7		43.0	21.5	32.9		2.9
Green Ext Time (p_c), s	0.0	9.8		0.0	0.0	0.0		5.9

Intersection Summary	
HCM 2010 Ctrl Delay	177.6
HCM 2010 LOS	F

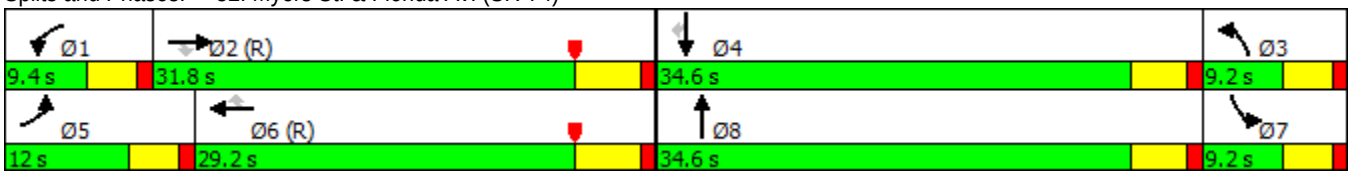
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	253	2417	256	63	1754	265	252	64	139	59	141
Future Volume (vph)	253	2417	256	63	1754	265	252	64	139	59	141
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.0	31.8	31.8	9.4	29.2	29.2	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.1%	37.4%	37.4%	11.1%	34.4%	34.4%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	2417	256	63	1754	265	252	64	62	139	59	141
Future Volume (veh/h)	253	2417	256	63	1754	265	252	64	62	139	59	141
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	258	2466	261	64	1790	270	257	65	39	142	60	89
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	1165	510	82	1003	447	104	385	231	104	657	559
Arrive On Green	0.09	0.33	0.33	0.05	0.28	0.28	0.06	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	1774	3539	1550	1774	3539	1575	1774	1092	655	1774	1863	1583
Grp Volume(v), veh/h	258	2466	261	64	1790	270	257	0	104	142	60	89
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1575	1774	0	1747	1774	1863	1583
Q Serve(g_s), s	7.8	28.0	8.7	3.0	24.1	9.6	5.0	0.0	3.5	5.0	1.8	2.3
Cycle Q Clear(g_c), s	7.8	28.0	8.7	3.0	24.1	9.6	5.0	0.0	3.5	5.0	1.8	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	163	1165	510	82	1003	447	104	0	617	104	657	559
V/C Ratio(X)	1.58	2.12	0.51	0.78	1.78	0.60	2.46	0.00	0.17	1.36	0.09	0.16
Avail Cap(c_a), veh/h	163	1165	510	109	1003	447	104	0	617	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	28.5	12.9	40.1	30.4	15.4	40.0	0.0	18.9	40.0	18.4	9.2
Incr Delay (d2), s/veh	290.3	505.6	3.6	16.5	356.7	6.0	686.1	0.0	0.6	212.1	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.9	95.4	4.2	1.9	61.4	4.9	22.3	0.0	1.8	8.6	1.0	1.1
LnGrp Delay(d),s/veh	328.9	534.1	16.5	56.6	387.2	21.4	726.1	0.0	19.5	252.1	18.7	9.8
LnGrp LOS	F	F	B	E	F	C	F		B	F	B	A
Approach Vol, veh/h		2985			2124			361			291	
Approach Delay, s/veh		471.1			330.7			522.5			129.9	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	33.1	9.2	34.6	12.0	29.2	9.2	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.2	26.7	5.0	* 30	* 7.8	24.1	5.0	* 30
Max Q Clear Time (g_c+I1), s	5.0	30.0	7.0	4.3	9.8	26.1	7.0	5.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	405.3
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2077	251	23	1806	0	23
Future Vol, veh/h	2077	251	23	1806	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2210	267	24	1921	0	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2210	0	-	1105
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*307	-	0	*205
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*307	-	-	*205
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	24.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	205	-	-	* 307	-
HCM Lane V/C Ratio	0.119	-	-	0.08	-
HCM Control Delay (s)	24.9	-	-	17.7	-
HCM Lane LOS	C	-	-	C	-
HCM 95th %tile Q(veh)	0.4	-	-	0.3	-

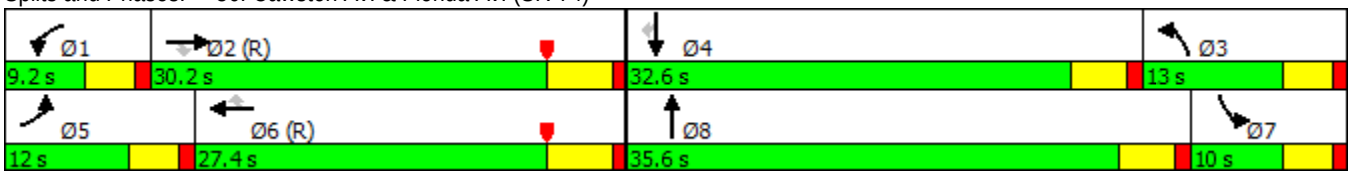
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	151	1136	666	267	1049	28	379	206	86	458	178
Future Volume (vph)	151	1136	666	267	1049	28	379	206	86	458	178
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	12.0	30.2	30.2	9.2	27.4	27.4	13.0	35.6	10.0	32.6	32.6
Total Split (%)	14.1%	35.5%	35.5%	10.8%	32.2%	32.2%	15.3%	41.9%	11.8%	38.4%	38.4%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 38 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 105
Control Type: Actuated-Coordinated

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	1136	666	267	1049	28	379	206	175	86	458	178
Future Volume (veh/h)	151	1136	666	267	1049	28	379	206	175	86	458	178
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	156	1171	686	275	1081	13	391	212	177	89	472	116
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	1045	468	104	929	415	184	684	544	121	614	522
Arrive On Green	0.09	0.30	0.30	0.06	0.26	0.26	0.10	0.36	0.36	0.07	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	1877	1491	1774	1863	1583
Grp Volume(v), veh/h	156	1171	686	275	1081	13	391	199	190	89	472	116
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1598	1774	1863	1583
Q Serve(g_s), s	7.4	25.1	17.5	5.0	22.3	0.4	8.8	6.9	7.3	4.2	19.3	3.2
Cycle Q Clear(g_c), s	7.4	25.1	17.5	5.0	22.3	0.4	8.8	6.9	7.3	4.2	19.3	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.93	1.00		1.00
Lane Grp Cap(c), veh/h	163	1045	468	104	929	415	184	645	583	121	614	522
V/C Ratio(X)	0.96	1.12	1.47	2.64	1.16	0.03	2.13	0.31	0.33	0.74	0.77	0.22
Avail Cap(c_a), veh/h	163	1045	468	104	929	415	184	645	583	121	614	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	29.9	14.6	40.0	31.3	13.4	38.1	19.3	19.5	38.8	25.6	10.4
Incr Delay (d2), s/veh	57.6	67.1	221.7	762.7	85.7	0.1	525.8	1.2	1.5	18.4	9.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	21.9	36.4	24.5	21.9	0.2	31.1	3.5	3.5	2.7	11.5	1.5
LnGrp Delay(d),s/veh	96.1	97.1	236.3	802.7	117.1	13.6	563.9	20.6	20.9	57.2	34.6	11.3
LnGrp LOS	F	F	F	F	F	B	F	C	C	E	C	B
Approach Vol, veh/h		2013			1369			780			677	
Approach Delay, s/veh		144.5			253.8			293.0			33.6	
Approach LOS		F			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	30.2	13.0	32.6	12.0	27.4	10.0	35.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5	25.1	8.8	* 28	* 7.8	22.3	5.8	* 31
Max Q Clear Time (g_c+I1), s	7.0	27.1	10.8	21.3	9.4	24.3	6.2	9.3
Green Ext Time (p_c), s	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	183.8
HCM 2010 LOS	F

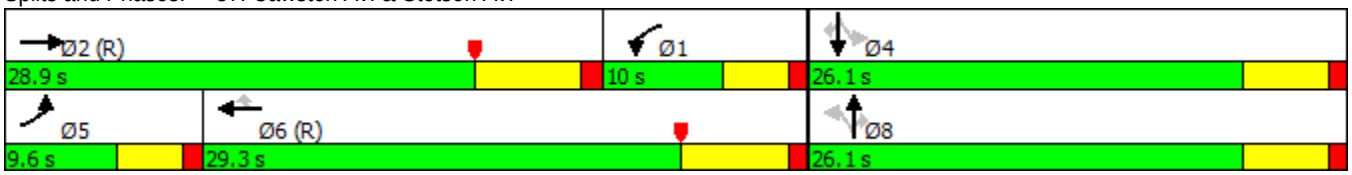
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	153	983	212	1352	60	77	123	176	60	121	155
Future Volume (vph)	153	983	212	1352	60	77	123	176	60	121	155
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.6	28.9	10.0	29.3	29.3	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.8%	44.5%	15.4%	45.1%	45.1%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	983	91	212	1352	60	77	123	176	60	121	155
Future Volume (veh/h)	153	983	91	212	1352	60	77	123	176	60	121	155
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	187	1199	109	259	1649	66	94	150	76	73	148	172
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	1146	104	1473	2100	1785	390	602	512	414	602	505
Arrive On Green	0.08	0.35	0.35	0.83	1.00	1.00	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	3282	298	1774	1863	1583	1055	1863	1583	1150	1863	1563
Grp Volume(v), veh/h	187	645	663	259	1649	66	94	150	76	73	148	172
Grp Sat Flow(s),veh/h/ln	1774	1770	1810	1774	1863	1583	1055	1863	1583	1150	1863	1563
Q Serve(g_s), s	5.4	22.7	22.7	1.9	0.0	0.0	4.7	3.9	2.2	3.2	3.8	5.4
Cycle Q Clear(g_c), s	5.4	22.7	22.7	1.9	0.0	0.0	8.5	3.9	2.2	7.1	3.8	5.4
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	147	618	632	1473	2100	1785	390	602	512	414	602	505
V/C Ratio(X)	1.27	1.04	1.05	0.18	0.79	0.04	0.24	0.25	0.15	0.18	0.25	0.34
Avail Cap(c_a), veh/h	147	618	632	1473	2100	1785	390	602	512	414	602	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	21.1	21.2	1.1	0.0	0.0	19.3	16.2	15.6	18.8	16.2	16.7
Incr Delay (d2), s/veh	163.4	48.2	48.9	0.0	0.3	0.0	1.5	1.0	0.6	0.9	1.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	19.3	19.8	0.9	0.2	0.0	1.5	2.1	1.1	1.1	2.1	2.6
LnGrp Delay(d),s/veh	193.2	69.4	70.1	1.1	0.3	0.0	20.8	17.2	16.3	19.7	17.2	18.6
LnGrp LOS	F	F	F	A	A	A	C	B	B	B	B	B
Approach Vol, veh/h		1495			1974			320			393	
Approach Delay, s/veh		85.2			0.4			18.0			18.2	
Approach LOS		F			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	60.3	28.9		26.1	9.6	79.6		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.8	* 23		21.0	* 5.4	23.1		21.0
Max Q Clear Time (g_c+I1), s	3.9	24.7		9.1	7.4	2.0		10.5
Green Ext Time (p_c), s	0.1	0.0		1.6	0.0	13.9		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	33.7
HCM 2010 LOS	C

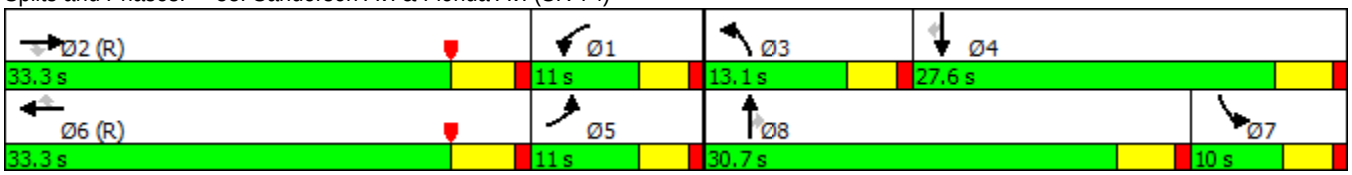
Notes

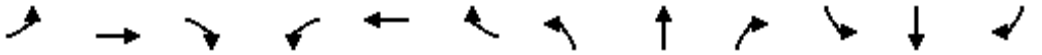
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	162	723	233	329	757	344	134	886	245	321	1021	113
Future Volume (vph)	162	723	233	329	757	344	134	886	245	321	1021	113
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	11.0	33.3	33.3	11.0	33.3	33.3	13.1	30.7	30.7	10.0	27.6	27.6
Total Split (%)	12.9%	39.2%	39.2%	12.9%	39.2%	39.2%	15.4%	36.1%	36.1%	11.8%	32.5%	32.5%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 81 (95%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	723	233	329	757	344	134	886	245	321	1021	113
Future Volume (veh/h)	162	723	233	329	757	344	134	886	245	321	1021	113
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	178	795	227	362	832	319	147	974	159	353	1122	72
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	486	1174	516	486	1174	516	180	1083	469	121	986	441
Arrive On Green	0.27	0.33	0.33	0.27	0.33	0.33	0.10	0.31	0.31	0.07	0.28	0.28
Sat Flow, veh/h	1774	3539	1556	1774	3539	1555	1774	3539	1535	1774	3539	1583
Grp Volume(v), veh/h	178	795	227	362	832	319	147	974	159	353	1122	72
Grp Sat Flow(s),veh/h/ln	1774	1770	1556	1774	1770	1555	1774	1770	1535	1774	1770	1583
Q Serve(g_s), s	6.9	16.5	9.5	15.8	17.5	14.7	6.9	22.4	6.8	5.8	23.7	2.2
Cycle Q Clear(g_c), s	6.9	16.5	9.5	15.8	17.5	14.7	6.9	22.4	6.8	5.8	23.7	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	486	1174	516	486	1174	516	180	1083	469	121	986	441
V/C Ratio(X)	0.37	0.68	0.44	0.74	0.71	0.62	0.82	0.90	0.34	2.92	1.14	0.16
Avail Cap(c_a), veh/h	486	1174	516	486	1174	516	186	1083	469	121	986	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.9	24.5	21.5	28.1	24.8	23.9	37.4	28.3	22.8	39.6	30.7	13.1
Incr Delay (d2), s/veh	0.2	3.1	2.7	5.5	3.6	5.5	21.7	11.8	2.0	884.3	74.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	8.6	4.5	8.5	9.1	7.1	4.5	12.7	3.1	32.6	21.7	1.1
LnGrp Delay(d),s/veh	25.1	27.6	24.2	33.6	28.4	29.4	59.1	40.1	24.8	923.9	105.3	13.9
LnGrp LOS	C	C	C	C	C	C	E	D	C	F	F	B
Approach Vol, veh/h		1200			1513			1280			1547	
Approach Delay, s/veh		26.6			29.9			40.4			287.9	
Approach LOS		C			C			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	33.3	12.8	28.4	28.0	33.3	10.5	30.7
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.7	* 4.7
Max Green Setting (Gmax), s	6.8	* 28	* 8.9	* 23	6.8	* 28	* 5.8	* 26
Max Q Clear Time (g_c+I1), s	17.8	18.5	8.9	25.7	8.9	19.5	7.8	24.4
Green Ext Time (p_c), s	0.0	5.4	0.0	0.0	0.0	5.4	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	103.6
HCM 2010 LOS	F

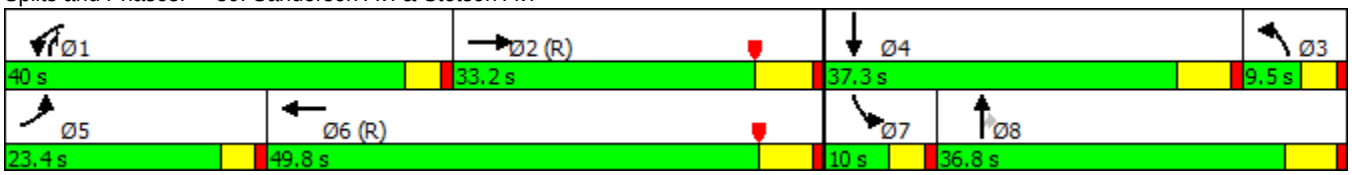
Notes

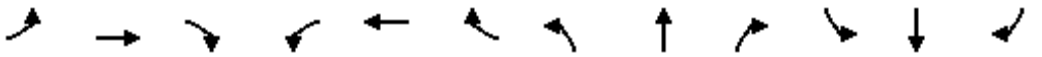
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	427	635	282	1050	178	1024	123	276	1055
Future Volume (vph)	427	635	282	1050	178	1024	123	276	1055
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	23.4	33.2	40.0	49.8	9.5	36.8	40.0	10.0	37.3
Total Split (%)	19.5%	27.7%	33.3%	41.5%	7.9%	30.7%	33.3%	8.3%	31.1%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 77.8 (65%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	427	635	157	282	1050	385	178	1024	123	276	1055	396
Future Volume (veh/h)	427	635	157	282	1050	385	178	1024	123	276	1055	396
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	497	738	182	328	1221	431	207	1191	-237	321	1227	454
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	284	2454	605	357	2372	814	78	961	748	86	671	240
Arrive On Green	0.16	0.88	0.88	0.20	0.92	0.92	0.04	0.27	0.00	0.05	0.26	0.26
Sat Flow, veh/h	1774	2802	691	1774	2588	888	1774	3539	1583	1774	2555	915
Grp Volume(v), veh/h	497	466	454	328	824	828	207	1191	-237	321	837	844
Grp Sat Flow(s),veh/h/ln	1774	1770	1723	1774	1770	1706	1774	1770	1583	1774	1770	1700
Q Serve(g_s), s	19.2	5.3	5.3	21.7	8.7	9.4	5.3	32.6	0.0	5.8	31.5	31.5
Cycle Q Clear(g_c), s	19.2	5.3	5.3	21.7	8.7	9.4	5.3	32.6	0.0	5.8	31.5	31.5
Prop In Lane	1.00		0.40	1.00		0.52	1.00		1.00	1.00		0.54
Lane Grp Cap(c), veh/h	284	1550	1509	357	1622	1564	78	961	748	86	465	446
V/C Ratio(X)	1.75	0.30	0.30	0.92	0.51	0.53	2.64	1.24	-0.32	3.74	1.80	1.89
Avail Cap(c_a), veh/h	284	1550	1509	529	1622	1564	78	961	748	86	465	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.26	0.26	0.26	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	1.3	1.3	47.0	0.8	0.8	57.3	43.7	0.0	57.1	44.3	44.3
Incr Delay (d2), s/veh	341.7	0.1	0.1	12.9	1.1	1.3	774.1	116.4	0.0	1262.6	369.8	409.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	36.3	2.6	2.6	11.9	4.4	4.7	19.4	31.4	0.0	32.9	63.1	65.5
LnGrp Delay(d),s/veh	392.1	1.4	1.4	59.8	1.9	2.1	831.5	160.1	0.0	1319.7	414.0	453.3
LnGrp LOS	F	A	A	E	A	A	F	F		F	F	F
Approach Vol, veh/h		1417			1980			1161			2002	
Approach Delay, s/veh		138.4			11.6			312.5			575.8	
Approach LOS		F			B			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.3	113.3	11.1	37.3	23.4	118.2	10.0	38.4
Change Period (Y+Rc), s	* 4.2	6.2	5.8	* 5.8	* 4.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 36	27.0	5.3	* 32	* 19	* 44	* 5.8	31.0
Max Q Clear Time (g_c+I1), s	23.7	7.3	7.3	33.5	21.2	11.4	7.8	34.6
Green Ext Time (p_c), s	0.4	15.6	0.0	0.0	0.0	22.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	264.4
HCM 2010 LOS	F

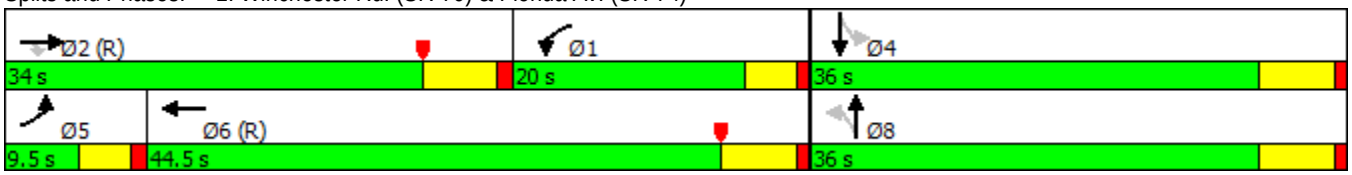
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	260	1873	216	329	1631	567	481	47	56
Future Volume (vph)	260	1873	216	329	1631	567	481	47	56
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	1873	216	329	1631	360	567	481	458	47	56	80
Future Volume (veh/h)	260	1873	216	329	1631	360	567	481	458	47	56	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	295	2128	198	374	1853	403	644	547	312	53	64	86
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	99	1101	493	914	2293	481	410	372	212	80	240	322
Arrive On Green	0.06	0.31	0.31	0.51	0.79	0.79	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	2913	611	1228	1115	636	641	720	967
Grp Volume(v), veh/h	295	2128	198	374	1099	1157	644	0	859	53	0	150
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1755	1228	0	1751	641	0	1687
Q Serve(g_s), s	5.0	28.0	8.9	11.7	31.4	37.1	24.1	0.0	30.0	0.0	0.0	5.9
Cycle Q Clear(g_c), s	5.0	28.0	8.9	11.7	31.4	37.1	30.0	0.0	30.0	30.0	0.0	5.9
Prop In Lane	1.00		1.00	1.00		0.35	1.00		0.36	1.00		0.57
Lane Grp Cap(c), veh/h	99	1101	493	914	1393	1381	410	0	584	80	0	562
V/C Ratio(X)	2.99	1.93	0.40	0.41	0.79	0.84	1.57	0.00	1.47	0.66	0.00	0.27
Avail Cap(c_a), veh/h	99	1101	493	914	1393	1381	410	0	584	80	0	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.5	31.0	24.4	13.4	5.4	6.0	35.3	0.0	30.0	45.0	0.0	22.0
Incr Delay (d2), s/veh	923.6	423.0	2.4	0.1	4.6	6.2	269.2	0.0	221.7	35.8	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.7	78.3	4.2	5.7	16.7	19.7	40.7	0.0	50.4	2.1	0.0	2.9
LnGrp Delay(d),s/veh	966.1	454.0	26.8	13.5	10.0	12.2	304.5	0.0	251.7	80.8	0.0	23.1
LnGrp LOS	F	F	C	B	A	B	F		F	F		C
Approach Vol, veh/h		2621			2630			1503			203	
Approach Delay, s/veh		479.4			11.5			274.3			38.2	
Approach LOS		F			B			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	52.5	34.0		36.0	9.5	77.0		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	13.7	30.0		32.0	7.0	39.1		32.0
Green Ext Time (p_c), s	0.5	0.0		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	245.3
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	188.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	229	103	105	127	550	227	217	865	47	300	834	148
Future Vol, veh/h	229	103	105	127	550	227	217	865	47	300	834	148
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	244	110	112	135	585	241	231	920	50	319	887	157

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3425	3037	967	3066	3091	945	1046	0	0	970	0	0
Stage 1	1605	1605	-	1407	1407	-	-	-	-	-	-	-
Stage 2	1820	1432	-	1659	1684	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	0	0	308	0	0	*363	665	-	-	*544	-	-
Stage 1	~ 132	164	-	~ 73	~ 84	-	-	-	-	-	-	-
Stage 2	~ 14	~ 78	-	~ 123	~ 150	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	0	0	308	0	0	*363	665	-	-	*544	-	-
Mov Cap-2 Maneuver	0	0	-	0	0	-	-	-	-	-	-	-
Stage 1	~ 86	~ 68	-	~ 48	~ 55	-	-	-	-	-	-	-
Stage 2	-	~ 51	-	-	~ 62	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		$ 772.7	2.5	4.8
HCM LOS	-	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	665	-	-	-	308	363	* 544	-	-
HCM Lane V/C Ratio	0.347	-	-	-	0.363	2.649	0.587	-	-
HCM Control Delay (s)	13.3	-	-	-	23.2	$ 772.7	20.6	-	-
HCM Lane LOS	B	-	-	-	C	F	C	-	-
HCM 95th %tile Q(veh)	1.6	-	-	-	1.6	79.4	3.8	-	-

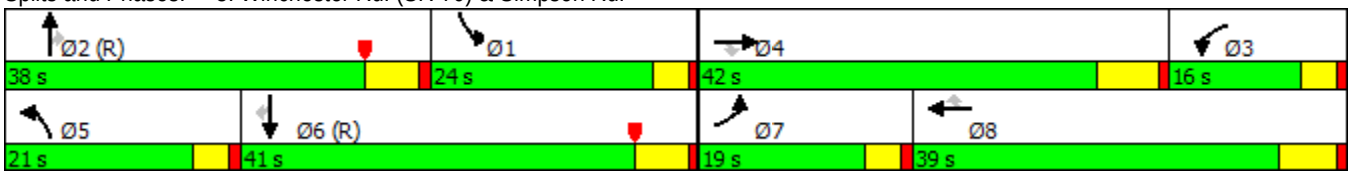
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	156	120	73	380	337	168	721	187	198	334	410
Future Volume (vph)	131	156	120	73	380	337	168	721	187	198	334	410
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	19.0	42.0	42.0	16.0	39.0	39.0	21.0	38.0	38.0	24.0	41.0	41.0
Total Split (%)	15.8%	35.0%	35.0%	13.3%	32.5%	32.5%	17.5%	31.7%	31.7%	20.0%	34.2%	34.2%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 42 (35%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	156	120	73	380	337	168	721	187	198	334	410
Future Volume (veh/h)	131	156	120	73	380	337	168	721	187	198	334	410
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	138	164	105	77	400	341	177	759	144	208	352	405
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	210	176	354	445	377	204	950	425	385	1358	607
Arrive On Green	0.09	0.11	0.11	0.20	0.24	0.24	0.11	0.27	0.27	0.22	0.38	0.38
Sat Flow, veh/h	1774	1863	1561	1774	1863	1580	1774	3539	1583	1774	3539	1581
Grp Volume(v), veh/h	138	164	105	77	400	341	177	759	144	208	352	405
Grp Sat Flow(s),veh/h/ln	1774	1863	1561	1774	1863	1580	1774	1770	1583	1774	1770	1581
Q Serve(g_s), s	9.2	10.3	5.9	4.4	25.0	14.7	11.8	24.0	8.8	12.5	8.2	25.5
Cycle Q Clear(g_c), s	9.2	10.3	5.9	4.4	25.0	14.7	11.8	24.0	8.8	12.5	8.2	25.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	210	176	354	445	377	204	950	425	385	1358	607
V/C Ratio(X)	0.84	0.78	0.60	0.22	0.90	0.90	0.87	0.80	0.34	0.54	0.26	0.67
Avail Cap(c_a), veh/h	219	551	462	354	509	432	248	950	425	385	1358	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.6	51.8	30.0	40.2	44.3	15.1	52.2	40.9	35.3	41.7	25.3	30.6
Incr Delay (d2), s/veh	15.2	6.2	3.2	0.1	17.4	20.4	18.0	6.1	1.9	0.8	0.5	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	5.6	2.7	2.2	15.0	8.5	6.8	12.5	4.1	6.2	4.1	12.1
LnGrp Delay(d),s/veh	68.7	58.0	33.2	40.3	61.7	35.6	70.2	47.0	37.2	42.5	25.8	36.4
LnGrp LOS	E	E	C	D	E	D	E	D	D	D	C	D
Approach Vol, veh/h		407			818			1080			965	
Approach Delay, s/veh		55.3			48.8			49.5			33.8	
Approach LOS		E			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.8	38.0	30.1	20.0	18.0	51.8	15.3	34.8
Change Period (Y+Rc), s	5.8	* 5.8	6.2	* 6.5	* 4.2	5.8	* 4.2	6.2
Max Green Setting (Gmax), s	19.8	* 32	11.8	* 36	* 17	35.2	* 15	32.8
Max Q Clear Time (g_c+I1), s	14.5	26.0	6.4	12.3	13.8	27.5	11.2	27.0
Green Ext Time (p_c), s	1.1	3.4	1.7	1.0	0.1	3.2	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	45.4
HCM 2010 LOS	D

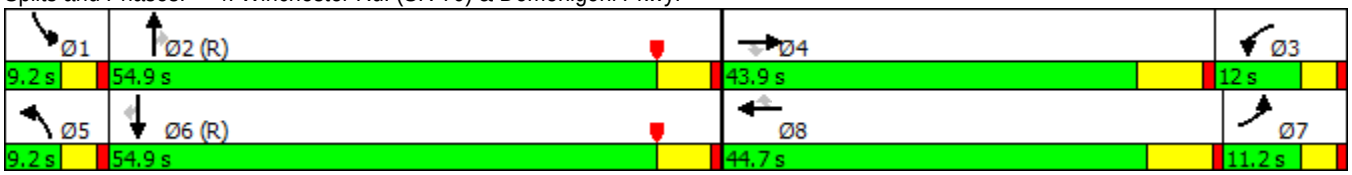
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	189	702	60	493	1338	114	87	539	835	79	153	192
Future Volume (vph)	189	702	60	493	1338	114	87	539	835	79	153	192
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	11.2	43.9	43.9	12.0	44.7	44.7	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.3%	36.6%	36.6%	10.0%	37.3%	37.3%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	702	60	493	1338	114	87	539	835	79	153	192
Future Volume (veh/h)	189	702	60	493	1338	114	87	539	835	79	153	192
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	201	747	33	524	1423	111	93	573	473	84	163	95
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	872	390	410	1562	486	74	1476	660	74	1476	660
Arrive On Green	0.06	0.25	0.25	0.12	0.31	0.31	0.04	0.42	0.42	0.04	0.42	0.42
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	201	747	33	524	1423	111	93	573	473	84	163	95
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	7.0	24.2	1.6	14.3	32.3	5.1	5.0	13.5	19.4	5.0	3.4	3.4
Cycle Q Clear(g_c), s	7.0	24.2	1.6	14.3	32.3	5.1	5.0	13.5	19.4	5.0	3.4	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	201	872	390	410	1562	486	74	1476	660	74	1476	660
V/C Ratio(X)	1.00	0.86	0.08	1.28	0.91	0.23	1.26	0.39	0.72	1.14	0.11	0.14
Avail Cap(c_a), veh/h	201	1091	488	410	1602	499	74	1476	660	74	1476	660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	56.5	43.2	23.5	52.8	40.0	20.1	57.5	24.3	12.4	57.5	21.4	12.4
Incr Delay (d2), s/veh	63.8	5.7	0.1	142.2	8.1	0.2	189.1	0.8	6.6	144.8	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	12.5	0.7	14.9	16.3	2.2	6.3	6.8	9.7	5.4	1.7	1.6
LnGrp Delay(d),s/veh	120.3	48.9	23.6	195.1	48.1	20.4	246.6	25.1	18.9	202.3	21.5	12.9
LnGrp LOS	F	D	C	F	D	C	F	C	B	F	C	B
Approach Vol, veh/h		981			2058			1139			342	
Approach Delay, s/veh		62.7			84.0			40.6			63.5	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	55.8	18.5	36.5	9.2	55.8	11.2	43.8
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.9	* 4.2	5.8	4.2	* 6.9
Max Green Setting (Gmax), s	* 5	49.1	7.8	* 37	* 5	49.1	7.0	* 38
Max Q Clear Time (g_c+I1), s	7.0	21.4	16.3	26.2	7.0	5.4	9.0	34.3
Green Ext Time (p_c), s	0.0	11.0	0.0	3.4	0.0	12.8	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	66.9
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	61.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	134	1177	306	771	1607	252	278	308	835	179	202	59
Future Vol, veh/h	134	1177	306	771	1607	252	278	308	835	179	202	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	135	1189	309	779	1623	255	281	311	843	181	204	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1878	0	0	1498	0	0	4085	5049	749	4329	5077	939
Stage 1	-	-	-	-	-	-	1614	1614	-	3308	3308	-
Stage 2	-	-	-	-	-	-	2471	3435	-	1021	1769	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	316	-	-	~ 687	-	-	0	0	*~ 611	*0	0	265
Stage 1	-	-	-	-	-	-	~ 277	~ 292	-	*~ 8	~ 21	-
Stage 2	-	-	-	-	-	-	~ 30	~ 18	-	*576	219	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	316	-	-	~ 687	-	-	-	0	*~ 611	-	0	265
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	~ 277	0	-	*~ 8	0	-
Stage 2	-	-	-	-	-	-	-	0	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2	29.3	201.3	22.5
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	611	316	-	-	~ 687	-	-	265
HCM Lane V/C Ratio	1.38	0.428	-	-	1.134	-	-	0.225
HCM Control Delay (s)	201.3	24.7	-	-	100.1	-	-	22.5
HCM Lane LOS	F	C	-	-	F	-	-	C
HCM 95th %tile Q(veh)	37.5	2.1	-	-	23.8	-	-	0.8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	159	128	579	618	455	114
Future Vol, veh/h	159	128	579	618	455	114
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	189	152	689	736	542	136

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2656	542	542	0	-	0
Stage 1	542	-	-	-	-	-
Stage 2	2114	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 25	540	1027	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	~ 100	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	0	540	1027	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	0	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.4	7.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1027	-	540	-	-
HCM Lane V/C Ratio	0.671	-	0.633	-	-
HCM Control Delay (s)	15.3	0	22.4	-	-
HCM Lane LOS	C	A	C	-	-
HCM 95th %tile Q(veh)	5.4	-	4.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	59.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1116	499	237	9	445	80	19	10	0	29	113	357
Future Vol, veh/h	1116	499	237	9	445	80	19	10	0	29	113	357
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1268	567	269	10	506	91	22	11	0	33	128	406

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	597	0	0	836	0	0	4077	3855	702	3816	3945	551
Stage 1	-	-	-	-	-	-	3238	3238	-	572	572	-
Stage 2	-	-	-	-	-	-	839	617	-	3244	3373	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	~ 980	-	-	798	-	-	~ 1	~ 4	438	~ 2	~ 3	534
Stage 1	-	-	-	-	-	-	~ 14	23	-	505	504	-
Stage 2	-	-	-	-	-	-	360	481	-	~ 14	~ 20	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	~ 980	-	-	798	-	-	-	0	438	-	0	534
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	~ 14	0	-	505	494	-
Stage 2	-	-	-	-	-	-	63	472	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	93.7	0.2		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	~ 980	-	-	798	-	-	-
HCM Lane V/C Ratio	-	1.294	-	-	0.013	-	-	-
HCM Control Delay (s)	-	155.6	0	-	9.6	0	-	-
HCM Lane LOS	-	F	A	-	A	A	-	-
HCM 95th %tile Q(veh)	-	46.3	-	-	0	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	1462.7
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	188	612	265	0	218	411	162	0	378	1334	432
Future Vol, veh/h	0	188	612	265	0	218	411	162	0	378	1334	432
Peak Hour Factor	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	190	618	268	0	220	415	164	0	382	1347	436
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	962.7	684.7	2215.4
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	18%	28%	18%
Vol Thru, %	62%	57%	52%	68%
Vol Right, %	20%	25%	20%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2144	1065	791	1116
LT Vol	378	188	218	198
Through Vol	1334	612	411	764
RT Vol	432	265	162	154
Lane Flow Rate	2166	1076	799	1127
Geometry Grp	1	1	1	1
Degree of Util (X)	5.743	2.844	2.122	3.001
Departure Headway (Hd)	35.701	53.82	69.09	59.756
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	130	86	64	79
Service Time	33.701	51.82	67.09	57.756
HCM Lane V/C Ratio	16.662	12.512	12.484	14.266
HCM Control Delay	2215.4	962.7	684.7	1045.3
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	63.2	19.1	11.1	18.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	198	764	154
Future Vol, veh/h	0	198	764	154
Peak Hour Factor	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	200	772	156
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	1045.3
HCM LOS	F

Intersection	
Intersection Delay, s/veh	1042.5
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	423	385	108	0	136	469	291	0	209	1339	229
Future Vol, veh/h	0	423	385	108	0	136	469	291	0	209	1339	229
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	441	401	113	0	142	489	303	0	218	1395	239
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	788.3	744.6	1388.1
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	0%	46%	15%	18%
Vol Thru, %	86%	0%	42%	52%	45%
Vol Right, %	0%	100%	12%	32%	37%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1548	229	916	896	1050
LT Vol	209	0	423	136	192
Through Vol	1339	0	385	469	472
RT Vol	0	229	108	291	386
Lane Flow Rate	1612	239	954	933	1094
Geometry Grp	7	7	2	2	5
Degree of Util (X)	4.389	0.598	2.558	2.454	2.9
Departure Headway (Hd)	25.183	24.384	33.274	34.079	30.826
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	161	150	124	121	131
Service Time	22.883	22.084	31.274	32.079	28.826
HCM Lane V/C Ratio	10.012	1.593	7.694	7.711	8.351
HCM Control Delay	1584.9	58.1	788.3	744.6	933.5
HCM Lane LOS	F	F	F	F	F
HCM 95th-tile Q	64.2	3.1	25.2	23.4	31.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	192	472	386
Future Vol, veh/h	0	192	472	386
Peak Hour Factor	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	200	492	402
Number of Lanes	0	0	1	0

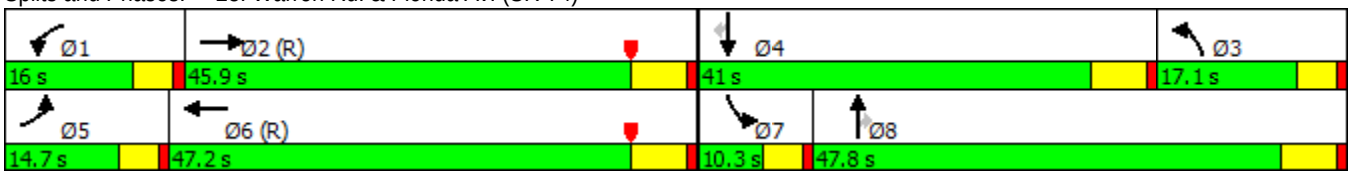
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	933.5
HCM LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	204	1428	416	1272	347	1065	759	331	391	189
Future Volume (vph)	204	1428	416	1272	347	1065	759	331	391	189
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	14.7	45.9	16.0	47.2	17.1	47.8	47.8	10.3	41.0	41.0
Total Split (%)	12.3%	38.3%	13.3%	39.3%	14.3%	39.8%	39.8%	8.6%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	1428	174	416	1272	597	347	1065	759	331	391	189
Future Volume (veh/h)	204	1428	174	416	1272	597	347	1065	759	331	391	189
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	215	1503	118	438	1339	622	365	1121	683	348	412	131
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	2387	186	169	1755	757	185	1274	570	84	1032	462
Arrive On Green	0.08	0.72	0.72	0.09	0.73	0.73	0.10	0.36	0.36	0.05	0.29	0.29
Sat Flow, veh/h	1774	3327	260	1774	2410	1039	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	215	795	826	438	955	1006	365	1121	683	348	412	131
Grp Sat Flow(s),veh/h/ln	1774	1770	1817	1774	1770	1679	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	10.1	27.7	28.2	11.4	38.2	48.7	12.5	35.6	43.2	5.7	11.2	10.1
Cycle Q Clear(g_c), s	10.1	27.7	28.2	11.4	38.2	48.7	12.5	35.6	43.2	5.7	11.2	10.1
Prop In Lane	1.00		0.14	1.00		0.62	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	1270	1304	169	1289	1223	185	1274	570	84	1032	462
V/C Ratio(X)	1.44	0.63	0.63	2.60	0.74	0.82	1.98	0.88	1.20	4.13	0.40	0.28
Avail Cap(c_a), veh/h	149	1270	1304	169	1289	1223	185	1274	570	84	1032	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	8.7	8.8	54.3	9.6	11.0	53.8	36.0	38.4	57.2	34.1	56.9
Incr Delay (d2), s/veh	231.7	2.3	2.4	736.5	3.9	6.3	457.7	8.9	105.4	1436.0	1.2	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.5	14.1	14.8	40.0	19.7	24.2	29.6	18.9	35.5	36.4	5.7	4.6
LnGrp Delay(d),s/veh	286.6	11.0	11.1	790.8	13.5	17.3	511.5	44.9	143.8	1493.2	35.2	58.4
LnGrp LOS	F	B	B	F	B	B	F	D	F	F	D	E
Approach Vol, veh/h		1836			2399			2169			891	
Approach Delay, s/veh		43.4			157.0			154.5			608.1	
Approach LOS		D			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	93.5	18.5	41.0	14.7	94.8	10.3	49.2
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	11.4	39.9	12.5	* 35	10.1	41.2	5.7	41.8
Max Q Clear Time (g_c+I1), s	13.4	30.2	14.5	13.2	12.1	50.7	7.7	45.2
Green Ext Time (p_c), s	0.0	8.5	0.0	1.6	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	182.8
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	406.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	93	321	1860	50	126	853
Future Vol, veh/h	93	321	1860	50	126	853
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	108	373	2163	58	147	992

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3448	2163	0	0	2163	0
Stage 1	2163	-	-	-	-	-
Stage 2	1285	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 8	~ 60	-	-	247	-
Stage 1	~ 95	-	-	-	-	-
Stage 2	260	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 3	~ 60	-	-	247	-
Mov Cap-2 Maneuver	~ 64	-	-	-	-	-
Stage 1	~ 95	-	-	-	-	-
Stage 2	~ 105	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 3231.5	0	5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	61	247	-
HCM Lane V/C Ratio	-	-	7.892	0.593	-
HCM Control Delay (s)	-	-	$ 3231.5	38.8	-
HCM Lane LOS	-	-	F	E	-
HCM 95th %tile Q(veh)	-	-	55.8	3.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	43	71	1436	51	77	662
Future Vol, veh/h	43	71	1436	51	77	662
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	77	1561	55	84	720

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2476	1589	0	0	1616	0
Stage 1	1589	-	-	-	-	-
Stage 2	887	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 33	133	-	-	403	-
Stage 1	184	-	-	-	-	-
Stage 2	402	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 26	133	-	-	403	-
Mov Cap-2 Maneuver	151	-	-	-	-	-
Stage 1	184	-	-	-	-	-
Stage 2	318	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	111.3	0	1.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	139	403	-
HCM Lane V/C Ratio	-	-	0.891	0.208	-
HCM Control Delay (s)	-	-	111.3	16.3	-
HCM Lane LOS	-	-	F	C	-
HCM 95th %tile Q(veh)	-	-	5.9	0.8	-

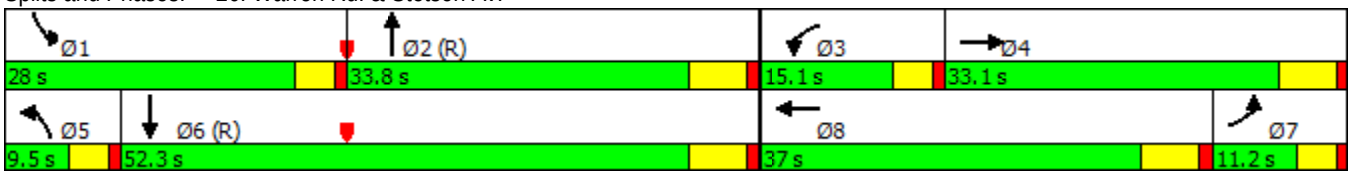
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	555	1198	206	1119	298	736	300	523
Future Volume (vph)	555	1198	206	1119	298	736	300	523
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	32.8	9.5	32.8
Total Split (s)	11.2	33.1	15.1	37.0	9.5	33.8	28.0	52.3
Total Split (%)	10.2%	30.1%	13.7%	33.6%	8.6%	30.7%	25.5%	47.5%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	555	1198	121	206	1119	330	298	736	143	300	523	121
Future Volume (veh/h)	555	1198	121	206	1119	330	298	736	143	300	523	121
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	566	1222	123	210	1142	337	304	751	146	306	534	123
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	438	44	176	392	116	85	2254	438	335	2582	592
Arrive On Green	0.06	0.26	0.26	0.10	0.28	0.28	0.05	0.76	0.76	0.19	0.90	0.90
Sat Flow, veh/h	1774	1666	168	1774	1383	408	1774	2956	575	1774	2860	656
Grp Volume(v), veh/h	566	0	1345	210	0	1479	304	449	448	306	330	327
Grp Sat Flow(s),veh/h/ln	1774	0	1833	1774	0	1791	1774	1770	1761	1774	1770	1747
Q Serve(g_s), s	7.0	0.0	28.9	10.9	0.0	31.2	5.3	8.9	8.9	18.6	2.4	2.5
Cycle Q Clear(g_c), s	7.0	0.0	28.9	10.9	0.0	31.2	5.3	8.9	8.9	18.6	2.4	2.5
Prop In Lane	1.00		0.09	1.00		0.23	1.00		0.33	1.00		0.38
Lane Grp Cap(c), veh/h	113	0	482	176	0	508	85	1349	1343	335	1597	1577
V/C Ratio(X)	5.01	0.00	2.79	1.19	0.00	2.91	3.56	0.33	0.33	0.91	0.21	0.21
Avail Cap(c_a), veh/h	113	0	482	176	0	508	85	1349	1343	384	1597	1577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	0.0	40.6	49.5	0.0	39.4	52.3	4.2	4.2	43.8	0.6	0.6
Incr Delay (d2), s/veh	1825.8	0.0	812.5	129.9	0.0	865.7	1171.7	0.5	0.5	22.7	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	60.7	0.0	123.3	11.7	0.0	137.5	30.4	4.4	4.4	11.2	1.2	1.2
LnGrp Delay(d),s/veh	1877.3	0.0	853.0	179.5	0.0	905.1	1224.1	4.7	4.7	66.4	0.9	0.9
LnGrp LOS	F		F	F		F	F	A	A	E	A	A
Approach Vol, veh/h		1911			1689			1201			963	
Approach Delay, s/veh		1156.4			814.9			313.3			21.7	
Approach LOS		F			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.9	91.3	15.1	34.7	9.5	106.7	12.8	37.0
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 24	28.0	* 11	27.3	* 5.3	46.5	7.0	* 31
Max Q Clear Time (g_c+I1), s	20.6	10.9	12.9	30.9	7.3	4.5	9.0	33.2
Green Ext Time (p_c), s	0.1	10.9	0.0	0.0	0.0	18.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	691.1
HCM 2010 LOS	F

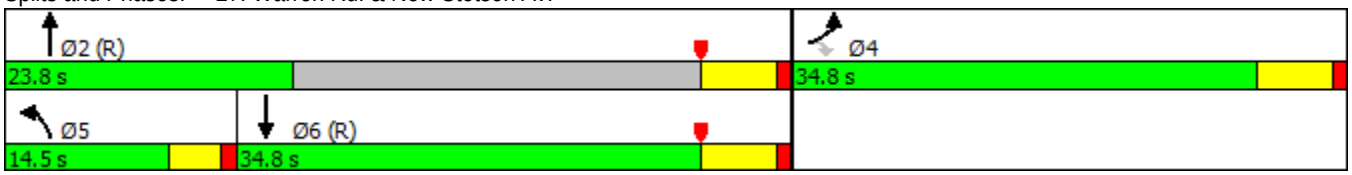
Notes

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	273	179	333	682	160
Future Volume (vph)	273	179	333	682	160
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	34.8	34.8	9.2	15.8	34.8
Total Split (s)	34.8	34.8	14.5	23.8	34.8
Total Split (%)	41.4%	41.4%	17.2%	28.3%	41.4%
Yellow Time (s)	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 84.1
Actuated Cycle Length: 84.1
Offset: 16.7 (20%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 27: Warren Rd. & New Stetson Av.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	273	179	333	682	160	377
Future Volume (veh/h)	273	179	333	682	160	377
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	281	185	343	703	165	389
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	327	292	218	1262	249	587
Arrive On Green	0.18	0.18	0.12	0.68	0.50	0.50
Sat Flow, veh/h	1774	1583	1774	1863	494	1164
Grp Volume(v), veh/h	281	185	343	703	0	554
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	0	1657
Q Serve(g_s), s	12.9	9.1	10.3	16.4	0.0	20.9
Cycle Q Clear(g_c), s	12.9	9.1	10.3	16.4	0.0	20.9
Prop In Lane	1.00	1.00	1.00			0.70
Lane Grp Cap(c), veh/h	327	292	218	1262	0	837
V/C Ratio(X)	0.86	0.63	1.58	0.56	0.00	0.66
Avail Cap(c_a), veh/h	612	547	218	1262	0	837
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.74
Uniform Delay (d), s/veh	33.2	31.6	36.8	7.0	0.0	15.5
Incr Delay (d2), s/veh	2.6	0.8	280.5	1.8	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	7.9	22.0	9.0	0.0	10.2
LnGrp Delay(d),s/veh	35.8	32.5	317.3	8.8	0.0	18.5
LnGrp LOS	D	C	F	A		B
Approach Vol, veh/h	466			1046	554	
Approach Delay, s/veh	34.5			110.0	18.5	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		62.7		21.3	14.5	48.2		
Change Period (Y+Rc), s		5.8		5.8	* 4.2	5.8		
Max Green Setting (Gmax), s		18.0		29.0	* 10	29.0		
Max Q Clear Time (g_c+I1), s		18.4		14.9	12.3	22.9		
Green Ext Time (p_c), s		0.0		0.6	0.0	2.8		

Intersection Summary	
HCM 2010 Ctrl Delay	68.4
HCM 2010 LOS	E

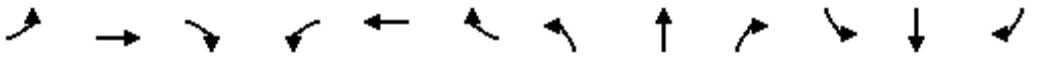
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	63	95	176	140	72	1109	109	389
Future Volume (vph)	63	95	176	140	72	1109	109	389
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	4.9	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	9.5	21.6	9.5	21.7	9.2	14.7
Total Split (s)	10.1	22.5	14.0	26.4	15.0	72.5	11.0	68.5
Total Split (%)	8.4%	18.8%	11.7%	22.0%	12.5%	60.4%	9.2%	57.1%
Yellow Time (s)	3.5	3.5	3.6	3.6	3.5	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.6	4.6	4.5	4.7	4.2	4.7
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	95	49	176	140	167	72	1109	323	109	389	57
Future Volume (veh/h)	63	95	49	176	140	167	72	1109	323	109	389	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	64	97	50	180	143	143	73	1132	306	111	397	58
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	172	89	139	155	155	95	798	216	284	1070	156
Arrive On Green	0.05	0.15	0.15	0.08	0.18	0.18	0.05	0.56	0.56	0.16	0.67	0.67
Sat Flow, veh/h	1774	1160	598	1774	856	856	1774	1413	382	1774	1590	232
Grp Volume(v), veh/h	64	0	147	180	0	286	73	0	1438	111	0	455
Grp Sat Flow(s),veh/h/ln	1774	0	1757	1774	0	1712	1774	0	1795	1774	0	1822
Q Serve(g_s), s	4.3	0.0	9.3	9.4	0.0	19.7	4.9	0.0	67.8	6.7	0.0	13.1
Cycle Q Clear(g_c), s	4.3	0.0	9.3	9.4	0.0	19.7	4.9	0.0	67.8	6.7	0.0	13.1
Prop In Lane	1.00		0.34	1.00		0.50	1.00		0.21	1.00		0.13
Lane Grp Cap(c), veh/h	82	0	260	139	0	310	95	0	1014	284	0	1227
V/C Ratio(X)	0.78	0.00	0.56	1.30	0.00	0.92	0.77	0.00	1.42	0.39	0.00	0.37
Avail Cap(c_a), veh/h	83	0	264	139	0	311	155	0	1014	284	0	1227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.6	0.0	47.5	55.3	0.0	48.3	56.0	0.0	26.1	45.1	0.0	8.5
Incr Delay (d2), s/veh	34.0	0.0	2.7	175.8	0.0	31.6	44.0	0.0	193.9	0.3	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	4.7	11.4	0.0	12.0	3.6	0.0	87.9	3.3	0.0	6.9
LnGrp Delay(d),s/veh	90.7	0.0	50.2	231.1	0.0	79.9	100.0	0.0	220.0	45.5	0.0	9.4
LnGrp LOS	F		D	F		E	F		F	D		A
Approach Vol, veh/h		211			466			1511			566	
Approach Delay, s/veh		62.5			138.3			214.2			16.5	
Approach LOS		E			F			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.3	72.5	14.0	22.4	10.9	85.9	10.0	26.3
Change Period (Y+Rc), s	* 4.7	* 4.7	4.6	* 4.6	4.5	* 4.7	4.5	4.6
Max Green Setting (Gmax), s	* 6.8	* 68	9.4	* 18	10.5	* 64	5.6	21.8
Max Q Clear Time (g_c+I1), s	8.7	69.8	11.4	11.3	6.9	15.1	6.3	21.7
Green Ext Time (p_c), s	0.0	0.0	0.0	1.5	0.2	4.8	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		149.1
HCM 2010 LOS		F

Notes

Intersection	
Intersection Delay, s/veh	351.7
Intersection LOS	F

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	626	448	0	16	515	0	468	19
Future Vol, veh/h	0	626	448	0	16	515	0	468	19
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	659	472	0	17	542	0	493	20
Number of Lanes	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	577.1	121.3	105.8
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	58%	0%	100%
Vol Right, %	0%	100%	42%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	468	19	1074	16	515
LT Vol	468	0	0	16	0
Through Vol	0	0	626	0	515
RT Vol	0	19	448	0	0
Lane Flow Rate	493	20	1131	17	542
Geometry Grp	7	7	4	7	7
Degree of Util (X)	1.102	0.038	2.228	0.038	1.15
Departure Headway (Hd)	9.976	8.703	7.765	10.253	9.722
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	369	414	486	351	379
Service Time	7.676	6.403	5.765	7.953	7.422
HCM Lane V/C Ratio	1.336	0.048	2.327	0.048	1.43
HCM Control Delay	109.6	11.7	577.1	13.4	124.7
HCM Lane LOS	F	B	F	B	F
HCM 95th-tile Q	14.7	0.1	76.2	0.1	16.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	461	1212	11	11	1139	516	11	263	11	399	11
Future Volume (vph)	461	1212	11	11	1139	516	11	263	11	399	11
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 140
Control Type: Actuated-Coordinated

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	461	1212	11	11	1139	516	11	263	11	399	11	266
Future Volume (veh/h)	461	1212	11	11	1139	516	11	263	11	399	11	266
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	490	1289	10	12	1212	542	12	280	12	424	12	69
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	1640	734	25	985	440	45	681	590	306	7	40
Arrive On Green	0.20	0.46	0.46	0.01	0.28	0.28	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	30	1827	1583	660	19	107
Grp Volume(v), veh/h	490	1289	10	12	1212	542	292	0	12	505	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1857	0	1583	786	0	0
Q Serve(g_s), s	21.9	33.8	0.4	0.7	30.6	30.6	0.0	0.0	0.5	28.2	0.0	0.0
Cycle Q Clear(g_c), s	21.9	33.8	0.4	0.7	30.6	30.6	12.8	0.0	0.5	41.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.04		1.00	0.84		0.14
Lane Grp Cap(c), veh/h	353	1640	734	25	985	440	726	0	590	353	0	0
V/C Ratio(X)	1.39	0.79	0.01	0.48	1.23	1.23	0.40	0.00	0.02	1.43	0.00	0.00
Avail Cap(c_a), veh/h	353	1640	734	81	985	440	740	0	602	353	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	24.9	15.9	53.8	39.7	39.7	25.7	0.0	21.8	43.3	0.0	0.0
Incr Delay (d2), s/veh	191.0	3.9	0.0	5.4	112.9	122.3	0.1	0.0	0.0	209.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	29.4	17.4	0.2	0.4	30.3	28.3	6.6	0.0	0.2	31.2	0.0	0.0
LnGrp Delay(d),s/veh	235.0	28.8	16.0	59.2	152.6	162.0	25.8	0.0	21.8	252.6	0.0	0.0
LnGrp LOS	F	C	B	E	F	F	C		C	F		
Approach Vol, veh/h		1789			1766			304			505	
Approach Delay, s/veh		85.2			154.9			25.6			252.6	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	57.9		46.4	26.1	37.5		46.4
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.7	35.8		43.0	23.9	32.6		14.8
Green Ext Time (p_c), s	0.0	8.6		0.0	0.0	0.0		4.1

Intersection Summary			
HCM 2010 Ctrl Delay		128.6	
HCM 2010 LOS		F	

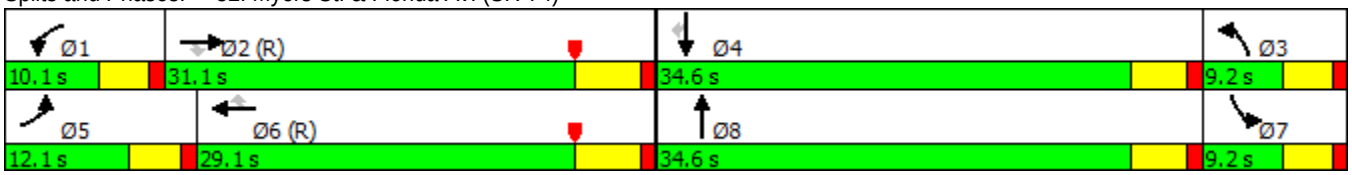
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	220	2015	281	125	2028	251	126	150	223	49	130
Future Volume (vph)	220	2015	281	125	2028	251	126	150	223	49	130
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.1	31.1	31.1	10.1	29.1	29.1	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.2%	36.6%	36.6%	11.9%	34.2%	34.2%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 80.1 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	2015	281	125	2028	251	126	150	169	223	49	130
Future Volume (veh/h)	220	2015	281	125	2028	251	126	150	169	223	49	130
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	237	2167	292	134	2181	264	135	161	159	240	53	88
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1083	484	123	999	447	104	304	300	104	657	559
Arrive On Green	0.09	0.31	0.31	0.05	0.19	0.19	0.06	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	862	851	1774	1863	1583
Grp Volume(v), veh/h	237	2167	292	134	2181	264	135	0	320	240	53	88
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	0	1713	1774	1863	1583
Q Serve(g_s), s	7.9	26.0	10.1	5.9	24.0	9.9	5.0	0.0	12.6	5.0	1.6	2.3
Cycle Q Clear(g_c), s	7.9	26.0	10.1	5.9	24.0	9.9	5.0	0.0	12.6	5.0	1.6	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	165	1083	484	123	999	447	104	0	604	104	657	559
V/C Ratio(X)	1.44	2.00	0.60	1.09	2.18	0.59	1.29	0.00	0.53	2.30	0.08	0.16
Avail Cap(c_a), veh/h	165	1083	484	123	999	447	104	0	604	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	29.5	14.4	40.5	34.5	17.6	40.0	0.0	21.9	40.0	18.3	9.1
Incr Delay (d2), s/veh	227.8	454.1	5.5	106.7	535.4	5.6	186.1	0.0	3.3	614.0	0.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.3	80.9	5.1	6.5	86.0	5.0	7.8	0.0	6.5	20.2	0.9	1.1
LnGrp Delay(d),s/veh	266.4	483.6	19.9	147.3	569.9	23.2	226.1	0.0	25.2	654.0	18.6	9.7
LnGrp LOS	F	F	B	F	F	C	F		C	F	B	A
Approach Vol, veh/h		2696			2579			455			381	
Approach Delay, s/veh		414.2			492.0			84.8			416.8	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	31.1	9.2	34.6	12.1	29.1	9.2	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.9	26.0	5.0	* 30	* 7.9	24.0	5.0	* 30
Max Q Clear Time (g_c+I1), s	7.9	28.0	7.0	4.3	9.9	26.0	7.0	14.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	0.0	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	422.7
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2043	415	6	2396	0	28
Future Vol, veh/h	2043	415	6	2396	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2173	441	6	2549	0	30

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2173	0	-	1087
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*361	-	0	*241
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*361	-	-	*241
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	22
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	241	-	-	* 361	-
HCM Lane V/C Ratio	0.124	-	-	0.018	-
HCM Control Delay (s)	22	-	-	15.2	-
HCM Lane LOS	C	-	-	C	-
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

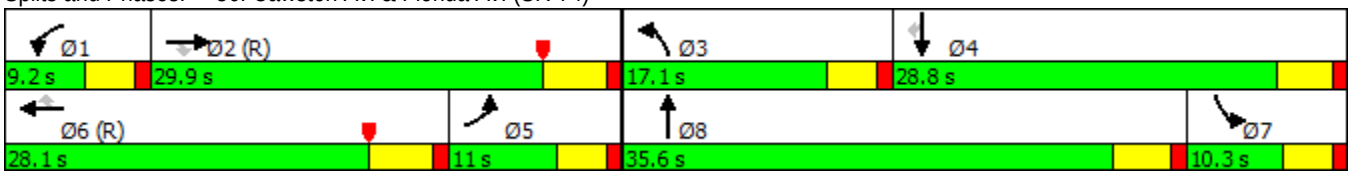
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	305	1086	617	223	1290	112	541	609	48	331	316
Future Volume (vph)	305	1086	617	223	1290	112	541	609	48	331	316
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	11.0	29.9	29.9	9.2	28.1	28.1	17.1	35.6	10.3	28.8	28.8
Total Split (%)	12.9%	35.2%	35.2%	10.8%	33.1%	33.1%	20.1%	41.9%	12.1%	33.9%	33.9%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 35 (41%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	305	1086	617	223	1290	112	541	609	258	48	331	316
Future Volume (veh/h)	305	1086	617	223	1290	112	541	609	258	48	331	316
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	318	1131	641	232	1344	73	564	634	263	50	345	265
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	741	2264	1013	104	958	426	269	885	367	119	530	451
Arrive On Green	0.83	1.00	1.00	0.06	0.27	0.27	0.15	0.36	0.36	0.07	0.28	0.28
Sat Flow, veh/h	1774	3539	1583	1774	3539	1575	1774	2427	1006	1774	1863	1583
Grp Volume(v), veh/h	318	1131	641	232	1344	73	564	462	435	50	345	265
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1575	1774	1770	1663	1774	1863	1583
Q Serve(g_s), s	3.9	0.0	0.0	5.0	23.0	3.0	12.9	19.1	19.1	2.3	13.8	9.1
Cycle Q Clear(g_c), s	3.9	0.0	0.0	5.0	23.0	3.0	12.9	19.1	19.1	2.3	13.8	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.60	1.00		1.00
Lane Grp Cap(c), veh/h	741	2264	1013	104	958	426	269	645	607	119	530	451
V/C Ratio(X)	0.43	0.50	0.63	2.22	1.40	0.17	2.09	0.72	0.72	0.42	0.65	0.59
Avail Cap(c_a), veh/h	741	2264	1013	104	958	426	269	645	607	127	530	451
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.4	0.0	0.0	40.0	31.0	23.7	36.0	23.2	23.2	38.1	26.7	14.4
Incr Delay (d2), s/veh	0.1	0.8	3.0	580.2	187.9	0.9	505.1	6.7	7.1	0.9	6.1	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.2	0.8	19.3	36.2	1.4	44.1	10.4	9.9	1.2	8.0	4.6
LnGrp Delay(d),s/veh	4.6	0.8	3.0	620.2	218.9	24.6	541.2	29.9	30.3	38.9	32.8	20.0
LnGrp LOS	A	A	A	F	F	C	F	C	C	D	C	B
Approach Vol, veh/h		2090			1649			1461			660	
Approach Delay, s/veh		2.0			266.7			227.4			28.1	
Approach LOS		A			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	59.6	17.1	28.8	40.7	28.1	10.3	35.6
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	5.1	* 5.1	4.6	* 4.6
Max Green Setting (Gmax), s	* 5	24.8	* 13	24.2	6.8	* 23	6.1	* 31
Max Q Clear Time (g_c+I1), s	7.0	2.0	14.9	15.8	5.9	25.0	4.3	21.1
Green Ext Time (p_c), s	0.0	15.9	0.0	2.1	0.1	0.0	0.6	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	135.6
HCM 2010 LOS	F

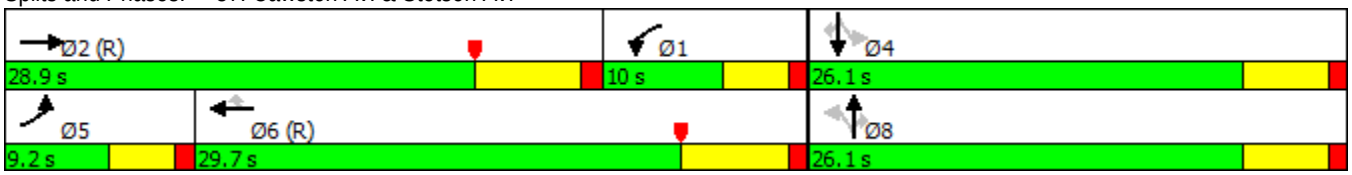
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	229	1421	71	1335	25	99	115	60	8	66	257
Future Volume (vph)	229	1421	71	1335	25	99	115	60	8	66	257
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.2	28.9	10.0	29.7	29.7	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.2%	44.5%	15.4%	45.7%	45.7%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	1421	320	71	1335	25	99	115	60	8	66	257
Future Volume (veh/h)	229	1421	320	71	1335	25	99	115	60	8	66	257
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	241	1496	323	75	1405	23	104	121	-26	8	69	244
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	1017	214	112	683	580	426	602	512	468	602	512
Arrive On Green	0.08	0.35	0.35	0.06	0.37	0.37	0.32	0.32	0.00	0.32	0.32	0.32
Sat Flow, veh/h	1774	2912	612	1774	1863	1583	1062	1863	1583	1295	1863	1583
Grp Volume(v), veh/h	241	893	926	75	1405	23	104	121	-26	8	69	244
Grp Sat Flow(s),veh/h/ln	1774	1770	1755	1774	1863	1583	1062	1863	1583	1295	1863	1583
Q Serve(g_s), s	5.0	22.7	22.7	2.7	23.8	0.6	5.0	3.1	0.0	0.3	1.7	8.0
Cycle Q Clear(g_c), s	5.0	22.7	22.7	2.7	23.8	0.6	6.7	3.1	0.0	3.3	1.7	8.0
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	618	613	112	683	580	426	602	512	468	602	512
V/C Ratio(X)	1.77	1.44	1.51	0.67	2.06	0.04	0.24	0.20	-0.05	0.02	0.11	0.48
Avail Cap(c_a), veh/h	136	618	613	158	683	580	426	602	512	468	602	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	0.09	0.09	0.09	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	21.1	21.2	29.8	20.6	13.2	17.8	15.9	0.0	17.1	15.5	17.6
Incr Delay (d2), s/veh	372.3	209.1	238.2	0.2	476.6	0.0	1.4	0.8	0.0	0.1	0.4	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.5	46.9	51.4	1.3	102.5	0.3	1.6	1.7	0.0	0.1	0.9	3.9
LnGrp Delay(d),s/veh	402.3	230.2	259.4	30.0	497.2	13.2	19.2	16.7	0.0	17.2	15.9	20.8
LnGrp LOS	F	F	F	C	F	B	B	B		B	B	C
Approach Vol, veh/h		2060			1503			199			321	
Approach Delay, s/veh		263.4			466.5			20.2			19.6	
Approach LOS		F			F			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.3	28.9		26.1	9.2	30.0		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.8	* 23		21.0	* 5	23.5		21.0
Max Q Clear Time (g_c+I1), s	4.7	24.7		10.0	7.0	25.8		8.7
Green Ext Time (p_c), s	0.6	0.0		1.1	0.0	0.0		1.1

Intersection Summary		
HCM 2010 Ctrl Delay		307.2
HCM 2010 LOS		F

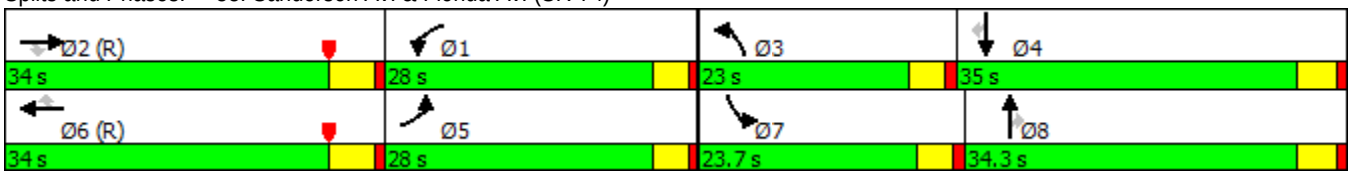
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	292	779	247	396	789	415	238	1124	246	324	916	154
Future Volume (vph)	292	779	247	396	789	415	238	1124	246	324	916	154
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	28.0	34.0	34.0	28.0	34.0	34.0	23.0	34.3	34.3	23.7	35.0	35.0
Total Split (%)	23.3%	28.3%	28.3%	23.3%	28.3%	28.3%	19.2%	28.6%	28.6%	19.8%	29.2%	29.2%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	292	779	247	396	789	415	238	1124	246	324	916	154
Future Volume (veh/h)	292	779	247	396	789	415	238	1124	246	324	916	154
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	295	787	209	400	797	362	240	1135	162	327	925	98
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	852	374	352	852	375	266	873	382	288	918	404
Arrive On Green	0.20	0.24	0.24	0.20	0.24	0.24	0.15	0.25	0.25	0.16	0.26	0.26
Sat Flow, veh/h	1774	3539	1554	1774	3539	1555	1774	3539	1550	1774	3539	1559
Grp Volume(v), veh/h	295	787	209	400	797	362	240	1135	162	327	925	98
Grp Sat Flow(s),veh/h/ln	1774	1770	1554	1774	1770	1555	1774	1770	1550	1774	1770	1559
Q Serve(g_s), s	19.2	26.1	9.9	23.8	26.5	18.9	16.0	29.6	6.7	19.5	31.1	3.8
Cycle Q Clear(g_c), s	19.2	26.1	9.9	23.8	26.5	18.9	16.0	29.6	6.7	19.5	31.1	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	852	374	352	852	375	266	873	382	288	918	404
V/C Ratio(X)	0.84	0.92	0.56	1.14	0.94	0.97	0.90	1.30	0.42	1.13	1.01	0.24
Avail Cap(c_a), veh/h	352	852	374	352	852	375	278	873	382	288	918	404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	44.5	19.6	48.1	44.6	21.1	50.1	45.2	15.5	50.3	44.4	14.0
Incr Delay (d2), s/veh	15.4	17.0	5.9	90.5	18.6	38.8	28.4	143.5	3.4	94.3	31.7	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	14.7	4.8	20.5	15.2	12.1	9.9	31.8	3.2	17.1	19.2	1.8
LnGrp Delay(d),s/veh	61.6	61.5	25.5	138.6	63.2	59.9	78.6	188.7	18.9	144.5	76.2	15.5
LnGrp LOS	E	E	C	F	E	E	E	F	B	F	F	B
Approach Vol, veh/h		1291			1559			1537			1350	
Approach Delay, s/veh		55.7			81.8			153.6			88.3	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	34.0	22.2	35.8	28.0	34.0	23.7	34.3
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	23.8	* 29	* 19	* 30	23.8	* 29	* 20	* 30
Max Q Clear Time (g_c+I1), s	25.8	28.1	18.0	33.1	21.2	28.5	21.5	31.6
Green Ext Time (p_c), s	0.0	0.6	0.0	0.0	0.4	0.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	96.7
HCM 2010 LOS	F

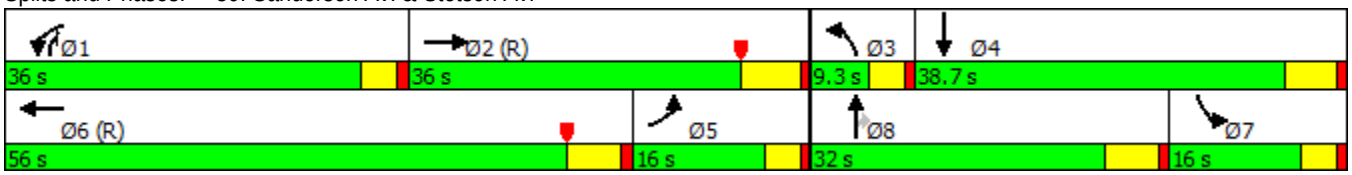
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	527	750	120	731	206	746	164	397	729
Future Volume (vph)	527	750	120	731	206	746	164	397	729
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	16.0	36.0	36.0	56.0	9.3	32.0	36.0	16.0	38.7
Total Split (%)	13.3%	30.0%	30.0%	46.7%	7.8%	26.7%	30.0%	13.3%	32.3%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 21.4 (18%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	527	750	212	120	731	295	206	746	164	397	729	495
Future Volume (veh/h)	527	750	212	120	731	295	206	746	164	397	729	495
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	543	773	217	124	754	283	212	769	-200	409	752	499
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1595	3389	951	151	1054	395	75	773	481	174	589	387
Arrive On Green	0.90	1.00	1.00	0.09	0.42	0.42	0.04	0.22	0.00	0.10	0.29	0.29
Sat Flow, veh/h	1774	2720	764	1774	2519	945	1774	3539	1583	1774	2048	1347
Grp Volume(v), veh/h	543	503	487	124	530	507	212	769	-200	409	649	602
Grp Sat Flow(s),veh/h/ln	1774	1770	1714	1774	1770	1695	1774	1770	1583	1774	1770	1625
Q Serve(g_s), s	5.3	0.0	0.0	8.3	29.8	29.8	5.1	26.0	0.0	11.8	34.5	34.5
Cycle Q Clear(g_c), s	5.3	0.0	0.0	8.3	29.8	29.8	5.1	26.0	0.0	11.8	34.5	34.5
Prop In Lane	1.00		0.45	1.00		0.56	1.00		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	1595	2205	2135	151	740	709	75	773	481	174	509	467
V/C Ratio(X)	0.34	0.23	0.23	0.82	0.72	0.72	2.81	1.00	-0.42	2.34	1.28	1.29
Avail Cap(c_a), veh/h	1595	2205	2135	470	740	709	75	773	481	174	509	467
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.9	0.0	0.0	54.0	29.0	29.0	57.5	46.8	0.0	54.1	42.8	42.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.2	5.8	6.1	850.8	31.2	0.0	622.5	138.6	145.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.0	4.2	15.8	15.2	20.3	16.1	0.0	35.9	36.4	34.3
LnGrp Delay(d),s/veh	0.9	0.0	0.0	58.2	34.8	35.1	908.3	78.1	0.0	676.6	181.3	188.1
LnGrp LOS	A	A	A	E	C	D	F	E		F	F	F
Approach Vol, veh/h		1533			1161			781			1660	
Approach Delay, s/veh		0.3			37.4			323.4			305.8	
Approach LOS		A			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	155.8	9.3	40.3	114.2	56.0	17.6	32.0
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	6.2	* 5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 32	29.8	* 5.1	32.9	11.8	* 50	11.8	* 26
Max Q Clear Time (g_c+I1), s	10.3	2.0	7.1	36.5	7.3	31.8	13.8	28.0
Green Ext Time (p_c), s	0.1	7.1	0.0	0.0	0.9	6.1	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		156.6
HCM 2010 LOS		F

Notes

APPENDIX 8.2:

GENERAL PLAN BUILDOUT (2040) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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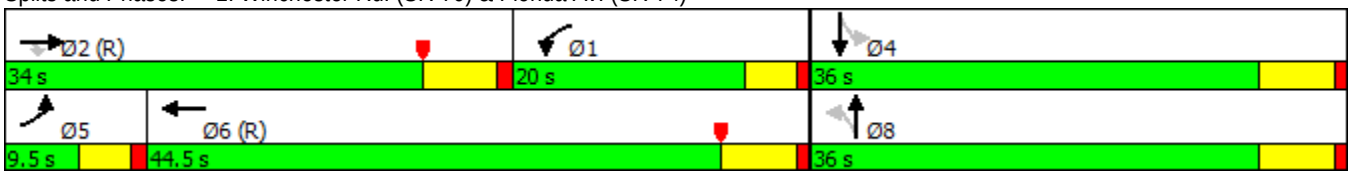
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	75	1693	464	338	1310	212	79	228	382
Future Volume (vph)	75	1693	464	338	1310	212	79	228	382
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	1693	464	338	1310	63	212	79	321	228	382	188
Future Volume (veh/h)	75	1693	464	338	1310	63	212	79	321	228	382	188
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	77	1745	439	348	1351	63	219	81	151	235	394	194
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	99	1101	493	842	2573	120	80	194	362	338	393	194
Arrive On Green	0.06	0.31	0.31	0.47	0.75	0.75	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3444	160	824	583	1087	1143	1179	581
Grp Volume(v), veh/h	77	1745	439	348	693	721	219	0	232	235	0	588
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1834	824	0	1670	1143	0	1760
Q Serve(g_s), s	3.9	28.0	23.8	11.5	14.7	14.7	0.0	0.0	9.7	18.0	0.0	30.0
Cycle Q Clear(g_c), s	3.9	28.0	23.8	11.5	14.7	14.7	30.0	0.0	9.7	27.7	0.0	30.0
Prop In Lane	1.00		1.00	1.00		0.09	1.00		0.65	1.00		0.33
Lane Grp Cap(c), veh/h	99	1101	493	842	1322	1370	80	0	557	338	0	587
V/C Ratio(X)	0.78	1.58	0.89	0.41	0.52	0.53	2.74	0.00	0.42	0.70	0.00	1.00
Avail Cap(c_a), veh/h	99	1101	493	842	1322	1370	80	0	557	338	0	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.0	31.0	29.5	15.4	4.7	4.7	45.0	0.0	23.2	34.0	0.0	30.0
Incr Delay (d2), s/veh	29.9	267.5	21.0	0.1	1.5	1.4	815.8	0.0	2.3	11.2	0.0	37.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	54.5	13.2	5.6	7.5	7.8	20.1	0.0	4.8	6.7	0.0	20.7
LnGrp Delay(d),s/veh	71.9	298.5	50.5	15.6	6.2	6.2	860.8	0.0	25.5	45.2	0.0	67.8
LnGrp LOS	E	F	D	B	A	A	F		C	D		F
Approach Vol, veh/h		2261			1762			451			823	
Approach Delay, s/veh		242.6			8.1			431.1			61.3	
Approach LOS		F			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	48.9	34.0		36.0	9.5	73.4		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	13.5	30.0		32.0	5.9	16.7		32.0
Green Ext Time (p_c), s	0.6	0.0		0.0	0.0	6.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	152.5
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	150	544	189	33	51	175	53	650	113	258	743	297
Future Vol, veh/h	150	544	189	33	51	175	53	650	113	258	743	297
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	161	585	203	35	55	188	57	699	122	277	799	319

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2508	2447	959	2680	2547	760	1118	0	0	820	0	0
Stage 1	1513	1513	-	874	874	-	-	-	-	-	-	-
Stage 2	995	934	-	1806	1673	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 2	~ 4	312	~ 1	~ 3	529	625	-	-	721	-	-
Stage 1	~ 150	~ 182	-	378	351	-	-	-	-	-	-	-
Stage 2	280	~ 311	-	101	152	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	-	~ 2	312	-	~ 1	529	625	-	-	721	-	-
Mov Cap-2 Maneuver	-	~ 2	-	-	~ 1	-	-	-	-	-	-	-
Stage 1	~ 136	~ 112	-	343	319	-	-	-	-	-	-	-
Stage 2	~ 136	~ 282	-	-	94	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.7	2.6
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	625	-	-	-	312	-	721	-	-
HCM Lane V/C Ratio	0.091	-	-	-	0.651	-	0.385	-	-
HCM Control Delay (s)	11.3	-	-	-	35.7	-	13.1	-	-
HCM Lane LOS	B	-	-	-	E	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	4.3	-	1.8	-	-

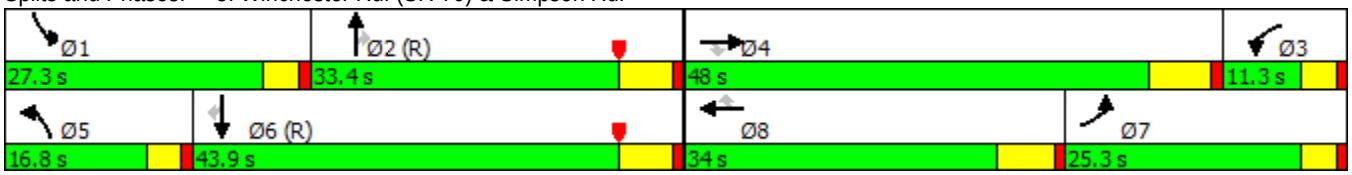
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	272	603	172	87	132	145	82	287	46	316	568	154
Future Volume (vph)	272	603	172	87	132	145	82	287	46	316	568	154
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	25.3	48.0	48.0	11.3	34.0	34.0	16.8	33.4	33.4	27.3	43.9	43.9
Total Split (%)	21.1%	40.0%	40.0%	9.4%	28.3%	28.3%	14.0%	27.8%	27.8%	22.8%	36.6%	36.6%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 76.5 (64%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	272	603	172	87	132	145	82	287	46	316	568	154
Future Volume (veh/h)	272	603	172	87	132	145	82	287	46	316	568	154
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	296	655	162	95	143	141	89	312	38	343	617	122
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	519	644	538	105	215	179	112	814	352	342	1272	562
Arrive On Green	0.29	0.35	0.35	0.06	0.12	0.12	0.06	0.23	0.23	0.19	0.36	0.36
Sat Flow, veh/h	1774	1863	1557	1774	1863	1556	1774	3539	1532	1774	3539	1564
Grp Volume(v), veh/h	296	655	162	95	143	141	89	312	38	343	617	122
Grp Sat Flow(s),veh/h/ln	1774	1863	1557	1774	1863	1556	1774	1770	1532	1774	1770	1564
Q Serve(g_s), s	17.0	41.5	7.0	6.4	8.8	7.2	5.9	8.9	1.9	23.1	16.2	2.7
Cycle Q Clear(g_c), s	17.0	41.5	7.0	6.4	8.8	7.2	5.9	8.9	1.9	23.1	16.2	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	519	644	538	105	215	179	112	814	352	342	1272	562
V/C Ratio(X)	0.57	1.02	0.30	0.91	0.67	0.79	0.80	0.38	0.11	1.00	0.48	0.22
Avail Cap(c_a), veh/h	519	644	538	105	432	360	186	814	352	342	1272	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	39.3	16.9	56.1	50.9	24.2	55.5	39.0	24.2	48.5	29.8	4.6
Incr Delay (d2), s/veh	1.0	39.7	0.3	57.5	3.5	7.4	3.6	1.0	0.5	49.8	1.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	28.4	3.0	4.8	4.7	3.5	3.0	4.5	0.9	16.0	8.1	1.3
LnGrp Delay(d),s/veh	37.0	79.0	17.2	113.6	54.4	31.6	59.1	40.0	24.7	98.3	31.1	5.5
LnGrp LOS	D	F	B	F	D	C	E	D	C	F	C	A
Approach Vol, veh/h		1113			379			439			1082	
Approach Delay, s/veh		58.8			60.8			42.6			49.5	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.3	33.4	11.3	48.0	11.8	48.9	39.3	20.0
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.5	* 4.2	5.8	4.2	* 6.2
Max Green Setting (Gmax), s	* 23	27.6	7.1	* 42	* 13	38.1	21.1	* 28
Max Q Clear Time (g_c+I1), s	25.1	10.9	8.4	43.5	7.9	18.2	19.0	10.8
Green Ext Time (p_c), s	0.0	7.8	0.0	0.0	0.0	8.6	0.1	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	53.4
HCM 2010 LOS	D

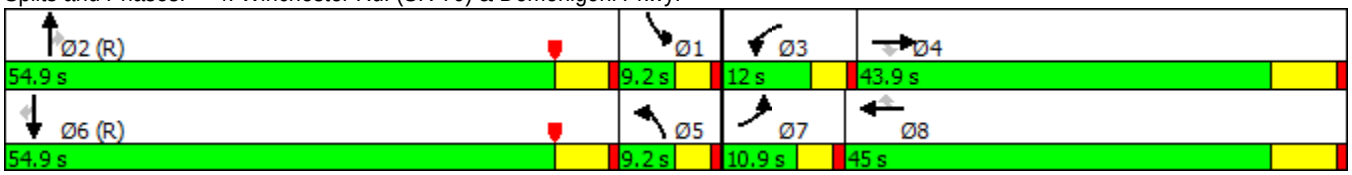
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	208	1568	86	495	673	67	45	169	633	118	390	303
Future Volume (vph)	208	1568	86	495	673	67	45	169	633	118	390	303
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	10.9	43.9	43.9	12.0	45.0	45.0	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.1%	36.6%	36.6%	10.0%	37.5%	37.5%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	208	1568	86	495	673	67	45	169	633	118	390	303
Future Volume (veh/h)	208	1568	86	495	673	67	45	169	633	118	390	303
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	226	1704	56	538	732	61	49	184	426	128	424	230
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	1091	488	224	1615	503	74	1448	648	74	1448	648
Arrive On Green	0.06	0.31	0.31	0.07	0.32	0.32	0.04	0.41	0.41	0.04	0.41	0.41
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	226	1704	56	538	732	61	49	184	426	128	424	230
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.7	37.0	2.5	7.8	13.8	2.6	3.3	3.9	19.5	5.0	9.6	9.2
Cycle Q Clear(g_c), s	6.7	37.0	2.5	7.8	13.8	2.6	3.3	3.9	19.5	5.0	9.6	9.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	1091	488	224	1615	503	74	1448	648	74	1448	648
V/C Ratio(X)	1.18	1.56	0.11	2.40	0.45	0.12	0.66	0.13	0.66	1.73	0.29	0.36
Avail Cap(c_a), veh/h	192	1091	488	224	1615	503	74	1448	648	74	1448	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	56.6	41.5	19.3	56.1	32.6	18.8	56.7	22.1	16.1	57.5	23.8	14.3
Incr Delay (d2), s/veh	120.4	257.2	0.1	645.7	0.2	0.1	16.4	0.2	5.2	372.5	0.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	57.0	1.1	23.8	6.5	1.2	1.9	1.9	9.5	10.1	4.8	4.3
LnGrp Delay(d),s/veh	177.1	298.7	19.4	701.8	32.8	18.9	73.1	22.3	21.2	430.0	24.2	15.6
LnGrp LOS	F	F	B	F	C	B	E	C	C	F	C	B
Approach Vol, veh/h		1986			1331			659			782	
Approach Delay, s/veh		277.0			302.6			25.4			88.1	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	54.9	12.0	43.9	9.2	54.9	10.9	45.0
Change Period (Y+Rc), s	4.2	* 5.8	* 4.2	6.9	4.2	* 5.8	* 4.2	6.9
Max Green Setting (Gmax), s	5.0	* 49	* 7.8	37.0	5.0	* 49	* 6.7	38.1
Max Q Clear Time (g_c+I1), s	7.0	21.5	9.8	39.0	5.3	11.6	8.7	15.8
Green Ext Time (p_c), s	0.0	4.1	0.0	0.0	0.0	5.4	0.0	17.0

Intersection Summary	
HCM 2010 Ctrl Delay	218.3
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	258.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	43	2070	206	557	725	113	247	86	538	166	129	263
Future Vol, veh/h	43	2070	206	557	725	113	247	86	538	166	129	263
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	2300	229	619	806	126	274	96	598	184	143	292

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	931	0	0	2529	0	0	4222	4679	1264	3399	4730	466
Stage 1	-	-	-	-	-	-	2510	2510	-	2106	2106	-
Stage 2	-	-	-	-	-	-	1712	2169	-	1293	2624	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	731	-	-	~ 169	-	-	0	0	*~ 241	*0	0	543
Stage 1	-	-	-	-	-	-	~ 77	~ 88	-	*~ 53	~ 91	-
Stage 2	-	-	-	-	-	-	~ 94	~ 85	-	*228	~ 50	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	731	-	-	~ 169	-	-	-	0	*~ 241	-	0	543
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	~ 77	~ 88	-	*~ 53	0	-
Stage 2	-	-	-	-	-	-	-	0	-	*~ 29	~ 50	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	$ 500.2	$ 710.3	19.1
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	241	731	-	-	~ 169	-	-	543
HCM Lane V/C Ratio	2.48	0.065	-	-	3.662	-	-	0.538
HCM Control Delay (s)	$ 710.3	10.3	-		$ 1252.9	-	-	19.1
HCM Lane LOS	F	B	-	-	F	-	-	C
HCM 95th %tile Q(veh)	49.2	0.2	-	-	60.1	-	-	3.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	104.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	102	430	94	377	393	107
Future Vol, veh/h	102	430	94	377	393	107
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	124	524	115	460	479	130

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1168	479	479	0	-	0
Stage 1	479	-	-	-	-	-
Stage 2	689	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	214	587	1083	-	-	-
Stage 1	623	-	-	-	-	-
Stage 2	498	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	183	587	1083	-	-	-
Mov Cap-2 Maneuver	183	-	-	-	-	-
Stage 1	623	-	-	-	-	-
Stage 2	427	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	294.4	1.7	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1083	-	412	-	-
HCM Lane V/C Ratio	0.106	-	1.575	-	-
HCM Control Delay (s)	8.7	0	294.4	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.4	-	36.3	-	-

Intersection	
Int Delay, s/veh	398.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	155	359	48	3	385	8	252	47	12	49	59	1023
Future Vol, veh/h	155	359	48	3	385	8	252	47	12	49	59	1023
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	170	395	53	3	423	9	277	52	13	54	65	1124

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	432	0	0	447	0	0	1791	1200	421	1228	1222	427
Stage 1	-	-	-	-	-	-	762	762	-	434	434	-
Stage 2	-	-	-	-	-	-	1029	438	-	794	788	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1128	-	-	1113	-	-	~ 63	185	632	155	180	~ 628
Stage 1	-	-	-	-	-	-	397	414	-	600	581	-
Stage 2	-	-	-	-	-	-	282	579	-	381	402	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1128	-	-	1113	-	-	-	147	632	94	143	~ 628
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	147	-	94	143	-
Stage 1	-	-	-	-	-	-	317	330	-	479	579	-
Stage 2	-	-	-	-	-	-	-	577	-	251	321	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	0.1		$ 843.8
HCM LOS			-	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1128	-	-	1113	-	-	441
HCM Lane V/C Ratio	-	0.151	-	-	0.003	-	-	2.818
HCM Control Delay (s)	-	8.8	0	-	8.2	0	-	$ 843.8
HCM Lane LOS	-	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	-	0.5	-	-	0	-	-	104.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	1731	6	1414	71
Future Volume (vph)	1731	6	1414	71
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	5.0
Minimum Split (s)	27.1	9.6	15.1	31.6
Total Split (s)	77.0	9.7	86.7	33.3
Total Split (%)	64.2%	8.1%	72.3%	27.8%
Yellow Time (s)	4.1	3.6	4.1	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	4.6	5.1	4.6
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBL and 6:, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 17: Street C & New Stetson Av.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1731	24	6	1414	71	18
Future Volume (veh/h)	1731	24	6	1414	71	18
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	1882	26	7	1537	77	20
Adj No. of Lanes	2	0	1	2	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	2061	28	15	2222	397	103
Arrive On Green	0.58	0.58	0.01	0.63	0.29	0.29
Sat Flow, veh/h	3668	49	1774	3632	1361	354
Grp Volume(v), veh/h	930	978	7	1537	98	0
Grp Sat Flow(s),veh/h/ln	1770	1854	1774	1770	1732	0
Q Serve(g_s), s	56.2	56.8	0.5	34.3	5.1	0.0
Cycle Q Clear(g_c), s	56.2	56.8	0.5	34.3	5.1	0.0
Prop In Lane		0.03	1.00		0.79	0.20
Lane Grp Cap(c), veh/h	1020	1069	15	2222	505	0
V/C Ratio(X)	0.91	0.92	0.46	0.69	0.19	0.00
Avail Cap(c_a), veh/h	1060	1111	75	2407	505	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.81	0.81	1.00	0.00
Uniform Delay (d), s/veh	22.7	22.8	59.2	14.7	31.9	0.0
Incr Delay (d2), s/veh	11.4	11.4	6.2	0.6	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	30.6	32.2	0.3	16.8	2.6	0.0
LnGrp Delay(d),s/veh	34.0	34.2	65.4	15.3	32.8	0.0
LnGrp LOS	C	C	E	B	C	
Approach Vol, veh/h	1908			1544	98	
Approach Delay, s/veh	34.1			15.6	32.8	
Approach LOS	C			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		39.6	6.1	74.3				80.4
Change Period (Y+Rc), s		4.6	5.1	* 5.1				5.1
Max Green Setting (Gmax), s		28.7	5.1	* 72				81.6
Max Q Clear Time (g_c+I1), s		7.1	2.5	58.8				36.3
Green Ext Time (p_c), s		0.1	2.2	10.4				18.3

Intersection Summary	
HCM 2010 Ctrl Delay	26.0
HCM 2010 LOS	C

Notes

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1308	441	189	1149	271	132
Future Volume (vph)	1308	441	189	1149	271	132
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	27.8	27.8	9.6	23.8	31.6	31.6
Total Split (s)	63.0	63.0	25.0	88.0	34.6	34.6
Total Split (%)	51.4%	51.4%	20.4%	71.8%	28.2%	28.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	4.6	4.6
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Min	C-Min

Intersection Summary

Cycle Length: 122.6
Actuated Cycle Length: 122.6
Offset: 0 (0%), Referenced to phase 2:NBL and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 18: Mustang Wy. & New Stetson Av.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1308	441	189	1149	271	132
Future Volume (veh/h)	1308	441	189	1149	271	132
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	1422	479	205	1249	295	143
Adj No. of Lanes	2	1	1	2	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1581	707	274	2294	474	423
Arrive On Green	0.45	0.45	0.15	0.65	0.27	0.27
Sat Flow, veh/h	3632	1583	1774	3632	1774	1583
Grp Volume(v), veh/h	1422	479	205	1249	295	143
Grp Sat Flow(s),veh/h/ln	1770	1583	1774	1770	1774	1583
Q Serve(g_s), s	45.7	29.5	13.6	23.6	18.0	8.9
Cycle Q Clear(g_c), s	45.7	29.5	13.6	23.6	18.0	8.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1581	707	274	2294	474	423
V/C Ratio(X)	0.90	0.68	0.75	0.54	0.62	0.34
Avail Cap(c_a), veh/h	1646	736	294	2365	474	423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.40	0.40	0.74	0.74	1.00	1.00
Uniform Delay (d), s/veh	31.5	27.0	49.7	11.8	39.6	36.3
Incr Delay (d2), s/veh	3.0	0.9	6.1	0.2	6.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.0	13.1	7.1	11.5	9.6	4.2
LnGrp Delay(d),s/veh	34.4	27.9	55.8	11.9	45.7	38.5
LnGrp LOS	C	C	E	B	D	D
Approach Vol, veh/h	1901			1454	438	
Approach Delay, s/veh	32.8			18.1	43.3	
Approach LOS	C			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		37.5	24.8	60.7				85.5
Change Period (Y+Rc), s		4.6	5.8	* 5.8				5.8
Max Green Setting (Gmax), s		30.0	20.4	* 57				82.2
Max Q Clear Time (g_c+I1), s		20.0	15.6	47.7				25.6
Green Ext Time (p_c), s		0.5	3.4	7.2				13.8

Intersection Summary	
HCM 2010 Ctrl Delay	28.4
HCM 2010 LOS	C

Notes

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	1428	20	1302	38
Future Volume (vph)	1428	20	1302	38
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	5.0
Minimum Split (s)	27.8	9.6	22.5	31.6
Total Split (s)	75.0	10.4	85.4	34.6
Total Split (%)	62.5%	8.7%	71.2%	28.8%
Yellow Time (s)	4.8	3.6	3.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	4.5	4.6
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBL and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 19: Street D & New Stetson Av.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1428	20	20	1302	38	53
Future Volume (veh/h)	1428	20	20	1302	38	53
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	1552	22	22	1415	41	58
Adj No. of Lanes	2	0	1	2	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	1768	25	40	2003	243	344
Arrive On Green	0.49	0.49	0.02	0.57	0.36	0.36
Sat Flow, veh/h	3666	51	1774	3632	680	962
Grp Volume(v), veh/h	768	806	22	1415	100	0
Grp Sat Flow(s),veh/h/ln	1770	1854	1774	1770	1659	0
Q Serve(g_s), s	46.5	46.6	1.5	34.7	4.9	0.0
Cycle Q Clear(g_c), s	46.5	46.6	1.5	34.7	4.9	0.0
Prop In Lane		0.03	1.00		0.41	0.58
Lane Grp Cap(c), veh/h	876	917	40	2003	593	0
V/C Ratio(X)	0.88	0.88	0.54	0.71	0.17	0.00
Avail Cap(c_a), veh/h	1020	1069	86	2386	593	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.52	0.73	0.73	1.00	0.00
Uniform Delay (d), s/veh	27.1	27.1	58.0	18.8	26.4	0.0
Incr Delay (d2), s/veh	4.3	4.2	3.1	0.6	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.7	24.8	0.8	17.1	2.4	0.0
LnGrp Delay(d),s/veh	31.4	31.3	61.1	19.4	27.0	0.0
LnGrp LOS	C	C	E	B	C	
Approach Vol, veh/h	1574			1437	100	
Approach Delay, s/veh	31.3			20.0	27.0	
Approach LOS	C			C	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		47.5	7.3	65.2				72.5
Change Period (Y+Rc), s		4.6	4.6	5.8				* 4.6
Max Green Setting (Gmax), s		30.0	5.8	69.2				* 81
Max Q Clear Time (g_c+I1), s		6.9	3.5	48.6				36.7
Green Ext Time (p_c), s		0.1	1.8	10.7				13.7

Intersection Summary	
HCM 2010 Ctrl Delay	26.0
HCM 2010 LOS	C

Notes

Intersection	
Intersection Delay, s/veh	1193.3
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	200	466	506	0	454	492	170	0	192	671	158
Future Vol, veh/h	0	200	466	506	0	454	492	170	0	192	671	158
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	213	496	538	0	483	523	181	0	204	714	168
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	1135.5	1102.1	1001.6
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	17%	41%	8%
Vol Thru, %	66%	40%	44%	81%
Vol Right, %	15%	43%	15%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1021	1172	1116	1418
LT Vol	192	200	454	114
Through Vol	671	466	492	1144
RT Vol	158	506	170	160
Lane Flow Rate	1086	1247	1187	1509
Geometry Grp	1	1	1	1
Degree of Util (X)	2.889	3.226	3.143	3.976
Departure Headway (Hd)	62.187	55.721	57.153	47.75
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	76	87	83	91
Service Time	60.187	53.721	55.153	45.75
HCM Lane V/C Ratio	14.289	14.333	14.301	16.582
HCM Control Delay	1001.6	1135.5	1102.1	1451
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	17.3	21.6	20.5	31.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	114	1144	160
Future Vol, veh/h	0	114	1144	160
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	121	1217	170
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	1451
HCM LOS	F

Intersection	
Intersection Delay, s/veh	1608.1
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	330	364	132	0	197	293	140	0	45	393	116
Future Vol, veh/h	0	330	364	132	0	197	293	140	0	45	393	116
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	351	387	140	0	210	312	149	0	48	418	123
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	699	472.2	216.2
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	0%	40%	31%	12%
Vol Thru, %	90%	0%	44%	47%	72%
Vol Right, %	0%	100%	16%	22%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	438	116	826	630	2322
LT Vol	45	0	330	197	280
Through Vol	393	0	364	293	1674
RT Vol	0	116	132	140	368
Lane Flow Rate	466	123	879	670	2470
Geometry Grp	7	7	2	2	5
Degree of Util (X)	1.266	0.31	2.346	1.779	6.626
Departure Headway (Hd)	37.77	36.968	34.769	41.33	17.091
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	103	99	114	94	247
Service Time	35.47	34.668	32.769	39.33	15.091
HCM Lane V/C Ratio	4.524	1.242	7.711	7.128	10
HCM Control Delay	258.7	55.5	699	472.2	2571.8
HCM Lane LOS	F	F	F	F	F
HCM 95th-tile Q	8.5	1.2	21.6	13	151.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	280	1674	368
Future Vol, veh/h	0	280	1674	368
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	298	1781	391
Number of Lanes	0	0	1	0

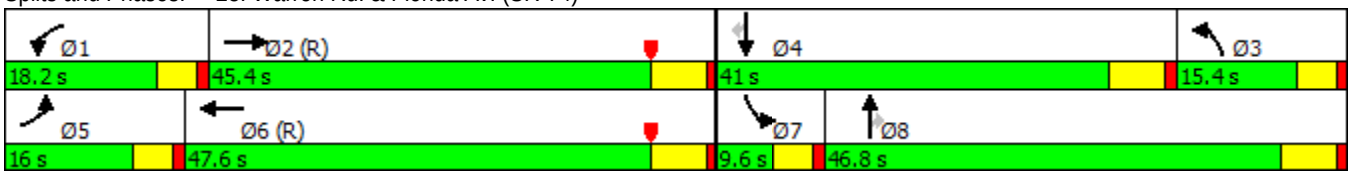
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	2571.8
HCM LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	111	1968	714	1261	254	353	446	536	988	247
Future Volume (vph)	111	1968	714	1261	254	353	446	536	988	247
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	16.0	45.4	18.2	47.6	15.4	46.8	46.8	9.6	41.0	41.0
Total Split (%)	13.3%	37.8%	15.2%	39.7%	12.8%	39.0%	39.0%	8.0%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 18.2 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	1968	382	714	1261	192	254	353	446	536	988	247
Future Volume (veh/h)	111	1968	382	714	1261	192	254	353	446	536	988	247
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	113	2008	327	729	1287	192	259	360	410	547	1008	188
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	2184	346	201	2316	343	160	1245	556	74	1032	460
Arrive On Green	0.08	0.71	0.71	0.11	0.75	0.75	0.09	0.35	0.35	0.04	0.29	0.29
Sat Flow, veh/h	1774	3061	485	1774	3093	458	1774	3539	1581	1774	3539	1578
Grp Volume(v), veh/h	113	1138	1197	729	733	746	259	360	410	547	1008	188
Grp Sat Flow(s),veh/h/ln	1774	1770	1777	1774	1770	1781	1774	1770	1581	1774	1770	1578
Q Serve(g_s), s	7.5	61.9	71.1	13.6	21.3	21.7	10.8	8.8	27.2	5.0	33.8	15.2
Cycle Q Clear(g_c), s	7.5	61.9	71.1	13.6	21.3	21.7	10.8	8.8	27.2	5.0	33.8	15.2
Prop In Lane	1.00		0.27	1.00		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	138	1262	1268	201	1325	1334	160	1245	556	74	1032	460
V/C Ratio(X)	0.82	0.90	0.94	3.63	0.55	0.56	1.62	0.29	0.74	7.40	0.98	0.41
Avail Cap(c_a), veh/h	169	1262	1268	201	1325	1334	160	1245	556	74	1032	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	13.8	15.1	53.2	6.5	6.5	54.6	28.1	34.1	57.5	42.1	60.0
Incr Delay (d2), s/veh	18.9	10.5	15.1	1193.9	1.7	1.7	306.8	0.6	8.5	2907.9	22.9	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	33.4	39.6	73.3	10.8	11.2	18.9	4.4	13.1	62.2	19.8	7.0
LnGrp Delay(d),s/veh	73.4	24.3	30.2	1247.1	8.1	8.2	361.4	28.7	42.5	2965.4	65.0	62.7
LnGrp LOS	E	C	C	F	A	A	F	C	D	F	E	E
Approach Vol, veh/h		2448			2208			1029			1743	
Approach Delay, s/veh		29.5			417.2			117.9			975.0	
Approach LOS		C			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.2	93.0	16.8	41.0	13.9	97.3	9.6	48.2
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	13.6	39.4	10.8	* 35	11.4	41.6	5.0	40.8
Max Q Clear Time (g_c+I1), s	15.6	73.1	12.8	35.8	9.5	23.7	7.0	29.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	15.5	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	378.8
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	31.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	95	1070	119	308	1967
Future Vol, veh/h	40	95	1070	119	308	1967
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	101	1138	127	328	2093

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3887	1139	0	0	1139	0
Stage 1	1139	-	-	-	-	-
Stage 2	2748	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 4	245	-	-	613	-
Stage 1	305	-	-	-	-	-
Stage 2	47	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 2	245	-	-	613	-
Mov Cap-2 Maneuver	~ 21	-	-	-	-	-
Stage 1	305	-	-	-	-	-
Stage 2	~ 22	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 802.2	0	2.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	59	613	-
HCM Lane V/C Ratio	-	-	2.434	0.535	-
HCM Control Delay (s)	-	-	$ 802.2	17.4	-
HCM Lane LOS	-	-	F	C	-
HCM 95th %tile Q(veh)	-	-	14.3	3.2	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	26	1040	11	199	1387
Future Vol, veh/h	19	26	1040	11	199	1387
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	27	1072	11	205	1430

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2918	1078	0	0	1084	0
Stage 1	1078	-	-	-	-	-
Stage 2	1840	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 17	266	-	-	643	-
Stage 1	327	-	-	-	-	-
Stage 2	138	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 12	266	-	-	643	-
Mov Cap-2 Maneuver	85	-	-	-	-	-
Stage 1	327	-	-	-	-	-
Stage 2	94	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	43	0	1.7
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	140	643	-
HCM Lane V/C Ratio	-	-	0.331	0.319	-
HCM Control Delay (s)	-	-	43	13.2	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	1.3	1.4	-

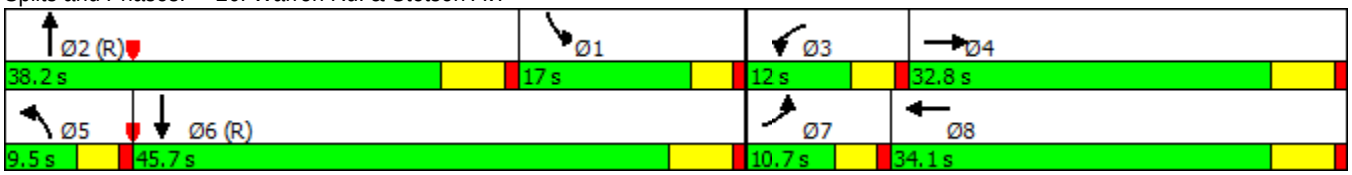
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	202	713	127	973	198	789	226	925
Future Volume (vph)	202	713	127	973	198	789	226	925
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	32.8	9.5	32.8
Total Split (s)	10.7	32.8	12.0	34.1	9.5	38.2	17.0	45.7
Total Split (%)	10.7%	32.8%	12.0%	34.1%	9.5%	38.2%	17.0%	45.7%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 85 (85%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	713	251	127	973	264	198	789	154	226	925	347
Future Volume (veh/h)	202	713	251	127	973	264	198	789	154	226	925	347
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	210	743	261	132	1014	275	206	822	160	235	964	361
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	356	125	138	400	108	94	958	186	727	1762	654
Arrive On Green	0.06	0.27	0.27	0.08	0.28	0.28	0.05	0.32	0.32	0.41	0.70	0.70
Sat Flow, veh/h	1774	1318	463	1774	1412	383	1774	2956	575	1774	2528	939
Grp Volume(v), veh/h	210	0	1004	132	0	1289	206	492	490	235	672	653
Grp Sat Flow(s),veh/h/ln	1774	0	1781	1774	0	1795	1774	1770	1761	1774	1770	1697
Q Serve(g_s), s	6.5	0.0	27.0	7.4	0.0	28.3	5.3	26.0	26.0	9.0	18.6	18.9
Cycle Q Clear(g_c), s	6.5	0.0	27.0	7.4	0.0	28.3	5.3	26.0	26.0	9.0	18.6	18.9
Prop In Lane	1.00		0.26	1.00		0.21	1.00		0.33	1.00		0.55
Lane Grp Cap(c), veh/h	115	0	481	138	0	508	94	573	571	727	1233	1183
V/C Ratio(X)	1.82	0.00	2.09	0.95	0.00	2.54	2.19	0.86	0.86	0.32	0.55	0.55
Avail Cap(c_a), veh/h	115	0	481	138	0	508	94	573	571	727	1233	1183
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	0.0	36.5	45.9	0.0	35.9	47.3	31.7	31.7	20.1	7.4	7.5
Incr Delay (d2), s/veh	401.4	0.0	496.6	61.9	0.0	697.6	560.2	11.6	11.7	0.1	1.7	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.0	0.0	79.6	6.0	0.0	112.4	17.2	14.6	14.5	4.4	9.6	9.3
LnGrp Delay(d),s/veh	448.1	0.0	533.1	107.8	0.0	733.4	607.6	43.3	43.3	20.2	9.1	9.3
LnGrp LOS	F		F	F		F	F	D	D	C	A	A
Approach Vol, veh/h		1214			1421			1188			1560	
Approach Delay, s/veh		518.4			675.3			141.1			10.9	
Approach LOS		F			F			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	47.0	38.2	12.0	32.8	9.5	75.7	10.7	34.1
Change Period (Y+Rc), s	5.8	* 5.8	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8
Max Green Setting (Gmax), s	12.8	* 32	* 7.8	27.0	* 5.3	39.9	* 6.5	28.3
Max Q Clear Time (g_c+I1), s	11.0	28.0	9.4	29.0	7.3	20.9	8.5	30.3
Green Ext Time (p_c), s	0.4	2.7	0.0	0.0	0.0	11.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		329.5
HCM 2010 LOS		F

Notes

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	403	228	108	440	689
Future Volume (vph)	403	228	108	440	689
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	34.8	34.8	9.2	15.8	34.8
Total Split (s)	35.0	35.0	9.2	49.1	39.9
Total Split (%)	41.6%	41.6%	10.9%	58.4%	47.4%
Yellow Time (s)	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 84.1
Actuated Cycle Length: 84.1
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 27: Warren Rd. & New Stetson Av.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	403	228	108	440	689	361
Future Volume (veh/h)	403	228	108	440	689	361
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	438	248	117	478	749	392
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	482	430	106	1099	554	290
Arrive On Green	0.27	0.27	0.06	0.59	0.48	0.48
Sat Flow, veh/h	1774	1583	1774	1863	1153	603
Grp Volume(v), veh/h	438	248	117	478	0	1141
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	0	1756
Q Serve(g_s), s	20.1	11.4	5.0	11.9	0.0	40.4
Cycle Q Clear(g_c), s	20.1	11.4	5.0	11.9	0.0	40.4
Prop In Lane	1.00	1.00	1.00			0.34
Lane Grp Cap(c), veh/h	482	430	106	1099	0	844
V/C Ratio(X)	0.91	0.58	1.11	0.43	0.00	1.35
Avail Cap(c_a), veh/h	617	550	106	1099	0	844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.46	1.00	1.00	0.00	0.20
Uniform Delay (d), s/veh	29.6	26.4	39.5	9.5	0.0	21.8
Incr Delay (d2), s/veh	6.9	0.2	119.6	1.3	0.0	159.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	10.0	5.9	6.5	0.0	56.9
LnGrp Delay(d),s/veh	36.5	26.6	159.1	10.7	0.0	181.7
LnGrp LOS	D	C	F	B		F
Approach Vol, veh/h	686			595	1141	
Approach Delay, s/veh	32.9			39.9	181.7	
Approach LOS	C			D	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		55.4		28.6	9.2	46.2		
Change Period (Y+Rc), s		5.8		5.8	* 4.2	5.8		
Max Green Setting (Gmax), s		43.3		29.2	* 5	34.1		
Max Q Clear Time (g_c+I1), s		13.9		22.1	7.0	42.4		
Green Ext Time (p_c), s		9.5		0.8	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	104.7
HCM 2010 LOS	F

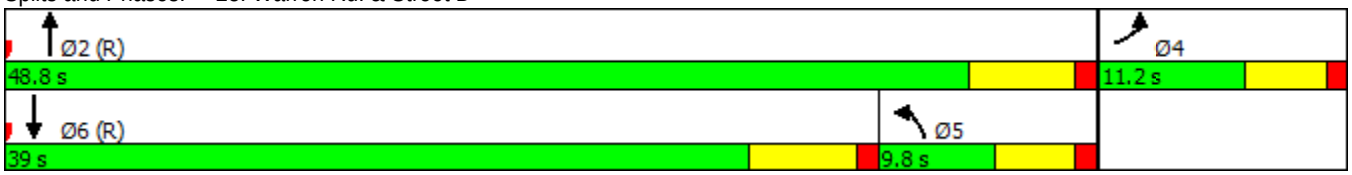
Notes

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	52	11	572	1039
Future Volume (vph)	52	11	572	1039
Turn Type	Prot	Prot	NA	NA
Protected Phases	4	5	2	6
Permitted Phases				
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	10.8	23.8
Total Split (s)	11.2	9.8	48.8	39.0
Total Split (%)	18.7%	16.3%	81.3%	65.0%
Yellow Time (s)	3.6	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Min	C-Min

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 25 (42%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 28: Warren Rd. & Street D



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	52	9	11	572	1039	48
Future Volume (veh/h)	52	9	11	572	1039	48
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	57	10	12	622	1129	52
Adj No. of Lanes	0	0	1	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	83	14	408	2726	1529	70
Arrive On Green	0.06	0.06	0.46	1.00	0.44	0.44
Sat Flow, veh/h	1462	257	1774	3632	3539	159
Grp Volume(v), veh/h	68	0	12	622	580	601
Grp Sat Flow(s),veh/h/ln	1744	0	1774	1770	1770	1835
Q Serve(g_s), s	2.3	0.0	0.2	0.0	16.3	16.3
Cycle Q Clear(g_c), s	2.3	0.0	0.2	0.0	16.3	16.3
Prop In Lane	0.84	0.15	1.00			0.09
Lane Grp Cap(c), veh/h	99	0	408	2726	785	814
V/C Ratio(X)	0.69	0.00	0.03	0.23	0.74	0.74
Avail Cap(c_a), veh/h	192	0	408	2726	979	1015
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.44	0.44	1.00	1.00
Uniform Delay (d), s/veh	27.8	0.0	12.5	0.0	13.8	13.8
Incr Delay (d2), s/veh	3.2	0.0	0.0	0.1	6.1	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.1	0.0	9.2	9.5
LnGrp Delay(d),s/veh	31.0	0.0	12.6	0.1	20.0	19.8
LnGrp LOS	C		B	A	B	B
Approach Vol, veh/h	68			634	1181	
Approach Delay, s/veh	31.0			0.3	19.9	
Approach LOS	C			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		52.0		8.0	19.6	32.4		
Change Period (Y+Rc), s		5.8		4.6	5.8	* 5.8		
Max Green Setting (Gmax), s		43.0		6.6	5.2	* 33		
Max Q Clear Time (g_c+I1), s		2.0		4.3	2.2	18.3		
Green Ext Time (p_c), s		6.3		0.0	1.4	8.3		

Intersection Summary	
HCM 2010 Ctrl Delay	13.7
HCM 2010 LOS	B

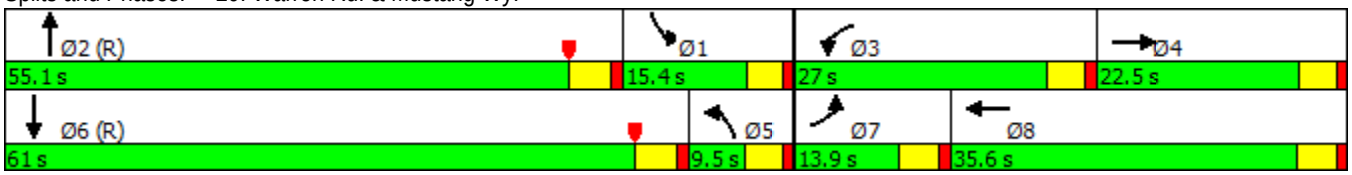
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	64	97	320	75	31	429	149	891
Future Volume (vph)	64	97	320	75	31	429	149	891
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	9.5	21.6	9.5	21.7	9.2	14.7
Total Split (s)	13.9	22.5	27.0	35.6	9.5	55.1	15.4	61.0
Total Split (%)	11.6%	18.8%	22.5%	29.7%	7.9%	45.9%	12.8%	50.8%
Yellow Time (s)	3.5	3.5	3.5	3.6	3.5	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.6	4.5	4.7	4.2	4.7
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 15.4 (13%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	97	70	320	75	130	31	429	190	149	891	48
Future Volume (veh/h)	64	97	70	320	75	130	31	429	190	149	891	48
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	71	108	78	356	83	97	34	477	197	166	990	53
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	126	91	333	205	239	117	527	217	204	822	44
Arrive On Green	0.05	0.12	0.12	0.19	0.26	0.26	0.07	0.42	0.42	0.23	0.94	0.94
Sat Flow, veh/h	1774	1007	727	1774	784	917	1774	1254	518	1774	1752	94
Grp Volume(v), veh/h	71	0	186	356	0	180	34	0	674	166	0	1043
Grp Sat Flow(s),veh/h/ln	1774	0	1734	1774	0	1701	1774	0	1771	1774	0	1846
Q Serve(g_s), s	4.7	0.0	12.6	22.5	0.0	10.5	2.2	0.0	42.7	10.6	0.0	56.3
Cycle Q Clear(g_c), s	4.7	0.0	12.6	22.5	0.0	10.5	2.2	0.0	42.7	10.6	0.0	56.3
Prop In Lane	1.00		0.42	1.00		0.54	1.00		0.29	1.00		0.05
Lane Grp Cap(c), veh/h	91	0	216	333	0	444	117	0	744	204	0	866
V/C Ratio(X)	0.78	0.00	0.86	1.07	0.00	0.41	0.29	0.00	0.91	0.81	0.00	1.20
Avail Cap(c_a), veh/h	139	0	260	333	0	444	117	0	744	204	0	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.91	0.00	0.91
Uniform Delay (d), s/veh	56.3	0.0	51.5	48.8	0.0	36.6	53.4	0.0	32.6	44.9	0.0	3.7
Incr Delay (d2), s/veh	6.8	0.0	21.1	69.2	0.0	0.6	0.5	0.0	16.7	18.6	0.0	101.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	7.3	17.4	0.0	5.0	1.1	0.0	24.2	6.2	0.0	45.7
LnGrp Delay(d),s/veh	63.0	0.0	72.6	118.0	0.0	37.2	53.9	0.0	49.3	63.5	0.0	105.6
LnGrp LOS	E		E	F		D	D		D	E		F
Approach Vol, veh/h		257			536			708			1209	
Approach Delay, s/veh		69.9			90.9			49.5			99.8	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.3	55.1	27.0	19.6	12.4	61.0	10.6	35.9
Change Period (Y+Rc), s	* 4.5	* 4.7	4.5	* 4.6	* 4.5	4.7	4.5	4.6
Max Green Setting (Gmax), s	* 11	* 50	22.5	* 18	* 5	56.3	9.4	31.0
Max Q Clear Time (g_c+I1), s	12.6	44.7	24.5	14.6	4.2	58.3	6.7	12.5
Green Ext Time (p_c), s	0.0	2.8	0.0	0.4	0.0	0.0	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	82.1
HCM 2010 LOS	F

Notes

Intersection	
Intersection Delay, s/veh	78
Intersection LOS	F

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	47	287	0	30	49	0	571	30
Future Vol, veh/h	0	47	287	0	30	49	0	571	30
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	54	330	0	34	56	0	656	34
Number of Lanes	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	19.5	11.5	119.2
HCM LOS	C	B	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	14%	0%	100%
Vol Right, %	0%	100%	86%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	571	30	334	30	49
LT Vol	571	0	0	30	0
Through Vol	0	0	47	0	49
RT Vol	0	30	287	0	0
Lane Flow Rate	656	34	384	34	56
Geometry Grp	7	7	4	7	7
Degree of Util (X)	1.19	0.051	0.627	0.074	0.113
Departure Headway (Hd)	6.527	5.314	6.375	8.284	7.769
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	558	677	572	435	464
Service Time	4.231	3.019	4.375	5.984	5.469
HCM Lane V/C Ratio	1.176	0.05	0.671	0.078	0.121
HCM Control Delay	125	8.3	19.5	11.6	11.5
HCM Lane LOS	F	A	C	B	B
HCM 95th-tile Q	23.5	0.2	4.3	0.2	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	293	1148	11	11	1328	513	11	11	11	332	286
Future Volume (vph)	293	1148	11	11	1328	513	11	11	11	332	286
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	293	1148	11	11	1328	513	11	11	11	332	286	415
Future Volume (veh/h)	293	1148	11	11	1328	513	11	11	11	332	286	415
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	322	1262	12	12	1459	554	12	12	11	365	314	311
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	349	1640	718	25	994	435	228	213	590	256	182	180
Arrive On Green	0.20	0.46	0.46	0.01	0.28	0.28	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1774	3539	1550	1774	3539	1550	480	571	1583	568	488	484
Grp Volume(v), veh/h	322	1262	12	12	1459	554	24	0	11	990	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1550	1050	0	1583	1539	0	0
Q Serve(g_s), s	19.6	32.7	0.5	0.7	30.9	30.9	0.0	0.0	0.5	40.1	0.0	0.0
Cycle Q Clear(g_c), s	19.6	32.7	0.5	0.7	30.9	30.9	0.9	0.0	0.5	41.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.50		1.00	0.37		0.31
Lane Grp Cap(c), veh/h	349	1640	718	25	994	435	441	0	590	619	0	0
V/C Ratio(X)	0.92	0.77	0.02	0.48	1.47	1.27	0.05	0.00	0.02	1.60	0.00	0.00
Avail Cap(c_a), veh/h	353	1640	718	81	994	435	449	0	602	619	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	43.4	24.6	16.0	53.8	39.6	39.6	21.9	0.0	21.8	36.4	0.0	0.0
Incr Delay (d2), s/veh	28.6	3.5	0.0	5.4	216.3	140.0	0.0	0.0	0.0	277.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.3	16.8	0.2	0.4	44.9	30.1	0.5	0.0	0.2	66.5	0.0	0.0
LnGrp Delay(d),s/veh	71.9	28.2	16.0	59.2	255.8	179.5	21.9	0.0	21.8	314.1	0.0	0.0
LnGrp LOS	E	C	B	E	F	F	C		C	F		
Approach Vol, veh/h		1596			2025			35			990	
Approach Delay, s/veh		36.9			233.8			21.9			314.1	
Approach LOS		D			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	57.9		46.4	25.8	37.8		46.4
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.7	34.7		43.0	21.6	32.9		2.9
Green Ext Time (p_c), s	0.0	9.8		0.0	0.0	0.0		6.1

Intersection Summary		
HCM 2010 Ctrl Delay		181.7
HCM 2010 LOS		F

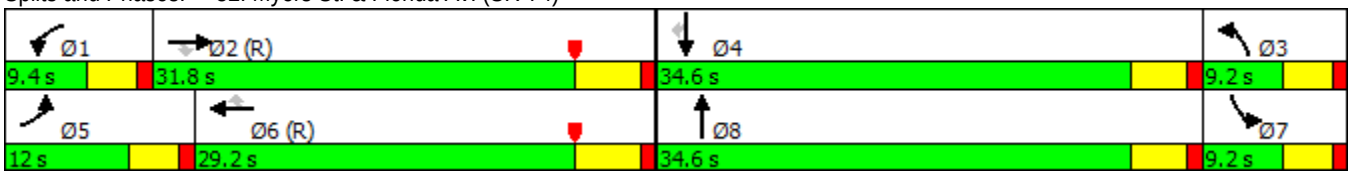
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	256	2437	256	63	1773	265	252	64	139	59	142
Future Volume (vph)	256	2437	256	63	1773	265	252	64	139	59	142
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.0	31.8	31.8	9.4	29.2	29.2	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.1%	37.4%	37.4%	11.1%	34.4%	34.4%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	2437	256	63	1773	265	252	64	62	139	59	142
Future Volume (veh/h)	256	2437	256	63	1773	265	252	64	62	139	59	142
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	261	2487	261	64	1809	270	257	65	39	142	60	90
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	1165	510	82	1003	447	104	385	231	104	657	559
Arrive On Green	0.09	0.33	0.33	0.05	0.28	0.28	0.06	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	1774	3539	1550	1774	3539	1575	1774	1092	655	1774	1863	1583
Grp Volume(v), veh/h	261	2487	261	64	1809	270	257	0	104	142	60	90
Grp Sat Flow(s),veh/h/ln	1774	1770	1550	1774	1770	1575	1774	0	1747	1774	1863	1583
Q Serve(g_s), s	7.8	28.0	8.7	3.0	24.1	9.6	5.0	0.0	3.5	5.0	1.8	2.3
Cycle Q Clear(g_c), s	7.8	28.0	8.7	3.0	24.1	9.6	5.0	0.0	3.5	5.0	1.8	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	163	1165	510	82	1003	447	104	0	617	104	657	559
V/C Ratio(X)	1.60	2.14	0.51	0.78	1.80	0.60	2.46	0.00	0.17	1.36	0.09	0.16
Avail Cap(c_a), veh/h	163	1165	510	109	1003	447	104	0	617	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	28.5	12.9	40.1	30.4	15.4	40.0	0.0	18.9	40.0	18.4	9.2
Incr Delay (d2), s/veh	298.2	513.7	3.6	16.5	365.2	6.0	686.1	0.0	0.6	212.1	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.3	96.7	4.2	1.9	62.6	4.9	22.3	0.0	1.8	8.6	1.0	1.1
LnGrp Delay(d),s/veh	336.8	542.2	16.5	56.6	395.7	21.4	726.1	0.0	19.5	252.1	18.7	9.8
LnGrp LOS	F	F	B	E	F	C	F		B	F	B	A
Approach Vol, veh/h		3009			2143			361			292	
Approach Delay, s/veh		478.8			338.4			522.5			129.5	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	33.1	9.2	34.6	12.0	29.2	9.2	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.2	26.7	5.0	* 30	* 7.8	24.1	5.0	* 30
Max Q Clear Time (g_c+I1), s	5.0	30.0	7.0	4.3	9.8	26.1	7.0	5.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	412.1
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2090	257	23	1821	0	23
Future Vol, veh/h	2090	257	23	1821	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2223	273	24	1937	0	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2223	0	-	1112
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*307	-	0	*205
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*307	-	-	*205
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	24.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	205	-	-	* 307	-
HCM Lane V/C Ratio	0.119	-	-	0.08	-
HCM Control Delay (s)	24.9	-	-	17.7	-
HCM Lane LOS	C	-	-	C	-
HCM 95th %tile Q(veh)	0.4	-	-	0.3	-

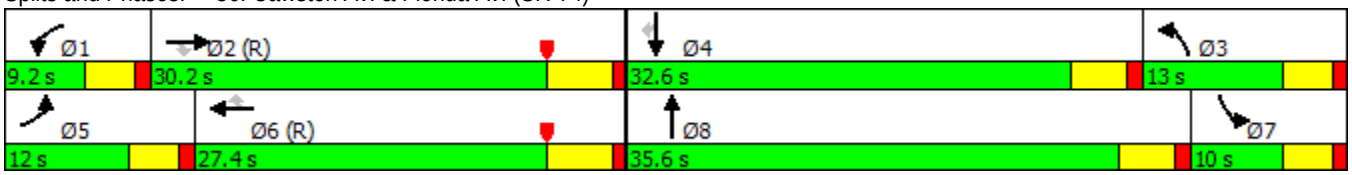
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	154	1147	666	267	1058	28	380	206	86	458	183
Future Volume (vph)	154	1147	666	267	1058	28	380	206	86	458	183
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	12.0	30.2	30.2	9.2	27.4	27.4	13.0	35.6	10.0	32.6	32.6
Total Split (%)	14.1%	35.5%	35.5%	10.8%	32.2%	32.2%	15.3%	41.9%	11.8%	38.4%	38.4%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 38 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	1147	666	267	1058	28	380	206	175	86	458	183
Future Volume (veh/h)	154	1147	666	267	1058	28	380	206	175	86	458	183
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	159	1182	686	275	1091	13	392	212	177	89	472	121
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	1045	468	104	929	415	184	684	544	121	614	522
Arrive On Green	0.09	0.30	0.30	0.06	0.26	0.26	0.10	0.36	0.36	0.07	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	1877	1491	1774	1863	1583
Grp Volume(v), veh/h	159	1182	686	275	1091	13	392	199	190	89	472	121
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1598	1774	1863	1583
Q Serve(g_s), s	7.6	25.1	17.5	5.0	22.3	0.4	8.8	6.9	7.3	4.2	19.3	3.3
Cycle Q Clear(g_c), s	7.6	25.1	17.5	5.0	22.3	0.4	8.8	6.9	7.3	4.2	19.3	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.93	1.00		1.00
Lane Grp Cap(c), veh/h	163	1045	468	104	929	415	184	645	583	121	614	522
V/C Ratio(X)	0.98	1.13	1.47	2.64	1.17	0.03	2.13	0.31	0.33	0.74	0.77	0.23
Avail Cap(c_a), veh/h	163	1045	468	104	929	415	184	645	583	121	614	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	29.9	14.6	40.0	31.3	13.4	38.1	19.3	19.5	38.8	25.6	10.4
Incr Delay (d2), s/veh	63.2	71.2	221.7	762.7	90.1	0.1	528.3	1.2	1.5	18.4	9.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	22.5	36.4	24.5	22.5	0.2	31.2	3.5	3.5	2.7	11.5	1.6
LnGrp Delay(d),s/veh	101.7	101.2	236.3	802.7	121.5	13.6	566.4	20.6	20.9	57.2	34.6	11.4
LnGrp LOS	F	F	F	F	F	B	F	C	C	E	C	B
Approach Vol, veh/h		2027			1379			781			682	
Approach Delay, s/veh		147.0			256.3			294.6			33.4	
Approach LOS		F			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	30.2	13.0	32.6	12.0	27.4	10.0	35.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5	25.1	8.8	* 28	* 7.8	22.3	5.8	* 31
Max Q Clear Time (g_c+I1), s	7.0	27.1	10.8	21.3	9.6	24.3	6.2	9.3
Green Ext Time (p_c), s	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	185.7
HCM 2010 LOS	F

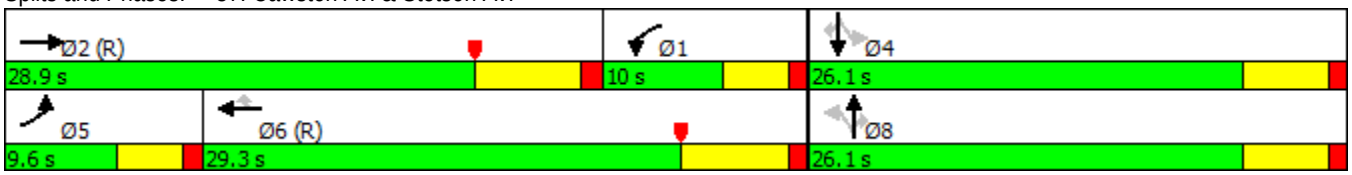
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	156	1025	212	1370	60	84	123	176	60	121	156
Future Volume (vph)	156	1025	212	1370	60	84	123	176	60	121	156
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.6	28.9	10.0	29.3	29.3	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.8%	44.5%	15.4%	45.1%	45.1%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	1025	100	212	1370	60	84	123	176	60	121	156
Future Volume (veh/h)	156	1025	100	212	1370	60	84	123	176	60	121	156
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	190	1250	120	259	1671	66	102	150	76	73	148	173
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	1140	109	1472	2099	1784	390	602	512	414	602	505
Arrive On Green	0.08	0.35	0.35	0.83	1.00	1.00	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	3265	313	1774	1863	1583	1054	1863	1583	1150	1863	1563
Grp Volume(v), veh/h	190	676	694	259	1671	66	102	150	76	73	148	173
Grp Sat Flow(s),veh/h/ln	1774	1770	1808	1774	1863	1583	1054	1863	1583	1150	1863	1563
Q Serve(g_s), s	5.4	22.7	22.7	1.9	0.0	0.0	5.1	3.9	2.2	3.2	3.8	5.5
Cycle Q Clear(g_c), s	5.4	22.7	22.7	1.9	0.0	0.0	8.9	3.9	2.2	7.1	3.8	5.5
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	147	618	631	1472	2099	1784	390	602	512	414	602	505
V/C Ratio(X)	1.29	1.09	1.10	0.18	0.80	0.04	0.26	0.25	0.15	0.18	0.25	0.34
Avail Cap(c_a), veh/h	147	618	631	1472	2099	1784	390	602	512	414	602	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	21.1	21.2	1.1	0.0	0.0	19.5	16.2	15.6	18.8	16.2	16.7
Incr Delay (d2), s/veh	171.3	64.4	66.0	0.0	0.3	0.0	1.6	1.0	0.6	0.9	1.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	22.0	22.8	0.9	0.2	0.0	1.6	2.1	1.1	1.1	2.1	2.6
LnGrp Delay(d),s/veh	201.1	85.6	87.1	1.1	0.3	0.0	21.1	17.2	16.3	19.7	17.2	18.6
LnGrp LOS	F	F	F	A	A	A	C	B	B	B	B	B
Approach Vol, veh/h		1560			1996			328			394	
Approach Delay, s/veh		100.3			0.4			18.2			18.3	
Approach LOS		F			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	60.3	28.9		26.1	9.6	79.6		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.8	* 23		21.0	* 5.4	23.1		21.0
Max Q Clear Time (g_c+I1), s	3.9	24.7		9.1	7.4	2.0		10.9
Green Ext Time (p_c), s	0.1	0.0		1.6	0.0	14.4		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	39.8
HCM 2010 LOS	D

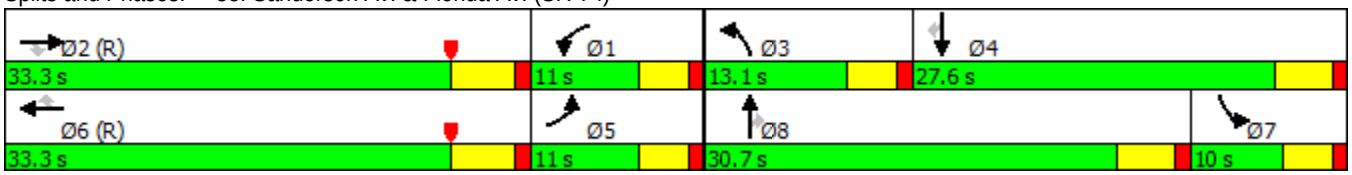
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	165	727	233	331	760	344	134	899	251	321	1025	118
Future Volume (vph)	165	727	233	331	760	344	134	899	251	321	1025	118
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	11.0	33.3	33.3	11.0	33.3	33.3	13.1	30.7	30.7	10.0	27.6	27.6
Total Split (%)	12.9%	39.2%	39.2%	12.9%	39.2%	39.2%	15.4%	36.1%	36.1%	11.8%	32.5%	32.5%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 81 (95%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	727	233	331	760	344	134	899	251	321	1025	118
Future Volume (veh/h)	165	727	233	331	760	344	134	899	251	321	1025	118
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	181	799	227	364	835	319	147	988	166	353	1126	78
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	486	1174	516	486	1174	516	180	1083	469	121	986	441
Arrive On Green	0.27	0.33	0.33	0.27	0.33	0.33	0.10	0.31	0.31	0.07	0.28	0.28
Sat Flow, veh/h	1774	3539	1556	1774	3539	1555	1774	3539	1535	1774	3539	1583
Grp Volume(v), veh/h	181	799	227	364	835	319	147	988	166	353	1126	78
Grp Sat Flow(s),veh/h/ln	1774	1770	1556	1774	1770	1555	1774	1770	1535	1774	1770	1583
Q Serve(g_s), s	7.0	16.6	9.5	15.9	17.5	14.7	6.9	22.8	7.2	5.8	23.7	2.4
Cycle Q Clear(g_c), s	7.0	16.6	9.5	15.9	17.5	14.7	6.9	22.8	7.2	5.8	23.7	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	486	1174	516	486	1174	516	180	1083	469	121	986	441
V/C Ratio(X)	0.37	0.68	0.44	0.75	0.71	0.62	0.82	0.91	0.35	2.92	1.14	0.18
Avail Cap(c_a), veh/h	486	1174	516	486	1174	516	186	1083	469	121	986	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.9	24.5	21.5	28.2	24.8	23.9	37.4	28.4	23.0	39.6	30.7	13.2
Incr Delay (d2), s/veh	0.2	3.2	2.7	5.6	3.7	5.5	21.7	13.0	2.1	884.3	76.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	8.6	4.5	8.5	9.2	7.1	4.5	13.1	3.3	32.6	21.9	1.1
LnGrp Delay(d),s/veh	25.1	27.7	24.2	33.8	28.5	29.4	59.1	41.4	25.0	923.9	106.9	14.0
LnGrp LOS	C	C	C	C	C	C	E	D	C	F	F	B
Approach Vol, veh/h		1207			1518			1301			1557	
Approach Delay, s/veh		26.7			30.0			41.4			287.5	
Approach LOS		C			C			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	33.3	12.8	28.4	28.0	33.3	10.5	30.7
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.7	* 4.7
Max Green Setting (Gmax), s	6.8	* 28	* 8.9	* 23	6.8	* 28	* 5.8	* 26
Max Q Clear Time (g_c+I1), s	17.9	18.6	8.9	25.7	9.0	19.5	7.8	24.8
Green Ext Time (p_c), s	0.0	5.4	0.0	0.0	0.0	5.4	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	103.7
HCM 2010 LOS	F

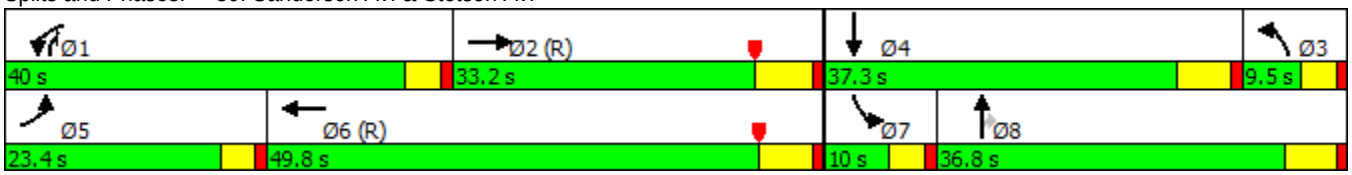
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	446	656	282	1058	181	1024	123	276	1055
Future Volume (vph)	446	656	282	1058	181	1024	123	276	1055
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	23.4	33.2	40.0	49.8	9.5	36.8	40.0	10.0	37.3
Total Split (%)	19.5%	27.7%	33.3%	41.5%	7.9%	30.7%	33.3%	8.3%	31.1%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 77.8 (65%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	446	656	159	282	1058	385	181	1024	123	276	1055	403
Future Volume (veh/h)	446	656	159	282	1058	385	181	1024	123	276	1055	403
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	519	763	184	328	1230	431	210	1191	-237	321	1227	463
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	284	2466	595	357	2378	809	78	961	748	86	667	243
Arrive On Green	0.16	0.88	0.88	0.20	0.92	0.92	0.04	0.27	0.00	0.05	0.26	0.26
Sat Flow, veh/h	1774	2816	679	1774	2594	883	1774	3539	1583	1774	2541	927
Grp Volume(v), veh/h	519	479	468	328	828	833	210	1191	-237	321	842	848
Grp Sat Flow(s),veh/h/ln	1774	1770	1726	1774	1770	1707	1774	1770	1583	1774	1770	1698
Q Serve(g_s), s	19.2	5.5	5.5	21.7	8.8	9.5	5.3	32.6	0.0	5.8	31.5	31.5
Cycle Q Clear(g_c), s	19.2	5.5	5.5	21.7	8.8	9.5	5.3	32.6	0.0	5.8	31.5	31.5
Prop In Lane	1.00		0.39	1.00		0.52	1.00		1.00	1.00		0.55
Lane Grp Cap(c), veh/h	284	1550	1511	357	1622	1565	78	961	748	86	465	446
V/C Ratio(X)	1.83	0.31	0.31	0.92	0.51	0.53	2.68	1.24	-0.32	3.74	1.81	1.90
Avail Cap(c_a), veh/h	284	1550	1511	529	1622	1565	78	961	748	86	465	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.16	0.16	0.16	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	1.3	1.3	47.0	0.8	0.8	57.3	43.7	0.0	57.1	44.3	44.3
Incr Delay (d2), s/veh	375.0	0.1	0.1	12.9	1.2	1.3	791.1	116.4	0.0	1262.6	373.8	414.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	38.9	2.7	2.6	11.9	4.4	4.7	19.8	31.4	0.0	32.9	63.6	66.1
LnGrp Delay(d),s/veh	425.4	1.4	1.4	59.8	1.9	2.1	848.4	160.1	0.0	1319.7	418.0	459.1
LnGrp LOS	F	A	A	E	A	A	F	F		F	F	F
Approach Vol, veh/h		1466			1989			1164			2011	
Approach Delay, s/veh		151.5			11.6			316.9			579.3	
Approach LOS		F			B			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.3	113.3	11.1	37.3	23.4	118.2	10.0	38.4
Change Period (Y+Rc), s	* 4.2	6.2	5.8	* 5.8	* 4.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 36	27.0	5.3	* 32	* 19	* 44	* 5.8	31.0
Max Q Clear Time (g_c+I1), s	23.7	7.5	7.3	33.5	21.2	11.5	7.8	34.6
Green Ext Time (p_c), s	0.4	15.6	0.0	0.0	0.0	23.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	268.3
HCM 2010 LOS	F

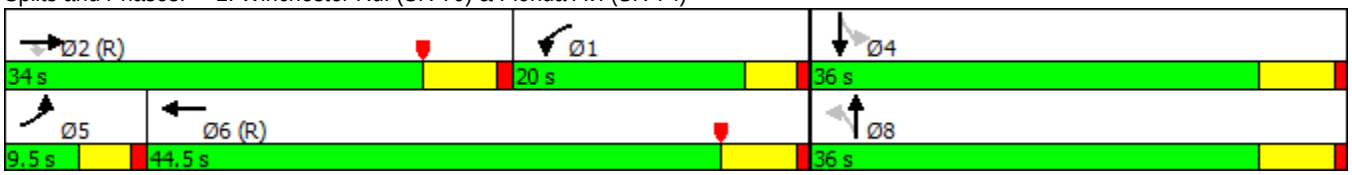
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	260	1875	236	342	1633	580	481	51	56
Future Volume (vph)	260	1875	236	342	1633	580	481	51	56
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2		1	6		8		4
Permitted Phases			2			8		4	
Detector Phase	5	2	2	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	28.0	28.0	5.0	23.0	25.0	25.0	30.0	30.0
Minimum Split (s)	9.5	34.0	34.0	9.5	29.0	31.0	31.0	36.0	36.0
Total Split (s)	9.5	34.0	34.0	20.0	44.5	36.0	36.0	36.0	36.0
Total Split (%)	10.6%	37.8%	37.8%	22.2%	49.4%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	C-Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	1875	236	342	1633	363	580	481	471	51	56	80
Future Volume (veh/h)	260	1875	236	342	1633	363	580	481	471	51	56	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	295	2131	221	389	1856	406	659	547	327	58	64	86
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	99	1101	493	954	2358	498	410	365	218	80	240	322
Arrive On Green	0.06	0.31	0.31	0.54	0.81	0.81	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	2910	614	1228	1094	654	632	720	967
Grp Volume(v), veh/h	295	2131	221	389	1102	1160	659	0	874	58	0	150
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1754	1228	0	1747	632	0	1687
Q Serve(g_s), s	5.0	28.0	10.1	11.7	28.2	33.3	24.1	0.0	30.0	0.0	0.0	5.9
Cycle Q Clear(g_c), s	5.0	28.0	10.1	11.7	28.2	33.3	30.0	0.0	30.0	30.0	0.0	5.9
Prop In Lane	1.00		1.00	1.00		0.35	1.00		0.37	1.00		0.57
Lane Grp Cap(c), veh/h	99	1101	493	954	1434	1421	410	0	582	80	0	562
V/C Ratio(X)	2.99	1.94	0.45	0.41	0.77	0.82	1.61	0.00	1.50	0.72	0.00	0.27
Avail Cap(c_a), veh/h	99	1101	493	954	1434	1421	410	0	582	80	0	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.5	31.0	24.8	12.3	4.3	4.8	35.3	0.0	30.0	45.0	0.0	22.0
Incr Delay (d2), s/veh	923.6	424.3	2.9	0.1	4.0	5.3	285.3	0.0	234.2	43.8	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.7	78.5	4.8	5.8	14.8	17.6	42.6	0.0	52.3	2.4	0.0	2.9
LnGrp Delay(d),s/veh	966.1	455.3	27.8	12.4	8.3	10.1	320.6	0.0	264.2	88.8	0.0	23.1
LnGrp LOS	F	F	C	B	A	B	F		F	F		C
Approach Vol, veh/h		2647			2651			1533			208	
Approach Delay, s/veh		476.5			9.7			288.4			41.4	
Approach LOS		F			A			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	54.6	34.0		36.0	9.5	79.1		36.0
Change Period (Y+Rc), s	6.0	* 6		6.0	4.5	6.0		6.0
Max Green Setting (Gmax), s	15.5	* 28		30.0	5.0	38.5		30.0
Max Q Clear Time (g_c+I1), s	13.7	30.0		32.0	7.0	35.3		32.0
Green Ext Time (p_c), s	0.5	0.0		0.0	0.0	2.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	246.9
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	203.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	229	132	105	143	571	227	217	868	66	300	836	148
Future Vol, veh/h	229	132	105	143	571	227	217	868	66	300	836	148
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	80	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	244	140	112	152	607	241	231	923	70	319	889	157

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3452	3062	969	3097	3106	959	1048	0	0	994	0	0
Stage 1	1607	1607	-	1420	1420	-	-	-	-	-	-	-
Stage 2	1845	1455	-	1677	1686	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	0	0	308	0	0	*363	664	-	-	*544	-	-
Stage 1	~ 132	164	-	~ 70	~ 81	-	-	-	-	-	-	-
Stage 2	~ 13	~ 72	-	~ 120	~ 150	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	0	0	308	0	0	*363	664	-	-	*544	-	-
Mov Cap-2 Maneuver	0	0	-	0	0	-	-	-	-	-	-	-
Stage 1	~ 86	~ 68	-	~ 46	~ 53	-	-	-	-	-	-	-
Stage 2	-	~ 47	-	-	~ 62	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		$ 821.2	2.5	4.8
HCM LOS	-	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	664	-	-	-	308	363	* 544	-	-
HCM Lane V/C Ratio	0.348	-	-	-	0.363	2.758	0.587	-	-
HCM Control Delay (s)	13.3	-	-	-	23.2	$ 821.2	20.6	-	-
HCM Lane LOS	B	-	-	-	C	F	C	-	-
HCM 95th %tile Q(veh)	1.6	-	-	-	1.6	84.2	3.8	-	-

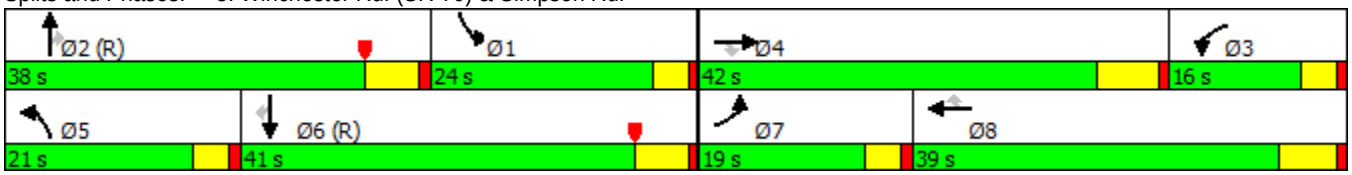
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	156	120	73	380	337	168	734	187	198	344	418
Future Volume (vph)	140	156	120	73	380	337	168	734	187	198	344	418
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.5	32.5	9.2	32.2	32.2	9.2	31.8	31.8	9.2	31.8	31.8
Total Split (s)	19.0	42.0	42.0	16.0	39.0	39.0	21.0	38.0	38.0	24.0	41.0	41.0
Total Split (%)	15.8%	35.0%	35.0%	13.3%	32.5%	32.5%	17.5%	31.7%	31.7%	20.0%	34.2%	34.2%
Yellow Time (s)	3.2	5.5	5.5	3.2	5.2	5.2	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	4.2	6.2	6.2	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 42 (35%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 3: Winchester Rd. (SR-79) & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	156	120	73	380	337	168	734	187	198	344	418
Future Volume (veh/h)	140	156	120	73	380	337	168	734	187	198	344	418
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	147	164	105	77	400	341	177	773	144	208	362	413
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	210	176	363	445	377	204	950	425	376	1339	598
Arrive On Green	0.10	0.11	0.11	0.20	0.24	0.24	0.11	0.27	0.27	0.21	0.38	0.38
Sat Flow, veh/h	1774	1863	1561	1774	1863	1580	1774	3539	1583	1774	3539	1581
Grp Volume(v), veh/h	147	164	105	77	400	341	177	773	144	208	362	413
Grp Sat Flow(s),veh/h/ln	1774	1863	1561	1774	1863	1580	1774	1770	1583	1774	1770	1581
Q Serve(g_s), s	9.8	10.3	5.9	4.3	25.0	14.8	11.8	24.5	8.8	12.6	8.5	26.4
Cycle Q Clear(g_c), s	9.8	10.3	5.9	4.3	25.0	14.8	11.8	24.5	8.8	12.6	8.5	26.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	210	176	363	445	377	204	950	425	376	1339	598
V/C Ratio(X)	0.85	0.78	0.60	0.21	0.90	0.90	0.87	0.81	0.34	0.55	0.27	0.69
Avail Cap(c_a), veh/h	219	551	462	363	509	432	248	950	425	376	1339	598
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	51.8	30.0	39.7	44.3	15.5	52.2	41.1	35.3	42.2	25.8	31.4
Incr Delay (d2), s/veh	18.0	6.2	3.2	0.1	17.4	20.4	17.9	6.6	1.8	1.1	0.5	6.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	5.6	2.7	2.1	15.0	8.6	6.8	12.9	4.0	6.3	4.2	12.6
LnGrp Delay(d),s/veh	71.3	58.0	33.2	39.8	61.7	35.9	70.1	47.7	37.2	43.3	26.3	37.8
LnGrp LOS	E	E	C	D	E	D	E	D	D	D	C	D
Approach Vol, veh/h		416			818			1094			983	
Approach Delay, s/veh		56.4			48.9			49.9			34.7	
Approach LOS		E			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.2	38.0	30.8	20.0	18.0	51.2	15.9	34.8
Change Period (Y+Rc), s	5.8	* 5.8	6.2	* 6.5	* 4.2	5.8	* 4.2	6.2
Max Green Setting (Gmax), s	19.8	* 32	11.8	* 36	* 17	35.2	* 15	32.8
Max Q Clear Time (g_c+I1), s	14.6	26.5	6.3	12.3	13.8	28.4	11.8	27.0
Green Ext Time (p_c), s	1.0	3.2	1.8	1.0	0.1	3.0	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	46.0
HCM 2010 LOS	D

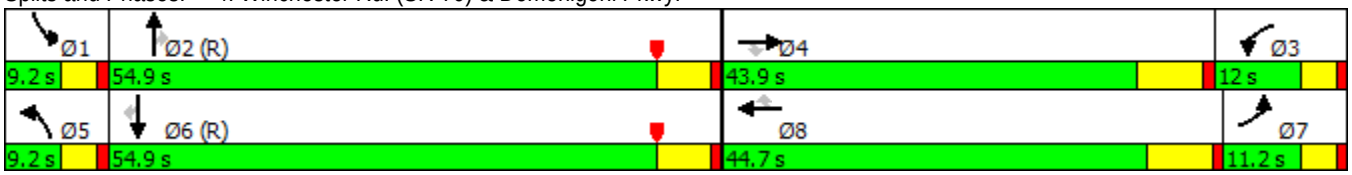
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	716	60	493	1347	114	87	548	835	79	160	195
Future Volume (vph)	193	716	60	493	1347	114	87	548	835	79	160	195
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	43.9	43.9	9.2	43.9	43.9	9.2	54.8	54.8	9.2	54.8	54.8
Total Split (s)	11.2	43.9	43.9	12.0	44.7	44.7	9.2	54.9	54.9	9.2	54.9	54.9
Total Split (%)	9.3%	36.6%	36.6%	10.0%	37.3%	37.3%	7.7%	45.8%	45.8%	7.7%	45.8%	45.8%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	5.8	4.2	5.8	5.8
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	716	60	493	1347	114	87	548	835	79	160	195
Future Volume (veh/h)	193	716	60	493	1347	114	87	548	835	79	160	195
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	205	762	33	524	1433	111	93	583	473	84	170	98
Adj No. of Lanes	2	2	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	886	396	400	1567	488	74	1473	659	74	1473	659
Arrive On Green	0.06	0.25	0.25	0.12	0.31	0.31	0.04	0.42	0.42	0.04	0.42	0.42
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	205	762	33	524	1433	111	93	583	473	84	170	98
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	7.0	24.7	1.6	13.9	32.6	5.0	5.0	13.8	19.6	5.0	3.5	3.5
Cycle Q Clear(g_c), s	7.0	24.7	1.6	13.9	32.6	5.0	5.0	13.8	19.6	5.0	3.5	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	201	886	396	400	1567	488	74	1473	659	74	1473	659
V/C Ratio(X)	1.02	0.86	0.08	1.31	0.91	0.23	1.26	0.40	0.72	1.14	0.12	0.15
Avail Cap(c_a), veh/h	201	1091	488	400	1602	499	74	1473	659	74	1473	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	56.5	43.0	23.2	53.0	40.0	20.1	57.5	24.5	12.6	57.5	21.5	12.5
Incr Delay (d2), s/veh	69.1	6.0	0.1	156.7	8.4	0.2	189.1	0.8	6.6	144.7	0.2	0.5
Initial Q Delay(d3),s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	12.8	0.7	15.3	16.5	2.2	6.3	6.9	9.8	5.4	1.8	1.6
LnGrp Delay(d),s/veh	125.8	49.0	23.3	209.7	48.4	20.3	246.6	25.3	19.2	202.2	21.6	13.0
LnGrp LOS	F	D	C	F	D	C	F	C	B	F	C	B
Approach Vol, veh/h		1000			2068			1149			352	
Approach Delay, s/veh		63.9			87.8			40.7			62.3	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	55.7	18.1	36.9	9.2	55.7	11.2	43.9
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.9	* 4.2	5.8	4.2	* 6.9
Max Green Setting (Gmax), s	* 5	49.1	7.8	* 37	* 5	49.1	7.0	* 38
Max Q Clear Time (g_c+I1), s	7.0	21.6	15.9	26.7	7.0	5.5	9.0	34.6
Green Ext Time (p_c), s	0.0	11.2	0.0	3.3	0.0	13.0	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	68.8
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	64.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	134	1191	306	777	1616	252	278	308	844	179	202	59
Future Vol, veh/h	134	1191	306	777	1616	252	278	308	844	179	202	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	135	1203	309	785	1632	255	281	311	853	181	204	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1887	0	0	1512	0	0	4116	5085	756	4357	5112	943
Stage 1	-	-	-	-	-	-	1628	1628	-	3329	3329	-
Stage 2	-	-	-	-	-	-	2488	3457	-	1028	1783	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	313	-	-	~ 673	-	-	0	0	*~ 611	*0	0	264
Stage 1	-	-	-	-	-	-	~ 267	~ 284	-	*~ 8	~ 20	-
Stage 2	-	-	-	-	-	-	~ 30	~ 17	-	*576	213	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	313	-	-	~ 673	-	-	-	0	*~ 611	-	0	264
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	~ 267	0	-	*~ 8	0	-
Stage 2	-	-	-	-	-	-	-	0	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	33.1	207.6	22.6
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	611	313	-	-	~ 673	-	-	264
HCM Lane V/C Ratio	1.395	0.432	-	-	1.166	-	-	0.226
HCM Control Delay (s)	207.6	25	-	-	112.6	-	-	22.6
HCM Lane LOS	F	C	-	-	F	-	-	C
HCM 95th %tile Q(veh)	38.5	2.1	-	-	25.5	-	-	0.8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	8.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	159	154	596	635	478	114
Future Vol, veh/h	159	154	596	635	478	114
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	189	183	710	756	569	136

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2744	569	569	0	-	0
Stage 1	569	-	-	-	-	-
Stage 2	2175	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 22	522	1003	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	~ 93	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	0	522	1003	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	0	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	27.3	8.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1003	-	522	-	-
HCM Lane V/C Ratio	0.707	-	0.714	-	-
HCM Control Delay (s)	16.8	0	27.3	-	-
HCM Lane LOS	C	A	D	-	-
HCM 95th %tile Q(veh)	6.2	-	5.7	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	61.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1130	499	237	17	445	80	19	30	9	29	126	366
Future Vol, veh/h	1130	499	237	17	445	80	19	30	9	29	126	366
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1284	567	269	19	506	91	22	34	10	33	143	416

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	597	0	0	836	0	0	4139	3905	702	3882	3995	551
Stage 1	-	-	-	-	-	-	3270	3270	-	590	590	-
Stage 2	-	-	-	-	-	-	869	635	-	3292	3405	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	~ 980	-	-	798	-	-	~ 1	~ 3	438	~ 2	~ 3	534
Stage 1	-	-	-	-	-	-	~ 13	~ 22	-	494	495	-
Stage 2	-	-	-	-	-	-	347	472	-	~ 13	~ 19	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	~ 980	-	-	798	-	-	-	0	438	-	0	534
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	~ 13	0	-	494	477	-
Stage 2	-	-	-	-	-	-	52	455	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	98.3	0.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	~ 980	-	-	798	-	-	-
HCM Lane V/C Ratio	-	1.31	-	-	0.024	-	-	-
HCM Control Delay (s)	-	162.4	0	-	9.6	0	-	-
HCM Lane LOS	-	F	A	-	A	A	-	-
HCM 95th %tile Q(veh)	-	48	-	-	0.1	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	1739	20	2275	47
Future Volume (vph)	1739	20	2275	47
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	5.0
Minimum Split (s)	27.1	9.6	23.1	31.6
Total Split (s)	78.4	9.6	88.0	32.0
Total Split (%)	65.3%	8.0%	73.3%	26.7%
Yellow Time (s)	4.1	3.6	4.1	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	4.6	5.1	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	C-Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBL and 6:, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 17: Street C & New Stetson Av.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1739	80	20	2275	47	12
Future Volume (veh/h)	1739	80	20	2275	47	12
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	1890	87	22	2473	51	13
Adj No. of Lanes	2	0	1	2	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	2175	99	38	2445	311	79
Arrive On Green	0.63	0.63	0.01	0.46	0.23	0.23
Sat Flow, veh/h	3540	157	1774	3632	1360	347
Grp Volume(v), veh/h	963	1014	22	2473	65	0
Grp Sat Flow(s),veh/h/ln	1770	1835	1774	1770	1734	0
Q Serve(g_s), s	52.9	54.7	1.5	82.9	3.6	0.0
Cycle Q Clear(g_c), s	52.9	54.7	1.5	82.9	3.6	0.0
Prop In Lane		0.09	1.00		0.78	0.20
Lane Grp Cap(c), veh/h	1116	1158	38	2445	396	0
V/C Ratio(X)	0.86	0.88	0.57	1.01	0.16	0.00
Avail Cap(c_a), veh/h	1116	1158	74	2445	396	0
HCM Platoon Ratio	1.00	1.00	0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.16	0.16	1.00	0.00
Uniform Delay (d), s/veh	17.9	18.3	58.6	32.2	37.1	0.0
Incr Delay (d2), s/veh	7.1	7.8	0.8	10.4	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.9	29.8	0.7	44.0	1.8	0.0
LnGrp Delay(d),s/veh	25.1	26.0	59.4	42.6	38.0	0.0
LnGrp LOS	C	C	E	F	D	
Approach Vol, veh/h	1977			2495	65	
Approach Delay, s/veh	25.6			42.7	38.0	
Approach LOS	C			D	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		32.0	7.2	80.8				88.0
Change Period (Y+Rc), s		4.6	4.6	5.1				5.1
Max Green Setting (Gmax), s		27.4	5.0	73.3				82.9
Max Q Clear Time (g_c+I1), s		5.6	3.5	56.7				84.9
Green Ext Time (p_c), s		0.1	0.0	16.5				0.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.2
HCM 2010 LOS	D

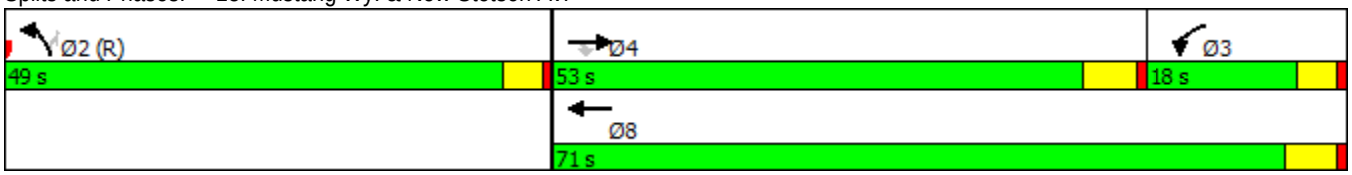
Notes

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1360	391	181	1675	620	233
Future Volume (vph)	1360	391	181	1675	620	233
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	27.8	27.8	9.6	22.5	31.6	31.6
Total Split (s)	53.0	53.0	18.0	71.0	49.0	49.0
Total Split (%)	44.2%	44.2%	15.0%	59.2%	40.8%	40.8%
Yellow Time (s)	4.8	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	4.6	4.6
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Min	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 46 (38%), Referenced to phase 2:NBL and 6:, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 18: Mustang Wy. & New Stetson Av.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1360	391	181	1675	620	233
Future Volume (veh/h)	1360	391	181	1675	620	233
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	1478	425	197	1821	674	253
Adj No. of Lanes	2	1	1	2	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1392	623	198	1958	790	705
Arrive On Green	0.39	0.39	0.11	0.55	0.45	0.45
Sat Flow, veh/h	3632	1583	1774	3632	1774	1583
Grp Volume(v), veh/h	1478	425	197	1821	674	253
Grp Sat Flow(s),veh/h/ln	1770	1583	1774	1770	1774	1583
Q Serve(g_s), s	47.2	26.7	13.3	56.8	40.8	12.7
Cycle Q Clear(g_c), s	47.2	26.7	13.3	56.8	40.8	12.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1392	623	198	1958	790	705
V/C Ratio(X)	1.06	0.68	0.99	0.93	0.85	0.36
Avail Cap(c_a), veh/h	1392	623	198	1958	790	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.53	0.53	1.00	1.00
Uniform Delay (d), s/veh	36.4	30.2	53.3	24.7	29.8	22.0
Incr Delay (d2), s/veh	38.1	1.9	44.8	4.9	11.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	30.4	12.0	9.0	28.9	22.3	5.8
LnGrp Delay(d),s/veh	74.5	32.1	98.1	29.6	41.0	23.4
LnGrp LOS	F	C	F	C	D	C
Approach Vol, veh/h	1903			2018	927	
Approach Delay, s/veh	65.0			36.3	36.2	
Approach LOS	E			D	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		58.1	19.2	53.0				72.2
Change Period (Y+Rc), s		4.6	5.8	* 5.8				5.8
Max Green Setting (Gmax), s		44.4	13.4	* 47				65.2
Max Q Clear Time (g_c+I1), s		42.8	15.3	49.2				58.8
Green Ext Time (p_c), s		0.4	0.0	0.0				5.5

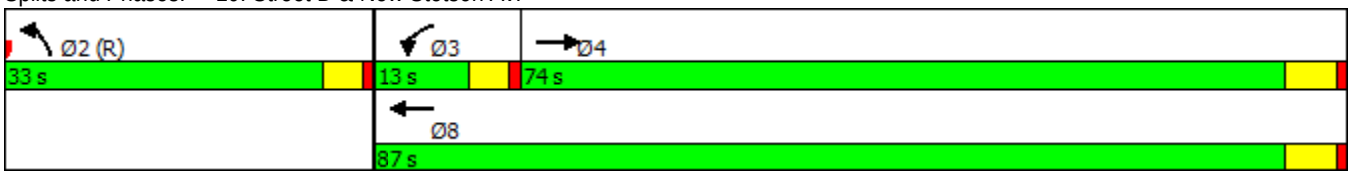
Intersection Summary	
HCM 2010 Ctrl Delay	47.5
HCM 2010 LOS	D

Notes

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	1553	60	1832	42
Future Volume (vph)	1553	60	1832	42
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	5.0
Minimum Split (s)	27.8	9.6	22.5	31.6
Total Split (s)	74.0	13.0	87.0	33.0
Total Split (%)	61.7%	10.8%	72.5%	27.5%
Yellow Time (s)	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	C-Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 72 (60%), Referenced to phase 2:NBL and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 19: Street D & New Stetson Av.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1553	55	60	1832	42	42
Future Volume (veh/h)	1553	55	60	1832	42	42
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	1688	60	65	1991	46	46
Adj No. of Lanes	2	0	1	2	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	2002	71	83	2333	210	210
Arrive On Green	1.00	1.00	0.05	0.66	0.25	0.25
Sat Flow, veh/h	3580	123	1774	3632	829	829
Grp Volume(v), veh/h	853	895	65	1991	93	0
Grp Sat Flow(s),veh/h/ln	1770	1841	1774	1770	1675	0
Q Serve(g_s), s	0.0	0.0	4.3	52.6	5.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	4.3	52.6	5.3	0.0
Prop In Lane		0.07	1.00		0.49	0.49
Lane Grp Cap(c), veh/h	1016	1057	83	2333	426	0
V/C Ratio(X)	0.84	0.85	0.78	0.85	0.22	0.00
Avail Cap(c_a), veh/h	1016	1057	124	2395	426	0
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.19	0.19	0.09	0.09	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	56.6	15.9	35.3	0.0
Incr Delay (d2), s/veh	1.3	1.3	0.8	0.3	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	2.2	25.5	2.6	0.0
LnGrp Delay(d),s/veh	1.3	1.3	57.4	16.2	36.5	0.0
LnGrp LOS	A	A	E	B	D	
Approach Vol, veh/h	1748			2056	93	
Approach Delay, s/veh	1.3			17.5	36.5	
Approach LOS	A			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		35.1	10.2	74.7				84.9
Change Period (Y+Rc), s		4.6	4.6	5.8				5.8
Max Green Setting (Gmax), s		28.4	8.4	68.2				81.2
Max Q Clear Time (g_c+I1), s		7.3	6.3	2.0				54.6
Green Ext Time (p_c), s		0.1	0.0	58.1				24.5

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Notes

Intersection	
Intersection Delay, s/veh	1478.8
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	188	612	265	0	230	411	162	0	378	1343	441
Future Vol, veh/h	0	188	612	265	0	230	411	162	0	378	1343	441
Peak Hour Factor	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	190	618	268	0	232	415	164	0	382	1357	445
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	965.9	701.3	2237.8
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	18%	29%	18%
Vol Thru, %	62%	57%	51%	69%
Vol Right, %	20%	25%	20%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2162	1065	803	1128
LT Vol	378	188	230	198
Through Vol	1343	612	411	776
RT Vol	441	265	162	154
Lane Flow Rate	2184	1076	811	1139
Geometry Grp	1	1	1	1
Degree of Util (X)	5.79	2.844	2.156	3.033
Departure Headway (Hd)	36.304	55.212	70.006	60.788
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	131	86	65	80
Service Time	34.304	53.212	68.006	58.788
HCM Lane V/C Ratio	16.672	12.512	12.477	14.238
HCM Control Delay	2237.8	965.9	701.3	1061.8
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	62.8	18.7	11.2	18.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	198	776	154
Future Vol, veh/h	0	198	776	154
Peak Hour Factor	0.92	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	200	784	156
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	1061.8
HCM LOS	F

Intersection	
Intersection Delay, s/veh	1073.2
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	423	385	112	0	145	469	291	0	212	1369	237
Future Vol, veh/h	0	423	385	112	0	145	469	291	0	212	1369	237
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	441	401	117	0	151	489	303	0	221	1426	247
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	794.6	757.1	1424
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	0%	46%	16%	18%
Vol Thru, %	87%	0%	42%	52%	47%
Vol Right, %	0%	100%	12%	32%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1581	237	920	905	1092
LT Vol	212	0	423	145	192
Through Vol	1369	0	385	469	514
RT Vol	0	237	112	291	386
Lane Flow Rate	1647	247	958	943	1138
Geometry Grp	7	7	2	2	5
Degree of Util (X)	4.482	0.619	2.568	2.479	3.018
Departure Headway (Hd)	25.92	25.124	34.046	34.731	30.749
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	165	148	125	113	137
Service Time	23.62	22.824	32.046	32.731	28.749
HCM Lane V/C Ratio	9.982	1.669	7.664	8.345	8.307
HCM Control Delay	1628.2	61.9	794.6	757.1	985.7
HCM Lane LOS	F	F	F	F	F
HCM 95th-tile Q	64.1	3.3	24.8	23.3	33.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	192	514	386
Future Vol, veh/h	0	192	514	386
Peak Hour Factor	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	200	535	402
Number of Lanes	0	0	1	0

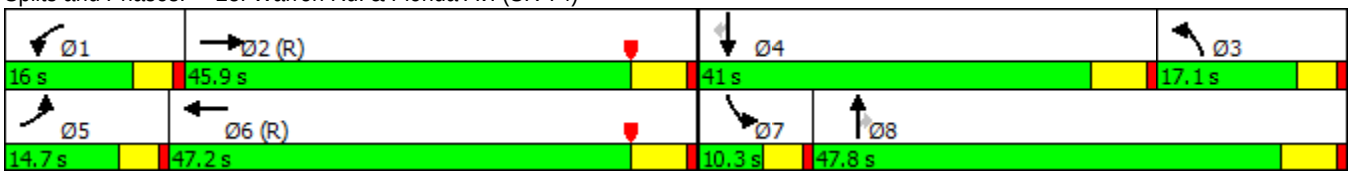
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	985.7
HCM LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	204	1428	458	1272	374	1105	792	331	445	189
Future Volume (vph)	204	1428	458	1272	374	1105	792	331	445	189
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8		7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	45.0	9.6	45.0	9.6	41.0	41.0	9.6	41.0	41.0
Total Split (s)	14.7	45.9	16.0	47.2	17.1	47.8	47.8	10.3	41.0	41.0
Total Split (%)	12.3%	38.3%	13.3%	39.3%	14.3%	39.8%	39.8%	8.6%	34.2%	34.2%
Yellow Time (s)	3.6	5.0	3.6	5.0	3.6	5.0	5.0	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	4.6	6.0	4.6	6.0	6.0	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	1428	206	458	1272	597	374	1105	792	331	445	189
Future Volume (veh/h)	204	1428	206	458	1272	597	374	1105	792	331	445	189
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	215	1503	152	482	1339	622	394	1163	718	348	468	131
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	2331	234	169	1755	757	185	1274	570	84	1032	462
Arrive On Green	0.08	0.72	0.72	0.09	0.73	0.73	0.10	0.36	0.36	0.05	0.29	0.29
Sat Flow, veh/h	1774	3249	326	1774	2410	1039	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	215	813	842	482	955	1006	394	1163	718	348	468	131
Grp Sat Flow(s),veh/h/ln	1774	1770	1805	1774	1770	1679	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	10.1	28.8	29.6	11.4	38.2	48.7	12.5	37.6	43.2	5.7	13.0	10.1
Cycle Q Clear(g_c), s	10.1	28.8	29.6	11.4	38.2	48.7	12.5	37.6	43.2	5.7	13.0	10.1
Prop In Lane	1.00		0.18	1.00		0.62	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	1270	1295	169	1289	1223	185	1274	570	84	1032	462
V/C Ratio(X)	1.44	0.64	0.65	2.86	0.74	0.82	2.13	0.91	1.26	4.13	0.45	0.28
Avail Cap(c_a), veh/h	149	1270	1295	169	1289	1223	185	1274	570	84	1032	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	8.9	9.0	54.3	9.6	11.0	53.8	36.6	38.4	57.2	34.7	56.9
Incr Delay (d2), s/veh	231.7	2.5	2.5	853.1	3.9	6.3	527.2	11.4	130.6	1436.0	1.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.5	14.7	15.4	45.5	19.7	24.2	33.2	20.3	39.5	36.4	6.5	4.6
LnGrp Delay(d),s/veh	286.6	11.3	11.5	907.4	13.5	17.3	580.9	48.1	169.0	1493.2	36.1	58.4
LnGrp LOS	F	B	B	F	B	B	F	D	F	F	D	E
Approach Vol, veh/h		1870			2443			2275			947	
Approach Delay, s/veh		43.1			191.4			178.5			574.6	
Approach LOS		D			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	93.5	18.5	41.0	14.7	94.8	10.3	49.2
Change Period (Y+Rc), s	4.6	6.0	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	11.4	39.9	12.5	* 35	10.1	41.2	5.7	41.8
Max Q Clear Time (g_c+I1), s	13.4	31.6	14.5	15.0	12.1	50.7	7.7	45.2
Green Ext Time (p_c), s	0.0	7.4	0.0	1.8	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		198.9
HCM 2010 LOS		F

Notes

Intersection	
Int Delay, s/veh	494.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	107	321	1961	59	126	982
Future Vol, veh/h	107	321	1961	59	126	982
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	124	373	2280	69	147	1142

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3715	2280	0	0	2280	0
Stage 1	2280	-	-	-	-	-
Stage 2	1435	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 5	~ 51	-	-	222	-
Stage 1	~ 83	-	-	-	-	-
Stage 2	219	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 2	~ 51	-	-	222	-
Mov Cap-2 Maneuver	~ 50	-	-	-	-	-
Stage 1	~ 83	-	-	-	-	-
Stage 2	~ 74	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 4094	0	5.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	51	222	-
HCM Lane V/C Ratio	-	-	9.758	0.66	-
HCM Control Delay (s)	-	-	$ 4094	48	-
HCM Lane LOS	-	-	F	E	-
HCM 95th %tile Q(veh)	-	-	59	4.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	10.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	43	71	1546	51	77	805
Future Vol, veh/h	43	71	1546	51	77	805
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	77	1680	55	84	875

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2750	1708	0	0	1736	0
Stage 1	1708	-	-	-	-	-
Stage 2	1042	-	-	-	-	-
Critical Hdwy	7.12	6.22	-	-	4.12	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 13	113	-	-	362	-
Stage 1	115	-	-	-	-	-
Stage 2	277	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 11	113	-	-	362	-
Mov Cap-2 Maneuver	94	-	-	-	-	-
Stage 1	115	-	-	-	-	-
Stage 2	213	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	220.7	0	1.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	105	362	-
HCM Lane V/C Ratio	-	-	1.18	0.231	-
HCM Control Delay (s)	-	-	220.7	17.9	-
HCM Lane LOS	-	-	F	C	-
HCM 95th %tile Q(veh)	-	-	8.1	0.9	-

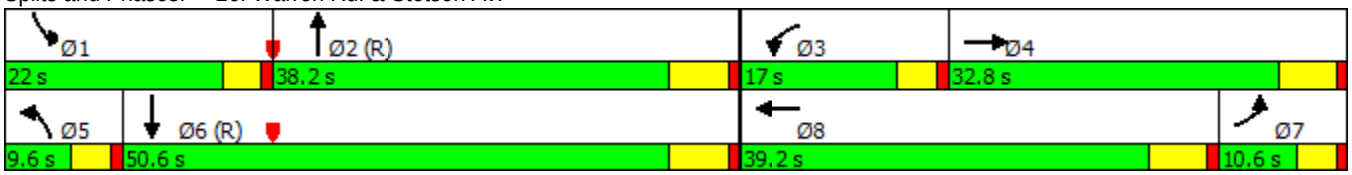
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	555	1198	206	1119	298	850	300	672
Future Volume (vph)	555	1198	206	1119	298	850	300	672
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	32.8	9.5	32.8
Total Split (s)	10.6	32.8	17.0	39.2	9.6	38.2	22.0	50.6
Total Split (%)	9.6%	29.8%	15.5%	35.6%	8.7%	34.7%	20.0%	46.0%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	555	1198	121	206	1119	330	298	850	143	300	672	121
Future Volume (veh/h)	555	1198	121	206	1119	330	298	850	143	300	672	121
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	566	1222	123	210	1142	337	304	867	146	306	686	123
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	433	44	206	420	124	87	2348	395	287	2662	477
Arrive On Green	0.06	0.26	0.26	0.12	0.30	0.30	0.05	0.77	0.77	0.16	0.89	0.89
Sat Flow, veh/h	1774	1666	168	1774	1383	408	1774	3032	511	1774	3000	537
Grp Volume(v), veh/h	566	0	1345	210	0	1479	304	506	507	306	404	405
Grp Sat Flow(s),veh/h/ln	1774	0	1833	1774	0	1791	1774	1770	1773	1774	1770	1768
Q Serve(g_s), s	6.4	0.0	28.6	12.8	0.0	33.4	5.4	9.9	9.9	17.8	3.7	3.7
Cycle Q Clear(g_c), s	6.4	0.0	28.6	12.8	0.0	33.4	5.4	9.9	9.9	17.8	3.7	3.7
Prop In Lane	1.00		0.09	1.00		0.23	1.00		0.29	1.00		0.30
Lane Grp Cap(c), veh/h	103	0	477	206	0	544	87	1371	1373	287	1570	1569
V/C Ratio(X)	5.48	0.00	2.82	1.02	0.00	2.72	3.49	0.37	0.37	1.07	0.26	0.26
Avail Cap(c_a), veh/h	103	0	477	206	0	544	87	1371	1373	287	1570	1569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.65	0.65	0.65	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	0.0	40.7	48.6	0.0	38.3	52.3	3.9	3.9	46.1	0.9	0.9
Incr Delay (d2), s/veh	2038.7	0.0	825.7	67.2	0.0	779.2	1139.4	0.5	0.5	71.6	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	61.6	0.0	123.7	10.1	0.0	134.2	30.2	5.0	5.0	14.4	1.9	1.9
LnGrp Delay(d),s/veh	2090.5	0.0	866.4	115.9	0.0	817.5	1191.7	4.4	4.4	117.7	1.3	1.3
LnGrp LOS	F		F	F		F	F	A	A	F	A	A
Approach Vol, veh/h		1911			1689			1317			1115	
Approach Delay, s/veh		1228.9			730.3			278.5			33.3	
Approach LOS		F			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	92.6	17.0	34.4	9.6	105.0	12.2	39.2
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 18	32.4	* 13	27.0	* 5.4	44.8	6.4	* 33
Max Q Clear Time (g_c+I1), s	19.8	11.9	14.8	30.6	7.4	5.7	8.4	35.4
Green Ext Time (p_c), s	0.0	14.2	0.0	0.0	0.0	21.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	660.8
HCM 2010 LOS	F

Notes

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	305	187	342	764	264
Future Volume (vph)	305	187	342	764	264
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	34.8	34.8	9.2	15.8	34.8
Total Split (s)	34.8	34.8	9.3	49.3	40.0
Total Split (%)	41.4%	41.4%	11.1%	58.6%	47.6%
Yellow Time (s)	4.8	4.8	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 84.1
Actuated Cycle Length: 84.1
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 27: Warren Rd. & New Stetson Av.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	305	187	342	764	264	422
Future Volume (veh/h)	305	187	342	764	264	422
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	314	193	353	788	272	435
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	360	321	108	1227	354	567
Arrive On Green	0.20	0.20	0.06	0.66	0.55	0.55
Sat Flow, veh/h	1774	1583	1774	1863	646	1034
Grp Volume(v), veh/h	314	193	353	788	0	707
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	0	1680
Q Serve(g_s), s	14.4	9.3	5.1	21.0	0.0	27.6
Cycle Q Clear(g_c), s	14.4	9.3	5.1	21.0	0.0	27.6
Prop In Lane	1.00	1.00	1.00			0.62
Lane Grp Cap(c), veh/h	360	321	108	1227	0	921
V/C Ratio(X)	0.87	0.60	3.28	0.64	0.00	0.77
Avail Cap(c_a), veh/h	612	547	108	1227	0	921
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.45	1.00	1.00	0.00	0.70
Uniform Delay (d), s/veh	32.4	30.4	39.5	8.5	0.0	14.8
Incr Delay (d2), s/veh	1.6	0.3	1048.3	2.6	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	8.1	33.8	11.6	0.0	13.7
LnGrp Delay(d),s/veh	34.0	30.7	1087.8	11.1	0.0	19.1
LnGrp LOS	C	C	F	B		B
Approach Vol, veh/h	507			1141	707	
Approach Delay, s/veh	32.7			344.2	19.1	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		61.1		22.9	9.3	51.8		
Change Period (Y+Rc), s		5.8		5.8	* 4.2	5.8		
Max Green Setting (Gmax), s		43.5		29.0	* 5.1	34.2		
Max Q Clear Time (g_c+I1), s		23.0		16.4	7.1	29.6		
Green Ext Time (p_c), s		6.7		0.7	0.0	2.7		

Intersection Summary	
HCM 2010 Ctrl Delay	179.5
HCM 2010 LOS	F

Notes

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	109	52	1263	481
Future Volume (vph)	109	52	1263	481
Turn Type	Prot	Prot	NA	NA
Protected Phases	4	5	2	6
Permitted Phases				
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	10.8	23.8
Total Split (s)	16.0	12.0	44.0	32.0
Total Split (%)	26.7%	20.0%	73.3%	53.3%
Yellow Time (s)	3.6	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Min	C-Min

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 32 (53%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 28: Warren Rd. & Street D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	109	25	52	1263	481	106
Future Volume (veh/h)	109	25	52	1263	481	106
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	118	27	57	1373	523	115
Adj No. of Lanes	0	0	1	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	149	34	91	2549	1711	375
Arrive On Green	0.11	0.11	0.10	1.00	0.59	0.59
Sat Flow, veh/h	1403	321	1774	3632	2982	632
Grp Volume(v), veh/h	146	0	57	1373	320	318
Grp Sat Flow(s),veh/h/ln	1736	0	1774	1770	1770	1751
Q Serve(g_s), s	4.9	0.0	1.8	0.0	5.4	5.4
Cycle Q Clear(g_c), s	4.9	0.0	1.8	0.0	5.4	5.4
Prop In Lane	0.81	0.18	1.00			0.36
Lane Grp Cap(c), veh/h	185	0	91	2549	1048	1037
V/C Ratio(X)	0.79	0.00	0.63	0.54	0.30	0.31
Avail Cap(c_a), veh/h	330	0	219	2549	1048	1037
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.09	0.09	1.00	1.00
Uniform Delay (d), s/veh	26.2	0.0	26.4	0.0	6.1	6.1
Incr Delay (d2), s/veh	2.9	0.0	0.2	0.1	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.9	0.0	2.8	2.8
LnGrp Delay(d),s/veh	29.0	0.0	26.6	0.1	6.8	6.9
LnGrp LOS	C		C	A	A	A
Approach Vol, veh/h	146			1430	638	
Approach Delay, s/veh	29.0			1.1	6.8	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		49.0		11.0	7.7	41.3		
Change Period (Y+Rc), s		5.8		4.6	4.6	5.8		
Max Green Setting (Gmax), s		38.2		11.4	7.4	26.2		
Max Q Clear Time (g_c+I1), s		2.0		6.9	3.8	7.4		
Green Ext Time (p_c), s		25.0		0.1	0.0	15.0		

Intersection Summary	
HCM 2010 Ctrl Delay	4.6
HCM 2010 LOS	A

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	67	104	176	154	81	1124	121	402
Future Volume (vph)	67	104	176	154	81	1124	121	402
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.6	9.5	21.6	9.5	21.7	9.2	14.7
Total Split (s)	10.0	22.6	14.0	26.6	16.7	72.4	11.0	66.7
Total Split (%)	8.3%	18.8%	11.7%	22.2%	13.9%	60.3%	9.2%	55.6%
Yellow Time (s)	3.5	3.6	3.5	3.6	3.5	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.5	4.6	4.5	4.7	4.2	4.7
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 29: Warren Rd. & Mustang Wy.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	104	55	176	154	181	81	1124	323	121	402	63
Future Volume (veh/h)	67	104	55	176	154	181	81	1124	323	121	402	63
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	68	106	56	180	157	158	83	1147	306	123	410	64
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	173	92	140	156	157	105	800	213	393	1146	179
Arrive On Green	0.05	0.15	0.15	0.08	0.18	0.18	0.06	0.56	0.56	0.44	1.00	1.00
Sat Flow, veh/h	1774	1149	607	1774	853	858	1774	1417	378	1774	1574	246
Grp Volume(v), veh/h	68	0	162	180	0	315	83	0	1453	123	0	474
Grp Sat Flow(s),veh/h/ln	1774	0	1756	1774	0	1711	1774	0	1796	1774	0	1819
Q Serve(g_s), s	4.6	0.0	10.4	9.5	0.0	22.0	5.5	0.0	67.7	5.4	0.0	0.0
Cycle Q Clear(g_c), s	4.6	0.0	10.4	9.5	0.0	22.0	5.5	0.0	67.7	5.4	0.0	0.0
Prop In Lane	1.00		0.35	1.00		0.50	1.00		0.21	1.00		0.14
Lane Grp Cap(c), veh/h	81	0	265	140	0	314	105	0	1013	393	0	1325
V/C Ratio(X)	0.84	0.00	0.61	1.28	0.00	1.00	0.79	0.00	1.43	0.31	0.00	0.36
Avail Cap(c_a), veh/h	81	0	265	140	0	314	180	0	1013	393	0	1325
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.97	0.00	0.97
Uniform Delay (d), s/veh	56.8	0.0	47.7	55.3	0.0	49.0	55.7	0.0	26.2	27.5	0.0	0.0
Incr Delay (d2), s/veh	47.9	0.0	4.1	170.2	0.0	51.8	5.0	0.0	201.1	0.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	5.3	11.3	0.0	14.9	2.9	0.0	89.8	2.6	0.0	0.3
LnGrp Delay(d),s/veh	104.7	0.0	51.8	225.4	0.0	100.8	60.7	0.0	227.3	27.7	0.0	0.7
LnGrp LOS	F		D	F		F	E		F	C		A
Approach Vol, veh/h		230			495			1536			597	
Approach Delay, s/veh		67.4			146.1			218.3			6.3	
Approach LOS		E			F			F			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.9	72.4	14.0	22.7	11.6	92.7	10.1	26.6
Change Period (Y+Rc), s	* 4.7	* 4.7	4.5	4.6	4.5	* 4.7	4.6	* 4.6
Max Green Setting (Gmax), s	* 6.8	* 68	9.5	18.0	12.2	* 62	5.5	* 22
Max Q Clear Time (g_c+I1), s	7.4	69.7	11.5	12.4	7.5	2.0	6.6	24.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	5.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	149.4
HCM 2010 LOS	F

Notes

Intersection	
Intersection Delay, s/veh	355.7
Intersection LOS	F

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Lane Configurations									
Traffic Vol, veh/h	0	635	448	0	27	523	0	468	34
Future Vol, veh/h	0	635	448	0	27	523	0	468	34
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	668	472	0	28	551	0	493	36
Number of Lanes	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	589.2	125.4	104.3
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	59%	0%	100%
Vol Right, %	0%	100%	41%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	468	34	1083	27	523
LT Vol	468	0	0	27	0
Through Vol	0	0	635	0	523
RT Vol	0	34	448	0	0
Lane Flow Rate	493	36	1140	28	551
Geometry Grp	7	7	4	7	7
Degree of Util (X)	1.106	0.068	2.255	0.064	1.168
Departure Headway (Hd)	9.999	8.725	7.786	10.273	9.743
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	369	413	479	351	380
Service Time	7.699	6.425	5.786	7.973	7.443
HCM Lane V/C Ratio	1.336	0.087	2.38	0.08	1.45
HCM Control Delay	111	12.1	589.2	13.7	131.2
HCM Lane LOS	F	B	F	B	F
HCM 95th-tile Q	14.8	0.2	77.6	0.2	17.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	464	1212	11	11	1139	528	11	263	11	408	11
Future Volume (vph)	464	1212	11	11	1139	528	11	263	11	408	11
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases	5	2		1	6			8			4
Permitted Phases			2			6	8		8	4	
Detector Phase	5	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	23.9	14.6	14.6	14.6	46.4	46.4
Total Split (s)	26.1	54.4	54.4	9.2	37.5	37.5	46.4	46.4	46.4	46.4	46.4
Total Split (%)	23.7%	49.5%	49.5%	8.4%	34.1%	34.1%	42.2%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.6	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9		4.6	4.6		5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	1212	11	11	1139	528	11	263	11	408	11	268
Future Volume (veh/h)	464	1212	11	11	1139	528	11	263	11	408	11	268
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	494	1289	10	12	1212	555	12	280	12	434	12	71
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	1640	734	25	985	440	45	681	590	306	7	40
Arrive On Green	0.20	0.46	0.46	0.01	0.28	0.28	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	30	1827	1583	660	18	108
Grp Volume(v), veh/h	494	1289	10	12	1212	555	292	0	12	517	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1857	0	1583	786	0	0
Q Serve(g_s), s	21.9	33.8	0.4	0.7	30.6	30.6	0.0	0.0	0.5	28.2	0.0	0.0
Cycle Q Clear(g_c), s	21.9	33.8	0.4	0.7	30.6	30.6	12.8	0.0	0.5	41.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.04		1.00	0.84		0.14
Lane Grp Cap(c), veh/h	353	1640	734	25	985	440	726	0	590	353	0	0
V/C Ratio(X)	1.40	0.79	0.01	0.48	1.23	1.26	0.40	0.00	0.02	1.46	0.00	0.00
Avail Cap(c_a), veh/h	353	1640	734	81	985	440	740	0	602	353	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	24.9	15.9	53.8	39.7	39.7	25.7	0.0	21.8	43.3	0.0	0.0
Incr Delay (d2), s/veh	195.8	3.9	0.0	5.4	112.9	134.3	0.1	0.0	0.0	223.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	29.9	17.4	0.2	0.4	30.3	29.8	6.6	0.0	0.2	32.7	0.0	0.0
LnGrp Delay(d),s/veh	239.8	28.8	16.0	59.2	152.6	174.0	25.8	0.0	21.8	267.2	0.0	0.0
LnGrp LOS	F	C	B	E	F	F	C		C	F		
Approach Vol, veh/h		1793			1779			304			517	
Approach Delay, s/veh		86.9			158.7			25.6			267.2	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	57.9		46.4	26.1	37.5		46.4
Change Period (Y+Rc), s	* 4.2	6.9		5.4	* 4.2	6.9		* 5.4
Max Green Setting (Gmax), s	* 5	47.5		41.0	* 22	30.6		* 42
Max Q Clear Time (g_c+I1), s	2.7	35.8		43.0	23.9	32.6		14.8
Green Ext Time (p_c), s	0.0	8.6		0.0	0.0	0.0		4.2

Intersection Summary			
HCM 2010 Ctrl Delay		132.9	
HCM 2010 LOS		F	

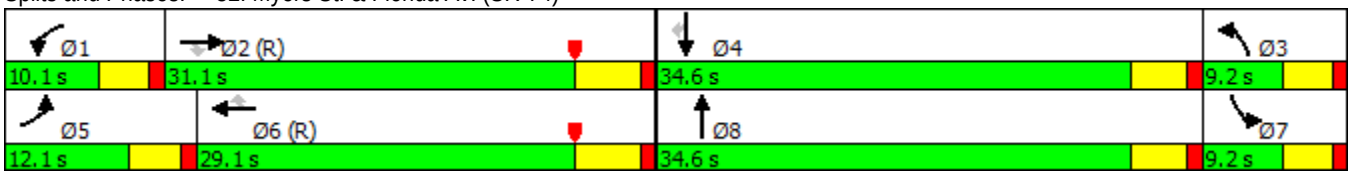
Notes

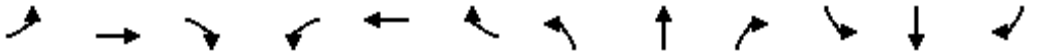
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	222	2047	281	125	2067	251	126	150	223	49	133
Future Volume (vph)	222	2047	281	125	2067	251	126	150	223	49	133
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	12.1	31.1	31.1	10.1	29.1	29.1	9.2	34.6	9.2	34.6	34.6
Total Split (%)	14.2%	36.6%	36.6%	11.9%	34.2%	34.2%	10.8%	40.7%	10.8%	40.7%	40.7%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 80.1 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	2047	281	125	2067	251	126	150	169	223	49	133
Future Volume (veh/h)	222	2047	281	125	2067	251	126	150	169	223	49	133
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	239	2201	292	134	2223	264	135	161	159	240	53	91
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1083	484	123	999	447	104	304	300	104	657	559
Arrive On Green	0.09	0.31	0.31	0.05	0.19	0.19	0.06	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	862	851	1774	1863	1583
Grp Volume(v), veh/h	239	2201	292	134	2223	264	135	0	320	240	53	91
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	0	1713	1774	1863	1583
Q Serve(g_s), s	7.9	26.0	10.1	5.9	24.0	9.9	5.0	0.0	12.6	5.0	1.6	2.3
Cycle Q Clear(g_c), s	7.9	26.0	10.1	5.9	24.0	9.9	5.0	0.0	12.6	5.0	1.6	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	165	1083	484	123	999	447	104	0	604	104	657	559
V/C Ratio(X)	1.45	2.03	0.60	1.09	2.22	0.59	1.29	0.00	0.53	2.30	0.08	0.16
Avail Cap(c_a), veh/h	165	1083	484	123	999	447	104	0	604	104	657	559
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	29.5	14.4	40.5	34.5	17.6	40.0	0.0	21.9	40.0	18.3	9.2
Incr Delay (d2), s/veh	232.9	468.1	5.5	106.7	554.3	5.6	186.1	0.0	3.3	614.0	0.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.5	83.0	5.1	6.5	88.6	5.0	7.8	0.0	6.5	20.2	0.9	1.1
LnGrp Delay(d),s/veh	271.4	497.6	19.9	147.3	588.8	23.2	226.1	0.0	25.2	654.0	18.6	9.8
LnGrp LOS	F	F	B	F	F	C	F		C	F	B	A
Approach Vol, veh/h		2732			2621			455			384	
Approach Delay, s/veh		426.8			509.2			84.8			413.6	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	31.1	9.2	34.6	12.1	29.1	9.2	34.6
Change Period (Y+Rc), s	* 4.2	5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	* 5.9	26.0	5.0	* 30	* 7.9	24.0	5.0	* 30
Max Q Clear Time (g_c+I1), s	7.9	28.0	7.0	4.3	9.9	26.0	7.0	14.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	435.7
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2065	424	6	2426	0	28
Future Vol, veh/h	2065	424	6	2426	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	130	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2197	451	6	2581	0	30

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2197	0	-	1098
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	*307	-	0	*205
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*307	-	-	*205
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	25.5
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	205	-	-	* 307	-
HCM Lane V/C Ratio	0.145	-	-	0.021	-
HCM Control Delay (s)	25.5	-	-	17	-
HCM Lane LOS	D	-	-	C	-
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

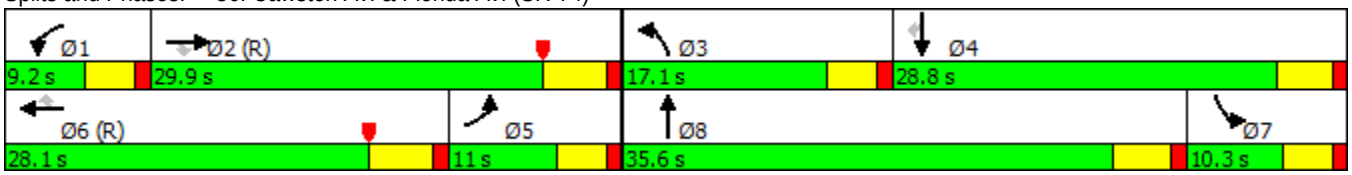
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	313	1100	617	223	1308	112	544	609	48	331	325
Future Volume (vph)	313	1100	617	223	1308	112	544	609	48	331	325
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	27.1	9.2	27.1	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	11.0	29.9	29.9	9.2	28.1	28.1	17.1	35.6	10.3	28.8	28.8
Total Split (%)	12.9%	35.2%	35.2%	10.8%	33.1%	33.1%	20.1%	41.9%	12.1%	33.9%	33.9%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 35 (41%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	313	1100	617	223	1308	112	544	609	258	48	331	325
Future Volume (veh/h)	313	1100	617	223	1308	112	544	609	258	48	331	325
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	326	1146	641	232	1362	73	567	634	263	50	345	275
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	745	2273	1017	104	958	426	269	885	367	119	530	451
Arrive On Green	0.84	1.00	1.00	0.06	0.27	0.27	0.15	0.36	0.36	0.07	0.28	0.28
Sat Flow, veh/h	1774	3539	1583	1774	3539	1575	1774	2427	1006	1774	1863	1583
Grp Volume(v), veh/h	326	1146	641	232	1362	73	567	462	435	50	345	275
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1575	1774	1770	1663	1774	1863	1583
Q Serve(g_s), s	4.0	0.0	0.0	5.0	23.0	3.0	12.9	19.1	19.1	2.3	13.8	9.5
Cycle Q Clear(g_c), s	4.0	0.0	0.0	5.0	23.0	3.0	12.9	19.1	19.1	2.3	13.8	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.60	1.00		1.00
Lane Grp Cap(c), veh/h	745	2273	1017	104	958	426	269	645	607	119	530	451
V/C Ratio(X)	0.44	0.50	0.63	2.22	1.42	0.17	2.11	0.72	0.72	0.42	0.65	0.61
Avail Cap(c_a), veh/h	745	2273	1017	104	958	426	269	645	607	127	530	451
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.3	0.0	0.0	40.0	31.0	23.7	36.0	23.2	23.2	38.1	26.7	14.5
Incr Delay (d2), s/veh	0.2	0.8	3.0	580.2	196.1	0.9	510.1	6.7	7.1	0.9	6.1	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.3	0.8	19.3	37.3	1.4	44.4	10.4	9.9	1.2	8.0	4.9
LnGrp Delay(d),s/veh	4.4	0.8	3.0	620.2	227.1	24.6	546.1	29.9	30.3	38.9	32.8	20.6
LnGrp LOS	A	A	A	F	F	C	F	C	C	D	C	C
Approach Vol, veh/h		2113			1667			1464			670	
Approach Delay, s/veh		2.0			273.0			230.0			28.2	
Approach LOS		A			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	59.9	17.1	28.8	41.0	28.1	10.3	35.6
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	5.1	* 5.1	4.6	* 4.6
Max Green Setting (Gmax), s	* 5	24.8	* 13	24.2	6.8	* 23	6.1	* 31
Max Q Clear Time (g_c+I1), s	7.0	2.0	14.9	15.8	6.0	25.0	4.3	21.1
Green Ext Time (p_c), s	0.0	16.1	0.0	2.2	0.1	0.0	0.7	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	137.8
HCM 2010 LOS	F

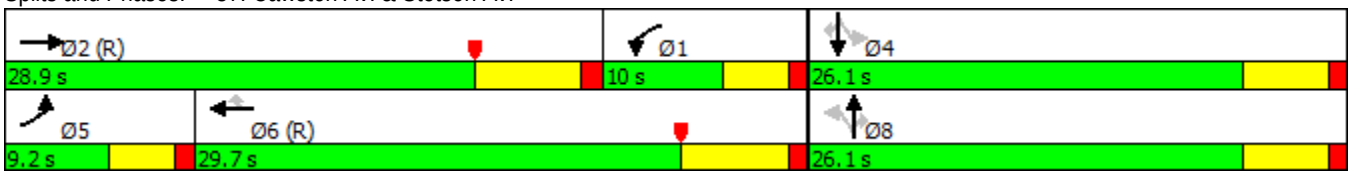
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	231	1451	71	1379	25	114	115	60	8	66	260
Future Volume (vph)	231	1451	71	1379	25	114	115	60	8	66	260
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	9.2	28.9	10.0	29.7	29.7	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	14.2%	44.5%	15.4%	45.7%	45.7%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 37: Cawston Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	1451	331	71	1379	25	114	115	60	8	66	260
Future Volume (veh/h)	231	1451	331	71	1379	25	114	115	60	8	66	260
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	243	1527	334	75	1452	23	120	121	-26	8	69	247
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	1015	215	112	683	580	425	602	512	468	602	512
Arrive On Green	0.08	0.35	0.35	0.06	0.37	0.37	0.32	0.32	0.00	0.32	0.32	0.32
Sat Flow, veh/h	1774	2907	617	1774	1863	1583	1059	1863	1583	1295	1863	1583
Grp Volume(v), veh/h	243	911	950	75	1452	23	120	121	-26	8	69	247
Grp Sat Flow(s),veh/h/ln	1774	1770	1754	1774	1863	1583	1059	1863	1583	1295	1863	1583
Q Serve(g_s), s	5.0	22.7	22.7	2.7	23.8	0.6	5.8	3.1	0.0	0.3	1.7	8.1
Cycle Q Clear(g_c), s	5.0	22.7	22.7	2.7	23.8	0.6	7.5	3.1	0.0	3.3	1.7	8.1
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	618	613	112	683	580	425	602	512	468	602	512
V/C Ratio(X)	1.78	1.47	1.55	0.67	2.13	0.04	0.28	0.20	-0.05	0.02	0.11	0.48
Avail Cap(c_a), veh/h	136	618	613	158	683	580	425	602	512	468	602	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	0.09	0.09	0.09	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	21.1	21.2	29.8	20.6	13.2	18.1	15.9	0.0	17.1	15.5	17.6
Incr Delay (d2), s/veh	378.6	222.2	255.5	0.2	507.6	0.0	1.7	0.8	0.0	0.1	0.4	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.8	49.1	54.4	1.3	108.4	0.3	1.9	1.7	0.0	0.1	0.9	4.0
LnGrp Delay(d),s/veh	408.6	243.3	276.6	30.0	528.2	13.2	19.8	16.7	0.0	17.2	15.9	20.9
LnGrp LOS	F	F	F	C	F	B	B	B		B	B	C
Approach Vol, veh/h		2104			1550			215			324	
Approach Delay, s/veh		277.4			496.4			20.4			19.7	
Approach LOS		F			F			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.3	28.9		26.1	9.2	30.0		26.1
Change Period (Y+Rc), s	6.2	* 6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	5.8	* 23		21.0	* 5	23.5		21.0
Max Q Clear Time (g_c+I1), s	4.7	24.7		10.1	7.0	25.8		9.5
Green Ext Time (p_c), s	0.6	0.0		1.1	0.0	0.0		1.2

Intersection Summary		
HCM 2010 Ctrl Delay	325.3	
HCM 2010 LOS	F	

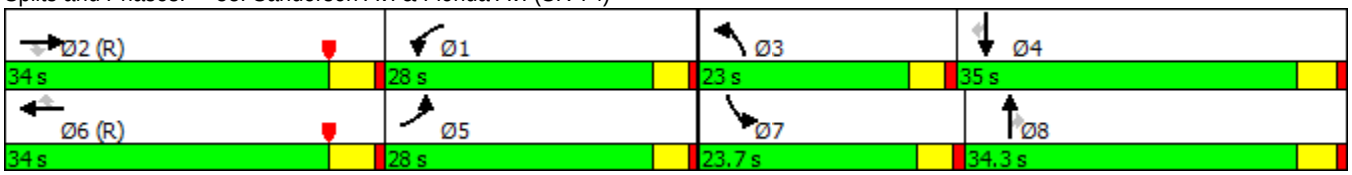
Notes

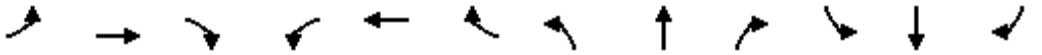
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	300	784	247	402	796	415	238	1132	250	324	928	163
Future Volume (vph)	300	784	247	402	796	415	238	1132	250	324	928	163
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7	14.7
Total Split (s)	28.0	34.0	34.0	28.0	34.0	34.0	23.0	34.3	34.3	23.7	35.0	35.0
Total Split (%)	23.3%	28.3%	28.3%	23.3%	28.3%	28.3%	19.2%	28.6%	28.6%	19.8%	29.2%	29.2%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	784	247	402	796	415	238	1132	250	324	928	163
Future Volume (veh/h)	300	784	247	402	796	415	238	1132	250	324	928	163
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	303	792	209	406	804	362	240	1143	167	327	937	107
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	852	374	352	852	375	266	873	382	288	918	404
Arrive On Green	0.20	0.24	0.24	0.20	0.24	0.24	0.15	0.25	0.25	0.16	0.26	0.26
Sat Flow, veh/h	1774	3539	1554	1774	3539	1555	1774	3539	1550	1774	3539	1559
Grp Volume(v), veh/h	303	792	209	406	804	362	240	1143	167	327	937	107
Grp Sat Flow(s),veh/h/ln	1774	1770	1554	1774	1770	1555	1774	1770	1550	1774	1770	1559
Q Serve(g_s), s	19.8	26.3	9.9	23.8	26.8	18.9	16.0	29.6	7.0	19.5	31.1	4.1
Cycle Q Clear(g_c), s	19.8	26.3	9.9	23.8	26.8	18.9	16.0	29.6	7.0	19.5	31.1	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	852	374	352	852	375	266	873	382	288	918	404
V/C Ratio(X)	0.86	0.93	0.56	1.15	0.94	0.97	0.90	1.31	0.44	1.13	1.02	0.26
Avail Cap(c_a), veh/h	352	852	374	352	852	375	278	873	382	288	918	404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.5	44.5	19.6	48.1	44.7	21.1	50.1	45.2	15.5	50.3	44.4	14.1
Incr Delay (d2), s/veh	18.3	17.8	5.9	96.7	19.8	38.8	28.4	147.4	3.6	94.3	35.2	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	15.0	4.8	21.1	15.4	12.1	9.9	32.3	3.3	17.1	19.6	2.0
LnGrp Delay(d),s/veh	64.8	62.3	25.5	144.8	64.5	59.9	78.6	192.6	19.1	144.5	79.6	15.7
LnGrp LOS	E	E	C	F	E	E	E	F	B	F	F	B
Approach Vol, veh/h		1304			1572			1550			1371	
Approach Delay, s/veh		57.0			84.2			156.3			90.1	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	34.0	22.2	35.8	28.0	34.0	23.7	34.3
Change Period (Y+Rc), s	4.2	* 5.1	* 4.2	* 4.7	4.2	* 5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	23.8	* 29	* 19	* 30	23.8	* 29	* 20	* 30
Max Q Clear Time (g_c+I1), s	25.8	28.3	18.0	33.1	21.8	28.8	21.5	31.6
Green Ext Time (p_c), s	0.0	0.5	0.0	0.0	0.3	0.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	98.7
HCM 2010 LOS	F

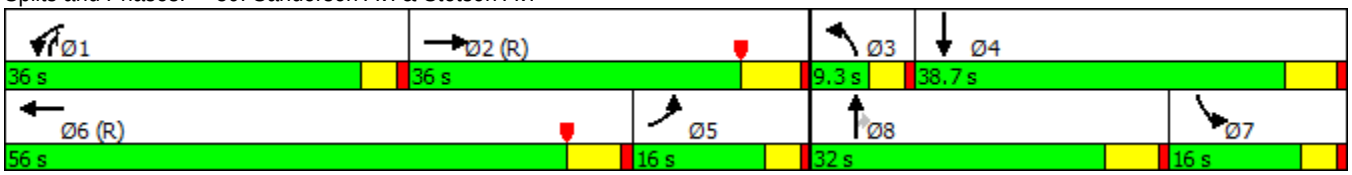
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	538	764	120	752	211	746	164	397	729
Future Volume (vph)	538	764	120	752	211	746	164	397	729
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8
Total Split (s)	16.0	36.0	36.0	56.0	9.3	32.0	36.0	16.0	38.7
Total Split (%)	13.3%	30.0%	30.0%	46.7%	7.8%	26.7%	30.0%	13.3%	32.3%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 21.4 (18%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	538	764	217	120	752	295	211	746	164	397	729	512
Future Volume (veh/h)	538	764	217	120	752	295	211	746	164	397	729	512
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	555	788	222	124	775	283	218	769	-200	409	752	517
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1602	3396	957	151	1063	388	75	773	481	174	580	395
Arrive On Green	0.90	1.00	1.00	0.09	0.42	0.42	0.04	0.22	0.00	0.10	0.29	0.29
Sat Flow, veh/h	1774	2718	766	1774	2541	927	1774	3539	1583	1774	2018	1372
Grp Volume(v), veh/h	555	513	497	124	540	518	218	769	-200	409	659	610
Grp Sat Flow(s),veh/h/ln	1774	1770	1713	1774	1770	1698	1774	1770	1583	1774	1770	1621
Q Serve(g_s), s	5.3	0.0	0.0	8.3	30.6	30.7	5.1	26.0	0.0	11.8	34.5	34.5
Cycle Q Clear(g_c), s	5.3	0.0	0.0	8.3	30.6	30.7	5.1	26.0	0.0	11.8	34.5	34.5
Prop In Lane	1.00		0.45	1.00		0.55	1.00		1.00	1.00		0.85
Lane Grp Cap(c), veh/h	1602	2211	2141	151	740	710	75	773	481	174	509	466
V/C Ratio(X)	0.35	0.23	0.23	0.82	0.73	0.73	2.89	1.00	-0.42	2.34	1.29	1.31
Avail Cap(c_a), veh/h	1602	2211	2141	470	740	710	75	773	481	174	509	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.8	0.0	0.0	54.0	29.2	29.2	57.5	46.8	0.0	54.1	42.8	42.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.2	6.2	6.5	886.2	31.2	0.0	622.5	146.6	154.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.0	4.2	16.1	15.7	21.1	16.1	0.0	35.9	37.5	35.4
LnGrp Delay(d),s/veh	0.8	0.0	0.0	58.2	35.4	35.7	943.6	78.1	0.0	676.6	189.3	197.1
LnGrp LOS	A	A	A	E	D	D	F	E		F	F	F
Approach Vol, veh/h		1565			1182			787			1678	
Approach Delay, s/veh		0.3			37.9			337.7			310.9	
Approach LOS		A			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	156.2	9.3	40.3	114.6	56.0	17.6	32.0
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	6.2	* 5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 32	29.8	* 5.1	32.9	11.8	* 50	11.8	* 26
Max Q Clear Time (g_c+I1), s	10.3	2.0	7.1	36.5	7.3	32.7	13.8	28.0
Green Ext Time (p_c), s	0.1	7.3	0.0	0.0	1.0	6.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	159.8
HCM 2010 LOS	F

Notes

APPENDIX 8.3:

GENERAL PLAN BUILDOUT (2040) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		2040 NP
				CALC	RV	DATE	09/28/17
Jurisdiction:	City of Hemet			CHK	CH	DATE	09/28/17
Major Street:	Grand Avenue				Critical Approach Speed (Major)		45 mph
Minor Street:	Patterson Avenue				Critical Approach Speed (Minor)		40 mph

Major Street Approach Lanes = **2** lane

Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **27,229** vpd

Minor Street Future ADT = **7,563** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	1	8,000	5,600	2,400	1,680
2 + **27,229**	1 **7,563**	9,600	6,720 *	2,400	1,680 *
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	1	12,000	8,400	1,200	850
2 + **27,229**	1 **7,563**	14,400	10,080 *	1,200	850 *
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX					
No one condition satisfied, but following conditions fulfilled 80% of more …..	A 100% B 100%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		2040 NP
				CALC	RV	DATE	09/28/17
Jurisdiction:	City of Hemet			CHK	CH	DATE	09/28/17
Major Street:	Grand Avenue				Critical Approach Speed (Major)		45 mph
Minor Street:	Calvert Avenue				Critical Approach Speed (Minor)		40 mph

Major Street Approach Lanes = **2** lane

Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **28,717** vpd

Minor Street Future ADT = **6,389** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	8,000	5,600	2,400	1,680
2 + **28,717**	*1* **6,389**	9,600	6,720 *	2,400	1,680 *
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	12,000	8,400	1,200	850
2 + **28,717**	*1* **6,389**	14,400	10,080 *	1,200	850 *
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX		2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A / B				
	A 100% / B 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		2040 NP
				CALC	RV	DATE	09/28/17
Jurisdiction:	City of Hemet			CHK	CH	DATE	09/28/17
Major Street:	SR-79 SB Ramps				Critical Approach Speed (Major)		45 mph
Minor Street:	Tres Cerritos Avenue				Critical Approach Speed (Minor)		40 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **6,677** vpd Minor Street Future ADT = **5,183** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1 **6,677**	1 **5,183**	8,000	5,600 *	2,400	1,680 *
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1 **6,677**	1 **5,183**	12,000	8,400	1,200	850 *
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	A: 100% B: 79%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM				
				TRAFFIC CONDITIONS		**2040 NP**	
				CALC	CHS	DATE	03/27/18
Jurisdiction:	**City of Hemet**			CHK	CHS	DATE	03/27/18
Major Street:	**Florida Av.**			Critical Approach Speed (Major)		45	mph
Minor Street:	**SR-79 SB Ramps**			Critical Approach Speed (Minor)		45	mph

Major Street Approach Lanes = **3** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **64,171** vpd Minor Street Future ADT = **10,884** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	8,000	5,600	2,400	1,680
2 + **64,171**	*1* **10,884**	9,600	6,720 *	2,400	1,680 *
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	12,000	8,400	1,200	850
2 + **64,171**	*1* **10,884**	14,400	10,080 *	1,200	850 *
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX		2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 100% **B** 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		2040 NP
				CALC RV	DATE	09/28/17
Jurisdiction: City of Hemet				CHK CH	DATE	09/28/17
Major Street: Stetson Avenue				Critical Approach Speed (Major)		45 mph
Minor Street: SR-79 SB Ramps				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **29,334** vpd Minor Street Future ADT = **7,809** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	1	8,000	5,600	2,400	1,680
2 + **29,334**	1 **7,809**	9,600	6,720 *	2,400	1,680 *
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	1	12,000	8,400	1,200	850
2 + **29,334**	1 **7,809**	14,400	10,080 *	1,200	850 *
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX		2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A 100% B 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	2040 NP
				CALC RV	DATE 09/28/17
Jurisdiction: City of Hemet				CHK CH	DATE 09/28/17
Major Street: **Domenigoni Parkway**				Critical Approach Speed (Major)	60 mph
Minor Street: **SR-79 SB Ramps**				Critical Approach Speed (Minor)	45 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **48,613** vpd Minor Street Future ADT = **6,303** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	8,000	5,600	2,400	1,680
2 + **48,613**	*1* **6,303**	9,600	6,720 *	2,400	1,680 *
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	12,000	8,400	1,200	850
2 + **48,613**	*1* **6,303**	14,400	10,080 *	1,200	850 *
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX					
No one condition satisfied, but following conditions fulfilled 80% of more …..	A / B	2 CONDITIONS 80%		2 CONDITIONS 80%	
	A: 100% B: 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

___ DIST	___ CO	___ RTE	___ PM		TRAFFIC CONDITIONS		2040 NP
				CALC	RV	DATE	09/28/17
Jurisdiction:	City of Hemet			CHK	CH	DATE	09/28/17
Major Street:	Tres Cerritos Avenue				Critical Approach Speed (Major)		45 mph
Minor Street:	SR-79 NB Ramps				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **9,639** vpd Minor Street Future ADT = **2,030** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL: XX

CONDITION A - Minimum Vehicular Volume

Satisfied: XX Not Satisfied:

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **9,639**	1 **2,030**	8,000	5,600 *	2,400	1,680 *
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied: XX Not Satisfied:

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **9,639**	1 **2,030**	12,000	8,400 *	1,200	850 *
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied: XX Not Satisfied:

No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 100% B: 100%

2 CONDITIONS 80%

2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	2040 NP
				CALC CHS	DATE 03/27/18
Jurisdiction: City of Hemet				CHK CHS	DATE 03/27/18
Major Street: Florida Av.				Critical Approach Speed (Major)	45 mph
Minor Street: SR-79 NB Ramps				Critical Approach Speed (Minor)	45 mph

Major Street Approach Lanes = **3** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **67,285** vpd Minor Street Future ADT = **4,719** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	1	8,000	5,600	2,400	1,680
2 + **67,285**	1 **4,719**	9,600	6,720 *	2,400	1,680 *
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	1	12,000	8,400	1,200	850
2 + **67,285**	1 **4,719**	14,400	10,080 *	1,200	850 *
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX		2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A 100% B 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	2040 NP
				CALC RV	DATE 09/28/17
Jurisdiction: City of Hemet				CHK CH	DATE 09/28/17
Major Street: **Stetson Avenue**				Critical Approach Speed (Major)	45 mph
Minor Street: **SR-79 NB Ramps**				Critical Approach Speed (Minor)	45 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **29,692** vpd Minor Street Future ADT = **4,566** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	*1*	8,000	5,600	2,400	1,680
2 + **29,692**	*1* **4,566**	9,600	6,720 *	2,400	1,680 *
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	*1*	12,000	8,400	1,200	850
2 + **29,692**	*1* **4,566**	14,400	10,080 *	1,200	850 *
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX		2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A / B				
	100% / 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

___ DIST	___ CO	___ RTE	___ PM		TRAFFIC CONDITIONS		2040 NP
				CALC	RV	DATE	09/28/17
Jurisdiction:	City of Hemet			CHK	CH	DATE	09/28/17
Major Street:	Domenigoni Parkway				Critical Approach Speed (Major)		60 mph
Minor Street:	SR-79 NB Ramps				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **48,553** vpd Minor Street Future ADT = **5,180** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN RURAL XX

CONDITION A - Minimum Vehicular Volume

Satisfied XX Not Satisfied

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1	1	8,000	5,600	2,400	1,680
2 + **48,553**	1 **5,180**	9,600	6,720 *	2,400	1,680 *
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied XX Not Satisfied

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1	1	12,000	8,400	1,200	850
2 + **48,553**	1 **5,180**	14,400	10,080 *	1,200	850 *
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied XX Not Satisfied

No one condition satisfied, but following conditions fulfilled 80% of more ….. A 100% B 100%

2 CONDITIONS 80% 2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

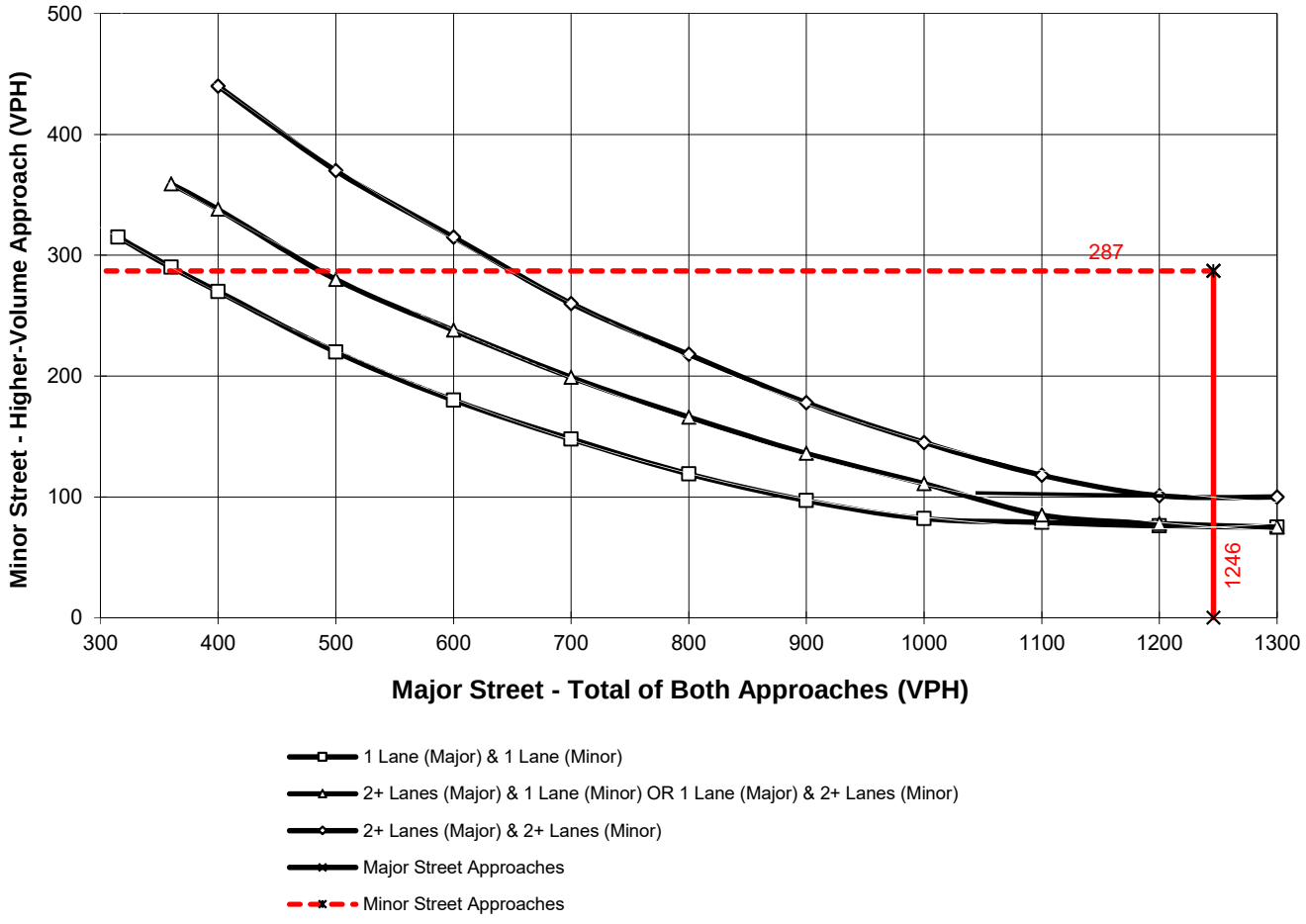
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Horizon Year (2040) Without Project Conditions - Weekday PM Peak Hour**

Major Street Name = **California Avenue** — Total of Both Approaches (VPH) = **1246**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Stowe Road** — High Volume Approach (VPH) = **287**
Number of Approach Lanes Minor Street = **2**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		2040 NP
				CALC	RV	DATE	09/28/17
Jurisdiction:	City of Hemet			CHK	CH	DATE	09/28/17
Major Street:	California Avenue				Critical Approach Speed (Major)		45 mph
Minor Street:	New Stetson Avenue				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **2** lane

Major Street Future ADT = **33,632** vpd Minor Street Future ADT = **8,186** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	*1*	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 + **33,632**	*2* + **8,186**	9,600	6,720 *	3,200	2,240 *
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	*1*	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 + **33,632**	*2* + **8,186**	14,400	10,080 *	1,600	1,120 *
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX		2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A / B				
	100% / 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

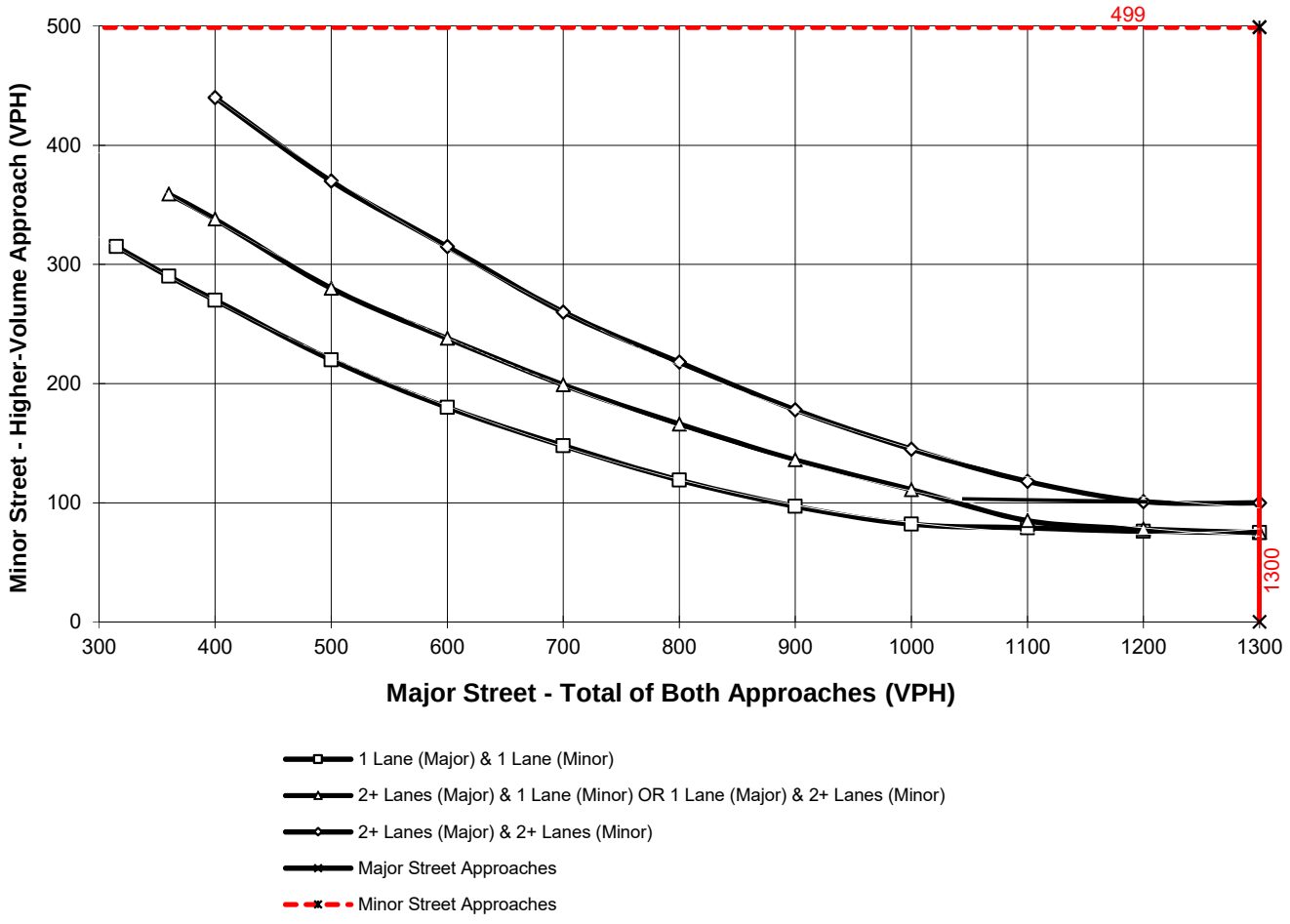
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Horizon Year (2040) Without Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Simpson Road** — Total of Both Approaches (VPH) = **2386**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **California Avenue** — High Volume Approach (VPH) = **499**
Number of Approach Lanes Minor Street = **2**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		2040 NP
				CALC	RV	DATE	09/28/17
Jurisdiction:	City of Hemet			CHK	CH	DATE	09/28/17
Major Street:	Warren Road				Critical Approach Speed (Major)		45 mph
Minor Street:	Tres Cerritios Avenue				Critical Approach Speed (Minor)		40 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **2** lane

Major Street Future ADT = **33,116** vpd Minor Street Future ADT = **4,456** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume (Satisfied: XX)				
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 / *1*	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + **33,116** / *2* + **4,456**	9,600	6,720 *	3,200	2,240 *
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic (Satisfied: XX)				
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 / *1*	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + **33,116** / *2* + **4,456**	14,400	10,080 *	1,600	1,120 *
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B (Satisfied: XX)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 100% B: 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

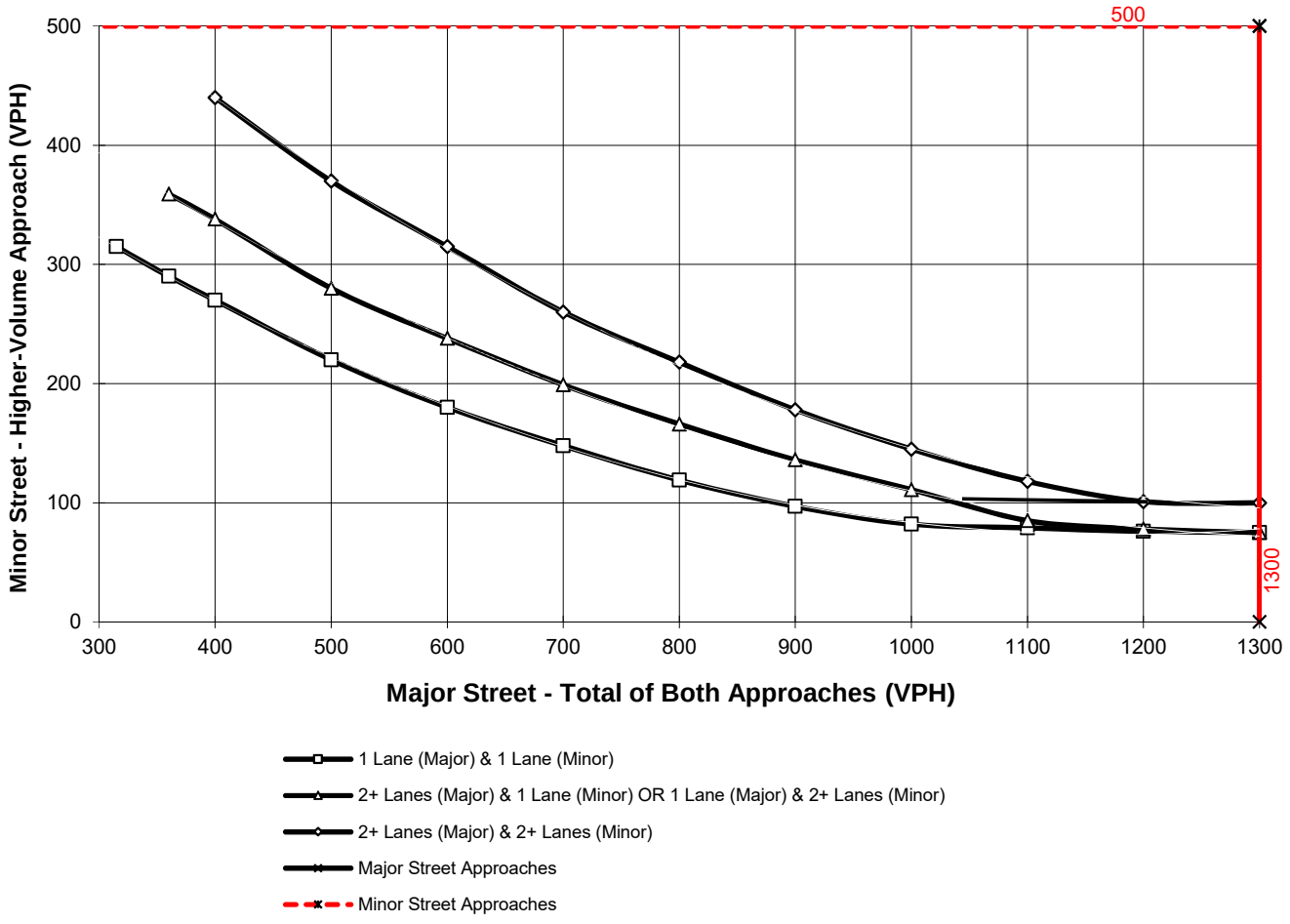
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Horizon Year (2040) Without Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Warren Road** — Total of Both Approaches (VPH) = **2567**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Whittier Avenue** — High Volume Approach (VPH) = **804**
Number of Approach Lanes Minor Street = **2**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	2040 NP
				CALC RV	DATE 09/28/17
Jurisdiction: City of Hemet				CHK CH	DATE 09/28/17
Major Street: New Stetson Avenue				Critical Approach Speed (Major)	45 mph
Minor Street: Fisher Street				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **30,155** vpd Minor Street Future ADT = **1,743** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	8,000	5,600	2,400	1,680
2 + **30,155**	*1* **1,743**	9,600	6,720 *	2,400	1,680 *
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	12,000	8,400	1,200	850
2 + **30,155**	*1* **1,743**	14,400	10,080 *	1,200	850 *
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX		2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A / B				
	100% 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		2040 NP
				CALC RV	DATE	09/28/17
Jurisdiction: City of Hemet				CHK CH	DATE	09/28/17
Major Street: New Stetson Avenue				Critical Approach Speed (Major)		45 mph
Minor Street: Stetson Avenue				Critical Approach Speed (Minor)		45 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **2** lane

Major Street Future ADT = **18,862** vpd Minor Street Future ADT = **16,896** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 + **18,862**	*2* + **16,896**	9,600	6,720 *	3,200	2,240 *
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 + **18,862**	*2* + **16,896**	14,400	10,080 *	1,600	1,120 *
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX					
No one condition satisfied, but following conditions fulfilled 80% of more …..		2 CONDITIONS 80%		2 CONDITIONS 80%	
A	**B**				
100%	100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 8.4:

GENERAL PLAN BUILDOUT (2040) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	2040 WP
				CALC RV	DATE 09/21/17
Jurisdiction: City of Hemet				CHK CHS	DATE 09/21/17
Major Street: New Stetson Avenue				Critical Approach Speed (Major)	45 mph
Minor Street: Street C				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **40,634** vpd Minor Street Future ADT = **754** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... [√]

or

In built up area of isolated community of < 10,000 population ..... [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL: XX

CONDITION A - Minimum Vehicular Volume

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach		Minimum Requirements EADT			
Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
		Urban	Rural	Urban	Rural
1	1	8,000	5,600	2,400	1,680
2 + **40,634**	1 **754**	9,600	6,720 *	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
		Urban	Rural	Urban	Rural
1	1	12,000	8,400	1,200	850
2 + **40,634**	1 **754**	14,400	10,080 *	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied / Not Satisfied: XX

No one condition satisfied, but following conditions fulfilled 80% of more ..... **A** 45% **B** 89%

Minimum Requirements EADT	
2 CONDITIONS 80%	2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	2040 WP
				CALC RV	DATE 09/21/17
Jurisdiction: City of Hemet				CHK CHS	DATE 09/21/17
Major Street: New Stetson Avenue				Critical Approach Speed (Major)	45 mph
Minor Street: Mustang Way				Critical Approach Speed (Minor)	45 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes **2** lane

Major Street Future ADT = **37,759** vpd Minor Street Future ADT = **7,104** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √

or

In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume				
Satisfied: XX (RURAL)				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 / 1	8,000	5,600	2,400	1,680
2 + / 1	9,600	6,720	2,400	1,680
2 + **37,759** / 2 + **7,104**	9,600	6,720 *	3,200	2,240 *
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				
Satisfied: XX (RURAL)				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 / 1	12,000	8,400	1,200	850
2 + / 1	14,400	10,080	1,200	850
2 + **37,759** / 2 + **7,104**	14,400	10,080 *	1,600	1,120 *
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied: XX (RURAL)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ..... A: 100% (RURAL) B: 100% (RURAL)				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		2040 WP
				CALC RV	DATE	09/21/17
Jurisdiction: City of Hemet				CHK CHS	DATE	09/21/17
Major Street: New Stetson Avenue				Critical Approach Speed (Major)		45 mph
Minor Street: Street D				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **35,487** vpd Minor Street Future ADT = **1,200** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √

or

In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	*1*	8,000	5,600	2,400	1,680
2 + **35,487**	*1* **1,200**	9,600	6,720 *	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	*1*	12,000	8,400	1,200	850
2 + **35,487**	*1* **1,200**	14,400	10,080 *	1,200	850 *
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more	**A** 71% **B** 100%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 8.5:

GENERAL PLAN BUILDOUT (2040) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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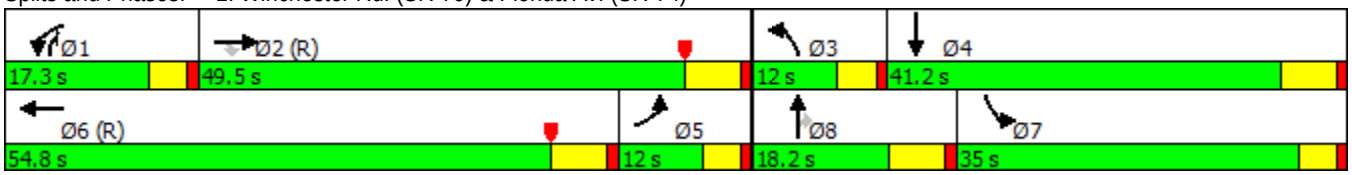
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	75	1692	456	333	1309	189	79	310	226	382
Future Volume (vph)	75	1692	456	333	1309	189	79	310	226	382
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2		1	6	3	8	1	7	4
Permitted Phases			2					8		
Detector Phase	5	2	2	1	6	3	8	1	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	16.0	16.0	9.6	16.0	11.2	16.0	9.6	24.2	16.0
Total Split (s)	12.0	49.5	49.5	17.3	54.8	12.0	18.2	17.3	35.0	41.2
Total Split (%)	10.0%	41.3%	41.3%	14.4%	45.7%	10.0%	15.2%	14.4%	29.2%	34.3%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	4.5	6.0	4.5	4.5	6.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	1692	456	333	1309	62	189	79	310	226	382	188
Future Volume (veh/h)	75	1692	456	333	1309	62	189	79	310	226	382	188
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	77	1744	431	343	1349	62	195	81	140	233	394	194
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	2303	717	367	2026	93	215	189	329	429	346	170
Arrive On Green	0.14	0.45	0.45	0.11	0.41	0.41	0.06	0.10	0.10	0.24	0.29	0.29
Sat Flow, veh/h	1774	5085	1583	3442	4983	229	3442	1863	1579	1774	1179	581
Grp Volume(v), veh/h	77	1744	431	343	918	493	195	81	140	233	0	588
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1822	1721	1863	1579	1774	0	1760
Q Serve(g_s), s	4.7	34.3	24.6	11.9	26.4	26.4	6.8	4.9	5.9	13.8	0.0	35.2
Cycle Q Clear(g_c), s	4.7	34.3	24.6	11.9	26.4	26.4	6.8	4.9	5.9	13.8	0.0	35.2
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	249	2303	717	367	1379	741	215	189	329	429	0	516
V/C Ratio(X)	0.31	0.76	0.60	0.93	0.67	0.67	0.91	0.43	0.43	0.54	0.00	1.14
Avail Cap(c_a), veh/h	249	2303	717	367	1379	741	215	189	329	451	0	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.3	27.3	24.7	53.2	29.0	29.0	55.9	50.6	22.2	39.7	0.0	42.4
Incr Delay (d2), s/veh	0.3	2.4	3.7	30.3	2.6	4.7	36.1	6.9	4.0	0.6	0.0	83.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	16.5	11.5	7.2	12.9	14.3	4.3	2.9	2.9	6.8	0.0	29.1
LnGrp Delay(d),s/veh	46.6	29.7	28.4	83.5	31.5	33.7	92.0	57.5	26.2	40.3	0.0	126.3
LnGrp LOS	D	C	C	F	C	C	F	E	C	D		F
Approach Vol, veh/h		2252			1754			416			821	
Approach Delay, s/veh		30.0			42.3			63.2			101.9	
Approach LOS		C			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.3	60.5	12.0	41.2	23.0	54.8	35.0	18.2
Change Period (Y+Rc), s	4.5	6.0	4.5	6.0	6.0	* 6	6.0	* 6
Max Green Setting (Gmax), s	12.8	43.5	7.5	35.2	7.5	* 49	30.5	* 12
Max Q Clear Time (g_c+I1), s	13.9	36.3	8.8	37.2	6.7	28.4	15.8	7.9
Green Ext Time (p_c), s	0.0	6.5	0.0	0.0	0.0	8.8	5.2	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	48.0
HCM 2010 LOS	D

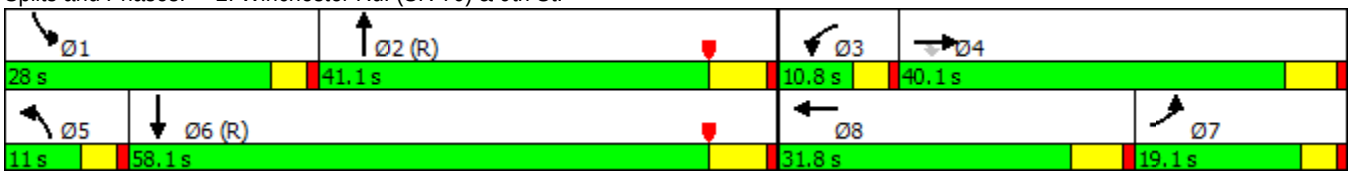
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	150	532	189	25	25	53	649	258	740
Future Volume (vph)	150	532	189	25	25	53	649	258	740
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.2	31.8	31.8	9.2	31.8	9.2	32.2	9.2	32.2
Total Split (s)	19.1	40.1	40.1	10.8	31.8	11.0	41.1	28.0	58.1
Total Split (%)	15.9%	33.4%	33.4%	9.0%	26.5%	9.2%	34.3%	23.3%	48.4%
Yellow Time (s)	3.2	4.8	4.8	3.2	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	5.8	4.2	5.8	4.2	6.2	4.2	6.2
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 62.9 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	532	189	25	25	175	53	649	103	258	740	297
Future Volume (veh/h)	150	532	189	25	25	175	53	649	103	258	740	297
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	161	572	203	27	27	188	57	698	111	277	796	319
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	859	384	44	248	222	73	1198	190	304	1287	515
Arrive On Green	0.11	0.24	0.24	0.02	0.14	0.14	0.05	0.52	0.52	0.17	0.52	0.52
Sat Flow, veh/h	1774	3539	1583	1774	1770	1583	1774	3060	486	1774	2470	988
Grp Volume(v), veh/h	161	572	203	27	27	188	57	403	406	277	570	545
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1777	1774	1770	1688
Q Serve(g_s), s	10.6	17.5	13.4	1.8	1.6	13.9	3.8	18.8	18.9	18.4	27.3	27.4
Cycle Q Clear(g_c), s	10.6	17.5	13.4	1.8	1.6	13.9	3.8	18.8	18.9	18.4	27.3	27.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.27	1.00		0.59
Lane Grp Cap(c), veh/h	203	859	384	44	248	222	73	692	695	304	923	880
V/C Ratio(X)	0.79	0.67	0.53	0.62	0.11	0.85	0.78	0.58	0.58	0.91	0.62	0.62
Avail Cap(c_a), veh/h	220	1012	453	98	383	343	101	692	695	352	923	880
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	41.0	39.5	58.0	45.1	50.4	56.2	22.0	22.0	48.8	20.3	20.3
Incr Delay (d2), s/veh	15.0	1.3	1.1	5.1	0.2	11.3	13.8	3.1	3.1	23.5	3.1	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	8.7	6.0	0.9	0.8	6.8	2.1	9.7	9.8	11.0	14.1	13.5
LnGrp Delay(d),s/veh	66.7	42.4	40.6	63.1	45.3	61.7	69.9	25.2	25.2	72.3	23.4	23.6
LnGrp LOS	E	D	D	E	D	E	E	C	C	E	C	C
Approach Vol, veh/h		936			242			866			1392	
Approach Delay, s/veh		46.2			60.0			28.1			33.2	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.7	53.2	7.2	34.9	9.1	68.8	19.5	22.6
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	* 4.2	6.2	5.8	* 5.8
Max Green Setting (Gmax), s	* 24	34.9	* 6.6	34.3	* 6.8	51.9	14.9	* 26
Max Q Clear Time (g_c+I1), s	20.4	20.9	3.8	19.5	5.8	29.4	12.6	15.9
Green Ext Time (p_c), s	0.1	11.2	0.0	4.4	0.0	16.4	1.2	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	37.3
HCM 2010 LOS	D

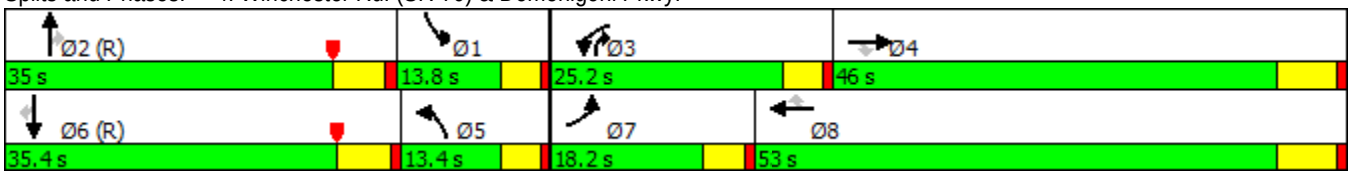
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	206	1562	86	495	657	67	45	165	633	118	382	302
Future Volume (vph)	206	1562	86	495	657	67	45	165	633	118	382	302
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	28.9	28.9	9.6	28.9	28.9	9.6	33.8	9.6	9.6	33.8	33.8
Total Split (s)	18.2	46.0	46.0	25.2	53.0	53.0	13.4	35.0	25.2	13.8	35.4	35.4
Total Split (%)	15.2%	38.3%	38.3%	21.0%	44.2%	44.2%	11.2%	29.2%	21.0%	11.5%	29.5%	29.5%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	3.6	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	6.5	4.6	6.5	6.5	4.6	5.8	4.6	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 28 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	206	1562	86	495	657	67	45	165	633	118	382	302
Future Volume (veh/h)	206	1562	86	495	657	67	45	165	633	118	382	302
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	224	1698	56	538	714	61	49	179	426	128	415	229
Adj No. of Lanes	2	3	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	1674	521	591	2131	664	130	861	657	136	873	391
Arrive On Green	0.08	0.33	0.33	0.06	0.14	0.14	0.07	0.24	0.24	0.08	0.25	0.25
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	224	1698	56	538	714	61	49	179	426	128	415	229
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	7.7	39.5	2.2	18.7	15.2	2.9	3.2	4.8	16.9	8.6	12.0	11.9
Cycle Q Clear(g_c), s	7.7	39.5	2.2	18.7	15.2	2.9	3.2	4.8	16.9	8.6	12.0	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	281	1674	521	591	2131	664	130	861	657	136	873	391
V/C Ratio(X)	0.80	1.01	0.11	0.91	0.34	0.09	0.38	0.21	0.65	0.94	0.48	0.59
Avail Cap(c_a), veh/h	390	1674	521	591	2131	664	130	861	657	136	873	391
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	54.1	40.3	15.9	55.7	36.6	16.0	53.0	36.2	13.1	55.1	38.6	24.0
Incr Delay (d2), s/veh	5.1	25.6	0.1	15.0	0.1	0.0	0.7	0.5	4.9	53.4	1.6	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	22.4	1.0	10.1	7.2	1.3	1.6	2.4	8.2	6.2	6.1	5.8
LnGrp Delay(d),s/veh	59.3	65.9	16.0	70.7	36.7	16.0	53.7	36.7	18.0	108.5	40.2	29.4
LnGrp LOS	E	F	B	E	D	B	D	D	B	F	D	C
Approach Vol, veh/h		1978			1313			654			772	
Approach Delay, s/veh		63.7			49.6			25.8			48.3	
Approach LOS		E			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	35.0	25.2	46.0	13.4	35.4	14.4	56.8
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5
Max Green Setting (Gmax), s	9.2	29.2	20.6	39.5	8.8	29.6	13.6	46.5
Max Q Clear Time (g_c+I1), s	10.6	18.9	20.7	41.5	5.2	14.0	9.7	17.2
Green Ext Time (p_c), s	0.0	2.8	0.0	0.0	0.1	4.1	0.1	20.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.0
HCM 2010 LOS	D

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	211	129	84	224	440	206
Future Volume (vph)	211	129	84	224	440	206
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	24.2	16.2	24.2	24.2	16.2	24.2
Total Split (s)	35.0	59.0	26.0	35.0	59.0	85.0
Total Split (%)	29.2%	49.2%	21.7%	29.2%	49.2%	70.8%
Yellow Time (s)	3.6	3.6	4.8	3.6	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	4.6	4.6	5.8
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 5: Patterson Av. & Grand Av.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	211	129	84	224	440	206
Future Volume (veh/h)	211	129	84	224	440	206
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	260	159	104	277	543	254
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	292	1103	314	528	943	1394
Arrive On Green	0.16	0.16	0.17	0.17	0.53	0.75
Sat Flow, veh/h	1774	1583	1863	1583	1774	1863
Grp Volume(v), veh/h	260	159	104	277	543	254
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863
Q Serve(g_s), s	17.2	0.0	5.9	17.0	24.8	4.8
Cycle Q Clear(g_c), s	17.2	0.0	5.9	17.0	24.8	4.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	292	1103	314	528	943	1394
V/C Ratio(X)	0.89	0.14	0.33	0.53	0.58	0.18
Avail Cap(c_a), veh/h	449	1243	314	528	943	1394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.0	6.1	44.0	32.3	19.0	4.4
Incr Delay (d2), s/veh	9.3	0.0	2.8	3.7	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	1.8	3.3	9.7	12.2	2.5
LnGrp Delay(d),s/veh	58.4	6.2	46.8	36.0	19.5	4.7
LnGrp LOS	E	A	D	D	B	A
Approach Vol, veh/h	419		381			797
Approach Delay, s/veh	38.6		39.0			14.8
Approach LOS	D		D			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	69.6	26.0				95.6		24.4
Change Period (Y+Rc), s	5.8	* 5.8				5.8		4.6
Max Green Setting (Gmax), s	54.4	* 20				79.2		30.4
Max Q Clear Time (g_c+I1), s	26.8	19.0				6.8		19.2
Green Ext Time (p_c), s	2.0	0.2				2.0		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	26.8
HCM 2010 LOS	C

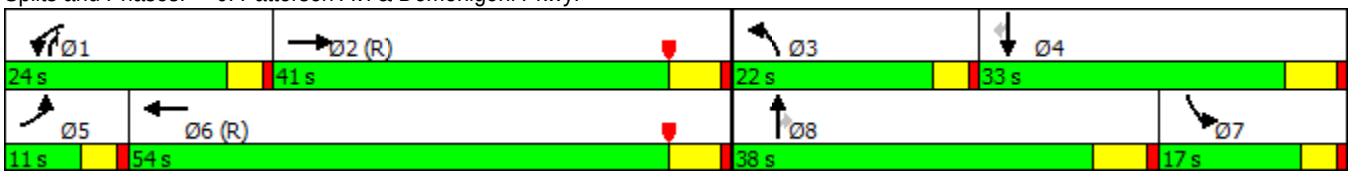
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	43	2064	547	709	247	86	535	166	129	263
Future Volume (vph)	43	2064	547	709	247	86	535	166	129	263
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8	1	7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.8	9.2	32.8	9.2	32.8	9.2	9.2	32.8	32.8
Total Split (s)	11.0	41.0	24.0	54.0	22.0	38.0	24.0	17.0	33.0	33.0
Total Split (%)	9.2%	34.2%	20.0%	45.0%	18.3%	31.7%	20.0%	14.2%	27.5%	27.5%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 45 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 6: Patterson Av. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	2064	206	547	709	113	247	86	535	166	129	263
Future Volume (veh/h)	43	2064	206	547	709	113	247	86	535	166	129	263
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	48	2293	229	608	788	126	274	96	594	184	143	292
Adj No. of Lanes	1	3	0	2	3	0	1	1	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	62	3449	338	568	3810	604	263	500	686	189	447	380
Arrive On Green	0.01	0.24	0.24	0.17	0.86	0.86	0.15	0.27	0.27	0.11	0.24	0.24
Sat Flow, veh/h	1774	4704	461	3442	4412	700	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	48	1641	881	608	604	310	274	96	594	184	143	292
Grp Sat Flow(s),veh/h/ln	1774	1695	1775	1721	1695	1722	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	3.2	52.4	54.0	19.8	3.6	3.6	17.8	4.8	32.2	12.4	7.6	20.6
Cycle Q Clear(g_c), s	3.2	52.4	54.0	19.8	3.6	3.6	17.8	4.8	32.2	12.4	7.6	20.6
Prop In Lane	1.00		0.26	1.00		0.41	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	62	2486	1301	568	2927	1487	263	500	686	189	447	380
V/C Ratio(X)	0.78	0.66	0.68	1.07	0.21	0.21	1.04	0.19	0.87	0.97	0.32	0.77
Avail Cap(c_a), veh/h	101	2486	1301	568	2927	1487	263	500	686	189	447	380
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.10	0.10	0.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.8	32.0	32.6	50.1	1.4	1.4	51.1	33.9	98.4	53.4	37.5	42.5
Incr Delay (d2), s/veh	0.8	0.1	0.3	58.1	0.2	0.3	66.6	0.9	13.8	56.9	1.9	13.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	24.7	26.8	14.0	1.7	1.8	13.6	2.6	2.6	9.1	4.1	10.5
LnGrp Delay(d),s/veh	59.6	32.1	32.9	108.2	1.5	1.7	117.7	34.7	112.1	110.4	39.4	56.4
LnGrp LOS	E	C	C	F	A	A	F	C	F	F	D	E
Approach Vol, veh/h		2570			1522			964			619	
Approach Delay, s/veh		32.9			44.2			106.0			68.5	
Approach LOS		C			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	95.4	22.0	34.6	8.4	111.0	18.6	38.0
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 20	35.2	* 18	27.2	* 6.8	48.2	12.8	* 32
Max Q Clear Time (g_c+I1), s	21.8	56.0	19.8	22.6	5.2	5.6	14.4	34.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	35.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.2
HCM 2010 LOS	D

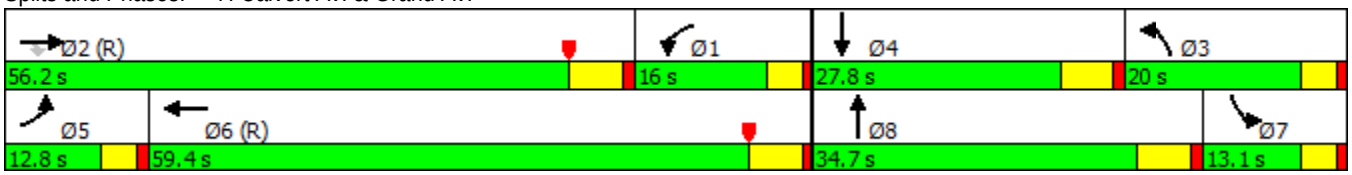
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	41	1213	429	121	684	170	24	41	115
Future Volume (vph)	41	1213	429	121	684	170	24	41	115
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	27.8	27.8	9.5	27.8	9.5	27.8	9.5	27.8
Total Split (s)	12.8	56.2	56.2	16.0	59.4	20.0	34.7	13.1	27.8
Total Split (%)	10.7%	46.8%	46.8%	13.3%	49.5%	16.7%	28.9%	10.9%	23.2%
Yellow Time (s)	3.2	4.8	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 7: Calvert Av. & Grand Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	1213	429	121	684	11	170	24	80	41	115	81
Future Volume (veh/h)	41	1213	429	121	684	11	170	24	80	41	115	81
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	45	1318	466	132	743	12	185	26	87	45	125	88
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	1486	665	173	1775	29	212	91	304	110	187	132
Arrive On Green	0.03	0.42	0.42	0.10	0.50	0.50	0.12	0.24	0.24	0.06	0.18	0.18
Sat Flow, veh/h	1774	3539	1583	1774	3565	58	1774	377	1263	1774	1019	717
Grp Volume(v), veh/h	45	1318	466	132	369	386	185	0	113	45	0	213
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1853	1774	0	1640	1774	0	1736
Q Serve(g_s), s	3.0	41.3	29.0	8.7	15.9	15.9	12.3	0.0	6.7	2.9	0.0	13.7
Cycle Q Clear(g_c), s	3.0	41.3	29.0	8.7	15.9	15.9	12.3	0.0	6.7	2.9	0.0	13.7
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.77	1.00		0.41
Lane Grp Cap(c), veh/h	58	1486	665	173	881	923	212	0	395	110	0	318
V/C Ratio(X)	0.78	0.89	0.70	0.77	0.42	0.42	0.87	0.00	0.29	0.41	0.00	0.67
Avail Cap(c_a), veh/h	127	1486	665	174	881	923	234	0	395	132	0	318
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.6	32.2	28.6	52.8	19.1	19.1	51.9	0.0	37.1	54.2	0.0	45.6
Incr Delay (d2), s/veh	8.1	8.2	6.1	16.3	1.5	1.4	25.1	0.0	1.8	0.9	0.0	10.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	21.8	13.8	5.1	8.0	8.4	7.5	0.0	3.2	1.5	0.0	7.5
LnGrp Delay(d),s/veh	65.8	40.3	34.7	69.1	20.6	20.5	77.0	0.0	39.0	55.1	0.0	56.3
LnGrp LOS	E	D	C	E	C	C	E		D	E		E
Approach Vol, veh/h		1829			887			298			258	
Approach Delay, s/veh		39.5			27.8			62.6			56.1	
Approach LOS		D			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	56.2	18.5	27.8	8.1	65.6	11.6	34.7
Change Period (Y+Rc), s	5.8	* 5.8	4.2	* 5.8	* 4.2	5.8	4.2	* 5.8
Max Green Setting (Gmax), s	11.8	* 50	15.8	* 22	* 8.6	53.6	8.9	* 29
Max Q Clear Time (g_c+I1), s	10.7	43.3	14.3	15.7	5.0	17.9	4.9	8.7
Green Ext Time (p_c), s	0.1	5.2	0.1	0.6	0.0	4.7	0.1	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	39.7
HCM 2010 LOS	D

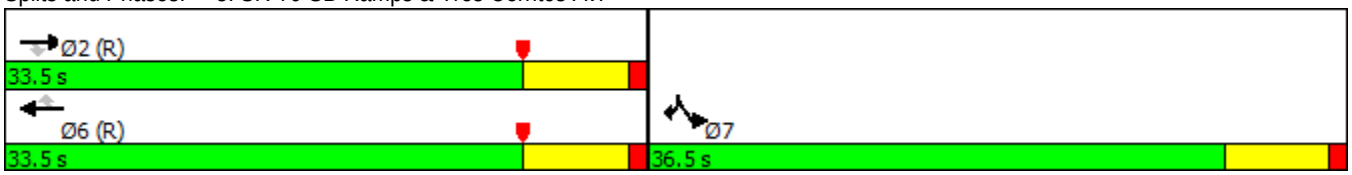
Notes

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	26	9	32	351	568	12
Future Volume (vph)	26	9	32	351	568	12
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	33.5	33.5	33.5	33.5	36.5	36.5
Total Split (%)	47.9%	47.9%	47.9%	47.9%	52.1%	52.1%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 8: SR-79 SB Ramps & Tres Cerritos Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	26	9	0	32	351	0	0	0	568	0	12
Future Volume (veh/h)	0	26	9	0	32	351	0	0	0	568	0	12
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	28	10	0	35	382				617	0	13
Adj No. of Lanes	0	2	1	0	2	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	1551	694	0	1551	694				667	0	595
Arrive On Green	0.00	0.44	0.44	0.00	0.44	0.44				0.38	0.00	0.38
Sat Flow, veh/h	0	3632	1583	0	3632	1583				1774	0	1583
Grp Volume(v), veh/h	0	28	10	0	35	382				617	0	13
Grp Sat Flow(s),veh/h/ln	0	1770	1583	0	1770	1583				1774	0	1583
Q Serve(g_s), s	0.0	0.3	0.2	0.0	0.4	12.5				23.3	0.0	0.4
Cycle Q Clear(g_c), s	0.0	0.3	0.2	0.0	0.4	12.5				23.3	0.0	0.4
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1551	694	0	1551	694				667	0	595
V/C Ratio(X)	0.00	0.02	0.01	0.00	0.02	0.55				0.93	0.00	0.02
Avail Cap(c_a), veh/h	0	1551	694	0	1551	694				760	0	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.99	0.99				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.1	11.1	0.0	11.2	14.6				20.9	0.0	13.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	3.1				15.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.1	0.0	0.2	12.1				14.3	0.0	0.2
LnGrp Delay(d),s/veh	0.0	11.2	11.1	0.0	11.2	17.6				36.8	0.0	13.8
LnGrp LOS		B	B		B	B				D		B
Approach Vol, veh/h		38			417						630	
Approach Delay, s/veh		11.2			17.1						36.4	
Approach LOS		B			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		37.2		32.8		37.2		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		27.0		30.0		27.0		
Max Q Clear Time (g_c+I1), s		2.3		25.3		14.5		
Green Ext Time (p_c), s		2.7		1.0		2.1		

Intersection Summary	
HCM 2010 Ctrl Delay	28.1
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2108	309	1371	392	424	217
Future Volume (vph)	2108	309	1371	392	424	217
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	36.0	36.0	36.0	36.0	24.0	24.0
Total Split (%)	60.0%	60.0%	60.0%	60.0%	40.0%	40.0%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 9: SR-79 SB Ramps & Florida Av. (SR-74)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰		↱
Traffic Volume (veh/h)	0	2108	309	0	1371	392	0	0	0	424	0	217
Future Volume (veh/h)	0	2108	309	0	1371	392	0	0	0	424	0	217
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	2291	336	0	1490	426				461	0	236
Adj No. of Lanes	0	3	1	0	3	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	2527	787	0	2527	787				508	0	453
Arrive On Green	0.00	0.50	0.50	0.00	0.50	0.50				0.29	0.00	0.29
Sat Flow, veh/h	0	5253	1583	0	5253	1583				1774	0	1583
Grp Volume(v), veh/h	0	2291	336	0	1490	426				461	0	236
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1774	0	1583
Q Serve(g_s), s	0.0	24.7	8.1	0.0	12.5	11.1				15.0	0.0	7.5
Cycle Q Clear(g_c), s	0.0	24.7	8.1	0.0	12.5	11.1				15.0	0.0	7.5
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2527	787	0	2527	787				508	0	453
V/C Ratio(X)	0.00	0.91	0.43	0.00	0.59	0.54				0.91	0.00	0.52
Avail Cap(c_a), veh/h	0	2527	787	0	2527	787				517	0	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.75	0.75				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.8	9.6	0.0	10.7	10.4				20.6	0.0	18.0
Incr Delay (d2), s/veh	0.0	6.0	1.7	0.0	0.8	2.0				19.6	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.9	3.9	0.0	6.0	11.0				10.1	0.0	3.4
LnGrp Delay(d),s/veh	0.0	19.8	11.3	0.0	11.5	12.4				40.2	0.0	19.0
LnGrp LOS		B	B		B	B				D		B
Approach Vol, veh/h		2627			1916						697	
Approach Delay, s/veh		18.8			11.7						33.0	
Approach LOS		B			B						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		36.3		23.7		36.3		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		29.5		17.5		29.5		
Max Q Clear Time (g_c+I1), s		26.7		17.0		14.5		
Green Ext Time (p_c), s		2.6		0.1		9.5		

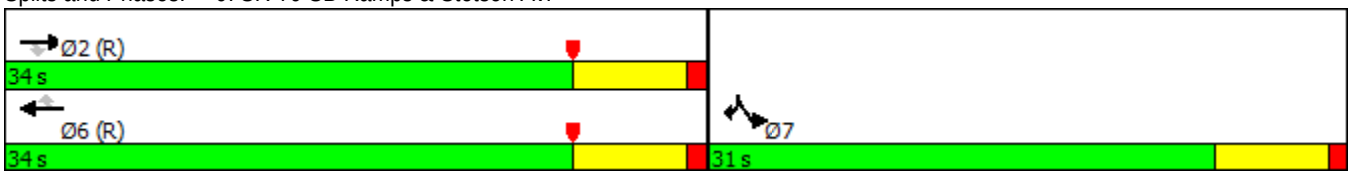
Intersection Summary	
HCM 2010 Ctrl Delay	18.1
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1049	292	551	263	459	251
Future Volume (vph)	1049	292	551	263	459	251
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	34.0	34.0	34.0	34.0	31.0	31.0
Total Split (%)	52.3%	52.3%	52.3%	52.3%	47.7%	47.7%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 9: SR-79 SB Ramps & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1049	292	0	551	263	0	0	0	459	0	251
Future Volume (veh/h)	0	1049	292	0	551	263	0	0	0	459	0	251
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	1140	317	0	599	286				499	0	273
Adj No. of Lanes	0	2	1	0	2	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	1795	763	0	1705	763				564	0	504
Arrive On Green	0.00	0.48	0.48	0.00	0.96	0.96				0.32	0.00	0.32
Sat Flow, veh/h	0	3725	1583	0	3632	1583				1774	0	1583
Grp Volume(v), veh/h	0	1140	317	0	599	286				499	0	273
Grp Sat Flow(s),veh/h/ln	0	1863	1583	0	1770	1583				1774	0	1583
Q Serve(g_s), s	0.0	14.9	8.4	0.0	0.6	0.7				17.3	0.0	9.2
Cycle Q Clear(g_c), s	0.0	14.9	8.4	0.0	0.6	0.7				17.3	0.0	9.2
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1795	763	0	1705	763				564	0	504
V/C Ratio(X)	0.00	0.64	0.42	0.00	0.35	0.37				0.88	0.00	0.54
Avail Cap(c_a), veh/h	0	1795	763	0	1705	763				669	0	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.91	0.91				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	12.6	10.9	0.0	0.6	0.6				21.0	0.0	18.3
Incr Delay (d2), s/veh	0.0	1.7	1.7	0.0	0.5	1.3				11.9	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.0	4.0	0.0	0.4	5.6				10.3	0.0	4.1
LnGrp Delay(d),s/veh	0.0	14.3	12.6	0.0	1.1	1.9				32.9	0.0	19.2
LnGrp LOS		B	B		A	A				C		B
Approach Vol, veh/h		1457			885						772	
Approach Delay, s/veh		13.9			1.4						28.1	
Approach LOS		B			A						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		37.8		27.2		37.8		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		27.5		24.5		27.5		
Max Q Clear Time (g_c+I1), s		16.9		19.3		2.7		
Green Ext Time (p_c), s		8.3		1.3		15.7		

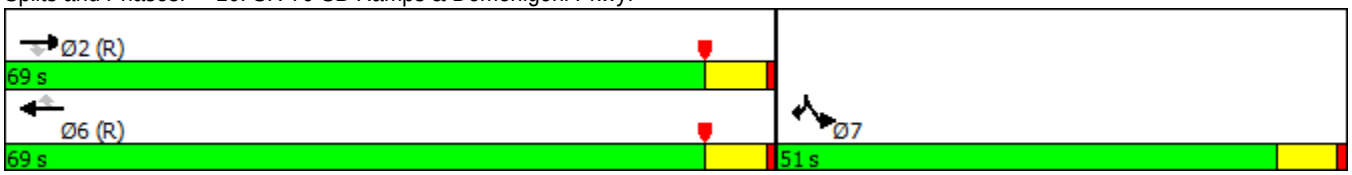
Intersection Summary	
HCM 2010 Ctrl Delay	13.9
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2508	257	1177	217	520	192
Future Volume (vph)	2508	257	1177	217	520	192
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	69.0	69.0	69.0	69.0	51.0	51.0
Total Split (%)	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 10: SR-79 SB Ramps & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰		↱
Traffic Volume (veh/h)	0	2508	257	0	1177	217	0	0	0	520	0	192
Future Volume (veh/h)	0	2508	257	0	1177	217	0	0	0	520	0	192
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	2726	279	0	1279	236				565	0	209
Adj No. of Lanes	0	3	1	0	3	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	2817	877	0	2817	877				599	0	535
Arrive On Green	0.00	0.55	0.55	0.00	1.00	1.00				0.34	0.00	0.34
Sat Flow, veh/h	0	5253	1583	0	5253	1583				1774	0	1583
Grp Volume(v), veh/h	0	2726	279	0	1279	236				565	0	209
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1774	0	1583
Q Serve(g_s), s	0.0	61.8	11.4	0.0	0.0	0.0				37.1	0.0	12.1
Cycle Q Clear(g_c), s	0.0	61.8	11.4	0.0	0.0	0.0				37.1	0.0	12.1
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2817	877	0	2817	877				599	0	535
V/C Ratio(X)	0.00	0.97	0.32	0.00	0.45	0.27				0.94	0.00	0.39
Avail Cap(c_a), veh/h	0	2817	877	0	2817	877				658	0	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.43	0.43				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	25.7	14.5	0.0	0.0	0.0				38.6	0.0	30.3
Incr Delay (d2), s/veh	0.0	10.9	1.0	0.0	0.2	0.3				21.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	31.6	5.2	0.0	0.1	7.9				21.7	0.0	5.4
LnGrp Delay(d),s/veh	0.0	36.7	15.4	0.0	0.2	0.3				59.8	0.0	30.8
LnGrp LOS		D	B		A	A				E		C
Approach Vol, veh/h		3005			1515						774	
Approach Delay, s/veh		34.7			0.2						52.0	
Approach LOS		C			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		73.0		47.0		73.0		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		62.5		44.5		62.5		
Max Q Clear Time (g_c+I1), s		63.8		39.1		2.0		
Green Ext Time (p_c), s		0.0		1.4		56.4		

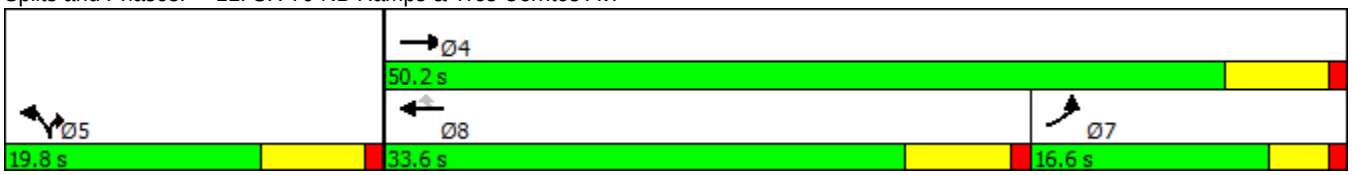
Intersection Summary	
HCM 2010 Ctrl Delay	27.4
HCM 2010 LOS	C

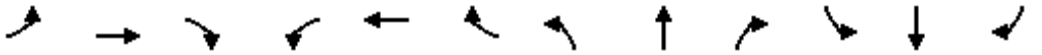
Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	55	539	290	68	93	207
Future Volume (vph)	55	539	290	68	93	207
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	7	4	8		5	5
Permitted Phases				8		
Detector Phase	7	4	8	8	5	5
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	16.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	16.6	50.2	33.6	33.6	19.8	19.8
Total Split (%)	23.7%	71.7%	48.0%	48.0%	28.3%	28.3%
Yellow Time (s)	3.2	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 11: SR-79 NB Ramps & Tres Cerritos Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	539	0	0	290	68	93	0	207	0	0	0
Future Volume (veh/h)	55	539	0	0	290	68	93	0	207	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	60	586	0	0	315	74	101	0	225			
Adj No. of Lanes	1	2	0	0	2	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	128	1121	0	0	537	240	883	0	788			
Arrive On Green	0.02	0.10	0.00	0.00	0.15	0.15	0.50	0.00	0.50			
Sat Flow, veh/h	1774	3632	0	0	3632	1583	1774	0	1583			
Grp Volume(v), veh/h	60	586	0	0	315	74	101	0	225			
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1583	1774	0	1583			
Q Serve(g_s), s	2.3	11.0	0.0	0.0	5.8	2.9	2.1	0.0	5.8			
Cycle Q Clear(g_c), s	2.3	11.0	0.0	0.0	5.8	2.9	2.1	0.0	5.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	128	1121	0	0	537	240	883	0	788			
V/C Ratio(X)	0.47	0.52	0.00	0.00	0.59	0.31	0.11	0.00	0.29			
Avail Cap(c_a), veh/h	314	2209	0	0	1370	613	883	0	788			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.42	0.42	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	32.8	26.3	0.0	0.0	27.6	26.4	9.4	0.0	10.3			
Incr Delay (d2), s/veh	0.4	0.2	0.0	0.0	1.5	1.0	0.1	0.0	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.2	5.4	0.0	0.0	3.0	1.3	1.1	0.0	2.5			
LnGrp Delay(d),s/veh	33.3	26.6	0.0	0.0	29.1	27.4	9.4	0.0	10.5			
LnGrp LOS	C	C			C	C	A		B			
Approach Vol, veh/h		646			389			326				
Approach Delay, s/veh		27.2			28.8			10.2				
Approach LOS		C			C			B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		41.3		28.7			11.5	17.1
Change Period (Y+Rc), s		6.5		6.5			6.5	* 6.5
Max Green Setting (Gmax), s		13.3		43.7			12.4	* 27
Max Q Clear Time (g_c+I1), s		7.8		13.0			4.3	7.8
Green Ext Time (p_c), s		0.5		5.7			3.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

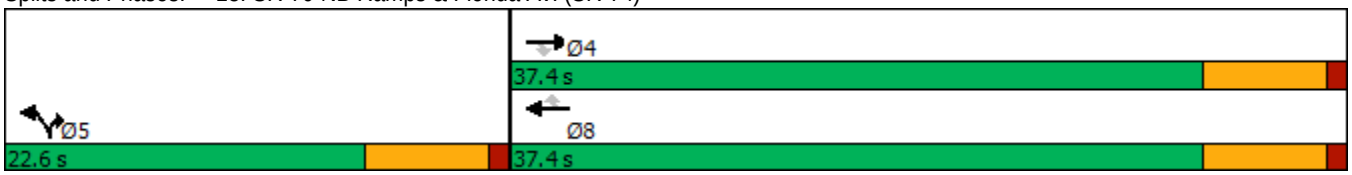
Notes

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2320	212	1503	218	260	410
Future Volume (vph)	2320	212	1503	218	260	410
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	4		8		5	5
Permitted Phases		4		8		
Detector Phase	4	4	8	8	5	5
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	37.4	37.4	37.4	37.4	22.6	22.6
Total Split (%)	62.3%	62.3%	62.3%	62.3%	37.7%	37.7%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 28 (47%), Referenced to phase 2: and 6:, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 13: SR-79 NB Ramps & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2320	212	0	1503	218	260	0	410	0	0	0
Future Volume (veh/h)	0	2320	212	0	1503	218	260	0	410	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	2522	230	0	1634	237	283	0	446			
Adj No. of Lanes	0	3	1	0	3	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	2368	737	0	2368	737	564	0	503			
Arrive On Green	0.00	0.93	0.93	0.00	0.47	0.47	0.32	0.00	0.32			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	1583			
Grp Volume(v), veh/h	0	2522	230	0	1634	237	283	0	446			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1583			
Q Serve(g_s), s	0.0	27.9	0.8	0.0	15.2	5.6	7.8	0.0	16.1			
Cycle Q Clear(g_c), s	0.0	27.9	0.8	0.0	15.2	5.6	7.8	0.0	16.1			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2368	737	0	2368	737	564	0	503			
V/C Ratio(X)	0.00	1.07	0.31	0.00	0.69	0.32	0.50	0.00	0.89			
Avail Cap(c_a), veh/h	0	2619	815	0	2619	815	564	0	503			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.30	0.30	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	2.1	1.1	0.0	12.6	10.1	16.6	0.0	19.4			
Incr Delay (d2), s/veh	0.0	32.5	0.1	0.0	0.7	0.2	0.7	0.0	17.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	14.1	0.3	0.0	7.1	2.5	3.9	0.0	9.3			
LnGrp Delay(d),s/veh	0.0	34.5	1.2	0.0	13.3	10.3	17.3	0.0	36.6			
LnGrp LOS		F	A		B	B	B		D			
Approach Vol, veh/h		2752			1871			729				
Approach Delay, s/veh		31.8			12.9			29.1				
Approach LOS		C			B			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		24.1		35.9				35.9
Change Period (Y+Rc), s		6.5		6.5				6.5
Max Green Setting (Gmax), s		16.1		30.9				30.9
Max Q Clear Time (g_c+I1), s		18.1		29.9				17.2
Green Ext Time (p_c), s		0.0		0.9				9.1

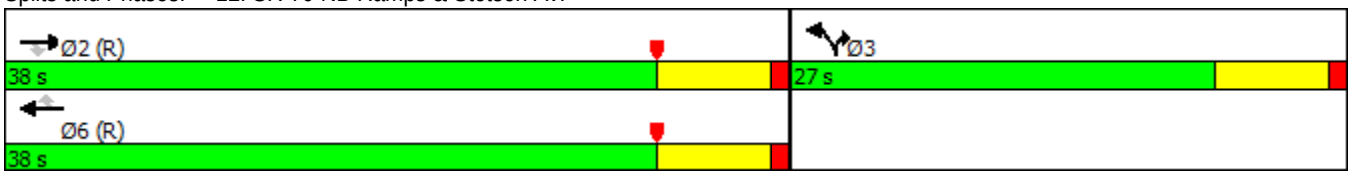
Intersection Summary	
HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1270	238	527	172	287	428
Future Volume (vph)	1270	238	527	172	287	428
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		3	3
Permitted Phases		2		6		
Detector Phase	2	2	6	6	3	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	38.0	38.0	38.0	38.0	27.0	27.0
Total Split (%)	58.5%	58.5%	58.5%	58.5%	41.5%	41.5%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 8 (12%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 12: SR-79 NB Ramps & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1270	238	0	527	172	287	0	428	0	0	0
Future Volume (veh/h)	0	1270	238	0	527	172	287	0	428	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	1380	259	0	573	187	312	0	465			
Adj No. of Lanes	0	2	1	0	2	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	1715	767	0	1715	767	560	0	499			
Arrive On Green	0.00	0.97	0.97	0.00	0.48	0.48	0.32	0.00	0.32			
Sat Flow, veh/h	0	3632	1583	0	3632	1583	1774	0	1583			
Grp Volume(v), veh/h	0	1380	259	0	573	187	312	0	465			
Grp Sat Flow(s),veh/h/ln	0	1770	1583	0	1770	1583	1774	0	1583			
Q Serve(g_s), s	0.0	3.5	0.5	0.0	6.5	4.5	9.5	0.0	18.5			
Cycle Q Clear(g_c), s	0.0	3.5	0.5	0.0	6.5	4.5	9.5	0.0	18.5			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1715	767	0	1715	767	560	0	499			
V/C Ratio(X)	0.00	0.80	0.34	0.00	0.33	0.24	0.56	0.00	0.93			
Avail Cap(c_a), veh/h	0	1715	767	0	1715	767	560	0	499			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.60	0.60	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.6	0.5	0.0	10.3	9.8	18.5	0.0	21.6			
Incr Delay (d2), s/veh	0.0	2.5	0.7	0.0	0.5	0.8	1.2	0.0	24.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.2	0.3	0.0	3.2	2.1	4.8	0.0	11.4			
LnGrp Delay(d),s/veh	0.0	3.1	1.2	0.0	10.8	10.5	19.7	0.0	45.9			
LnGrp LOS		A	A		B	B	B		D			
Approach Vol, veh/h		1639			760			777				
Approach Delay, s/veh		2.8			10.8			35.4				
Approach LOS		A			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		38.0				38.0		27.0
Change Period (Y+Rc), s		6.5				6.5		6.5
Max Green Setting (Gmax), s		31.5				31.5		20.5
Max Q Clear Time (g_c+I1), s		5.5				8.5		20.5
Green Ext Time (p_c), s		17.3				15.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	12.7
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2541	487	593	4	801	89
Future Volume (vph)	2541	487	593	4	801	89
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		3	3
Permitted Phases		2		6		
Detector Phase	2	2	6	6	3	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	68.0	68.0	68.0	68.0	52.0	52.0
Total Split (%)	56.7%	56.7%	56.7%	56.7%	43.3%	43.3%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 13 (11%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 13: SR-79 NB Ramps & Domenigoni Pkwy.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰		↱			
Traffic Volume (veh/h)	0	2541	487	0	593	4	801	0	89	0	0	0
Future Volume (veh/h)	0	2541	487	0	593	4	801	0	89	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	2762	529	0	645	4	871	0	97			
Adj No. of Lanes	0	3	1	0	3	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	2606	811	0	2606	811	673	0	600			
Arrive On Green	0.00	1.00	1.00	0.00	0.51	0.51	0.38	0.00	0.38			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	1583			
Grp Volume(v), veh/h	0	2762	529	0	645	4	871	0	97			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1583			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	8.5	0.1	45.5	0.0	4.9			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	8.5	0.1	45.5	0.0	4.9			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2606	811	0	2606	811	673	0	600			
V/C Ratio(X)	0.00	1.06	0.65	0.00	0.25	0.00	1.29	0.00	0.16			
Avail Cap(c_a), veh/h	0	2606	811	0	2606	811	673	0	600			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.16	0.16	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	16.3	14.3	37.3	0.0	24.6			
Incr Delay (d2), s/veh	0.0	28.7	0.6	0.0	0.2	0.0	143.6	0.0	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	6.9	0.1	0.0	4.0	0.1	49.1	0.0	2.1			
LnGrp Delay(d),s/veh	0.0	28.7	0.6	0.0	16.6	14.3	180.8	0.0	24.8			
LnGrp LOS		F	A		B	B	F		C			
Approach Vol, veh/h		3291			649			968				
Approach Delay, s/veh		24.2			16.5			165.2				
Approach LOS		C			B			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		68.0				68.0		52.0
Change Period (Y+Rc), s		6.5				6.5		6.5
Max Green Setting (Gmax), s		61.5				61.5		45.5
Max Q Clear Time (g_c+I1), s		2.0				10.5		47.5
Green Ext Time (p_c), s		52.3				45.6		0.0

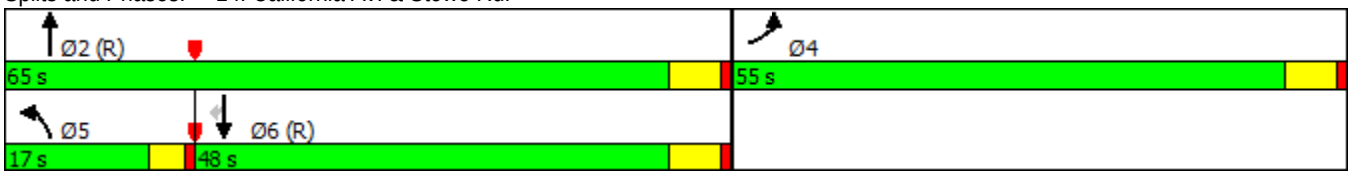
Intersection Summary	
HCM 2010 Ctrl Delay	51.0
HCM 2010 LOS	D

Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	102	65	358	383	107
Future Volume (vph)	102	65	358	383	107
Turn Type	Prot	Prot	NA	NA	Perm
Protected Phases	4	5	2	6	
Permitted Phases					6
Detector Phase	4	5	2	6	6
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	9.5	23.8	27.8	27.8
Total Split (s)	55.0	17.0	65.0	48.0	48.0
Total Split (%)	45.8%	14.2%	54.2%	40.0%	40.0%
Yellow Time (s)	4.8	3.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.2	5.8	5.8	5.8
Lead/Lag		Lead		Lag	Lag
Lead-Lag Optimize?		Yes		Yes	Yes
Recall Mode	None	None	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 14: California Av. & Stowe Rd.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	102	420	65	358	383	107
Future Volume (veh/h)	102	420	65	358	383	107
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	124	512	79	437	467	130
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	128	527	100	928	757	644
Arrive On Green	0.41	0.41	0.06	0.50	0.41	0.41
Sat Flow, veh/h	315	1300	1774	1863	1863	1583
Grp Volume(v), veh/h	637	0	79	437	467	130
Grp Sat Flow(s),veh/h/ln	1618	0	1774	1863	1863	1583
Q Serve(g_s), s	46.4	0.0	5.3	18.5	23.8	6.4
Cycle Q Clear(g_c), s	46.4	0.0	5.3	18.5	23.8	6.4
Prop In Lane	0.19	0.80	1.00			1.00
Lane Grp Cap(c), veh/h	656	0	100	928	757	644
V/C Ratio(X)	0.97	0.00	0.79	0.47	0.62	0.20
Avail Cap(c_a), veh/h	663	0	189	928	757	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	55.9	19.8	28.2	23.0
Incr Delay (d2), s/veh	27.8	0.0	5.1	1.7	3.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.8	0.0	2.7	9.9	13.0	2.9
LnGrp Delay(d),s/veh	62.8	0.0	61.0	21.5	31.9	23.7
LnGrp LOS	E		E	C	C	C
Approach Vol, veh/h	637			516	597	
Approach Delay, s/veh	62.8			27.5	30.2	
Approach LOS	E			C	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		65.6		54.4	11.0	54.6		
Change Period (Y+Rc), s		5.8		5.8	* 4.2	5.8		
Max Green Setting (Gmax), s		59.2		49.2	* 13	42.2		
Max Q Clear Time (g_c+I1), s		20.5		48.4	7.3	25.8		
Green Ext Time (p_c), s		8.0		0.3	0.0	6.1		

Intersection Summary	
HCM 2010 Ctrl Delay	41.3
HCM 2010 LOS	D

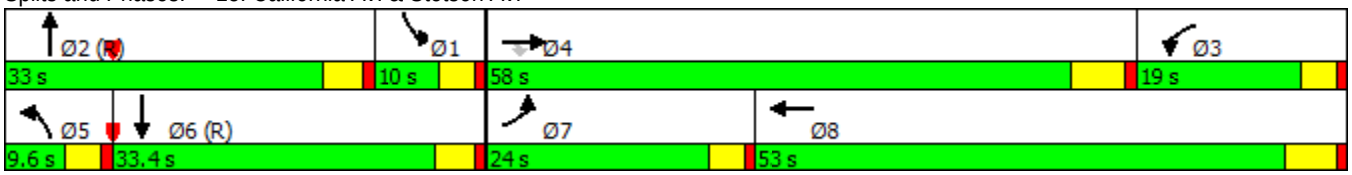
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	128	1335	232	427	658	25	84	293	433
Future Volume (vph)	128	1335	232	427	658	25	84	293	433
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	27.8	27.8	9.5	27.8	9.5	26.6	9.5	26.6
Total Split (s)	24.0	58.0	58.0	19.0	53.0	9.6	33.0	10.0	33.4
Total Split (%)	20.0%	48.3%	48.3%	15.8%	44.2%	8.0%	27.5%	8.3%	27.8%
Yellow Time (s)	3.2	4.8	4.8	3.2	4.8	3.2	3.6	3.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	5.8	4.2	5.8	4.2	4.6	4.2	4.6
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 15: California Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	1335	232	427	658	211	25	84	88	293	433	77
Future Volume (veh/h)	128	1335	232	427	658	211	25	84	88	293	433	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	139	1451	143	464	715	120	27	91	96	318	471	84
Adj No. of Lanes	1	2	1	2	2	0	1	2	0	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	166	1523	681	424	1436	241	44	419	375	1521	1975	350
Arrive On Green	0.09	0.43	0.43	0.12	0.47	0.47	0.02	0.24	0.24	0.44	0.66	0.66
Sat Flow, veh/h	1774	3539	1583	3442	3034	509	1774	1770	1583	3442	3005	533
Grp Volume(v), veh/h	139	1451	143	464	417	418	27	91	96	318	276	279
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1773	1774	1770	1583	1721	1770	1769
Q Serve(g_s), s	9.2	47.5	10.3	14.8	19.5	19.5	1.8	5.0	5.9	6.8	7.6	7.7
Cycle Q Clear(g_c), s	9.2	47.5	10.3	14.8	19.5	19.5	1.8	5.0	5.9	6.8	7.6	7.7
Prop In Lane	1.00		1.00	1.00		0.29	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	166	1523	681	424	838	839	44	419	375	1521	1163	1162
V/C Ratio(X)	0.84	0.95	0.21	1.09	0.50	0.50	0.62	0.22	0.26	0.21	0.24	0.24
Avail Cap(c_a), veh/h	293	1540	689	424	838	839	80	419	375	1521	1163	1162
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.5	33.0	49.6	52.6	21.8	21.8	58.0	36.9	37.2	20.6	8.4	8.4
Incr Delay (d2), s/veh	4.2	13.3	0.2	71.2	0.5	0.5	5.1	1.2	1.6	0.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	26.0	4.6	11.2	9.6	9.6	0.9	2.6	2.8	3.2	3.8	3.9
LnGrp Delay(d),s/veh	57.7	46.3	49.7	123.8	22.2	22.2	63.1	38.0	38.9	20.6	8.8	8.9
LnGrp LOS	E	D	D	F	C	C	E	D	D	C	A	A
Approach Vol, veh/h		1733			1299			214			873	
Approach Delay, s/veh		47.5			58.5			41.6			13.1	
Approach LOS		D			E			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	59.1	33.0	20.6	57.4	7.2	84.9	15.4	62.6
Change Period (Y+Rc), s	4.6	* 4.6	5.8	* 5.8	* 4.2	4.6	* 4.2	5.8
Max Green Setting (Gmax), s	5.8	* 28	14.8	* 52	* 5.4	28.8	* 20	47.2
Max Q Clear Time (g_c+I1), s	8.8	7.9	16.8	49.5	3.8	9.7	11.2	21.5
Green Ext Time (p_c), s	0.0	1.0	0.0	2.1	0.0	4.0	0.1	6.0

Intersection Summary	
HCM 2010 Ctrl Delay	43.4
HCM 2010 LOS	D

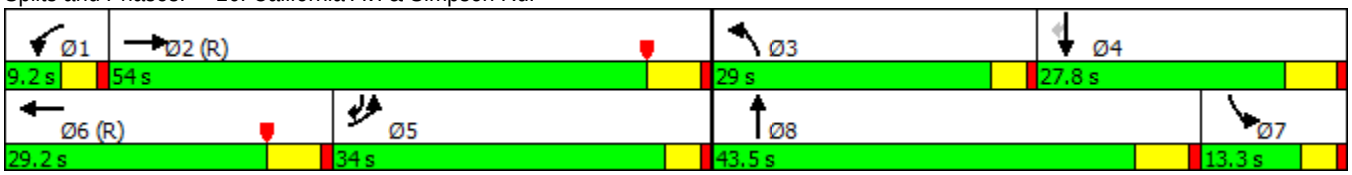
Notes

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR	Ø1
Lane Configurations									
Traffic Volume (vph)	149	359	385	252	39	49	36	1007	
Future Volume (vph)	149	359	385	252	39	49	36	1007	
Turn Type	Prot	NA	NA	Prot	NA	Prot	NA	pm+ov	
Protected Phases	5	2	6	3	8	7	4	5	1
Permitted Phases								4	
Detector Phase	5	2	6	3	8	7	4	5	
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	9.2	27.8	27.8	9.2	27.8	9.2	27.8	9.2	9.2
Total Split (s)	34.0	54.0	29.2	29.0	43.5	13.3	27.8	34.0	9.2
Total Split (%)	28.3%	45.0%	24.3%	24.2%	36.3%	11.1%	23.2%	28.3%	8%
Yellow Time (s)	3.2	4.8	4.8	3.2	4.8	3.2	4.8	3.2	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.2	5.8	5.8	4.2	5.8	4.2	5.8	4.2	
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	Max	None	Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 16: California Av. & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	359	48	0	385	8	252	39	7	49	36	1007
Future Volume (veh/h)	149	359	48	0	385	8	252	39	7	49	36	1007
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	164	395	53	0	423	9	277	43	8	54	40	1107
Adj No. of Lanes	2	2	0	1	2	0	1	1	0	1	1	2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	896	1581	211	1	691	15	304	479	89	66	360	1264
Arrive On Green	0.26	0.50	0.50	0.00	0.20	0.20	0.17	0.31	0.31	0.04	0.19	0.19
Sat Flow, veh/h	3442	3140	419	1774	3544	75	1774	1525	284	1774	1863	2787
Grp Volume(v), veh/h	164	221	227	0	211	221	277	0	51	54	40	1107
Grp Sat Flow(s),veh/h/ln	1721	1770	1789	1774	1770	1849	1774	0	1808	1774	1863	1393
Q Serve(g_s), s	4.4	8.5	8.6	0.0	13.1	13.1	18.4	0.0	2.4	3.6	2.1	16.3
Cycle Q Clear(g_c), s	4.4	8.5	8.6	0.0	13.1	13.1	18.4	0.0	2.4	3.6	2.1	16.3
Prop In Lane	1.00		0.23	1.00		0.04	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	896	891	901	1	345	361	304	0	568	66	360	1264
V/C Ratio(X)	0.18	0.25	0.25	0.00	0.61	0.61	0.91	0.00	0.09	0.82	0.11	0.88
Avail Cap(c_a), veh/h	896	891	901	74	345	361	367	0	568	135	360	1264
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.5	16.9	16.9	0.0	44.1	44.2	48.8	0.0	29.0	57.4	39.9	10.1
Incr Delay (d2), s/veh	0.0	0.7	0.7	0.0	7.9	7.6	21.5	0.0	0.3	8.9	0.6	8.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	4.3	4.4	0.0	7.1	7.4	10.8	0.0	1.2	1.9	1.2	8.6
LnGrp Delay(d),s/veh	34.5	17.6	17.6	0.0	52.0	51.7	70.3	0.0	29.4	66.3	40.5	18.8
LnGrp LOS	C	B	B		D	D	E		C	E	D	B
Approach Vol, veh/h		612			432			328			1201	
Approach Delay, s/veh		22.1			51.9			64.0			21.7	
Approach LOS		C			D			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	66.2	24.8	29.0	37.0	29.2	10.3	43.5
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	5.8	5.8	* 5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 5	48.2	* 25	22.0	29.8	* 23	9.1	* 38
Max Q Clear Time (g_c+I1), s	0.0	10.6	20.4	18.3	6.4	15.1	5.6	4.4
Green Ext Time (p_c), s	0.0	2.7	0.2	2.0	2.6	1.4	0.1	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	32.3
HCM 2010 LOS	C

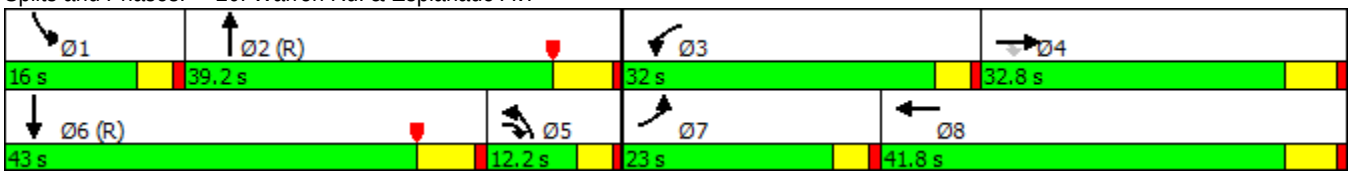
Notes

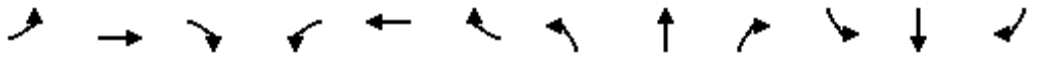
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	200	466	506	448	492	192	660	114	1139
Future Volume (vph)	200	466	506	448	492	192	660	114	1139
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.2	32.8	9.2	9.2	32.8	9.2	33.2	9.2	33.2
Total Split (s)	23.0	32.8	12.2	32.0	41.8	12.2	39.2	16.0	43.0
Total Split (%)	19.2%	27.3%	10.2%	26.7%	34.8%	10.2%	32.7%	13.3%	35.8%
Yellow Time (s)	3.2	4.8	3.2	3.2	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	4.2	5.8	4.2	6.2	4.2	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 135
Control Type: Actuated-Coordinated

Splits and Phases: 20: Warren Rd. & Esplanade Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	466	506	448	492	170	192	660	152	114	1139	160
Future Volume (veh/h)	200	466	506	448	492	170	192	660	152	114	1139	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	213	496	538	477	523	181	204	702	162	121	1212	170
Adj No. of Lanes	1	2	1	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	240	737	590	411	788	271	292	1678	383	146	1383	194
Arrive On Green	0.14	0.21	0.21	0.23	0.30	0.30	0.16	0.41	0.41	0.08	0.31	0.31
Sat Flow, veh/h	1774	3539	1583	1774	2585	891	1774	4142	944	1774	4509	632
Grp Volume(v), veh/h	213	496	538	477	357	347	204	573	291	121	911	471
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1706	1774	1695	1696	1774	1695	1751
Q Serve(g_s), s	14.2	15.5	18.9	27.8	21.1	21.3	13.0	14.5	14.8	8.1	30.6	30.6
Cycle Q Clear(g_c), s	14.2	15.5	18.9	27.8	21.1	21.3	13.0	14.5	14.8	8.1	30.6	30.6
Prop In Lane	1.00		1.00	1.00		0.52	1.00		0.56	1.00		0.36
Lane Grp Cap(c), veh/h	240	737	590	411	539	520	292	1374	687	146	1040	537
V/C Ratio(X)	0.89	0.67	0.91	1.16	0.66	0.67	0.70	0.42	0.42	0.83	0.88	0.88
Avail Cap(c_a), veh/h	278	796	616	411	539	520	292	1374	687	174	1040	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	43.7	20.0	46.1	36.3	36.4	47.3	25.5	25.6	54.2	39.4	39.4
Incr Delay (d2), s/veh	23.2	2.0	17.5	96.1	3.0	3.2	6.2	0.9	1.9	20.3	10.4	18.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	7.8	11.0	24.6	10.8	10.5	6.9	6.9	7.2	4.8	15.8	17.5
LnGrp Delay(d),s/veh	74.2	45.8	37.5	142.2	39.4	39.6	53.5	26.5	27.5	74.5	49.8	57.4
LnGrp LOS	E	D	D	F	D	D	D	C	C	E	D	E
Approach Vol, veh/h		1247			1181			1068			1503	
Approach Delay, s/veh		47.1			81.0			31.9			54.2	
Approach LOS		D			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	54.8	32.0	30.8	25.9	43.0	20.4	42.4
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	6.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 12	33.0	* 28	27.0	8.0	* 37	* 19	36.0
Max Q Clear Time (g_c+I1), s	10.1	16.8	29.8	20.9	15.0	32.6	16.2	23.3
Green Ext Time (p_c), s	0.0	6.6	0.0	4.1	0.0	3.3	0.1	8.0

Intersection Summary			
HCM 2010 Ctrl Delay		54.0	
HCM 2010 LOS		D	

Notes

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	366	380	189	638	1924
Future Volume (vph)	366	380	189	638	1924
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	32.8	32.8	9.5	24.2	33.2
Total Split (s)	35.0	35.0	21.2	85.0	63.8
Total Split (%)	29.2%	29.2%	17.7%	70.8%	53.2%
Yellow Time (s)	4.8	4.8	3.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	6.2	6.2
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 21: Warren Rd. & Tres Cerritos Av.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	366	380	189	638	1924	169
Future Volume (veh/h)	366	380	189	638	1924	169
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	398	413	205	693	2091	184
Adj No. of Lanes	1	1	1	3	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	432	385	231	3339	2340	204
Arrive On Green	0.24	0.24	0.13	0.66	0.49	0.49
Sat Flow, veh/h	1774	1583	1774	5253	4932	416
Grp Volume(v), veh/h	398	413	205	693	1483	792
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1695	1695	1789
Q Serve(g_s), s	26.3	29.2	13.6	6.5	47.5	48.5
Cycle Q Clear(g_c), s	26.3	29.2	13.6	6.5	47.5	48.5
Prop In Lane	1.00	1.00	1.00			0.23
Lane Grp Cap(c), veh/h	432	385	231	3339	1665	879
V/C Ratio(X)	0.92	1.07	0.89	0.21	0.89	0.90
Avail Cap(c_a), veh/h	432	385	251	3339	1665	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	45.4	51.3	8.2	27.6	27.9
Incr Delay (d2), s/veh	25.2	66.3	26.3	0.1	7.6	14.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	29.6	8.4	3.1	23.8	27.2
LnGrp Delay(d),s/veh	69.5	111.7	77.6	8.3	35.2	42.1
LnGrp LOS	E	F	E	A	D	D
Approach Vol, veh/h	811			898	2275	
Approach Delay, s/veh	91.0			24.1	37.6	
Approach LOS	F			C	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		85.0		35.0	19.9	65.1		
Change Period (Y+Rc), s		6.2		5.8	* 4.2	6.2		
Max Green Setting (Gmax), s		78.8		29.2	* 17	57.6		
Max Q Clear Time (g_c+I1), s		8.5		31.2	15.6	50.5		
Green Ext Time (p_c), s		59.4		0.0	0.0	6.9		

Intersection Summary	
HCM 2010 Ctrl Delay	45.4
HCM 2010 LOS	D

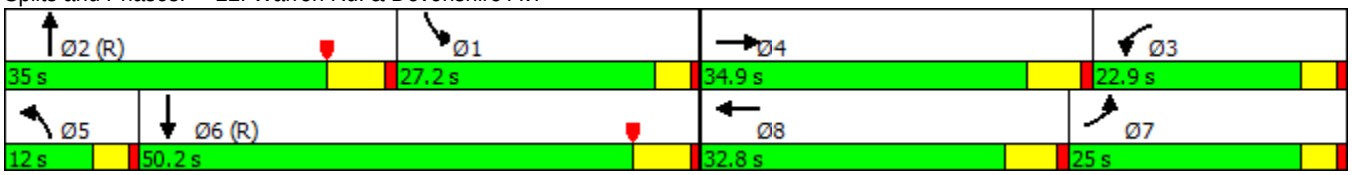
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	330	364	192	293	44	356	280	1656
Future Volume (vph)	330	364	192	293	44	356	280	1656
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.2	32.8	9.2	32.8	9.2	33.2	9.2	33.2
Total Split (s)	25.0	34.9	22.9	32.8	12.0	35.0	27.2	50.2
Total Split (%)	20.8%	29.1%	19.1%	27.3%	10.0%	29.2%	22.7%	41.8%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	6.2	4.2	6.2
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 40.8 (34%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 125
Control Type: Actuated-Coordinated

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	330	364	130	192	293	140	44	356	113	280	1656	368
Future Volume (veh/h)	330	364	130	192	293	140	44	356	113	280	1656	368
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	351	387	138	204	312	149	47	379	120	298	1762	391
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	308	464	163	277	383	179	61	929	282	419	2041	445
Arrive On Green	0.17	0.18	0.18	0.16	0.16	0.16	0.01	0.08	0.08	0.24	0.46	0.46
Sat Flow, veh/h	1774	2568	904	1774	2344	1095	1774	3872	1174	1774	4447	970
Grp Volume(v), veh/h	351	265	260	204	234	227	47	330	169	298	1471	682
Grp Sat Flow(s),veh/h/ln	1774	1770	1703	1774	1770	1669	1774	1695	1656	1774	1863	1692
Q Serve(g_s), s	20.8	17.3	17.7	13.2	15.3	15.8	3.2	11.1	11.7	18.5	42.4	43.9
Cycle Q Clear(g_c), s	20.8	17.3	17.7	13.2	15.3	15.8	3.2	11.1	11.7	18.5	42.4	43.9
Prop In Lane	1.00		0.53	1.00		0.66	1.00		0.71	1.00		0.57
Lane Grp Cap(c), veh/h	308	320	308	277	289	273	61	814	397	419	1710	776
V/C Ratio(X)	1.14	0.83	0.84	0.74	0.81	0.83	0.78	0.41	0.43	0.71	0.86	0.88
Avail Cap(c_a), veh/h	308	429	413	277	398	376	115	814	397	419	1710	776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	47.4	47.5	48.3	48.4	48.6	58.9	47.1	47.4	42.0	29.0	29.4
Incr Delay (d2), s/veh	95.2	9.7	11.4	8.7	8.4	10.8	7.4	1.4	3.2	4.7	5.9	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.3	9.3	9.3	7.1	8.1	8.1	1.7	5.4	5.7	9.7	23.1	23.4
LnGrp Delay(d),s/veh	144.8	57.1	58.9	57.0	56.8	59.4	66.3	48.5	50.6	46.8	34.9	42.9
LnGrp LOS	F	E	E	E	E	E	E	D	D	D	C	D
Approach Vol, veh/h		876			665			546			2451	
Approach Delay, s/veh		92.8			57.7			50.7			38.6	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.6	35.0	22.9	27.5	8.3	61.3	25.0	25.4
Change Period (Y+Rc), s	6.2	* 6.2	4.2	* 5.8	* 4.2	6.2	4.2	* 5.8
Max Green Setting (Gmax), s	23.0	* 29	18.7	* 29	* 7.8	44.0	20.8	* 27
Max Q Clear Time (g_c+I1), s	20.5	13.7	15.2	19.7	5.2	45.9	22.8	17.8
Green Ext Time (p_c), s	0.3	3.3	0.4	2.0	0.0	0.0	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	53.3
HCM 2010 LOS	D

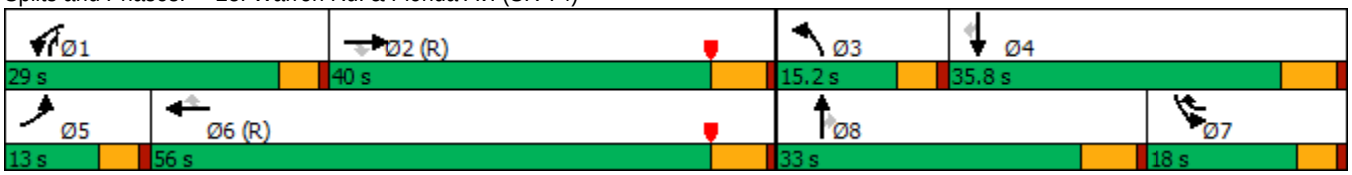
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	1968	365	694	1261	192	244	312	423	536	964	247
Future Volume (vph)	111	1968	365	694	1261	192	244	312	423	536	964	247
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	38.0	38.0	9.6	38.0	9.6	9.6	33.0	9.6	9.6	33.0	33.0
Total Split (s)	13.0	40.0	40.0	29.0	56.0	18.0	15.2	33.0	29.0	18.0	35.8	35.8
Total Split (%)	10.8%	33.3%	33.3%	24.2%	46.7%	15.0%	12.7%	27.5%	24.2%	15.0%	29.8%	29.8%
Yellow Time (s)	3.6	5.0	5.0	3.6	5.0	3.6	3.6	5.0	3.6	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	6.0	4.6	6.0	4.6	4.6	6.0	4.6	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	Max	None	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 2 (2%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	1968	365	694	1261	192	244	312	423	536	964	247
Future Volume (veh/h)	111	1968	365	694	1261	192	244	312	423	536	964	247
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	113	2008	309	708	1287	192	249	318	387	547	984	188
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	166	3399	1058	700	4188	1480	302	796	677	384	922	411
Arrive On Green	0.05	0.67	0.67	0.20	0.82	0.82	0.09	0.22	0.22	0.07	0.17	0.17
Sat Flow, veh/h	3442	5085	1583	3442	5085	1582	3442	3539	1579	3442	3539	1578
Grp Volume(v), veh/h	113	2008	309	708	1287	192	249	318	387	547	984	188
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1582	1721	1770	1579	1721	1770	1578
Q Serve(g_s), s	3.9	26.0	9.7	24.4	7.2	1.4	8.5	9.2	27.0	13.4	31.3	12.8
Cycle Q Clear(g_c), s	3.9	26.0	9.7	24.4	7.2	1.4	8.5	9.2	27.0	13.4	31.3	12.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	166	3399	1058	700	4188	1480	302	796	677	384	922	411
V/C Ratio(X)	0.68	0.59	0.29	1.01	0.31	0.13	0.82	0.40	0.57	1.42	1.07	0.46
Avail Cap(c_a), veh/h	241	3399	1058	700	4188	1480	304	796	677	384	922	411
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.54	0.54	0.54	0.18	0.18	0.18
Uniform Delay (d), s/veh	56.2	10.9	8.2	47.8	2.5	5.7	53.8	39.6	43.7	55.5	49.5	41.9
Incr Delay (d2), s/veh	1.8	0.8	0.7	37.0	0.2	0.2	9.1	0.8	1.9	193.3	35.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	12.3	4.4	15.2	3.4	0.7	4.4	4.6	15.3	16.7	19.8	5.7
LnGrp Delay(d),s/veh	58.1	11.7	8.9	84.8	2.7	5.9	62.9	40.4	45.6	248.8	84.5	42.6
LnGrp LOS	E	B	A	F	A	A	E	D	D	F	F	D
Approach Vol, veh/h		2430			2187			954			1719	
Approach Delay, s/veh		13.5			29.5			48.4			132.2	
Approach LOS		B			C			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	87.6	15.1	37.3	10.4	106.2	19.4	33.0
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	6.0	* 6
Max Green Setting (Gmax), s	24.4	34.0	10.6	29.8	8.4	50.0	13.4	* 27
Max Q Clear Time (g_c+I1), s	26.4	28.0	10.5	33.3	5.9	9.2	15.4	29.0
Green Ext Time (p_c), s	0.0	4.5	0.0	0.0	0.0	6.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	50.9
HCM 2010 LOS	D

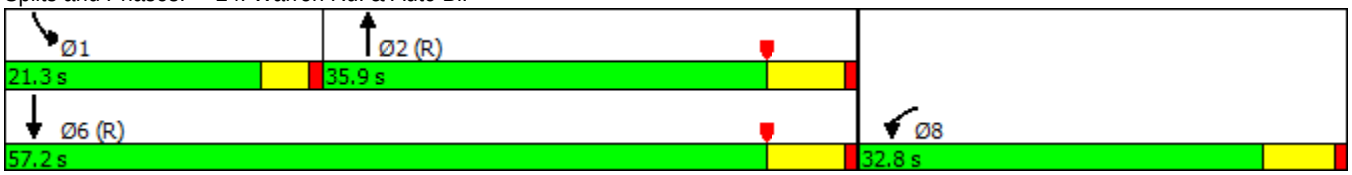
Notes

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	34	996	308	1906
Future Volume (vph)	34	996	308	1906
Turn Type	Prot	NA	Prot	NA
Protected Phases	8	2	1	6
Permitted Phases				
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	10.0
Minimum Split (s)	32.8	28.2	9.5	24.2
Total Split (s)	32.8	35.9	21.3	57.2
Total Split (%)	36.4%	39.9%	23.7%	63.6%
Yellow Time (s)	4.8	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	6.2	4.2	6.2
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 21.3 (24%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 24: Warren Rd. & Auto Bl.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	34	95	996	103	308	1906
Future Volume (veh/h)	34	95	996	103	308	1906
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	36	101	1060	110	328	2028
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	46	128	1691	175	337	2687
Arrive On Green	0.11	0.11	0.52	0.52	0.19	0.76
Sat Flow, veh/h	425	1194	3330	336	1774	3632
Grp Volume(v), veh/h	138	0	579	591	328	2028
Grp Sat Flow(s),veh/h/ln	1631	0	1770	1803	1774	1770
Q Serve(g_s), s	7.4	0.0	20.9	21.0	16.5	29.1
Cycle Q Clear(g_c), s	7.4	0.0	20.9	21.0	16.5	29.1
Prop In Lane	0.26	0.73		0.19	1.00	
Lane Grp Cap(c), veh/h	175	0	924	942	337	2687
V/C Ratio(X)	0.79	0.00	0.63	0.63	0.97	0.75
Avail Cap(c_a), veh/h	489	0	924	942	337	2687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.83	0.83	0.45	0.45
Uniform Delay (d), s/veh	39.2	0.0	15.3	15.3	36.2	6.1
Incr Delay (d2), s/veh	7.6	0.0	2.7	2.6	26.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	10.8	11.0	10.6	14.1
LnGrp Delay(d),s/veh	46.7	0.0	17.9	17.9	62.4	7.0
LnGrp LOS	D		B	B	E	A
Approach Vol, veh/h	138		1170			2356
Approach Delay, s/veh	46.7		17.9			14.7
Approach LOS	D		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	21.3	53.2				74.5		15.5
Change Period (Y+Rc), s	* 4.2	6.2				6.2		5.8
Max Green Setting (Gmax), s	* 17	29.7				51.0		27.0
Max Q Clear Time (g_c+I1), s	18.5	23.0				31.1		9.4
Green Ext Time (p_c), s	0.0	6.6				19.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	17.0
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	123	16	19	59	197	950	199	1320
Future Volume (vph)	123	16	19	59	197	950	199	1320
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	32.8	32.8	9.5	28.2	9.5	28.2
Total Split (s)	32.9	32.9	32.9	32.9	18.8	59.4	27.7	68.3
Total Split (%)	27.4%	27.4%	27.4%	27.4%	15.7%	49.5%	23.1%	56.9%
Yellow Time (s)	4.8	4.8	4.8	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.8		5.8	4.2	6.2	4.2	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 25: Warren Rd. & Whittier Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	16	89	19	59	26	197	950	11	199	1320	420
Future Volume (veh/h)	123	16	89	19	59	26	197	950	11	199	1320	420
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	127	16	92	20	61	27	203	979	11	205	1361	433
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	23	104	72	198	78	216	1974	22	233	1495	458
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.12	0.55	0.55	0.13	0.56	0.56
Sat Flow, veh/h	758	125	568	197	1079	425	1774	3585	40	1774	2670	818
Grp Volume(v), veh/h	235	0	0	108	0	0	203	483	507	205	885	909
Grp Sat Flow(s),veh/h/ln	1450	0	0	1700	0	0	1774	1770	1856	1774	1770	1718
Q Serve(g_s), s	12.6	0.0	0.0	0.0	0.0	0.0	13.6	20.3	20.3	13.6	52.8	59.3
Cycle Q Clear(g_c), s	18.9	0.0	0.0	6.3	0.0	0.0	13.6	20.3	20.3	13.6	52.8	59.3
Prop In Lane	0.54		0.39	0.19		0.25	1.00		0.02	1.00		0.48
Lane Grp Cap(c), veh/h	312	0	0	347	0	0	216	974	1022	233	991	963
V/C Ratio(X)	0.75	0.00	0.00	0.31	0.00	0.00	0.94	0.50	0.50	0.88	0.89	0.94
Avail Cap(c_a), veh/h	373	0	0	417	0	0	216	974	1022	347	991	963
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.54	0.54	0.54
Uniform Delay (d), s/veh	47.7	0.0	0.0	42.6	0.0	0.0	52.3	16.7	16.7	51.2	23.2	24.7
Incr Delay (d2), s/veh	7.0	0.0	0.0	0.5	0.0	0.0	44.3	1.8	1.7	6.7	7.1	11.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	0.0	0.0	3.2	0.0	0.0	9.3	10.3	10.8	7.1	27.5	31.2
LnGrp Delay(d),s/veh	54.6	0.0	0.0	43.1	0.0	0.0	96.5	18.5	18.4	57.9	30.3	36.4
LnGrp LOS	D			D			F	B	B	E	C	D
Approach Vol, veh/h		235			108			1193			1999	
Approach Delay, s/veh		54.6			43.1			31.7			35.9	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.0	72.3		27.8	18.8	73.4		27.8
Change Period (Y+Rc), s	* 4.2	6.2		5.8	* 4.2	6.2		5.8
Max Green Setting (Gmax), s	* 24	53.2		27.1	* 15	62.1		27.1
Max Q Clear Time (g_c+I1), s	15.6	22.3		20.9	15.6	61.3		8.3
Green Ext Time (p_c), s	0.2	27.5		1.1	0.0	0.8		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.0
HCM 2010 LOS	D

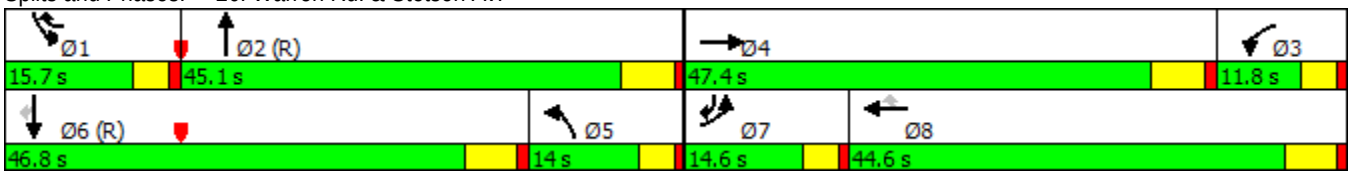
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	202	713	127	973	264	198	693	226	856	347
Future Volume (vph)	202	713	127	973	264	198	693	226	856	347
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	1	5	2	1	6	7
Permitted Phases					8					6
Detector Phase	7	4	3	8	1	5	2	1	6	7
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	9.5	32.8	9.5	32.8	9.5
Total Split (s)	14.6	47.4	11.8	44.6	15.7	14.0	45.1	15.7	46.8	14.6
Total Split (%)	12.2%	39.5%	9.8%	37.2%	13.1%	11.7%	37.6%	13.1%	39.0%	12.2%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2	5.8	4.2
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 57 (48%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	713	251	127	973	264	198	693	154	226	856	347
Future Volume (veh/h)	202	713	251	127	973	264	198	693	154	226	856	347
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	210	743	261	132	1014	275	206	722	160	235	892	361
Adj No. of Lanes	2	2	0	2	2	1	2	2	0	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	820	288	206	1116	633	296	1028	228	290	1209	663
Arrive On Green	0.08	0.32	0.32	0.06	0.32	0.32	0.06	0.24	0.24	0.08	0.34	0.34
Sat Flow, veh/h	3442	2570	903	3442	3539	1583	3442	2881	638	3442	3539	1583
Grp Volume(v), veh/h	210	512	492	132	1014	275	206	443	439	235	892	361
Grp Sat Flow(s),veh/h/ln	1721	1770	1703	1721	1770	1583	1721	1770	1750	1721	1770	1583
Q Serve(g_s), s	7.2	33.2	33.2	4.5	33.0	15.1	7.1	27.5	27.5	8.1	26.6	12.9
Cycle Q Clear(g_c), s	7.2	33.2	33.2	4.5	33.0	15.1	7.1	27.5	27.5	8.1	26.6	12.9
Prop In Lane	1.00		0.53	1.00		1.00	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	265	564	543	206	1116	633	296	632	625	290	1209	663
V/C Ratio(X)	0.79	0.91	0.91	0.64	0.91	0.43	0.69	0.70	0.70	0.81	0.74	0.54
Avail Cap(c_a), veh/h	298	613	591	218	1144	645	296	632	625	330	1209	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	39.2	39.2	55.1	39.4	26.2	55.0	39.8	39.8	54.0	34.8	11.7
Incr Delay (d2), s/veh	10.6	16.5	17.0	4.1	10.5	0.5	4.5	5.0	5.1	11.1	4.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	18.8	18.2	2.3	17.7	6.7	3.5	14.3	14.2	4.3	13.7	6.2
LnGrp Delay(d),s/veh	65.1	55.6	56.1	59.3	50.0	26.7	59.5	44.8	44.9	65.1	38.8	14.9
LnGrp LOS	E	E	E	E	D	C	E	D	D	E	D	B
Approach Vol, veh/h		1214			1421			1088			1488	
Approach Delay, s/veh		57.5			46.3			47.6			37.1	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	48.6	13.0	44.1	16.1	46.8	13.4	43.6
Change Period (Y+Rc), s	* 4.2	5.8	5.8	* 5.8	5.8	* 5.8	* 4.2	5.8
Max Green Setting (Gmax), s	* 12	39.3	7.6	* 42	9.8	* 41	* 10	38.8
Max Q Clear Time (g_c+I1), s	10.1	29.5	6.5	35.2	9.1	28.6	9.2	35.0
Green Ext Time (p_c), s	0.1	4.9	0.8	3.0	0.1	7.0	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	46.6
HCM 2010 LOS	D

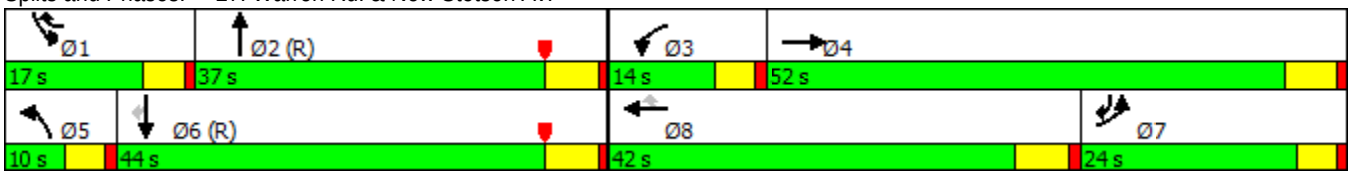
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	365	807	170	885	299	103	381	253	639	342
Future Volume (vph)	365	807	170	885	299	103	381	253	639	342
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	1	5	2	1	6	7
Permitted Phases					8					6
Detector Phase	7	4	3	8	1	5	2	1	6	7
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	34.8	9.6	34.8	9.6	9.6	34.8	9.6	34.8	9.6
Total Split (s)	24.0	52.0	14.0	42.0	17.0	10.0	37.0	17.0	44.0	24.0
Total Split (%)	20.0%	43.3%	11.7%	35.0%	14.2%	8.3%	30.8%	14.2%	36.7%	20.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 50 (42%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 27: Warren Rd. & New Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	365	807	225	170	885	299	103	381	76	253	639	342
Future Volume (veh/h)	365	807	225	170	885	299	103	381	76	253	639	342
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	397	877	245	185	962	325	112	414	83	275	695	372
Adj No. of Lanes	2	2	0	2	2	1	2	2	0	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	515	1047	292	240	1042	619	155	813	162	332	1160	756
Arrive On Green	0.15	0.38	0.38	0.07	0.29	0.29	0.05	0.28	0.28	0.03	0.11	0.11
Sat Flow, veh/h	3442	2725	760	3442	3539	1583	3442	2944	585	3442	3539	1583
Grp Volume(v), veh/h	397	569	553	185	962	325	112	248	249	275	695	372
Grp Sat Flow(s),veh/h/ln	1721	1770	1716	1721	1770	1583	1721	1770	1759	1721	1770	1583
Q Serve(g_s), s	13.3	35.0	35.1	6.3	31.6	10.1	3.9	14.1	14.4	9.5	22.5	3.9
Cycle Q Clear(g_c), s	13.3	35.0	35.1	6.3	31.6	10.1	3.9	14.1	14.4	9.5	22.5	3.9
Prop In Lane	1.00		0.44	1.00		1.00	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	515	680	660	240	1042	619	155	489	486	332	1160	756
V/C Ratio(X)	0.77	0.84	0.84	0.77	0.92	0.53	0.72	0.51	0.51	0.83	0.60	0.49
Avail Cap(c_a), veh/h	556	681	661	270	1068	631	155	489	486	356	1160	756
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.50	0.50	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.66	0.66	0.66
Uniform Delay (d), s/veh	49.0	33.5	33.5	54.9	41.0	10.9	56.6	36.6	36.6	57.1	46.0	14.5
Incr Delay (d2), s/veh	2.7	4.7	5.0	9.8	12.8	0.8	13.4	3.7	3.8	9.0	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	18.0	17.5	3.3	17.2	4.5	2.1	7.4	7.5	5.0	11.3	2.0
LnGrp Delay(d),s/veh	51.7	38.3	38.5	64.7	53.9	11.7	70.0	40.3	40.5	66.1	47.5	16.0
LnGrp LOS	D	D	D	E	D	B	E	D	D	E	D	B
Approach Vol, veh/h		1519			1472			609			1342	
Approach Delay, s/veh		41.9			45.9			45.8			42.6	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	38.9	13.0	51.9	10.0	45.1	23.8	41.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	5.8	* 5.8
Max Green Setting (Gmax), s	12.4	31.2	9.4	46.2	5.4	38.2	19.4	* 36
Max Q Clear Time (g_c+I1), s	11.5	16.4	8.3	37.1	5.9	24.5	15.3	33.6
Green Ext Time (p_c), s	0.1	9.6	0.0	5.0	0.0	9.1	2.7	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	43.8
HCM 2010 LOS	D

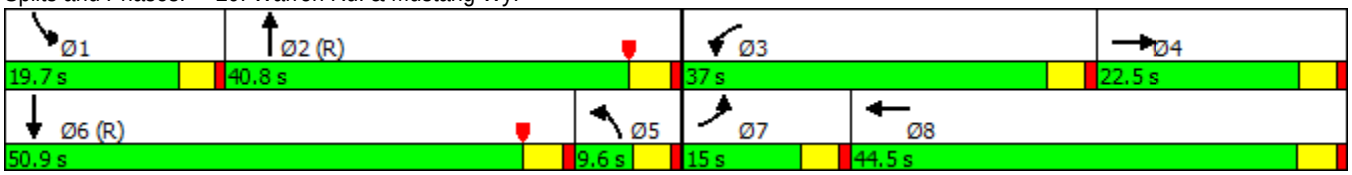
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	57	81	320	69	28	421	144	884
Future Volume (vph)	57	81	320	69	28	421	144	884
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	9.5	21.6	9.5	21.7	9.2	14.7
Total Split (s)	15.0	22.5	37.0	44.5	9.6	40.8	19.7	50.9
Total Split (%)	12.5%	18.8%	30.8%	37.1%	8.0%	34.0%	16.4%	42.4%
Yellow Time (s)	3.5	3.5	3.5	3.6	3.5	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.6	4.5	4.7	4.2	4.7
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 83 (69%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	81	60	320	69	122	28	421	190	144	884	46
Future Volume (veh/h)	57	81	60	320	69	122	28	421	190	144	884	46
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	63	90	67	356	77	89	31	468	197	160	982	51
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	112	83	384	224	258	234	1016	425	184	1318	68
Arrive On Green	0.05	0.11	0.11	0.22	0.28	0.28	0.13	0.42	0.42	0.21	0.77	0.77
Sat Flow, veh/h	1774	993	739	1774	789	912	1774	2435	1018	1774	3423	178
Grp Volume(v), veh/h	63	0	157	356	0	166	31	339	326	160	508	525
Grp Sat Flow(s),veh/h/ln	1774	0	1732	1774	0	1702	1774	1770	1683	1774	1770	1831
Q Serve(g_s), s	4.2	0.0	10.6	23.6	0.0	9.3	1.9	16.6	16.8	10.5	18.6	18.6
Cycle Q Clear(g_c), s	4.2	0.0	10.6	23.6	0.0	9.3	1.9	16.6	16.8	10.5	18.6	18.6
Prop In Lane	1.00		0.43	1.00		0.54	1.00		0.60	1.00		0.10
Lane Grp Cap(c), veh/h	81	0	195	384	0	482	234	739	703	184	681	705
V/C Ratio(X)	0.78	0.00	0.81	0.93	0.00	0.34	0.13	0.46	0.46	0.87	0.75	0.75
Avail Cap(c_a), veh/h	155	0	260	480	0	566	234	739	703	229	681	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	56.7	0.0	52.0	46.1	0.0	34.2	46.0	25.2	25.3	46.7	10.6	10.6
Incr Delay (d2), s/veh	5.9	0.0	12.8	19.6	0.0	0.4	0.1	2.1	2.2	20.4	7.0	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	5.8	13.7	0.0	4.4	0.9	8.5	8.2	6.1	10.1	10.4
LnGrp Delay(d),s/veh	62.6	0.0	64.7	65.7	0.0	34.6	46.1	27.2	27.5	67.2	17.6	17.4
LnGrp LOS	E		E	E		C	D	C	C	E	B	B
Approach Vol, veh/h		220			522			696			1193	
Approach Delay, s/veh		64.1			55.8			28.2			24.1	
Approach LOS		E			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	54.8	30.5	18.1	20.5	50.9	10.0	38.6
Change Period (Y+Rc), s	* 4.2	* 4.7	4.5	* 4.6	* 4.7	* 4.7	4.5	4.6
Max Green Setting (Gmax), s	* 16	* 36	32.5	* 18	* 5.1	* 46	10.5	39.9
Max Q Clear Time (g_c+I1), s	12.5	18.8	25.6	12.6	3.9	20.6	6.2	11.3
Green Ext Time (p_c), s	0.1	5.4	0.4	0.9	0.0	10.7	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	34.8
HCM 2010 LOS	C

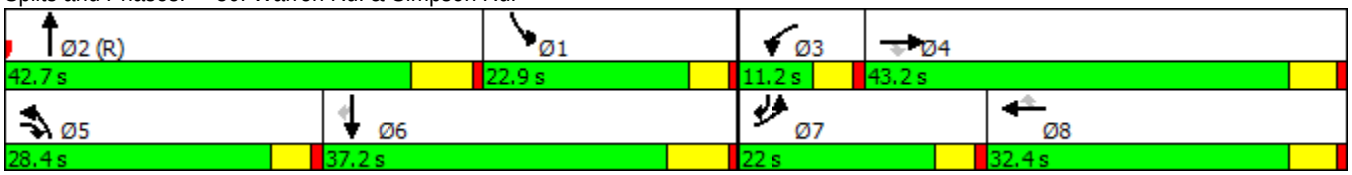
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	403	42	287	16	46	32	571	215	130	716	436
Future Volume (vph)	403	42	287	16	46	32	571	215	130	716	436
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.4	9.6	9.6	32.4	32.4	9.6	33.5	9.6	33.5	9.6
Total Split (s)	22.0	43.2	28.4	11.2	32.4	32.4	28.4	42.7	22.9	37.2	22.0
Total Split (%)	18.3%	36.0%	23.7%	9.3%	27.0%	27.0%	23.7%	35.6%	19.1%	31.0%	18.3%
Yellow Time (s)	3.6	4.4	3.6	3.6	4.4	4.4	3.6	5.5	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	4.6	5.4	5.4	4.6	6.5	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Max	None	None	None	Max	C-Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 88 (73%), Referenced to phase 2:NBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 30: Warren Rd. & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	403	42	287	16	46	32	571	215	24	130	716	436
Future Volume (veh/h)	403	42	287	16	46	32	571	215	24	130	716	436
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	463	48	330	18	53	37	656	247	28	149	823	501
Adj No. of Lanes	2	1	1	1	1	1	2	2	0	1	2	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	499	390	646	33	155	132	683	968	109	494	1407	859
Arrive On Green	0.14	0.21	0.21	0.02	0.08	0.08	0.07	0.10	0.10	0.28	0.40	0.40
Sat Flow, veh/h	3442	1863	1583	1774	1863	1583	3442	3209	360	1774	3539	1583
Grp Volume(v), veh/h	463	48	330	18	53	37	656	135	140	149	823	501
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1721	1770	1799	1774	1770	1583
Q Serve(g_s), s	15.9	2.5	18.7	1.2	3.2	1.5	22.8	8.5	8.6	7.9	21.9	25.4
Cycle Q Clear(g_c), s	15.9	2.5	18.7	1.2	3.2	1.5	22.8	8.5	8.6	7.9	21.9	25.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	499	390	646	33	155	132	683	534	543	494	1407	859
V/C Ratio(X)	0.93	0.12	0.51	0.54	0.34	0.28	0.96	0.25	0.26	0.30	0.58	0.58
Avail Cap(c_a), veh/h	499	587	813	98	419	356	683	534	543	494	1407	859
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.7	38.5	26.6	58.4	51.9	17.9	55.6	41.5	41.6	34.1	28.4	18.4
Incr Delay (d2), s/veh	23.4	0.1	0.6	5.0	1.3	1.1	22.9	0.9	0.9	0.1	1.8	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	1.3	8.3	0.6	1.7	0.7	13.0	4.3	4.4	3.9	11.0	11.7
LnGrp Delay(d),s/veh	74.1	38.6	27.2	63.3	53.2	19.0	78.5	42.5	42.5	34.2	30.2	21.3
LnGrp LOS	E	D	C	E	D	B	E	D	D	C	C	C
Approach Vol, veh/h		841			108			931			1473	
Approach Delay, s/veh		53.6			43.2			67.9			27.5	
Approach LOS		D			D			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	39.9	42.7	6.9	30.5	28.4	54.2	22.0	15.4
Change Period (Y+Rc), s	6.5	* 6.5	4.6	5.4	4.6	6.5	4.6	5.4
Max Green Setting (Gmax), s	18.3	* 36	6.6	37.8	23.8	30.7	17.4	27.0
Max Q Clear Time (g_c+I1), s	9.9	10.6	3.2	20.7	24.8	27.4	17.9	5.2
Green Ext Time (p_c), s	5.7	2.1	0.0	1.5	0.0	2.5	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	45.8
HCM 2010 LOS	D

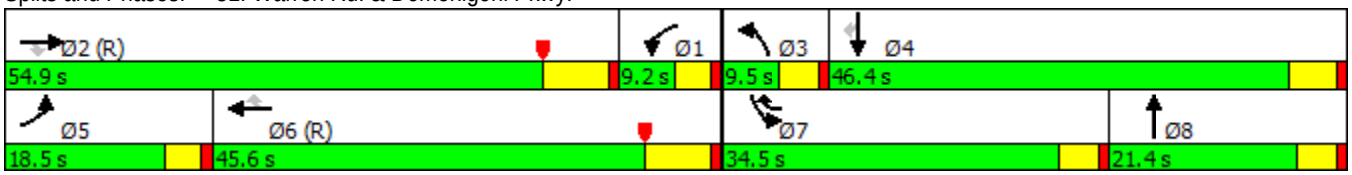
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	292	1148	11	11	1328	508	11	11	321	286	412
Future Volume (vph)	292	1148	11	11	1328	508	11	11	321	286	412
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	7	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	9.5	9.5	14.6	9.5	46.4	46.4
Total Split (s)	18.5	54.9	54.9	9.2	45.6	34.5	9.5	21.4	34.5	46.4	46.4
Total Split (%)	15.4%	45.8%	45.8%	7.7%	38.0%	28.8%	7.9%	17.8%	28.8%	38.7%	38.7%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	3.5	3.5	3.6	3.5	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	4.5	4.5	4.6	4.5	5.4	5.4
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	292	1148	11	11	1328	508	11	11	11	321	286	412
Future Volume (veh/h)	292	1148	11	11	1328	508	11	11	11	321	286	412
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	321	1262	12	12	1459	548	12	12	11	353	314	308
Adj No. of Lanes	2	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	375	2034	620	184	2121	993	24	75	68	382	531	451
Arrive On Green	0.11	0.40	0.40	0.10	0.42	0.42	0.01	0.08	0.08	0.22	0.29	0.29
Sat Flow, veh/h	3442	5085	1550	1774	5085	1563	1774	896	822	1774	1863	1583
Grp Volume(v), veh/h	321	1262	12	12	1459	548	12	0	23	353	314	308
Grp Sat Flow(s),veh/h/ln	1721	1695	1550	1774	1695	1563	1774	0	1718	1774	1863	1583
Q Serve(g_s), s	11.0	23.8	0.5	0.7	28.1	23.8	0.8	0.0	1.5	23.4	17.4	20.7
Cycle Q Clear(g_c), s	11.0	23.8	0.5	0.7	28.1	23.8	0.8	0.0	1.5	23.4	17.4	20.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.48	1.00		1.00
Lane Grp Cap(c), veh/h	375	2034	620	184	2121	993	24	0	143	382	531	451
V/C Ratio(X)	0.86	0.62	0.02	0.07	0.69	0.55	0.49	0.00	0.16	0.92	0.59	0.68
Avail Cap(c_a), veh/h	410	2034	620	184	2121	993	74	0	240	444	636	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.61	0.61	0.61
Uniform Delay (d), s/veh	52.5	28.7	14.6	48.5	28.6	12.5	58.8	0.0	51.1	46.1	36.9	38.1
Incr Delay (d2), s/veh	14.0	1.4	0.1	0.1	1.8	2.2	14.6	0.0	0.2	16.0	0.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	11.4	0.2	0.4	13.5	10.8	0.5	0.0	0.7	13.2	8.9	9.2
LnGrp Delay(d),s/veh	66.5	30.2	14.7	48.6	30.4	14.7	73.3	0.0	51.3	62.1	37.1	39.1
LnGrp LOS	E	C	B	D	C	B	E		D	E	D	D
Approach Vol, veh/h		1595			2019			35			975	
Approach Delay, s/veh		37.4			26.3			58.8			46.8	
Approach LOS		D			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.3	54.9	6.1	39.6	17.3	57.0	30.4	15.4
Change Period (Y+Rc), s	6.9	* 6.9	4.5	5.4	* 4.2	6.9	4.5	* 5.4
Max Green Setting (Gmax), s	5.0	* 48	5.0	41.0	* 14	38.7	30.0	* 17
Max Q Clear Time (g_c+I1), s	2.7	25.8	2.8	22.7	13.0	30.1	25.4	3.5
Green Ext Time (p_c), s	1.1	5.3	0.0	1.6	0.1	4.8	0.5	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	34.7
HCM 2010 LOS	C

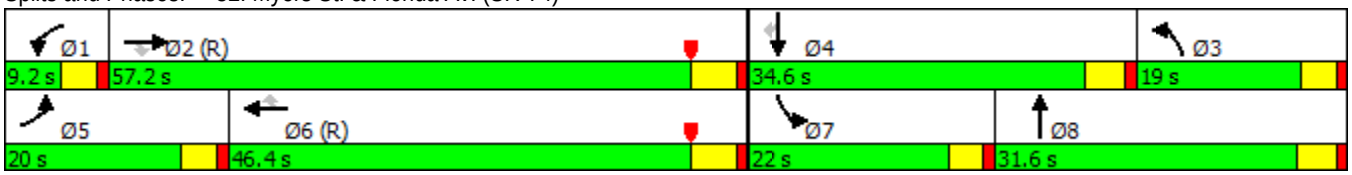
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	253	2417	256	63	1754	265	252	64	139	59	141
Future Volume (vph)	253	2417	256	63	1754	265	252	64	139	59	141
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	20.0	57.2	57.2	9.2	46.4	46.4	19.0	31.6	22.0	34.6	34.6
Total Split (%)	16.7%	47.7%	47.7%	7.7%	38.7%	38.7%	15.8%	26.3%	18.3%	28.8%	28.8%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	2417	256	63	1754	265	252	64	62	139	59	141
Future Volume (veh/h)	253	2417	256	63	1754	265	252	64	62	139	59	141
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	258	2466	261	64	1790	270	257	65	39	142	60	89
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	2767	844	74	2310	717	219	307	184	169	466	396
Arrive On Green	0.13	0.54	0.54	0.08	0.91	0.91	0.12	0.28	0.28	0.10	0.25	0.25
Sat Flow, veh/h	1774	5085	1551	1774	5085	1578	1774	1092	655	1774	1863	1583
Grp Volume(v), veh/h	258	2466	261	64	1790	270	257	0	104	142	60	89
Grp Sat Flow(s),veh/h/ln	1774	1695	1551	1774	1695	1578	1774	0	1747	1774	1863	1583
Q Serve(g_s), s	15.8	51.5	8.9	4.3	13.1	2.9	14.8	0.0	5.5	9.4	3.0	4.7
Cycle Q Clear(g_c), s	15.8	51.5	8.9	4.3	13.1	2.9	14.8	0.0	5.5	9.4	3.0	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	234	2767	844	74	2310	717	219	0	492	169	466	396
V/C Ratio(X)	1.10	0.89	0.31	0.87	0.78	0.38	1.17	0.00	0.21	0.84	0.13	0.22
Avail Cap(c_a), veh/h	234	2767	844	74	2310	717	219	0	492	263	466	396
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	24.2	9.6	54.7	3.6	3.1	52.6	0.0	32.9	53.4	34.9	27.6
Incr Delay (d2), s/veh	89.7	4.8	1.0	59.6	2.6	1.5	116.0	0.0	1.0	7.7	0.6	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.5	25.2	4.0	3.3	5.8	1.4	14.3	0.0	2.8	5.0	1.6	2.2
LnGrp Delay(d),s/veh	141.8	29.1	10.6	114.2	6.2	4.6	168.6	0.0	33.9	61.1	35.4	28.9
LnGrp LOS	F	C	B	F	A	A	F		C	E	D	C
Approach Vol, veh/h		2985			2124			361			291	
Approach Delay, s/veh		37.2			9.3			129.8			45.9	
Approach LOS		D			A			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	70.8	19.4	34.6	20.0	60.0	15.6	38.4
Change Period (Y+Rc), s	* 4.2	5.1	4.6	* 4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 5	52.1	14.8	* 30	* 16	41.3	* 18	27.0
Max Q Clear Time (g_c+I1), s	6.3	53.5	16.8	6.7	17.8	15.1	11.4	7.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	26.1	0.1	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	33.1
HCM 2010 LOS	C

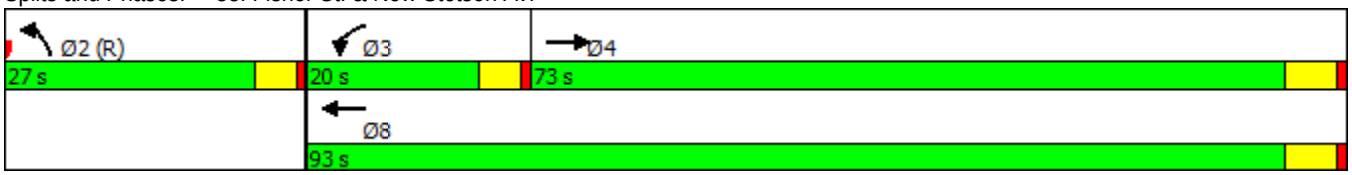
Notes

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	1135	98	1470	30
Future Volume (vph)	1135	98	1470	30
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	5.0
Minimum Split (s)	27.8	14.6	15.8	9.6
Total Split (s)	73.0	20.0	93.0	27.0
Total Split (%)	60.8%	16.7%	77.5%	22.5%
Yellow Time (s)	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBL and 6:, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 33: Fisher St. & New Stetson Av.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1135	33	98	1470	30	79
Future Volume (veh/h)	1135	33	98	1470	30	79
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	1234	36	107	1598	33	86
Adj No. of Lanes	2	0	1	2	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	1761	51	144	2197	131	343
Arrive On Green	0.50	0.50	0.08	0.62	0.29	0.29
Sat Flow, veh/h	3605	102	1774	3632	449	1171
Grp Volume(v), veh/h	622	648	107	1598	120	0
Grp Sat Flow(s),veh/h/ln	1770	1845	1774	1770	1634	0
Q Serve(g_s), s	32.4	32.4	7.1	37.5	6.7	0.0
Cycle Q Clear(g_c), s	32.4	32.4	7.1	37.5	6.7	0.0
Prop In Lane		0.06	1.00		0.27	0.72
Lane Grp Cap(c), veh/h	887	925	144	2197	478	0
V/C Ratio(X)	0.70	0.70	0.74	0.73	0.25	0.00
Avail Cap(c_a), veh/h	991	1033	228	2572	478	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	1.00	0.00
Uniform Delay (d), s/veh	23.0	23.0	53.9	15.7	32.4	0.0
Incr Delay (d2), s/veh	1.9	1.9	0.3	0.1	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.2	16.9	3.5	18.2	3.2	0.0
LnGrp Delay(d),s/veh	24.9	24.9	54.2	15.8	33.7	0.0
LnGrp LOS	C	C	D	B	C	
Approach Vol, veh/h	1270			1705	120	
Approach Delay, s/veh	24.9			18.2	33.7	
Approach LOS	C			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		39.7	14.3	66.0				80.3
Change Period (Y+Rc), s		4.6	4.6	5.8				5.8
Max Green Setting (Gmax), s		22.4	15.4	67.2				87.2
Max Q Clear Time (g_c+I1), s		8.7	9.1	34.4				39.5
Green Ext Time (p_c), s		0.1	0.1	25.7				34.2

Intersection Summary	
HCM 2010 Ctrl Delay	21.6
HCM 2010 LOS	C

Notes

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	19	1512	72	7	1207
Future Volume (vph)	19	1512	72	7	1207
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	2	1	6	8	1
Permitted Phases					8
Detector Phase	2	1	6	8	1
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	9.2	16.2	32.8	9.2
Total Split (s)	28.2	59.0	87.2	32.8	59.0
Total Split (%)	23.5%	49.2%	72.7%	27.3%	49.2%
Yellow Time (s)	5.2	3.2	5.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.2	6.2	5.8	4.2
Lead/Lag	Lead	Lag			Lag
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	C-Max	None	C-Max	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 17 (14%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 35: New Stetson Av. & Stetson Av.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	19	56	1512	72	7	1207
Future Volume (veh/h)	19	56	1512	72	7	1207
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	21	61	1643	78	8	1312
Adj No. of Lanes	1	0	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	77	225	1905	1469	399	1232
Arrive On Green	0.18	0.18	0.55	0.79	0.22	0.22
Sat Flow, veh/h	422	1225	3442	1863	1774	1583
Grp Volume(v), veh/h	0	82	1643	78	8	1312
Grp Sat Flow(s),veh/h/ln	0	1647	1721	1863	1774	1583
Q Serve(g_s), s	0.0	5.1	49.0	1.1	0.4	27.0
Cycle Q Clear(g_c), s	0.0	5.1	49.0	1.1	0.4	27.0
Prop In Lane		0.74	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	302	1905	1469	399	1232
V/C Ratio(X)	0.00	0.27	0.86	0.05	0.02	1.06
Avail Cap(c_a), veh/h	0	302	1905	1469	399	1232
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.54	0.54	0.52	0.52
Uniform Delay (d), s/veh	0.0	42.1	22.9	2.8	36.2	13.3
Incr Delay (d2), s/veh	0.0	2.2	2.3	0.0	0.0	38.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.5	23.7	0.6	0.2	23.7
LnGrp Delay(d),s/veh	0.0	44.3	25.2	2.8	36.2	51.8
LnGrp LOS		D	C	A	D	F
Approach Vol, veh/h	82			1721	1320	
Approach Delay, s/veh	44.3			24.2	51.7	
Approach LOS	D			C	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	72.6	28.2				100.8		32.8
Change Period (Y+Rc), s	6.2	* 6.2				6.2		5.8
Max Green Setting (Gmax), s	54.8	* 22				81.0		27.0
Max Q Clear Time (g_c+I1), s	51.0	7.1				3.1		29.0
Green Ext Time (p_c), s	1.8	0.2				4.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

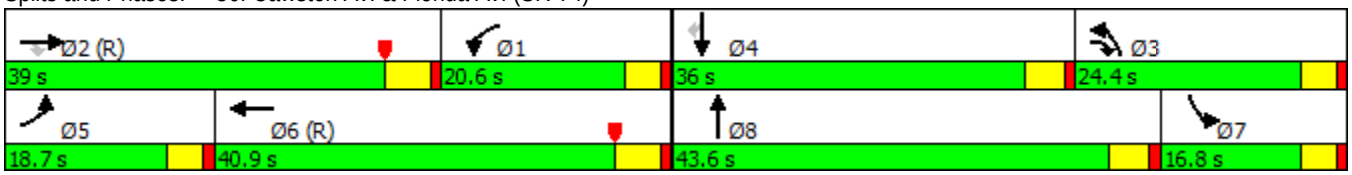
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	151	1136	666	267	1049	374	206	86	458	178
Future Volume (vph)	151	1136	666	267	1049	374	206	86	458	178
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	3	1	6	3	8	7	4	
Permitted Phases			2							4
Detector Phase	5	2	3	1	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	9.2	9.2	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	18.7	39.0	24.4	20.6	40.9	24.4	43.6	16.8	36.0	36.0
Total Split (%)	15.6%	32.5%	20.3%	17.2%	34.1%	20.3%	36.3%	14.0%	30.0%	30.0%
Yellow Time (s)	3.2	4.1	3.2	3.2	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	4.2	4.2	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 54 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	1136	666	267	1049	28	374	206	175	86	458	178
Future Volume (veh/h)	151	1136	666	267	1049	28	374	206	175	86	458	178
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	156	1171	686	275	1081	13	386	212	177	89	472	116
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	1437	654	296	1833	22	450	610	485	119	487	414
Arrive On Green	0.10	0.28	0.28	0.17	0.35	0.35	0.13	0.32	0.32	0.07	0.26	0.26
Sat Flow, veh/h	1774	5085	1583	1774	5180	62	3442	1877	1491	1774	1863	1583
Grp Volume(v), veh/h	156	1171	686	275	707	387	386	199	190	89	472	116
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1852	1721	1770	1598	1774	1863	1583
Q Serve(g_s), s	10.4	25.8	33.9	18.3	20.4	20.5	13.2	10.3	10.9	5.9	30.1	5.3
Cycle Q Clear(g_c), s	10.4	25.8	33.9	18.3	20.4	20.5	13.2	10.3	10.9	5.9	30.1	5.3
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.93	1.00		1.00
Lane Grp Cap(c), veh/h	183	1437	654	296	1200	655	450	575	519	119	487	414
V/C Ratio(X)	0.85	0.82	1.05	0.93	0.59	0.59	0.86	0.35	0.37	0.75	0.97	0.28
Avail Cap(c_a), veh/h	214	1437	654	296	1200	655	579	575	519	186	487	414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	40.1	35.2	49.3	31.7	31.7	51.1	30.8	31.0	54.9	43.8	20.5
Incr Delay (d2), s/veh	21.7	5.2	48.6	33.7	2.1	3.9	8.3	1.7	2.0	3.4	33.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	12.7	23.6	11.8	9.9	11.1	6.8	5.3	5.1	3.0	20.0	2.5
LnGrp Delay(d),s/veh	74.6	45.3	83.8	83.0	33.8	35.5	59.4	32.5	33.0	58.4	77.4	22.1
LnGrp LOS	E	D	F	F	C	D	E	C	C	E	E	C
Approach Vol, veh/h		2013			1369			775			677	
Approach Delay, s/veh		60.7			44.2			46.0			65.5	
Approach LOS		E			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.1	39.0	19.9	36.0	16.6	47.6	12.3	43.6
Change Period (Y+Rc), s	5.1	* 5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	16.4	* 34	20.2	* 31	* 15	35.8	12.6	* 39
Max Q Clear Time (g_c+I1), s	20.3	35.9	15.2	32.1	12.4	22.5	7.9	12.9
Green Ext Time (p_c), s	0.0	0.0	0.5	0.0	0.0	7.7	0.5	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	54.3
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	153	983	212	1352	60	77	123	176	60	121	155
Future Volume (vph)	153	983	212	1352	60	77	123	176	60	121	155
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	22.0	65.0	28.0	71.0	71.0	27.0	27.0	27.0	27.0	27.0	27.0
Total Split (%)	18.3%	54.2%	23.3%	59.2%	59.2%	22.5%	22.5%	22.5%	22.5%	22.5%	22.5%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 44 (37%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 37: Cawston Av. & Stetson Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	983	91	212	1352	60	77	123	176	60	121	155
Future Volume (veh/h)	153	983	91	212	1352	60	77	123	176	60	121	155
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	187	1199	109	259	1649	66	94	150	76	73	148	172
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	1738	158	282	2015	902	178	340	289	188	340	285
Arrive On Green	0.24	1.00	1.00	0.32	1.00	1.00	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1774	3282	298	1774	3539	1583	1055	1863	1583	1150	1863	1562
Grp Volume(v), veh/h	187	645	663	259	1649	66	94	150	76	73	148	172
Grp Sat Flow(s),veh/h/ln	1774	1770	1810	1774	1770	1583	1055	1863	1583	1150	1863	1562
Q Serve(g_s), s	12.2	0.0	0.0	16.9	0.0	0.0	10.4	8.6	4.9	7.2	8.5	12.1
Cycle Q Clear(g_c), s	12.2	0.0	0.0	16.9	0.0	0.0	18.9	8.6	4.9	15.8	8.5	12.1
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	937	959	282	2015	902	178	340	289	188	340	285
V/C Ratio(X)	0.89	0.69	0.69	0.92	0.82	0.07	0.53	0.44	0.26	0.39	0.44	0.60
Avail Cap(c_a), veh/h	263	937	959	352	2015	902	178	340	289	188	340	285
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.34	0.34	0.34	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	0.0	0.0	40.2	0.0	0.0	51.9	43.6	42.1	50.6	43.6	45.1
Incr Delay (d2), s/veh	8.9	1.4	1.4	3.1	0.4	0.0	10.7	4.1	2.2	6.0	4.0	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.4	0.4	8.4	0.1	0.0	3.6	4.8	2.3	2.6	4.7	6.0
LnGrp Delay(d),s/veh	53.9	1.4	1.4	43.3	0.4	0.0	62.7	47.7	44.3	56.6	47.6	54.2
LnGrp LOS	D	A	A	D	A	A	E	D	D	E	D	D
Approach Vol, veh/h		1495			1974			320			393	
Approach Delay, s/veh		8.0			6.0			51.3			52.2	
Approach LOS		A			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	23.2	69.8		27.0	18.5	74.5		27.0
Change Period (Y+Rc), s	* 4.2	6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	* 24	58.8		21.9	* 18	64.8		21.9
Max Q Clear Time (g_c+I1), s	18.9	2.0		17.8	14.2	2.0		20.9
Green Ext Time (p_c), s	0.2	23.7		0.9	0.1	24.5		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B

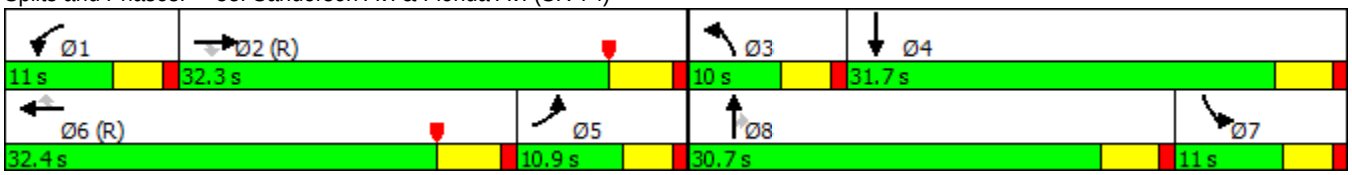
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	162	723	233	329	757	344	134	886	245	321	1021
Future Volume (vph)	162	723	233	329	757	344	134	886	245	321	1021
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6		3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	6	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7
Total Split (s)	10.9	32.3	32.3	11.0	32.4	32.4	10.0	30.7	30.7	11.0	31.7
Total Split (%)	12.8%	38.0%	38.0%	12.9%	38.1%	38.1%	11.8%	36.1%	36.1%	12.9%	37.3%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	723	233	329	757	344	134	886	245	321	1021	113
Future Volume (veh/h)	162	723	233	329	757	344	134	886	245	321	1021	113
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	178	795	227	362	832	319	147	974	159	353	1122	72
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1091	2013	887	275	1137	499	218	1556	469	275	1604	103
Arrive On Green	0.32	0.57	0.57	0.08	0.32	0.32	0.06	0.31	0.31	0.08	0.33	0.33
Sat Flow, veh/h	3442	3539	1560	3442	3539	1555	3442	5085	1535	3442	4884	313
Grp Volume(v), veh/h	178	795	227	362	832	319	147	974	159	353	779	415
Grp Sat Flow(s),veh/h/ln	1721	1770	1560	1721	1770	1555	1721	1695	1535	1721	1695	1807
Q Serve(g_s), s	3.2	10.6	6.2	6.8	17.7	14.9	3.6	14.0	7.5	6.8	17.0	17.0
Cycle Q Clear(g_c), s	3.2	10.6	6.2	6.8	17.7	14.9	3.6	14.0	7.5	6.8	17.0	17.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	1091	2013	887	275	1137	499	218	1556	469	275	1113	594
V/C Ratio(X)	0.16	0.39	0.26	1.31	0.73	0.64	0.67	0.63	0.34	1.28	0.70	0.70
Avail Cap(c_a), veh/h	1091	2013	887	275	1137	499	235	1556	469	275	1113	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.9	10.2	9.2	39.1	25.6	24.6	38.9	25.3	27.7	39.1	24.9	24.9
Incr Delay (d2), s/veh	0.0	0.6	0.7	165.1	4.2	6.1	5.1	1.9	2.0	151.8	3.7	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.4	2.9	9.5	9.3	7.2	1.9	6.8	3.4	9.0	8.5	9.5
LnGrp Delay(d),s/veh	20.9	10.8	9.9	204.2	29.8	30.8	44.1	27.2	29.6	190.9	28.5	31.6
LnGrp LOS	C	B	A	F	C	C	D	C	C	F	C	C
Approach Vol, veh/h		1200			1513			1280			1547	
Approach Delay, s/veh		12.1			71.7			29.5			66.4	
Approach LOS		B			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	54.0	9.6	32.6	32.6	32.4	11.5	30.7
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	* 4.7	5.1	* 5.1	* 4.7	* 4.7
Max Green Setting (Gmax), s	* 6.8	27.2	* 5.8	* 27	6.7	* 27	* 6.8	* 26
Max Q Clear Time (g_c+I1), s	8.8	12.6	5.6	19.0	5.2	19.7	8.8	16.0
Green Ext Time (p_c), s	0.0	7.3	0.0	5.0	0.8	4.8	0.0	5.1

Intersection Summary	
HCM 2010 Ctrl Delay	47.6
HCM 2010 LOS	D

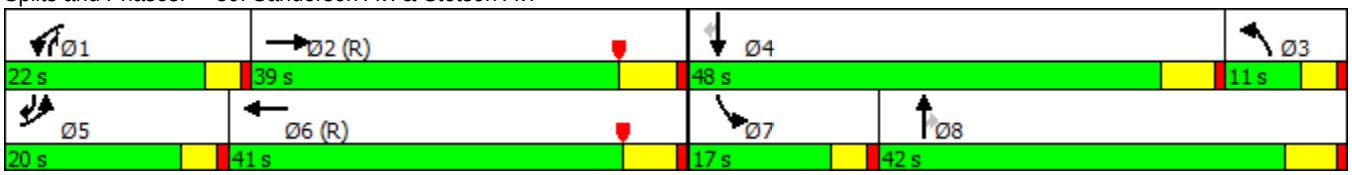
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	427	635	282	1050	178	1024	123	276	1055	396
Future Volume (vph)	427	635	282	1050	178	1024	123	276	1055	396
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8	1	7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8	9.2
Total Split (s)	20.0	39.0	22.0	41.0	11.0	42.0	22.0	17.0	48.0	20.0
Total Split (%)	16.7%	32.5%	18.3%	34.2%	9.2%	35.0%	18.3%	14.2%	40.0%	16.7%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 12.8 (11%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	427	635	157	282	1050	385	178	1024	123	276	1055	396
Future Volume (veh/h)	427	635	157	282	1050	385	178	1024	123	276	1055	396
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	497	738	182	328	1221	431	207	1191	-237	321	1227	454
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	453	3505	854	387	3132	1103	195	1115	677	367	1245	765
Arrive On Green	0.13	0.86	0.86	0.11	0.84	0.84	0.06	0.31	0.00	0.11	0.35	0.35
Sat Flow, veh/h	3442	4063	990	3442	3714	1308	3442	3539	1583	3442	3539	1582
Grp Volume(v), veh/h	497	614	306	328	1114	538	207	1191	-237	321	1227	454
Grp Sat Flow(s),veh/h/ln	1721	1695	1663	1721	1695	1632	1721	1770	1583	1721	1770	1582
Q Serve(g_s), s	15.8	3.7	3.7	11.2	9.2	9.2	6.8	37.8	0.0	11.0	41.3	42.2
Cycle Q Clear(g_c), s	15.8	3.7	3.7	11.2	9.2	9.2	6.8	37.8	0.0	11.0	41.3	42.2
Prop In Lane	1.00		0.60	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	453	2924	1434	387	2859	1376	195	1115	677	367	1245	765
V/C Ratio(X)	1.10	0.21	0.21	0.85	0.39	0.39	1.06	1.07	-0.35	0.87	0.99	0.59
Avail Cap(c_a), veh/h	453	2924	1434	511	2859	1376	195	1115	677	367	1245	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	1.4	1.4	52.2	2.2	2.2	56.6	41.1	0.0	52.8	38.6	68.7
Incr Delay (d2), s/veh	64.5	0.1	0.2	7.9	0.4	0.8	81.6	47.2	0.0	19.5	22.3	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	1.7	1.7	5.8	4.3	4.4	5.4	25.7	0.0	6.3	24.0	21.8
LnGrp Delay(d),s/veh	116.6	1.5	1.6	60.2	2.6	3.0	138.2	88.3	0.0	72.3	60.9	72.1
LnGrp LOS	F	A	A	E	A	A	F	F		E	E	E
Approach Vol, veh/h		1417			1980			1161			2002	
Approach Delay, s/veh		41.9			12.3			115.2			65.3	
Approach LOS		D			B			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.7	111.7	12.6	48.0	20.0	109.4	17.0	43.6
Change Period (Y+Rc), s	* 4.2	6.2	5.8	* 5.8	* 4.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 18	32.8	6.8	* 42	* 16	* 35	* 13	36.2
Max Q Clear Time (g_c+I1), s	13.2	5.7	8.8	44.2	17.8	11.2	13.0	39.8
Green Ext Time (p_c), s	0.3	19.7	0.0	0.0	0.0	18.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	53.1
HCM 2010 LOS	D

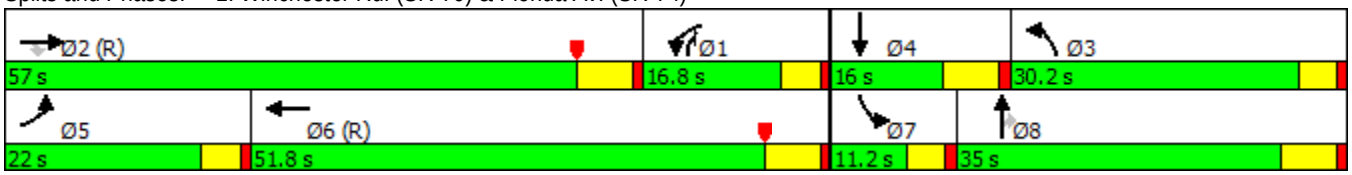
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	260	1873	216	329	1631	567	481	458	47	56
Future Volume (vph)	260	1873	216	329	1631	567	481	458	47	56
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2		1	6	3	8	1	7	4
Permitted Phases			2					8		
Detector Phase	5	2	2	1	6	3	8	1	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	16.0	16.0	9.6	16.0	11.2	16.0	9.6	11.2	16.0
Total Split (s)	22.0	57.0	57.0	16.8	51.8	30.2	35.0	16.8	11.2	16.0
Total Split (%)	18.3%	47.5%	47.5%	14.0%	43.2%	25.2%	29.2%	14.0%	9.3%	13.3%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	4.5	6.0	4.5	4.5	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 18.2 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	1873	216	329	1631	360	567	481	458	47	56	80
Future Volume (veh/h)	260	1873	216	329	1631	360	567	481	458	47	56	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	295	2128	198	374	1853	403	644	547	312	53	64	86
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	2161	673	1451	2996	638	701	486	1081	68	59	80
Arrive On Green	0.15	0.43	0.43	0.42	0.71	0.71	0.20	0.26	0.26	0.04	0.08	0.08
Sat Flow, veh/h	1774	5085	1583	3442	4200	895	3442	1863	1583	1774	714	959
Grp Volume(v), veh/h	295	2128	198	374	1488	768	644	547	312	53	0	150
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1705	1721	1863	1583	1774	0	1673
Q Serve(g_s), s	17.5	49.7	9.9	8.5	26.9	28.2	22.0	31.3	2.2	3.6	0.0	10.0
Cycle Q Clear(g_c), s	17.5	49.7	9.9	8.5	26.9	28.2	22.0	31.3	2.2	3.6	0.0	10.0
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	259	2161	673	1451	2418	1216	701	486	1081	68	0	139
V/C Ratio(X)	1.14	0.98	0.29	0.26	0.62	0.63	0.92	1.13	0.29	0.78	0.00	1.08
Avail Cap(c_a), veh/h	259	2161	673	1451	2418	1216	737	486	1081	99	0	139
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.3	34.1	22.7	22.5	8.8	9.0	46.8	44.3	17.3	57.2	0.0	55.0
Incr Delay (d2), s/veh	99.1	16.1	1.1	0.0	1.2	2.5	15.7	79.8	0.7	12.0	0.0	98.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.7	26.3	4.5	4.0	12.8	13.9	12.0	26.8	6.3	2.0	0.0	8.4
LnGrp Delay(d),s/veh	150.4	50.2	23.8	22.5	10.0	11.5	62.5	124.1	18.0	69.2	0.0	153.0
LnGrp LOS	F	D	C	C	A	B	E	F	B	E		F
Approach Vol, veh/h		2621			2630			1503			203	
Approach Delay, s/veh		59.5			12.2			75.7			131.1	
Approach LOS		E			B			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	57.0	57.0	30.4	16.0	22.0	92.0	9.1	37.3
Change Period (Y+Rc), s	6.0	* 6	6.0	* 6	4.5	6.0	4.5	6.0
Max Green Setting (Gmax), s	12.3	* 51	25.7	* 10	17.5	45.8	6.7	29.0
Max Q Clear Time (g_c+I1), s	10.5	51.7	24.0	12.0	19.5	30.2	5.6	33.3
Green Ext Time (p_c), s	0.5	0.0	0.4	0.0	0.0	12.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	47.2
HCM 2010 LOS	D

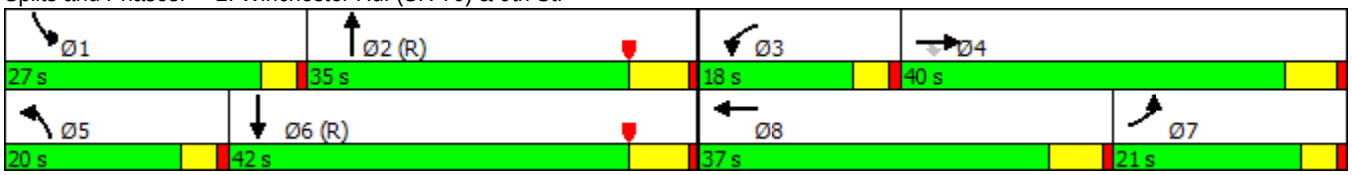
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	229	103	105	127	550	217	865	300	834
Future Volume (vph)	229	103	105	127	550	217	865	300	834
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.2	31.8	31.8	9.2	31.8	9.2	32.2	9.2	32.2
Total Split (s)	21.0	40.0	40.0	18.0	37.0	20.0	35.0	27.0	42.0
Total Split (%)	17.5%	33.3%	33.3%	15.0%	30.8%	16.7%	29.2%	22.5%	35.0%
Yellow Time (s)	3.2	4.8	4.8	3.2	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	5.8	4.2	5.8	4.2	6.2	4.2	6.2
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 55.8 (47%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	103	105	127	550	227	217	865	47	300	834	148
Future Volume (veh/h)	229	103	105	127	550	227	217	865	47	300	834	148
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	244	110	112	135	585	241	231	920	50	319	887	157
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	1127	504	161	626	258	234	1859	101	337	1812	321
Arrive On Green	0.14	0.32	0.32	0.09	0.26	0.26	0.04	0.18	0.18	0.19	0.60	0.60
Sat Flow, veh/h	1774	3539	1583	1774	2448	1007	1774	3414	186	1774	3006	532
Grp Volume(v), veh/h	244	110	112	135	423	403	231	477	493	319	522	522
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1685	1774	1770	1830	1774	1770	1769
Q Serve(g_s), s	16.5	2.6	6.2	9.0	28.0	28.1	15.6	29.1	29.1	21.3	20.0	20.0
Cycle Q Clear(g_c), s	16.5	2.6	6.2	9.0	28.0	28.1	15.6	29.1	29.1	21.3	20.0	20.0
Prop In Lane	1.00		1.00	1.00		0.60	1.00		0.10	1.00		0.30
Lane Grp Cap(c), veh/h	248	1127	504	161	453	431	234	963	996	337	1067	1066
V/C Ratio(X)	0.98	0.10	0.22	0.84	0.93	0.94	0.99	0.50	0.50	0.95	0.49	0.49
Avail Cap(c_a), veh/h	248	1127	504	204	460	438	234	963	996	337	1067	1066
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.71	0.71	0.71	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	28.8	30.0	53.7	43.6	43.7	57.3	34.4	34.4	48.0	13.4	13.4
Incr Delay (d2), s/veh	51.9	0.0	0.2	17.5	26.0	27.3	46.4	1.3	1.3	34.8	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	1.3	2.8	5.2	17.0	16.4	10.7	14.6	15.1	13.7	10.2	10.2
LnGrp Delay(d),s/veh	103.3	28.8	30.2	71.2	69.6	70.9	103.7	35.7	35.6	82.8	15.0	15.0
LnGrp LOS	F	C	C	E	E	E	F	D	D	F	B	B
Approach Vol, veh/h		466			961			1201			1363	
Approach Delay, s/veh		68.2			70.4			48.7			30.9	
Approach LOS		E			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	72.6	15.1	44.0	20.0	79.6	22.6	36.5
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	* 4.2	6.2	5.8	* 5.8
Max Green Setting (Gmax), s	* 23	28.8	* 14	34.2	* 16	35.8	16.8	* 31
Max Q Clear Time (g_c+I1), s	23.3	31.1	11.0	8.2	17.6	22.0	18.5	30.1
Green Ext Time (p_c), s	0.0	0.0	0.0	1.4	0.0	11.3	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	50.1
HCM 2010 LOS	D

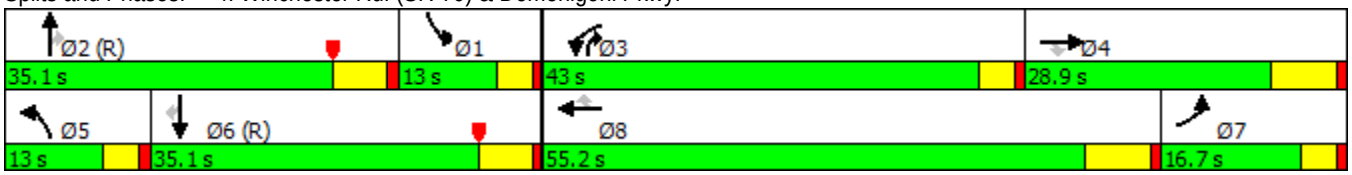
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	189	702	60	493	1338	114	87	539	835	79	153	192
Future Volume (vph)	189	702	60	493	1338	114	87	539	835	79	153	192
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8	9.2	9.2	33.8	33.8
Total Split (s)	16.7	28.9	28.9	43.0	55.2	55.2	13.0	35.1	43.0	13.0	35.1	35.1
Total Split (%)	13.9%	24.1%	24.1%	35.8%	46.0%	46.0%	10.8%	29.3%	35.8%	10.8%	29.3%	29.3%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	3.2	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	4.2	4.2	5.8	5.8
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 110 (92%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	702	60	493	1338	114	87	539	835	79	153	192
Future Volume (veh/h)	189	702	60	493	1338	114	87	539	835	79	153	192
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	201	747	33	524	1423	111	93	573	473	84	163	95
Adj No. of Lanes	2	3	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	264	1406	438	602	1791	558	116	864	664	205	1088	487
Arrive On Green	0.08	0.28	0.28	0.06	0.12	0.12	0.07	0.24	0.24	0.12	0.31	0.31
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	201	747	33	524	1423	111	93	573	473	84	163	95
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.9	15.0	1.8	18.1	32.7	7.6	6.2	17.5	17.1	5.3	4.0	3.9
Cycle Q Clear(g_c), s	6.9	15.0	1.8	18.1	32.7	7.6	6.2	17.5	17.1	5.3	4.0	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	1406	438	602	1791	558	116	864	664	205	1088	487
V/C Ratio(X)	0.76	0.53	0.08	0.87	0.79	0.20	0.80	0.66	0.71	0.41	0.15	0.20
Avail Cap(c_a), veh/h	359	1406	438	1113	2047	637	130	864	664	205	1088	487
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.18	0.18	0.18	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	54.3	36.8	32.1	55.2	48.8	37.7	55.3	40.9	11.8	49.3	30.2	16.6
Incr Delay (d2), s/veh	4.0	0.4	0.1	0.3	0.4	0.0	23.7	4.0	6.4	0.5	0.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	7.0	0.8	8.7	15.4	3.3	3.8	9.1	8.5	2.6	2.0	1.8
LnGrp Delay(d),s/veh	58.3	37.2	32.2	55.5	49.2	37.7	79.0	44.9	18.2	49.8	30.4	17.5
LnGrp LOS	E	D	C	E	D	D	E	D	B	D	C	B
Approach Vol, veh/h		981			2058			1139			342	
Approach Delay, s/veh		41.4			50.2			36.6			31.6	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	35.1	25.2	40.1	12.0	42.7	16.1	49.2
Change Period (Y+Rc), s	5.8	* 5.8	* 4.2	6.9	* 4.2	5.8	6.9	* 6.9
Max Green Setting (Gmax), s	8.8	* 29	* 39	22.0	* 8.8	29.3	12.5	* 48
Max Q Clear Time (g_c+I1), s	7.3	19.5	20.1	17.0	8.2	6.0	8.9	34.7
Green Ext Time (p_c), s	0.1	5.0	0.9	2.2	0.0	1.7	0.3	7.6

Intersection Summary	
HCM 2010 Ctrl Delay	43.4
HCM 2010 LOS	D

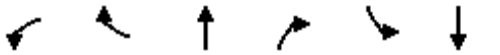
Notes

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	328	406	222	350	241	136
Future Volume (vph)	328	406	222	350	241	136
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	24.2	16.2	24.2	24.2	16.2	24.2
Total Split (s)	47.0	38.0	35.0	47.0	38.0	73.0
Total Split (%)	39.2%	31.7%	29.2%	39.2%	31.7%	60.8%
Yellow Time (s)	3.6	3.6	4.8	3.6	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	4.6	4.6	5.8
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 5: Patterson Av. & Grand Av.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	328	406	222	350	241	136
Future Volume (veh/h)	328	406	222	350	241	136
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	566	700	383	603	416	234
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.58	0.58	0.58	0.58	0.58	0.58
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	611	940	524	991	442	1059
Arrive On Green	0.34	0.34	0.28	0.28	0.25	0.57
Sat Flow, veh/h	1774	1583	1863	1583	1774	1863
Grp Volume(v), veh/h	566	700	383	603	416	234
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863
Q Serve(g_s), s	36.9	38.7	22.3	27.6	27.6	7.4
Cycle Q Clear(g_c), s	36.9	38.7	22.3	27.6	27.6	7.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	611	940	524	991	442	1059
V/C Ratio(X)	0.93	0.74	0.73	0.61	0.94	0.22
Avail Cap(c_a), veh/h	627	954	524	991	494	1059
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	17.8	39.0	13.6	44.2	12.8
Incr Delay (d2), s/veh	19.2	2.8	8.7	2.8	24.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.3	17.4	12.8	20.7	16.5	4.0
LnGrp Delay(d),s/veh	57.0	20.6	47.7	16.3	68.5	13.2
LnGrp LOS	E	C	D	B	E	B
Approach Vol, veh/h	1266		986			650
Approach Delay, s/veh	36.9		28.5			48.6
Approach LOS	D		C			D

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	34.5	39.6				74.1		45.9
Change Period (Y+Rc), s	4.6	5.8				5.8		4.6
Max Green Setting (Gmax), s	33.4	29.2				67.2		42.4
Max Q Clear Time (g_c+I1), s	29.6	29.6				9.4		40.7
Green Ext Time (p_c), s	0.3	0.0				6.7		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	36.7
HCM 2010 LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	134	1177	771	1607	278	308	835	179	202	59
Future Volume (vph)	134	1177	771	1607	278	308	835	179	202	59
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8	1	7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.8	9.2	32.8	9.2	32.8	9.2	9.2	32.8	32.8
Total Split (s)	14.2	40.2	27.0	53.0	20.0	35.2	27.0	17.6	32.8	32.8
Total Split (%)	11.8%	33.5%	22.5%	44.2%	16.7%	29.3%	22.5%	14.7%	27.3%	27.3%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	4.2	5.8	5.8
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 114 (95%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 6: Patterson Av. & Domenigoni Pkwy.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	1177	306	771	1607	252	278	308	835	179	202	59
Future Volume (veh/h)	134	1177	306	771	1607	252	278	308	835	179	202	59
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	135	1189	309	779	1623	255	281	311	843	181	204	60
Adj No. of Lanes	1	3	0	2	3	0	1	1	1	1	1	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	1153	300	2700	4442	695	234	481	1651	198	419	356
Arrive On Green	0.03	0.09	0.09	0.78	1.00	1.00	0.13	0.26	0.26	0.11	0.22	0.22
Sat Flow, veh/h	1774	4023	1045	3442	4436	694	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	135	1002	496	779	1239	639	281	311	843	181	204	60
Grp Sat Flow(s),veh/h/ln	1774	1695	1678	1721	1695	1740	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	9.1	34.4	34.4	7.6	0.0	0.0	15.8	17.8	18.9	12.1	11.4	5.8
Cycle Q Clear(g_c), s	9.1	34.4	34.4	7.6	0.0	0.0	15.8	17.8	18.9	12.1	11.4	5.8
Prop In Lane	1.00		0.62	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	148	972	481	2700	3395	1743	234	481	1651	198	419	356
V/C Ratio(X)	0.91	1.03	1.03	0.29	0.36	0.37	1.20	0.65	0.51	0.91	0.49	0.17
Avail Cap(c_a), veh/h	148	972	481	2700	3395	1743	234	481	1651	198	419	356
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.42	0.42	0.42	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.9	54.3	54.3	3.6	0.0	0.0	52.1	39.6	15.3	52.7	40.5	94.3
Incr Delay (d2), s/veh	26.9	27.2	34.9	0.0	0.3	0.6	124.8	6.6	1.1	39.9	4.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	19.8	20.7	3.6	0.1	0.3	15.8	10.0	18.0	8.1	6.4	2.6
LnGrp Delay(d),s/veh	84.8	81.6	89.2	3.6	0.3	0.6	176.9	46.2	16.5	92.6	44.5	95.3
LnGrp LOS	F	F	F	A	A	A	F	D	B	F	D	F
Approach Vol, veh/h		1633			2657			1435			445	
Approach Delay, s/veh		84.2			1.3			54.3			70.9	
Approach LOS		F			A			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	101.6	40.2	21.6	32.8	14.2	127.6	17.6	36.8
Change Period (Y+Rc), s	5.8	* 5.8	5.8	* 5.8	* 4.2	5.8	* 4.2	5.8
Max Green Setting (Gmax), s	22.8	* 34	15.8	* 27	* 10	47.2	* 13	29.4
Max Q Clear Time (g_c+I1), s	9.6	36.4	17.8	13.4	11.1	2.0	14.1	20.9
Green Ext Time (p_c), s	9.9	0.0	0.0	1.0	0.0	21.5	0.0	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	40.6
HCM 2010 LOS	D

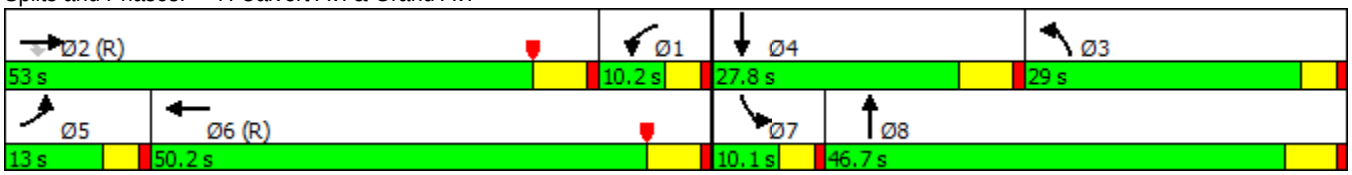
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	140	1018	293	77	1375	470	108	14	43
Future Volume (vph)	140	1018	293	77	1375	470	108	14	43
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	27.8	27.8	9.5	27.8	9.5	27.8	9.5	27.8
Total Split (s)	13.0	53.0	53.0	10.2	50.2	29.0	46.7	10.1	27.8
Total Split (%)	10.8%	44.2%	44.2%	8.5%	41.8%	24.2%	38.9%	8.4%	23.2%
Yellow Time (s)	3.2	4.8	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 7: Calvert Av. & Grand Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	1018	293	77	1375	37	470	108	94	14	43	88
Future Volume (veh/h)	140	1018	293	77	1375	37	470	108	94	14	43	88
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	152	1107	318	84	1495	40	511	117	102	15	47	96
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	1392	623	1228	3611	96	367	356	310	29	100	205
Arrive On Green	0.07	0.39	0.39	0.69	1.00	1.00	0.21	0.39	0.39	0.02	0.18	0.18
Sat Flow, veh/h	1774	3539	1583	1774	3522	94	1774	920	802	1774	547	1118
Grp Volume(v), veh/h	152	1107	318	84	750	785	511	0	219	15	0	143
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1846	1774	0	1721	1774	0	1665
Q Serve(g_s), s	8.8	33.1	18.3	1.8	0.0	0.0	24.8	0.0	10.7	1.0	0.0	9.2
Cycle Q Clear(g_c), s	8.8	33.1	18.3	1.8	0.0	0.0	24.8	0.0	10.7	1.0	0.0	9.2
Prop In Lane	1.00		1.00	1.00		0.05	1.00		0.47	1.00		0.67
Lane Grp Cap(c), veh/h	130	1392	623	1228	1815	1893	367	0	666	29	0	305
V/C Ratio(X)	1.17	0.80	0.51	0.07	0.41	0.41	1.39	0.00	0.33	0.52	0.00	0.47
Avail Cap(c_a), veh/h	130	1392	623	1228	1815	1893	367	0	666	87	0	305
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.6	32.1	27.6	6.0	0.0	0.0	47.6	0.0	25.8	58.5	0.0	43.8
Incr Delay (d2), s/veh	131.2	4.8	3.0	0.0	0.7	0.7	193.1	0.0	1.3	5.2	0.0	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	17.1	8.5	0.9	0.4	0.4	31.8	0.0	5.4	0.5	0.0	4.7
LnGrp Delay(d),s/veh	186.8	36.9	30.6	6.0	0.7	0.7	240.7	0.0	27.2	63.7	0.0	48.9
LnGrp LOS	F	D	C	A	A	A	F		C	E		D
Approach Vol, veh/h		1577			1619			730			158	
Approach Delay, s/veh		50.1			1.0			176.7			50.3	
Approach LOS		D			A			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	90.5	53.0	30.6	27.8	13.0	130.5	6.2	52.2
Change Period (Y+Rc), s	5.8	* 5.8	5.8	* 5.8	* 4.2	5.8	* 4.2	5.8
Max Green Setting (Gmax), s	6.0	* 47	24.8	* 22	* 8.8	44.4	* 5.9	40.9
Max Q Clear Time (g_c+I1), s	3.8	35.1	26.8	11.2	10.8	2.0	3.0	12.7
Green Ext Time (p_c), s	0.9	6.4	0.0	0.5	0.0	14.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	53.2
HCM 2010 LOS	D

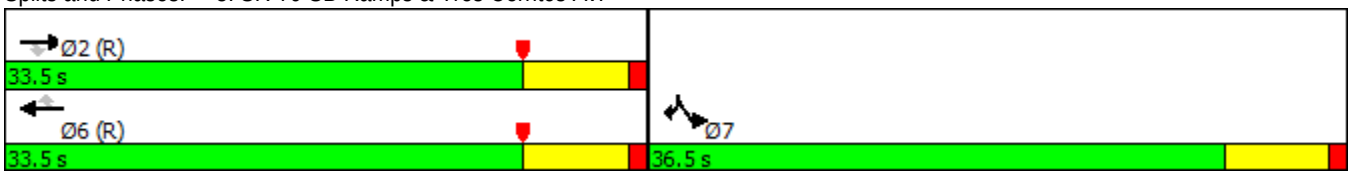
Notes

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	7	3	43	427	530	9
Future Volume (vph)	7	3	43	427	530	9
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	33.5	33.5	33.5	33.5	36.5	36.5
Total Split (%)	47.9%	47.9%	47.9%	47.9%	52.1%	52.1%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 8: SR-79 SB Ramps & Tres Cerritos Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	7	3	0	43	427	0	0	0	530	0	9
Future Volume (veh/h)	0	7	3	0	43	427	0	0	0	530	0	9
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	8	3	0	47	464				576	0	10
Adj No. of Lanes	0	2	1	0	2	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	1626	727	0	1626	727				630	0	562
Arrive On Green	0.00	0.46	0.46	0.00	0.46	0.46				0.35	0.00	0.35
Sat Flow, veh/h	0	3632	1583	0	3632	1583				1774	0	1583
Grp Volume(v), veh/h	0	8	3	0	47	464				576	0	10
Grp Sat Flow(s),veh/h/ln	0	1770	1583	0	1770	1583				1774	0	1583
Q Serve(g_s), s	0.0	0.1	0.1	0.0	0.5	15.7				21.7	0.0	0.3
Cycle Q Clear(g_c), s	0.0	0.1	0.1	0.0	0.5	15.7				21.7	0.0	0.3
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1626	727	0	1626	727				630	0	562
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.03	0.64				0.91	0.00	0.02
Avail Cap(c_a), veh/h	0	1626	727	0	1626	727				760	0	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.93	0.93				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	10.3	10.2	0.0	10.4	14.5				21.6	0.0	14.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	4.0				14.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.3	14.6				13.0	0.0	0.1
LnGrp Delay(d),s/veh	0.0	10.3	10.3	0.0	10.4	18.4				35.5	0.0	14.7
LnGrp LOS		B	B		B	B				D		B
Approach Vol, veh/h		11			511						586	
Approach Delay, s/veh		10.3			17.7						35.2	
Approach LOS		B			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		38.7		31.3		38.7		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		27.0		30.0		27.0		
Max Q Clear Time (g_c+I1), s		2.1		23.7		17.7		
Green Ext Time (p_c), s		3.2		1.1		2.1		

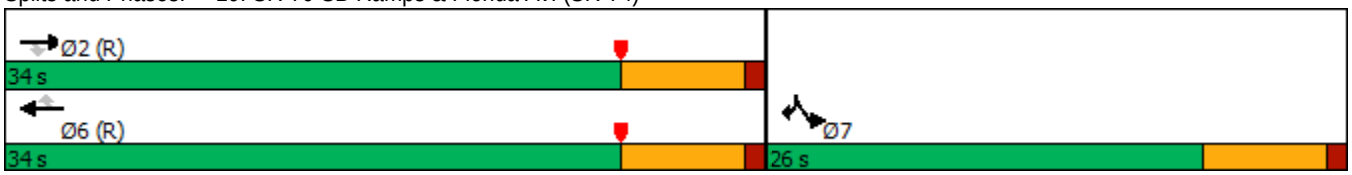
Intersection Summary	
HCM 2010 Ctrl Delay	26.9
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1885	328	2306	602	368	243
Future Volume (vph)	1885	328	2306	602	368	243
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	34.0	34.0	34.0	34.0	26.0	26.0
Total Split (%)	56.7%	56.7%	56.7%	56.7%	43.3%	43.3%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 19: SR-79 SB Ramps & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰		↱
Traffic Volume (veh/h)	0	1885	328	0	2306	602	0	0	0	368	0	243
Future Volume (veh/h)	0	1885	328	0	2306	602	0	0	0	368	0	243
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	2049	357	0	2507	654				400	0	264
Adj No. of Lanes	0	3	1	0	3	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	2637	821	0	2637	821				470	0	419
Arrive On Green	0.00	0.52	0.52	0.00	0.52	0.52				0.26	0.00	0.26
Sat Flow, veh/h	0	5253	1583	0	5253	1583				1774	0	1583
Grp Volume(v), veh/h	0	2049	357	0	2507	654				400	0	264
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1774	0	1583
Q Serve(g_s), s	0.0	19.5	8.4	0.0	28.1	20.3				12.8	0.0	8.8
Cycle Q Clear(g_c), s	0.0	19.5	8.4	0.0	28.1	20.3				12.8	0.0	8.8
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2637	821	0	2637	821				470	0	419
V/C Ratio(X)	0.00	0.78	0.43	0.00	0.95	0.80				0.85	0.00	0.63
Avail Cap(c_a), veh/h	0	2637	821	0	2637	821				577	0	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.09	0.09				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.6	9.0	0.0	13.7	11.8				20.9	0.0	19.5
Incr Delay (d2), s/veh	0.0	2.3	1.7	0.0	1.1	0.8				10.0	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.5	4.1	0.0	13.3	8.9				7.5	0.0	4.0
LnGrp Delay(d),s/veh	0.0	14.0	10.7	0.0	14.8	12.6				30.9	0.0	21.2
LnGrp LOS		B	B		B	B				C		C
Approach Vol, veh/h		2406			3161						664	
Approach Delay, s/veh		13.5			14.4						27.0	
Approach LOS		B			B						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		37.6		22.4		37.6		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		27.5		19.5		27.5		
Max Q Clear Time (g_c+I1), s		21.5		14.8		30.1		
Green Ext Time (p_c), s		5.3		1.0		0.0		

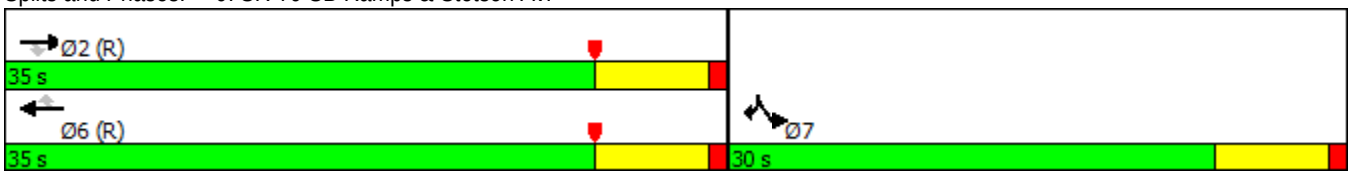
Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	846	285	1250	729	414	218
Future Volume (vph)	846	285	1250	729	414	218
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	35.0	35.0	35.0	35.0	30.0	30.0
Total Split (%)	53.8%	53.8%	53.8%	53.8%	46.2%	46.2%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 9: SR-79 SB Ramps & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	846	285	0	1250	729	0	0	0	414	0	218
Future Volume (veh/h)	0	846	285	0	1250	729	0	0	0	414	0	218
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	920	310	0	1359	792				450	0	237
Adj No. of Lanes	0	2	1	0	2	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	1801	806	0	1801	806				516	0	461
Arrive On Green	0.00	0.51	0.51	0.00	1.00	1.00				0.29	0.00	0.29
Sat Flow, veh/h	0	3632	1583	0	3632	1583				1774	0	1583
Grp Volume(v), veh/h	0	920	310	0	1359	792				450	0	237
Grp Sat Flow(s),veh/h/ln	0	1770	1583	0	1770	1583				1774	0	1583
Q Serve(g_s), s	0.0	11.2	7.8	0.0	0.0	0.0				15.7	0.0	8.1
Cycle Q Clear(g_c), s	0.0	11.2	7.8	0.0	0.0	0.0				15.7	0.0	8.1
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1801	806	0	1801	806				516	0	461
V/C Ratio(X)	0.00	0.51	0.38	0.00	0.75	0.98				0.87	0.00	0.51
Avail Cap(c_a), veh/h	0	1801	806	0	1801	806				641	0	572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.25	0.25				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	10.6	9.7	0.0	0.0	0.0				21.9	0.0	19.2
Incr Delay (d2), s/veh	0.0	1.0	1.4	0.0	0.8	12.4				10.6	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.6	3.7	0.0	0.2	17.1				9.1	0.0	3.7
LnGrp Delay(d),s/veh	0.0	11.6	11.1	0.0	0.8	12.4				32.5	0.0	20.1
LnGrp LOS		B	B		A	B				C		C
Approach Vol, veh/h		1230			2151						687	
Approach Delay, s/veh		11.5			5.0						28.2	
Approach LOS		B			A						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		39.6		25.4		39.6		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		28.5		23.5		28.5		
Max Q Clear Time (g_c+I1), s		13.2		17.7		2.0		
Green Ext Time (p_c), s		13.7		1.3		22.4		

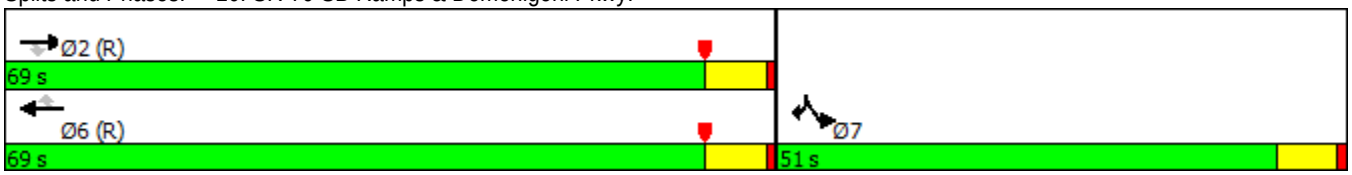
Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1944	247	2300	363	274	330
Future Volume (vph)	1944	247	2300	363	274	330
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	69.0	69.0	69.0	69.0	51.0	51.0
Total Split (%)	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 10: SR-79 SB Ramps & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰		↱
Traffic Volume (veh/h)	0	1944	247	0	2300	363	0	0	0	274	0	330
Future Volume (veh/h)	0	1944	247	0	2300	363	0	0	0	274	0	330
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	2113	268	0	2500	395				298	0	359
Adj No. of Lanes	0	3	1	0	3	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3252	1013	0	3252	1013				447	0	399
Arrive On Green	0.00	0.64	0.64	0.00	1.00	1.00				0.25	0.00	0.25
Sat Flow, veh/h	0	5253	1583	0	5253	1583				1774	0	1583
Grp Volume(v), veh/h	0	2113	268	0	2500	395				298	0	359
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1774	0	1583
Q Serve(g_s), s	0.0	30.8	8.8	0.0	0.0	0.0				18.1	0.0	26.3
Cycle Q Clear(g_c), s	0.0	30.8	8.8	0.0	0.0	0.0				18.1	0.0	26.3
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3252	1013	0	3252	1013				447	0	399
V/C Ratio(X)	0.00	0.65	0.26	0.00	0.77	0.39				0.67	0.00	0.90
Avail Cap(c_a), veh/h	0	3252	1013	0	3252	1013				658	0	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.51	0.51				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.3	9.4	0.0	0.0	0.0				40.3	0.0	43.4
Incr Delay (d2), s/veh	0.0	1.0	0.6	0.0	0.9	0.6				1.7	0.0	12.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	14.6	4.0	0.0	0.3	13.3				9.1	0.0	12.8
LnGrp Delay(d),s/veh	0.0	14.4	10.0	0.0	0.9	0.6				42.0	0.0	55.7
LnGrp LOS		B	B		A	A				D		E
Approach Vol, veh/h		2381			2895						657	
Approach Delay, s/veh		13.9			0.9						49.5	
Approach LOS		B			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		83.2		36.8		83.2		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		62.5		44.5		62.5		
Max Q Clear Time (g_c+I1), s		32.8		28.3		2.0		
Green Ext Time (p_c), s		29.3		1.9		58.7		

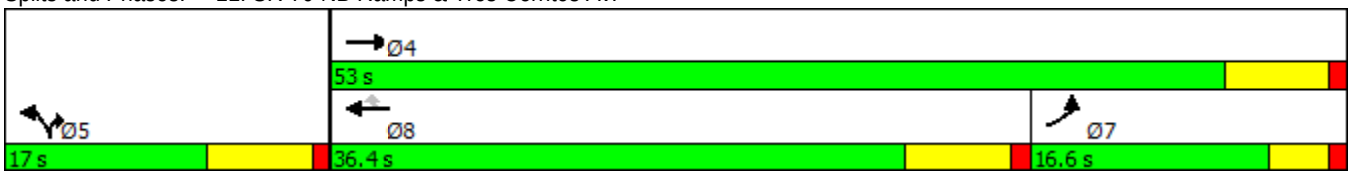
Intersection Summary	
HCM 2010 Ctrl Delay	11.5
HCM 2010 LOS	B

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	213	324	333	250	137	153
Future Volume (vph)	213	324	333	250	137	153
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	7	4	8		5	5
Permitted Phases				8		
Detector Phase	7	4	8	8	5	5
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	16.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	16.6	53.0	36.4	36.4	17.0	17.0
Total Split (%)	23.7%	75.7%	52.0%	52.0%	24.3%	24.3%
Yellow Time (s)	3.2	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 11: SR-79 NB Ramps & Tres Cerritos Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	324	0	0	333	250	137	0	153	0	0	0
Future Volume (veh/h)	213	324	0	0	333	250	137	0	153	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	232	352	0	0	362	272	149	0	166			
Adj No. of Lanes	1	2	0	0	2	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	288	1769	0	0	866	387	558	0	498			
Arrive On Green	0.05	0.16	0.00	0.00	0.24	0.24	0.31	0.00	0.31			
Sat Flow, veh/h	1774	3632	0	0	3632	1583	1774	0	1583			
Grp Volume(v), veh/h	232	352	0	0	362	272	149	0	166			
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1583	1774	0	1583			
Q Serve(g_s), s	9.1	6.0	0.0	0.0	6.0	11.0	4.4	0.0	5.6			
Cycle Q Clear(g_c), s	9.1	6.0	0.0	0.0	6.0	11.0	4.4	0.0	5.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	288	1769	0	0	866	387	558	0	498			
V/C Ratio(X)	0.80	0.20	0.00	0.00	0.42	0.70	0.27	0.00	0.33			
Avail Cap(c_a), veh/h	314	2351	0	0	1512	676	558	0	498			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.42	0.42	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	32.0	17.1	0.0	0.0	22.3	24.1	18.0	0.0	18.4			
Incr Delay (d2), s/veh	5.3	0.0	0.0	0.0	0.5	3.3	0.3	0.0	0.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.9	3.0	0.0	0.0	3.0	5.1	2.2	0.0	2.5			
LnGrp Delay(d),s/veh	37.4	17.2	0.0	0.0	22.7	27.4	18.2	0.0	18.8			
LnGrp LOS	D	B			C	C	B		B			
Approach Vol, veh/h		584			634			315				
Approach Delay, s/veh		25.2			24.7			18.5				
Approach LOS		C			C			B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		28.5		41.5			17.9	23.6
Change Period (Y+Rc), s		6.5		6.5			6.5	* 6.5
Max Green Setting (Gmax), s		10.5		46.5			12.4	* 30
Max Q Clear Time (g_c+I1), s		7.6		8.0			11.1	13.0
Green Ext Time (p_c), s		0.3		3.3			0.5	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

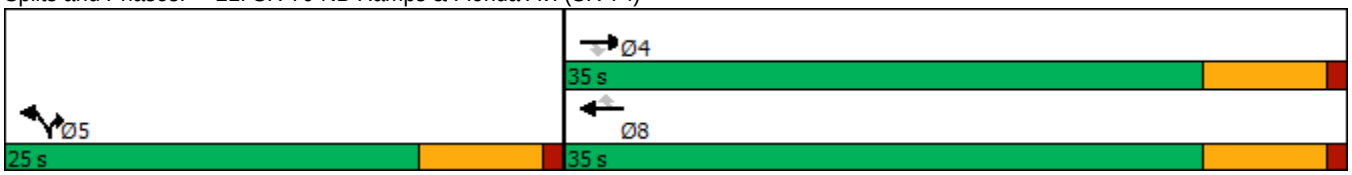
Notes

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1887	366	2573	454	335	306
Future Volume (vph)	1887	366	2573	454	335	306
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	4		8		5	5
Permitted Phases		4		8		
Detector Phase	4	4	8	8	5	5
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	35.0	35.0	35.0	35.0	25.0	25.0
Total Split (%)	58.3%	58.3%	58.3%	58.3%	41.7%	41.7%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 28 (47%), Referenced to phase 2: and 6:, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 21: SR-79 NB Ramps & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1887	366	0	2573	454	335	0	306	0	0	0
Future Volume (veh/h)	0	1887	366	0	2573	454	335	0	306	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	2051	398	0	2797	493	364	0	333			
Adj No. of Lanes	0	3	1	0	3	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	2416	752	0	2416	752	547	0	488			
Arrive On Green	0.00	0.95	0.95	0.00	0.47	0.47	0.31	0.00	0.31			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	1583			
Grp Volume(v), veh/h	0	2051	398	0	2797	493	364	0	333			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1583			
Q Serve(g_s), s	0.0	6.3	1.5	0.0	28.5	14.2	10.7	0.0	11.1			
Cycle Q Clear(g_c), s	0.0	6.3	1.5	0.0	28.5	14.2	10.7	0.0	11.1			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2416	752	0	2416	752	547	0	488			
V/C Ratio(X)	0.00	0.85	0.53	0.00	1.16	0.66	0.67	0.00	0.68			
Avail Cap(c_a), veh/h	0	2416	752	0	2416	752	547	0	488			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.49	0.49	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.9	0.8	0.0	15.8	12.0	18.1	0.0	18.2			
Incr Delay (d2), s/veh	0.0	1.5	0.3	0.0	76.2	2.1	3.1	0.0	3.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.5	0.5	0.0	30.2	6.6	5.6	0.0	5.3			
LnGrp Delay(d),s/veh	0.0	2.5	1.2	0.0	91.9	14.1	21.1	0.0	22.0			
LnGrp LOS		A	A		F	B	C		C			
Approach Vol, veh/h		2449			3290			697				
Approach Delay, s/veh		2.3			80.3			21.6				
Approach LOS		A			F			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		25.0		35.0				35.0
Change Period (Y+Rc), s		6.5		6.5				6.5
Max Green Setting (Gmax), s		18.5		28.5				28.5
Max Q Clear Time (g_c+I1), s		13.1		8.3				30.5
Green Ext Time (p_c), s		1.2		15.2				0.0

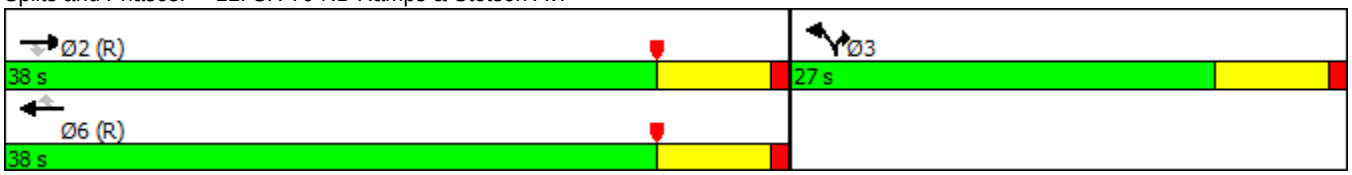
Intersection Summary	
HCM 2010 Ctrl Delay	44.2
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	986	274	1589	306	390	251
Future Volume (vph)	986	274	1589	306	390	251
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		3	3
Permitted Phases		2		6		
Detector Phase	2	2	6	6	3	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	38.0	38.0	38.0	38.0	27.0	27.0
Total Split (%)	58.5%	58.5%	58.5%	58.5%	41.5%	41.5%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 8 (12%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 12: SR-79 NB Ramps & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	986	274	0	1589	306	390	0	251	0	0	0
Future Volume (veh/h)	0	986	274	0	1589	306	390	0	251	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	1072	298	0	1727	333	424	0	273			
Adj No. of Lanes	0	2	1	0	2	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	1864	834	0	1864	834	485	0	433			
Arrive On Green	0.00	1.00	1.00	0.00	0.53	0.53	0.27	0.00	0.27			
Sat Flow, veh/h	0	3632	1583	0	3632	1583	1774	0	1583			
Grp Volume(v), veh/h	0	1072	298	0	1727	333	424	0	273			
Grp Sat Flow(s),veh/h/ln	0	1770	1583	0	1770	1583	1774	0	1583			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	29.3	8.2	14.8	0.0	9.8			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	29.3	8.2	14.8	0.0	9.8			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1864	834	0	1864	834	485	0	433			
V/C Ratio(X)	0.00	0.58	0.36	0.00	0.93	0.40	0.87	0.00	0.63			
Avail Cap(c_a), veh/h	0	1864	834	0	1864	834	560	0	499			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.74	0.74	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	14.2	9.2	22.6	0.0	20.7			
Incr Delay (d2), s/veh	0.0	1.0	0.9	0.0	9.5	1.4	13.0	0.0	2.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.2	0.0	16.6	3.8	8.9	0.0	4.5			
LnGrp Delay(d),s/veh	0.0	1.0	0.9	0.0	23.7	10.6	35.6	0.0	22.8			
LnGrp LOS		A	A		C	B	D		C			
Approach Vol, veh/h		1370			2060			697				
Approach Delay, s/veh		0.9			21.6			30.6				
Approach LOS		A			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		40.7				40.7		24.3
Change Period (Y+Rc), s		6.5				6.5		6.5
Max Green Setting (Gmax), s		31.5				31.5		20.5
Max Q Clear Time (g_c+I1), s		2.0				31.3		16.8
Green Ext Time (p_c), s		25.7				0.2		0.9

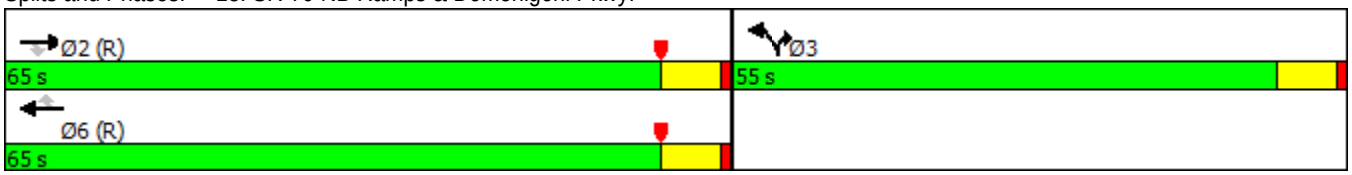
Intersection Summary	
HCM 2010 Ctrl Delay	16.2
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1678	540	2314	689	349	211
Future Volume (vph)	1678	540	2314	689	349	211
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		3	3
Permitted Phases		2		6		
Detector Phase	2	2	6	6	3	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	65.0	65.0	65.0	65.0	55.0	55.0
Total Split (%)	54.2%	54.2%	54.2%	54.2%	45.8%	45.8%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 13: SR-79 NB Ramps & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1678	540	0	2314	689	349	0	211	0	0	0
Future Volume (veh/h)	0	1678	540	0	2314	689	349	0	211	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	1824	587	0	2515	749	379	0	229			
Adj No. of Lanes	0	3	1	0	3	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3320	1034	0	3356	1034	424	0	378			
Arrive On Green	0.00	1.00	1.00	0.00	0.65	0.65	0.24	0.00	0.24			
Sat Flow, veh/h	0	5253	1583	0	5290	1583	1774	0	1583			
Grp Volume(v), veh/h	0	1824	587	0	2515	749	379	0	229			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1714	1583	1774	0	1583			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	39.9	37.4	24.8	0.0	15.4			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	39.9	37.4	24.8	0.0	15.4			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3320	1034	0	3356	1034	424	0	378			
V/C Ratio(X)	0.00	0.55	0.57	0.00	0.75	0.72	0.89	0.00	0.61			
Avail Cap(c_a), veh/h	0	3320	1034	0	3356	1034	717	0	640			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.70	0.70	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	14.2	13.7	44.2	0.0	40.6			
Incr Delay (d2), s/veh	0.0	0.5	1.6	0.0	1.6	4.4	8.0	0.0	1.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.5	0.0	19.1	17.5	13.1	0.0	6.9			
LnGrp Delay(d),s/veh	0.0	0.5	1.6	0.0	15.7	18.1	52.2	0.0	42.2			
LnGrp LOS		A	A		B	B	D		D			
Approach Vol, veh/h		2411			3264			608				
Approach Delay, s/veh		0.7			16.3			48.5				
Approach LOS		A			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		84.8				84.8		35.2
Change Period (Y+Rc), s		6.5				6.5		6.5
Max Green Setting (Gmax), s		58.5				58.5		48.5
Max Q Clear Time (g_c+I1), s		2.0				41.9		26.8
Green Ext Time (p_c), s		55.3				16.5		1.8

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	159	579	618	455	114
Future Volume (vph)	159	579	618	455	114
Turn Type	Prot	Prot	NA	NA	Perm
Protected Phases	4	5	2	6	
Permitted Phases					6
Detector Phase	4	5	2	6	6
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	9.5	22.5	27.8	27.8
Total Split (s)	28.4	49.0	91.6	42.6	42.6
Total Split (%)	23.7%	40.8%	76.3%	35.5%	35.5%
Yellow Time (s)	4.8	3.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.2	5.8	5.8	5.8
Lead/Lag		Lag		Lead	Lead
Lead-Lag Optimize?		Yes		Yes	Yes
Recall Mode	None	None	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 14: California Av. & Stowe Rd.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	159	128	579	618	455	114
Future Volume (veh/h)	159	128	579	618	455	114
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	189	152	689	736	542	136
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	175	141	870	1575	571	486
Arrive On Green	0.19	0.19	0.49	0.85	0.31	0.31
Sat Flow, veh/h	931	748	1774	1863	1863	1583
Grp Volume(v), veh/h	342	0	689	736	542	136
Grp Sat Flow(s),veh/h/ln	1684	0	1774	1863	1863	1583
Q Serve(g_s), s	22.6	0.0	38.8	12.1	34.1	7.8
Cycle Q Clear(g_c), s	22.6	0.0	38.8	12.1	34.1	7.8
Prop In Lane	0.55	0.44	1.00			1.00
Lane Grp Cap(c), veh/h	317	0	870	1575	571	486
V/C Ratio(X)	1.08	0.00	0.79	0.47	0.95	0.28
Avail Cap(c_a), veh/h	317	0	870	1575	571	486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	0.0	25.5	2.4	40.7	31.6
Incr Delay (d2), s/veh	73.0	0.0	4.6	1.0	26.9	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.9	0.0	20.1	6.6	21.7	3.6
LnGrp Delay(d),s/veh	121.7	0.0	30.1	3.4	67.6	33.0
LnGrp LOS	F		C	A	E	C
Approach Vol, veh/h	342			1425	678	
Approach Delay, s/veh	121.7			16.3	60.7	
Approach LOS	F			B	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		107.3		28.4	64.7	42.6		
Change Period (Y+Rc), s		5.8		5.8	5.8	* 5.8		
Max Green Setting (Gmax), s		85.8		22.6	44.8	* 37		
Max Q Clear Time (g_c+I1), s		14.1		24.6	40.8	36.1		
Green Ext Time (p_c), s		8.1		0.0	2.4	0.3		

Intersection Summary	
HCM 2010 Ctrl Delay	43.3
HCM 2010 LOS	D

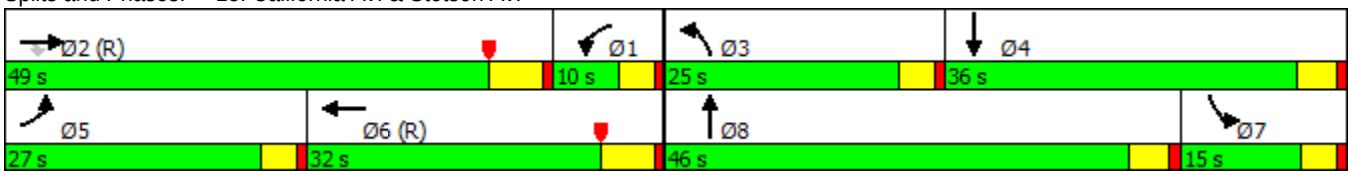
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	170	1010	86	212	1546	226	595	232	200
Future Volume (vph)	170	1010	86	212	1546	226	595	232	200
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	27.8	27.8	9.5	27.8	9.5	27.8	9.5	27.8
Total Split (s)	27.0	49.0	49.0	10.0	32.0	25.0	46.0	15.0	36.0
Total Split (%)	22.5%	40.8%	40.8%	8.3%	26.7%	20.8%	38.3%	12.5%	30.0%
Yellow Time (s)	3.2	4.8	4.8	3.2	4.8	3.2	3.6	3.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	5.8	4.2	5.8	4.2	4.6	4.2	4.6
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 15: California Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	1010	86	212	1546	432	226	595	384	232	200	151
Future Volume (veh/h)	170	1010	86	212	1546	432	226	595	384	232	200	151
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	185	1098	93	230	1680	470	246	647	417	252	217	164
Adj No. of Lanes	1	2	1	2	2	0	1	2	0	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	213	1274	570	1927	2247	600	273	713	459	306	557	402
Arrive On Green	0.12	0.36	0.36	0.56	0.81	0.81	0.15	0.34	0.34	0.09	0.28	0.28
Sat Flow, veh/h	1774	3539	1583	3442	2764	738	1774	2067	1331	3442	1964	1418
Grp Volume(v), veh/h	185	1098	93	230	1047	1103	246	554	510	252	194	187
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1732	1774	1770	1628	1721	1770	1613
Q Serve(g_s), s	12.3	34.5	7.0	3.8	32.5	39.3	16.3	35.8	35.9	8.6	10.6	11.2
Cycle Q Clear(g_c), s	12.3	34.5	7.0	3.8	32.5	39.3	16.3	35.8	35.9	8.6	10.6	11.2
Prop In Lane	1.00		1.00	1.00		0.43	1.00		0.82	1.00		0.88
Lane Grp Cap(c), veh/h	213	1274	570	1927	1439	1409	273	611	562	306	502	457
V/C Ratio(X)	0.87	0.86	0.16	0.12	0.73	0.78	0.90	0.91	0.91	0.82	0.39	0.41
Avail Cap(c_a), veh/h	337	1274	570	1927	1439	1409	308	611	562	310	502	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.9	35.6	55.1	12.5	5.1	5.8	49.9	37.5	37.5	53.8	34.6	34.8
Incr Delay (d2), s/veh	8.3	7.8	0.6	0.0	3.3	4.4	24.7	19.6	21.0	15.2	2.3	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	18.2	3.1	1.8	16.7	20.1	9.9	20.7	19.4	4.7	5.5	5.4
LnGrp Delay(d),s/veh	60.2	43.5	55.7	12.5	8.4	10.2	74.5	57.1	58.5	69.0	36.9	37.5
LnGrp LOS	E	D	E	B	A	B	E	E	E	E	D	D
Approach Vol, veh/h		1376			2380			1310			633	
Approach Delay, s/veh		46.5			9.6			60.9			49.8	
Approach LOS		D			A			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	74.8	49.0	22.6	38.6	18.6	105.2	15.3	46.0
Change Period (Y+Rc), s	5.8	* 5.8	* 4.2	4.6	* 4.2	5.8	4.6	* 4.6
Max Green Setting (Gmax), s	5.8	* 43	* 21	31.4	* 23	26.2	10.8	* 41
Max Q Clear Time (g_c+I1), s	5.8	36.5	18.3	13.2	14.3	41.3	10.6	37.9
Green Ext Time (p_c), s	0.0	3.8	0.1	2.7	0.1	0.0	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	34.8
HCM 2010 LOS	C

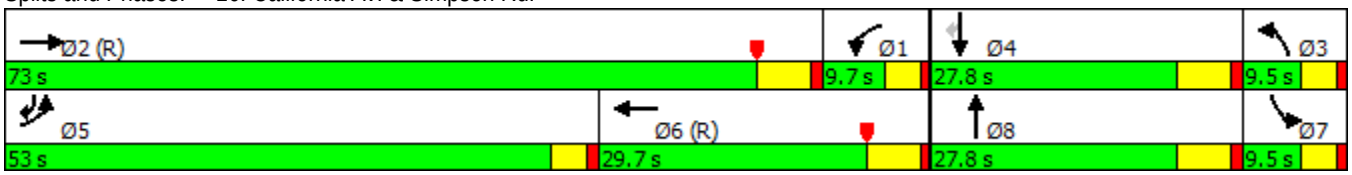
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	1116	499	9	445	19	10	29	113	357
Future Volume (vph)	1116	499	9	445	19	10	29	113	357
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8	7	4	5
Permitted Phases									4
Detector Phase	5	2	1	6	3	8	7	4	5
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.5	27.8	9.5	27.8	9.5	27.8	9.5	27.8	9.5
Total Split (s)	53.0	73.0	9.7	29.7	9.5	27.8	9.5	27.8	53.0
Total Split (%)	44.2%	60.8%	8.1%	24.8%	7.9%	23.2%	7.9%	23.2%	44.2%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	5.8	4.2
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 16: California Av. & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1116	499	237	9	445	80	19	10	0	29	113	357
Future Volume (veh/h)	1116	499	237	9	445	80	19	10	0	29	113	357
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	1268	567	269	10	506	91	22	11	0	33	128	406
Adj No. of Lanes	2	2	0	1	2	0	1	1	0	1	1	2
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1328	1306	619	87	709	127	49	342	0	49	342	1586
Arrive On Green	0.39	0.56	0.56	0.05	0.24	0.24	0.03	0.18	0.00	0.03	0.18	0.18
Sat Flow, veh/h	3442	2333	1105	1774	3000	537	1774	1863	0	1774	1863	2787
Grp Volume(v), veh/h	1268	430	406	10	298	299	22	11	0	33	128	406
Grp Sat Flow(s),veh/h/ln	1721	1770	1668	1774	1770	1768	1774	1863	0	1774	1863	1393
Q Serve(g_s), s	43.0	16.9	17.0	0.6	18.5	18.7	1.5	0.6	0.0	2.2	7.2	5.8
Cycle Q Clear(g_c), s	43.0	16.9	17.0	0.6	18.5	18.7	1.5	0.6	0.0	2.2	7.2	5.8
Prop In Lane	1.00		0.66	1.00		0.30	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	1328	991	934	87	418	418	49	342	0	49	342	1586
V/C Ratio(X)	0.95	0.43	0.43	0.12	0.71	0.72	0.45	0.03	0.00	0.67	0.37	0.26
Avail Cap(c_a), veh/h	1400	991	934	87	418	418	78	342	0	78	342	1586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	15.3	15.4	54.6	42.1	42.1	57.4	40.3	0.0	57.8	43.0	6.0
Incr Delay (d2), s/veh	14.0	1.4	1.5	0.2	9.9	10.1	2.3	0.2	0.0	5.7	3.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.0	8.6	8.2	0.3	10.2	10.3	0.8	0.3	0.0	1.2	4.0	2.3
LnGrp Delay(d),s/veh	49.8	16.7	16.8	54.8	51.9	52.3	59.8	40.4	0.0	63.5	46.1	6.4
LnGrp LOS	D	B	B	D	D	D	E	D		E	D	A
Approach Vol, veh/h		2104			607			33			567	
Approach Delay, s/veh		36.7			52.1			53.3			18.7	
Approach LOS		D			D			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	73.0	7.5	27.8	50.5	34.2	7.5	27.8
Change Period (Y+Rc), s	5.8	* 5.8	4.2	* 5.8	* 4.2	5.8	4.2	* 5.8
Max Green Setting (Gmax), s	5.5	* 67	5.3	* 22	* 49	23.9	5.3	* 22
Max Q Clear Time (g_c+I1), s	2.6	19.0	3.5	9.2	45.0	20.7	4.2	2.6
Green Ext Time (p_c), s	0.9	5.7	0.0	2.0	1.3	1.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.6
HCM 2010 LOS	D

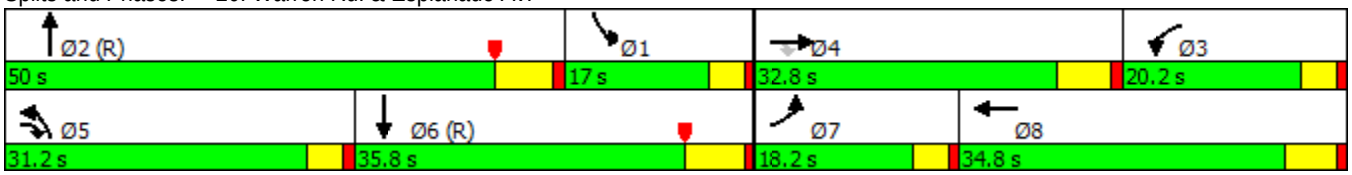
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	188	612	265	218	411	378	1334	198	764
Future Volume (vph)	188	612	265	218	411	378	1334	198	764
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	32.8	9.5	9.5	32.8	9.5	33.2	9.5	33.2
Total Split (s)	18.2	32.8	31.2	20.2	34.8	31.2	50.0	17.0	35.8
Total Split (%)	15.2%	27.3%	26.0%	16.8%	29.0%	26.0%	41.7%	14.2%	29.8%
Yellow Time (s)	3.2	4.8	3.2	3.2	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	4.2	5.8	4.2	6.2	4.2	6.2
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 20: Warren Rd. & Esplanade Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	612	265	218	411	162	378	1334	432	198	764	154
Future Volume (veh/h)	188	612	265	218	411	162	378	1334	432	198	764	154
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	190	618	268	220	415	164	382	1347	436	200	772	156
Adj No. of Lanes	1	2	1	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	722	679	237	582	227	399	1391	448	621	2154	431
Arrive On Green	0.12	0.20	0.20	0.13	0.23	0.23	0.23	0.37	0.37	0.35	0.51	0.51
Sat Flow, veh/h	1774	3539	1583	1774	2488	973	1774	3810	1227	1774	4251	852
Grp Volume(v), veh/h	190	618	268	220	294	285	382	1198	585	200	614	314
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1691	1774	1695	1646	1774	1695	1712
Q Serve(g_s), s	12.7	20.2	13.6	14.7	18.3	18.6	25.5	41.6	42.0	9.9	13.1	13.3
Cycle Q Clear(g_c), s	12.7	20.2	13.6	14.7	18.3	18.6	25.5	41.6	42.0	9.9	13.1	13.3
Prop In Lane	1.00		1.00	1.00		0.58	1.00		0.75	1.00		0.50
Lane Grp Cap(c), veh/h	207	722	679	237	414	395	399	1237	601	621	1717	868
V/C Ratio(X)	0.92	0.86	0.39	0.93	0.71	0.72	0.96	0.97	0.97	0.32	0.36	0.36
Avail Cap(c_a), veh/h	207	796	712	237	428	409	399	1237	601	621	1717	868
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	46.1	24.9	51.4	42.2	42.4	45.9	37.4	37.5	28.6	17.8	17.9
Incr Delay (d2), s/veh	39.8	8.5	0.4	39.2	5.2	5.9	33.7	19.0	30.8	0.1	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	10.7	6.0	9.8	9.6	9.4	16.3	22.7	24.2	4.9	6.3	6.6
LnGrp Delay(d),s/veh	92.2	54.6	25.3	90.7	47.5	48.3	79.6	56.4	68.3	28.7	18.4	19.1
LnGrp LOS	F	D	C	F	D	D	E	E	E	C	B	B
Approach Vol, veh/h		1076			799			2165			1128	
Approach Delay, s/veh		53.9			59.6			63.7			20.4	
Approach LOS		D			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	48.5	50.0	21.8	30.3	31.2	67.3	18.2	33.9
Change Period (Y+Rc), s	6.2	* 6.2	5.8	* 5.8	* 4.2	6.2	* 4.2	5.8
Max Green Setting (Gmax), s	12.8	* 44	16.0	* 27	* 27	29.6	* 14	29.0
Max Q Clear Time (g_c+I1), s	11.9	44.0	16.7	22.2	27.5	15.3	14.7	20.6
Green Ext Time (p_c), s	0.1	0.0	0.0	2.3	0.0	6.6	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	51.6
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	328	149	238	1816	902
Future Volume (vph)	328	149	238	1816	902
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	32.8	32.8	9.5	24.2	33.2
Total Split (s)	41.0	41.0	32.0	79.0	47.0
Total Split (%)	34.2%	34.2%	26.7%	65.8%	39.2%
Yellow Time (s)	4.8	4.8	3.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	6.2	6.2
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 21: Warren Rd. & Tres Cerritos Av.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	328	149	238	1816	902	345
Future Volume (veh/h)	328	149	238	1816	902	345
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	357	162	259	1974	980	375
Adj No. of Lanes	1	1	1	3	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	395	353	287	3445	1741	666
Arrive On Green	0.22	0.22	0.16	0.68	0.48	0.48
Sat Flow, veh/h	1774	1583	1774	5253	3791	1385
Grp Volume(v), veh/h	357	162	259	1974	917	438
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1695	1695	1618
Q Serve(g_s), s	23.5	10.6	17.2	24.6	23.1	23.1
Cycle Q Clear(g_c), s	23.5	10.6	17.2	24.6	23.1	23.1
Prop In Lane	1.00	1.00	1.00			0.86
Lane Grp Cap(c), veh/h	395	353	287	3445	1629	778
V/C Ratio(X)	0.90	0.46	0.90	0.57	0.56	0.56
Avail Cap(c_a), veh/h	520	464	411	3445	1629	778
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	40.4	49.4	10.2	22.2	22.2
Incr Delay (d2), s/veh	15.9	0.9	14.0	0.7	1.4	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.2	9.6	9.5	11.6	11.1	11.0
LnGrp Delay(d),s/veh	61.3	41.3	63.3	10.9	23.6	25.1
LnGrp LOS	E	D	E	B	C	C
Approach Vol, veh/h	519			2233	1355	
Approach Delay, s/veh	55.1			17.0	24.1	
Approach LOS	E			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		87.5		32.5	23.6	63.9		
Change Period (Y+Rc), s		6.2		5.8	* 4.2	6.2		
Max Green Setting (Gmax), s		72.8		35.2	* 28	40.8		
Max Q Clear Time (g_c+I1), s		26.6		25.5	19.2	25.1		
Green Ext Time (p_c), s		43.1		1.2	0.2	15.2		

Intersection Summary	
HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

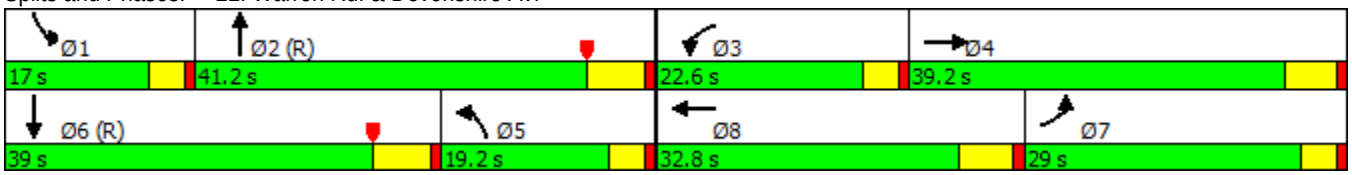
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	423	385	136	469	209	1339	192	472
Future Volume (vph)	423	385	136	469	209	1339	192	472
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.2	32.8	9.2	32.8	9.2	33.2	9.2	33.2
Total Split (s)	29.0	39.2	22.6	32.8	19.2	41.2	17.0	39.0
Total Split (%)	24.2%	32.7%	18.8%	27.3%	16.0%	34.3%	14.2%	32.5%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	6.2	4.2	6.2
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 40 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 125
Control Type: Actuated-Coordinated

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	423	385	108	136	469	291	209	1339	229	192	472	386
Future Volume (veh/h)	423	385	108	136	469	291	209	1339	229	192	472	386
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	441	401	112	142	489	303	218	1395	239	200	492	402
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	367	958	265	169	473	292	1625	4806	823	189	927	433
Arrive On Green	0.21	0.35	0.35	0.10	0.22	0.22	0.30	0.36	0.36	0.11	0.27	0.27
Sat Flow, veh/h	1774	2741	758	1774	2104	1299	1774	4372	749	1774	3390	1583
Grp Volume(v), veh/h	441	257	256	142	411	381	218	1081	553	200	492	402
Grp Sat Flow(s),veh/h/ln	1774	1770	1729	1774	1770	1633	1774	1695	1731	1774	1695	1583
Q Serve(g_s), s	24.8	13.3	13.5	9.4	27.0	27.0	10.7	0.0	0.0	12.8	14.8	29.7
Cycle Q Clear(g_c), s	24.8	13.3	13.5	9.4	27.0	27.0	10.7	0.0	0.0	12.8	14.8	29.7
Prop In Lane	1.00		0.44	1.00		0.80	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	367	619	605	169	398	368	1625	3727	1902	189	927	433
V/C Ratio(X)	1.20	0.42	0.42	0.84	1.03	1.04	0.13	0.29	0.29	1.06	0.53	0.93
Avail Cap(c_a), veh/h	367	619	605	272	398	368	1625	3727	1902	189	927	433
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.46	0.46	0.46	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.6	29.7	29.8	53.4	46.5	46.5	7.3	0.0	0.0	53.6	37.1	42.5
Incr Delay (d2), s/veh	114.5	0.4	0.5	6.2	53.6	56.7	0.0	0.1	0.2	81.3	2.2	28.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.8	6.6	6.5	4.9	19.1	17.9	5.3	0.0	0.1	10.5	7.2	16.4
LnGrp Delay(d),s/veh	162.1	30.1	30.2	59.6	100.1	103.2	7.3	0.1	0.2	134.9	39.2	71.1
LnGrp LOS	F	C	C	E	F	F	A	A	A	F	D	E
Approach Vol, veh/h		954			934			1852			1094	
Approach Delay, s/veh		91.2			95.2			1.0			68.4	
Approach LOS		F			F			A			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	139.9	15.6	47.8	117.9	39.0	30.6	32.8
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	6.2	* 6.2	5.8	* 5.8
Max Green Setting (Gmax), s	* 13	35.0	* 18	33.4	15.0	* 33	24.8	* 27
Max Q Clear Time (g_c+I1), s	14.8	2.0	11.4	15.5	12.7	31.7	26.8	29.0
Green Ext Time (p_c), s	0.0	18.6	0.1	3.1	0.5	0.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.3
HCM 2010 LOS	D

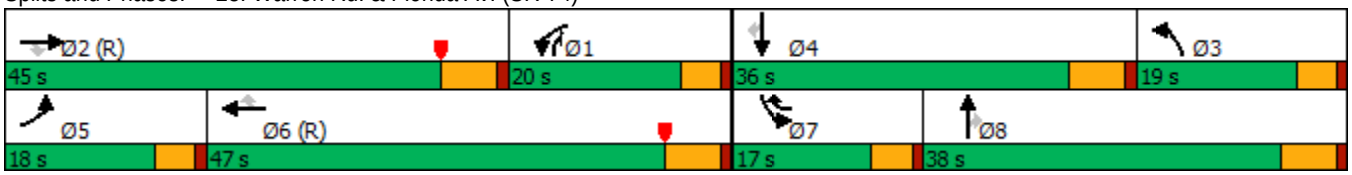
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	204	1428	174	416	1272	597	347	1065	759	331	391	189
Future Volume (vph)	204	1428	174	416	1272	597	347	1065	759	331	391	189
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	38.0	38.0	9.6	38.0	9.6	9.6	33.0	9.6	9.6	33.0	33.0
Total Split (s)	18.0	45.0	45.0	20.0	47.0	17.0	19.0	38.0	20.0	17.0	36.0	36.0
Total Split (%)	15.0%	37.5%	37.5%	16.7%	39.2%	14.2%	15.8%	31.7%	16.7%	14.2%	30.0%	30.0%
Yellow Time (s)	3.6	5.0	5.0	3.6	5.0	3.6	3.6	5.0	3.6	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	6.0	4.6	6.0	4.6	4.6	6.0	4.6	4.6	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	Max	None	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 1 (1%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	1428	174	416	1272	597	347	1065	759	331	391	189
Future Volume (veh/h)	204	1428	174	416	1272	597	347	1065	759	331	391	189
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	215	1503	118	438	1339	622	365	1121	683	348	412	131
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	1653	515	1406	3388	1218	413	985	1088	356	885	396
Arrive On Green	0.08	0.32	0.32	0.41	0.67	0.67	0.04	0.09	0.09	0.03	0.08	0.08
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	215	1503	118	438	1339	622	365	1121	683	348	412	131
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	7.4	34.0	6.5	10.3	14.3	17.9	12.7	33.4	13.1	12.1	13.3	11.1
Cycle Q Clear(g_c), s	7.4	34.0	6.5	10.3	14.3	17.9	12.7	33.4	13.1	12.1	13.3	11.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	272	1653	515	1406	3388	1218	413	985	1088	356	885	396
V/C Ratio(X)	0.79	0.91	0.23	0.31	0.40	0.51	0.88	1.14	0.63	0.98	0.47	0.33
Avail Cap(c_a), veh/h	384	1653	515	1406	3388	1218	413	985	1088	356	885	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	0.72	0.72	0.72
Uniform Delay (d), s/veh	54.3	38.8	29.5	24.0	9.1	5.3	56.8	54.5	26.7	57.8	47.4	63.6
Incr Delay (d2), s/veh	4.5	9.0	1.0	0.0	0.3	1.5	2.2	63.4	0.3	34.9	1.3	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	17.2	3.0	4.9	6.8	8.2	6.2	25.0	5.8	7.5	6.7	5.0
LnGrp Delay(d),s/veh	58.8	47.8	30.6	24.1	9.4	6.8	59.0	117.9	27.0	92.7	48.7	65.3
LnGrp LOS	E	D	C	C	A	A	E	F	C	F	D	E
Approach Vol, veh/h		1836			2399			2169			891	
Approach Delay, s/veh		48.0			11.4			79.4			68.3	
Approach LOS		D			B			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	55.1	45.0	20.4	36.0	14.1	86.0	17.0	39.4
Change Period (Y+Rc), s	6.0	* 6	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	15.4	* 39	14.4	* 30	13.4	41.0	12.4	32.0
Max Q Clear Time (g_c+I1), s	12.3	36.0	14.7	15.3	9.4	19.9	14.1	35.4
Green Ext Time (p_c), s	0.3	2.0	0.0	1.4	0.1	7.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	47.8
HCM 2010 LOS	D

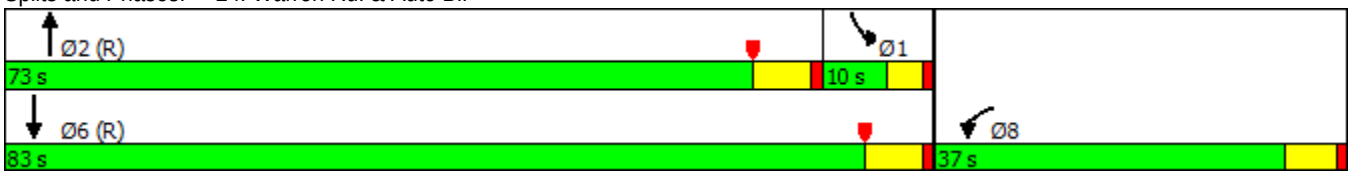
Notes

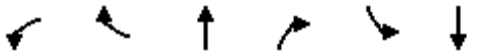
Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	93	1860	126	853
Future Volume (vph)	93	1860	126	853
Turn Type	Prot	NA	Prot	NA
Protected Phases	8	2	1	6
Permitted Phases				
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	10.0
Minimum Split (s)	32.8	28.2	9.5	24.2
Total Split (s)	37.0	73.0	10.0	83.0
Total Split (%)	30.8%	60.8%	8.3%	69.2%
Yellow Time (s)	4.8	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	6.2	4.2	6.2
Lead/Lag		Lead	Lag	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 54 (45%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 130
Control Type: Actuated-Coordinated

Splits and Phases: 24: Warren Rd. & Auto Bl.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	93	321	1860	50	126	853
Future Volume (veh/h)	93	321	1860	50	126	853
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	108	373	2163	58	147	992
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	95	327	2011	54	1061	4494
Arrive On Green	0.26	0.26	1.00	1.00	0.20	0.40
Sat Flow, veh/h	364	1256	3612	96	1774	3725
Grp Volume(v), veh/h	482	0	1111	1111	147	992
Grp Sat Flow(s),veh/h/ln	1623	0	1863	1846	1774	1863
Q Serve(g_s), s	31.2	0.0	66.8	66.8	8.2	0.0
Cycle Q Clear(g_c), s	31.2	0.0	66.8	66.8	8.2	0.0
Prop In Lane	0.22	0.77		0.05	1.00	
Lane Grp Cap(c), veh/h	422	0	1037	1027	1061	4494
V/C Ratio(X)	1.14	0.00	1.07	1.08	0.14	0.22
Avail Cap(c_a), veh/h	422	0	1037	1027	1061	4494
HCM Platoon Ratio	1.00	1.00	2.00	2.00	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.09	0.09	0.86	0.86
Uniform Delay (d), s/veh	44.4	0.0	0.0	0.0	22.7	0.0
Incr Delay (d2), s/veh	88.7	0.0	34.1	38.4	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.3	0.0	9.8	11.0	4.0	0.1
LnGrp Delay(d),s/veh	133.1	0.0	34.1	38.4	22.7	0.1
LnGrp LOS	F		F	F	C	A
Approach Vol, veh/h	482		2221			1139
Approach Delay, s/veh	133.1		36.3			3.0
Approach LOS	F		D			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	80.0	73.0				153.0		37.0
Change Period (Y+Rc), s	6.2	* 6.2				6.2		5.8
Max Green Setting (Gmax), s	5.8	* 67				76.8		31.2
Max Q Clear Time (g_c+I1), s	10.2	68.8				2.0		33.2
Green Ext Time (p_c), s	0.0	0.0				11.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	38.6
HCM 2010 LOS	D

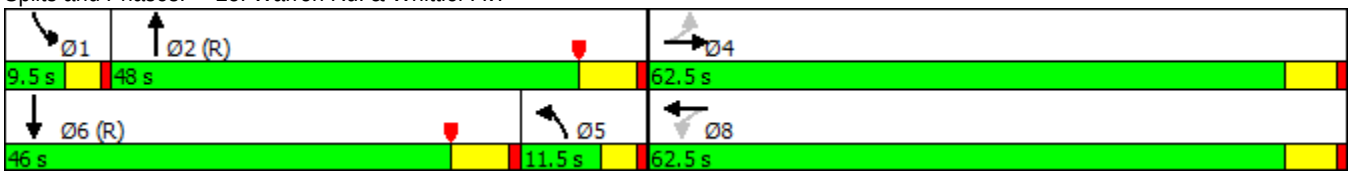
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	403	162	43	77	134	1436	77	662
Future Volume (vph)	403	162	43	77	134	1436	77	662
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	32.8	32.8	9.5	28.2	9.5	28.2
Total Split (s)	62.5	62.5	62.5	62.5	11.5	48.0	9.5	46.0
Total Split (%)	52.1%	52.1%	52.1%	52.1%	9.6%	40.0%	7.9%	38.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.8		5.8	4.2	6.2	4.2	6.2
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 15 (13%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 140
Control Type: Actuated-Coordinated

Splits and Phases: 25: Warren Rd. & Whittier Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	403	162	239	43	77	71	134	1436	51	77	662	207
Future Volume (veh/h)	403	162	239	43	77	71	134	1436	51	77	662	207
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	438	176	260	47	84	77	146	1561	55	84	720	225
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	373	132	194	180	318	271	1043	3112	109	78	881	275
Arrive On Green	0.47	0.47	0.47	0.47	0.47	0.47	0.59	0.89	0.89	0.09	0.66	0.66
Sat Flow, veh/h	693	279	412	302	673	573	1774	3488	123	1774	2656	830
Grp Volume(v), veh/h	874	0	0	208	0	0	146	790	826	84	480	465
Grp Sat Flow(s),veh/h/ln	1384	0	0	1548	0	0	1774	1770	1841	1774	1770	1716
Q Serve(g_s), s	47.9	0.0	0.0	0.0	0.0	0.0	4.4	10.4	10.5	5.3	23.9	23.9
Cycle Q Clear(g_c), s	56.7	0.0	0.0	8.8	0.0	0.0	4.4	10.4	10.5	5.3	23.9	23.9
Prop In Lane	0.50		0.30	0.23		0.37	1.00		0.07	1.00		0.48
Lane Grp Cap(c), veh/h	699	0	0	768	0	0	1043	1579	1643	78	587	569
V/C Ratio(X)	1.25	0.00	0.00	0.27	0.00	0.00	0.14	0.50	0.50	1.07	0.82	0.82
Avail Cap(c_a), veh/h	699	0	0	768	0	0	1043	1579	1643	78	587	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.76	0.76	0.76
Uniform Delay (d), s/veh	34.0	0.0	0.0	19.0	0.0	0.0	11.1	1.3	1.3	54.7	17.5	17.5
Incr Delay (d2), s/veh	124.5	0.0	0.0	0.2	0.0	0.0	0.0	1.1	1.1	109.2	9.3	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	47.3	0.0	0.0	4.1	0.0	0.0	2.2	5.3	5.6	4.9	12.7	12.4
LnGrp Delay(d),s/veh	158.4	0.0	0.0	19.2	0.0	0.0	11.1	2.4	2.4	165.0	26.9	27.1
LnGrp LOS	F			B			B	A	A	F	C	C
Approach Vol, veh/h		874			208			1762			1029	
Approach Delay, s/veh		158.4			19.2			3.1			38.3	
Approach LOS		F			B			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.5	114.4		62.5	77.9	46.0		62.5
Change Period (Y+Rc), s	* 4.2	6.2		5.8	6.2	* 6.2		5.8
Max Green Setting (Gmax), s	* 5.3	41.8		56.7	7.3	* 40		56.7
Max Q Clear Time (g_c+I1), s	7.3	12.5		58.7	6.4	25.9		10.8
Green Ext Time (p_c), s	0.0	17.9		0.0	0.1	6.1		12.4

Intersection Summary	
HCM 2010 Ctrl Delay	48.4
HCM 2010 LOS	D

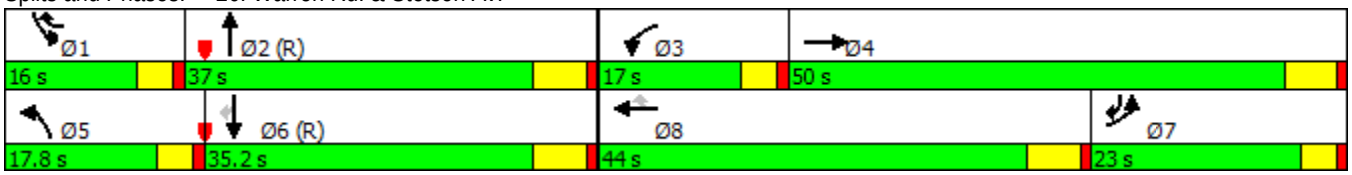
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	555	1198	206	1119	330	298	736	300	523	121
Future Volume (vph)	555	1198	206	1119	330	298	736	300	523	121
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	1	5	2	1	6	7
Permitted Phases					8					6
Detector Phase	7	4	3	8	1	5	2	1	6	7
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	9.5	32.8	9.5	32.8	9.5
Total Split (s)	23.0	50.0	17.0	44.0	16.0	17.8	37.0	16.0	35.2	23.0
Total Split (%)	19.2%	41.7%	14.2%	36.7%	13.3%	14.8%	30.8%	13.3%	29.3%	19.2%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2	5.8	4.2
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 55 (46%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	555	1198	121	206	1119	330	298	736	143	300	523	121
Future Volume (veh/h)	555	1198	121	206	1119	330	298	736	143	300	523	121
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	566	1222	123	210	1142	337	304	751	146	306	534	123
Adj No. of Lanes	2	2	0	2	2	1	2	2	0	2	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	539	1348	135	267	1127	660	362	2069	402	338	2454	1346
Arrive On Green	0.16	0.41	0.41	0.08	0.32	0.32	0.03	0.23	0.23	0.10	0.69	0.69
Sat Flow, veh/h	3442	3282	330	3442	3539	1583	3442	2956	575	3442	3539	1583
Grp Volume(v), veh/h	566	671	674	210	1142	337	304	449	448	306	534	123
Grp Sat Flow(s),veh/h/ln	1721	1807	1805	1721	1770	1583	1721	1770	1761	1721	1770	1583
Q Serve(g_s), s	18.8	41.8	42.1	7.2	38.2	24.3	10.5	25.6	25.6	10.6	6.5	1.4
Cycle Q Clear(g_c), s	18.8	41.8	42.1	7.2	38.2	24.3	10.5	25.6	25.6	10.6	6.5	1.4
Prop In Lane	1.00		0.18	1.00		1.00	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	539	742	741	267	1127	660	362	1239	1233	338	2454	1346
V/C Ratio(X)	1.05	0.90	0.91	0.79	1.01	0.51	0.84	0.36	0.36	0.90	0.22	0.09
Avail Cap(c_a), veh/h	539	742	741	367	1127	660	390	1239	1233	338	2454	1346
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.48	0.48	0.48	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	33.1	33.2	54.4	40.9	45.9	56.9	23.7	23.7	53.5	6.6	10.0
Incr Delay (d2), s/veh	52.4	14.6	15.1	5.0	30.2	0.7	6.8	0.4	0.4	25.8	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	23.9	24.1	3.6	23.4	10.8	5.4	12.7	12.6	6.2	3.3	0.7
LnGrp Delay(d),s/veh	103.0	47.7	48.4	59.4	71.1	46.6	63.7	24.1	24.1	79.4	6.9	10.2
LnGrp LOS	F	D	D	E	F	D	E	C	C	E	A	B
Approach Vol, veh/h		1911			1689			1201			963	
Approach Delay, s/veh		64.3			64.8			34.1			30.3	
Approach LOS		E			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	91.4	13.5	55.1	16.8	90.6	24.6	44.0
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 12	31.2	* 13	44.2	* 14	29.4	18.8	* 38
Max Q Clear Time (g_c+I1), s	12.6	27.6	9.2	44.1	12.5	8.5	20.8	40.2
Green Ext Time (p_c), s	0.0	2.9	0.1	0.1	0.1	12.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.5
HCM 2010 LOS	D

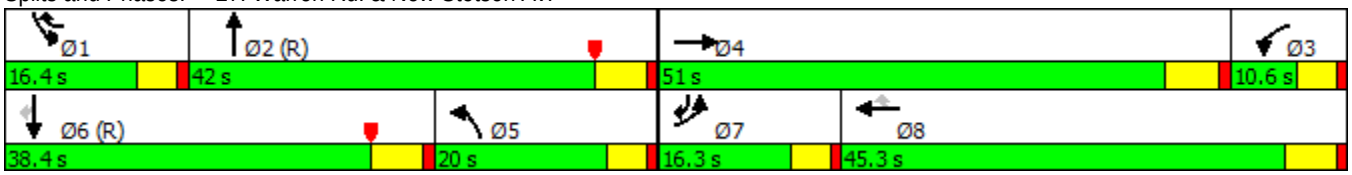
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	273	1054	136	1020	222	333	682	313	160	377
Future Volume (vph)	273	1054	136	1020	222	333	682	313	160	377
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	1	5	2	1	6	7
Permitted Phases					8					6
Detector Phase	7	4	3	8	1	5	2	1	6	7
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	34.8	9.6	34.8	9.6	9.6	34.8	9.6	34.8	9.6
Total Split (s)	16.3	51.0	10.6	45.3	16.4	20.0	42.0	16.4	38.4	16.3
Total Split (%)	13.6%	42.5%	8.8%	37.8%	13.7%	16.7%	35.0%	13.7%	32.0%	13.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 7 (6%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 27: Warren Rd. & New Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	273	1054	179	136	1020	222	333	682	266	313	160	377
Future Volume (veh/h)	273	1054	179	136	1020	222	333	682	266	313	160	377
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	281	1087	185	140	1052	229	343	703	274	323	165	389
Adj No. of Lanes	2	2	0	2	2	1	2	2	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	1132	192	172	1195	690	1376	1452	566	338	961	584
Arrive On Green	0.10	0.37	0.37	0.05	0.34	0.34	0.40	0.58	0.58	0.03	0.09	0.09
Sat Flow, veh/h	3442	3021	513	3442	3539	1583	3442	2490	971	3442	3539	1583
Grp Volume(v), veh/h	281	635	637	140	1052	229	343	500	477	323	165	389
Grp Sat Flow(s),veh/h/ln	1721	1770	1765	1721	1770	1583	1721	1770	1691	1721	1770	1583
Q Serve(g_s), s	9.6	42.0	42.4	4.8	33.6	11.4	8.0	19.7	19.7	11.2	5.2	24.7
Cycle Q Clear(g_c), s	9.6	42.0	42.4	4.8	33.6	11.4	8.0	19.7	19.7	11.2	5.2	24.7
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.57	1.00		1.00
Lane Grp Cap(c), veh/h	334	663	661	172	1195	690	1376	1032	986	338	961	584
V/C Ratio(X)	0.84	0.96	0.96	0.81	0.88	0.33	0.25	0.48	0.48	0.95	0.17	0.67
Avail Cap(c_a), veh/h	336	667	665	172	1195	690	1376	1032	986	338	961	584
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.62	0.62	0.62	1.00	1.00	1.00	1.00	1.00	1.00	0.72	0.72	0.72
Uniform Delay (d), s/veh	53.3	36.6	36.7	56.4	37.4	22.3	24.0	14.5	14.5	57.8	42.1	53.9
Incr Delay (d2), s/veh	10.8	18.2	19.1	23.4	7.8	0.3	0.0	1.6	1.7	29.9	0.3	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	23.8	24.0	2.9	17.7	5.1	3.8	10.0	9.6	6.8	2.6	11.5
LnGrp Delay(d),s/veh	64.1	54.8	55.8	79.9	45.3	22.6	24.0	16.2	16.2	87.7	42.4	58.2
LnGrp LOS	E	D	E	E	D	C	C	B	B	F	D	E
Approach Vol, veh/h		1553			1421			1320			877	
Approach Delay, s/veh		56.9			45.0			18.2			66.1	
Approach LOS		E			D			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	76.7	11.8	50.8	54.7	38.4	16.2	46.3
Change Period (Y+Rc), s	4.6	5.8	5.8	* 5.8	5.8	* 5.8	4.6	5.8
Max Green Setting (Gmax), s	11.8	36.2	6.0	* 45	15.4	* 33	11.7	39.5
Max Q Clear Time (g_c+I1), s	13.2	21.7	6.8	44.4	10.0	26.7	11.6	35.6
Green Ext Time (p_c), s	0.0	7.3	0.0	0.6	3.5	1.7	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	45.3
HCM 2010 LOS	D

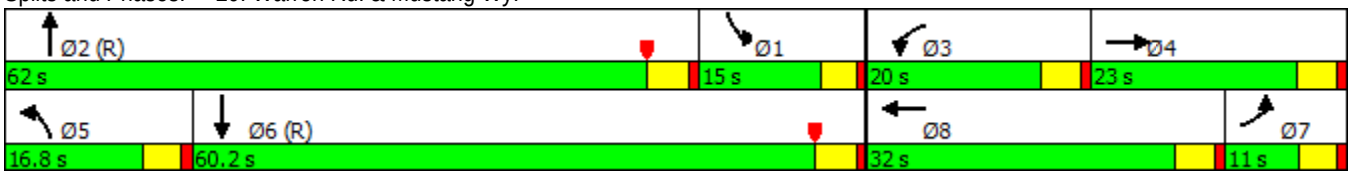
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	63	95	176	140	72	1109	109	389
Future Volume (vph)	63	95	176	140	72	1109	109	389
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.6	9.5	21.6	9.5	21.7	9.2	14.7
Total Split (s)	11.0	23.0	20.0	32.0	16.8	62.0	15.0	60.2
Total Split (%)	9.2%	19.2%	16.7%	26.7%	14.0%	51.7%	12.5%	50.2%
Yellow Time (s)	3.5	3.6	3.5	3.6	3.5	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.5	4.6	4.5	4.7	4.2	4.7
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 4 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	95	49	176	140	167	72	1109	323	109	389	57
Future Volume (veh/h)	63	95	49	176	140	167	72	1109	323	109	389	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	64	97	50	180	143	143	73	1132	306	111	397	58
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	136	70	207	160	160	93	1319	353	238	1741	253
Arrive On Green	0.05	0.12	0.12	0.12	0.19	0.19	0.05	0.48	0.48	0.27	1.00	1.00
Sat Flow, veh/h	1774	1160	598	1774	856	856	1774	2762	739	1774	3103	450
Grp Volume(v), veh/h	64	0	147	180	0	286	73	721	717	111	225	230
Grp Sat Flow(s),veh/h/ln	1774	0	1757	1774	0	1712	1774	1770	1731	1774	1770	1783
Q Serve(g_s), s	4.3	0.0	9.7	12.0	0.0	19.6	4.9	43.1	44.3	6.3	0.0	0.0
Cycle Q Clear(g_c), s	4.3	0.0	9.7	12.0	0.0	19.6	4.9	43.1	44.3	6.3	0.0	0.0
Prop In Lane	1.00		0.34	1.00		0.50	1.00		0.43	1.00		0.25
Lane Grp Cap(c), veh/h	82	0	207	207	0	320	93	845	827	238	993	1000
V/C Ratio(X)	0.78	0.00	0.71	0.87	0.00	0.89	0.78	0.85	0.87	0.47	0.23	0.23
Avail Cap(c_a), veh/h	96	0	269	229	0	391	182	845	827	238	993	1000
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	56.6	0.0	51.0	52.1	0.0	47.6	56.2	27.6	28.0	40.3	0.0	0.0
Incr Delay (d2), s/veh	24.0	0.0	5.9	24.9	0.0	19.5	5.3	10.7	11.9	0.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	5.0	7.3	0.0	10.9	2.5	23.5	23.8	3.1	0.1	0.1
LnGrp Delay(d),s/veh	80.6	0.0	56.9	77.0	0.0	67.1	61.5	38.3	39.8	40.8	0.5	0.5
LnGrp LOS	F		E	E		E	E	D	D	D	A	A
Approach Vol, veh/h		211			466			1511			566	
Approach Delay, s/veh		64.1			71.0			40.1			8.4	
Approach LOS		E			E			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	62.0	18.5	18.7	10.8	72.0	10.2	27.0
Change Period (Y+Rc), s	* 4.7	* 4.7	4.5	4.6	4.5	* 4.7	4.6	* 4.6
Max Green Setting (Gmax), s	* 11	* 57	15.5	18.4	12.3	* 56	6.5	* 27
Max Q Clear Time (g_c+I1), s	8.3	46.3	14.0	11.7	6.9	2.0	6.3	21.6
Green Ext Time (p_c), s	0.2	8.4	0.0	0.4	0.0	4.4	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	40.7
HCM 2010 LOS	D

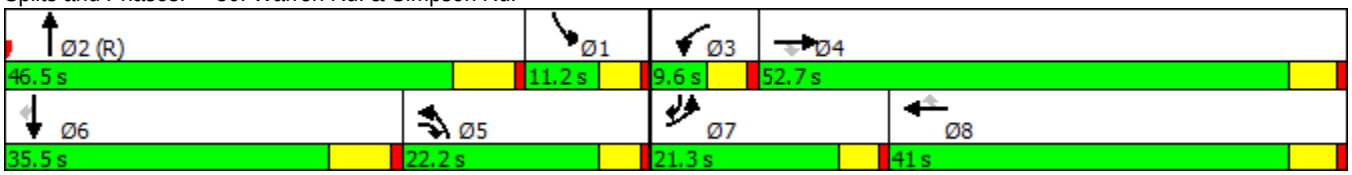
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	447	626	448	16	515	328	468	753	33	211	390
Future Volume (vph)	447	626	448	16	515	328	468	753	33	211	390
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.4	9.6	9.6	32.4	32.4	9.6	33.5	9.6	33.5	9.6
Total Split (s)	21.3	52.7	22.2	9.6	41.0	41.0	22.2	46.5	11.2	35.5	21.3
Total Split (%)	17.8%	43.9%	18.5%	8.0%	34.2%	34.2%	18.5%	38.8%	9.3%	29.6%	17.8%
Yellow Time (s)	3.6	4.4	3.6	3.6	4.4	4.4	3.6	5.5	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	4.6	5.4	5.4	4.6	6.5	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Max	None	None	None	Max	C-Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 10 (8%), Referenced to phase 2:NBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 30: Warren Rd. & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	447	626	448	16	515	328	468	753	19	33	211	390
Future Volume (veh/h)	447	626	448	16	515	328	468	753	19	33	211	390
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	471	659	472	17	542	345	493	793	20	35	222	411
Adj No. of Lanes	2	1	1	1	1	1	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	479	778	894	32	553	470	505	1176	30	98	855	603
Arrive On Green	0.14	0.42	0.42	0.02	0.30	0.30	0.10	0.22	0.22	0.06	0.24	0.24
Sat Flow, veh/h	3442	1863	1583	1774	1863	1583	3442	3528	89	1774	3539	1583
Grp Volume(v), veh/h	471	659	472	17	542	345	493	398	415	35	222	411
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1721	1770	1847	1774	1770	1583
Q Serve(g_s), s	16.4	38.2	2.9	1.1	34.6	18.9	17.1	24.7	24.7	2.3	6.1	14.4
Cycle Q Clear(g_c), s	16.4	38.2	2.9	1.1	34.6	18.9	17.1	24.7	24.7	2.3	6.1	14.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	479	778	894	32	553	470	505	590	616	98	855	603
V/C Ratio(X)	0.98	0.85	0.53	0.53	0.98	0.73	0.98	0.67	0.67	0.36	0.26	0.68
Avail Cap(c_a), veh/h	479	778	894	74	553	470	505	590	616	98	855	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.50	0.50	0.50	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	31.5	7.8	58.4	41.9	24.5	53.9	40.6	40.6	54.7	36.8	12.2
Incr Delay (d2), s/veh	36.6	8.6	0.6	5.0	33.3	5.9	23.2	3.1	3.0	0.8	0.7	6.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	21.5	6.6	0.6	22.9	9.0	9.8	12.6	13.1	1.1	3.1	7.3
LnGrp Delay(d),s/veh	88.1	40.1	8.3	63.4	75.1	30.4	77.1	43.7	43.6	55.5	37.5	18.4
LnGrp LOS	F	D	A	E	E	C	E	D	D	E	D	B
Approach Vol, veh/h		1602			904			1306			668	
Approach Delay, s/veh		44.9			57.8			56.3			26.7	
Approach LOS		D			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.2	46.5	6.8	55.5	22.2	35.5	21.3	41.0
Change Period (Y+Rc), s	4.6	6.5	4.6	5.4	4.6	6.5	4.6	5.4
Max Green Setting (Gmax), s	6.6	40.0	5.0	47.3	17.6	29.0	16.7	35.6
Max Q Clear Time (g_c+I1), s	4.3	26.7	3.1	40.2	19.1	16.4	18.4	36.6
Green Ext Time (p_c), s	0.3	5.4	0.0	5.1	0.0	3.3	0.0	0.0

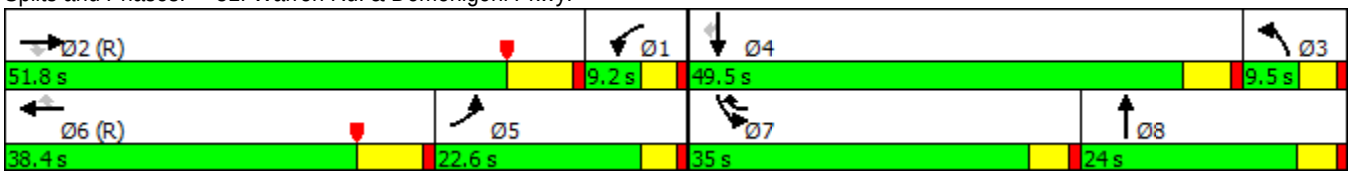
Intersection Summary	
HCM 2010 Ctrl Delay	48.1
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	461	1212	11	11	1139	516	11	263	399	11	266
Future Volume (vph)	461	1212	11	11	1139	516	11	263	399	11	266
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	7	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	9.5	9.5	14.6	9.5	46.4	46.4
Total Split (s)	22.6	51.8	51.8	9.2	38.4	35.0	9.5	24.0	35.0	49.5	49.5
Total Split (%)	18.8%	43.2%	43.2%	7.7%	32.0%	29.2%	7.9%	20.0%	29.2%	41.3%	41.3%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	3.5	3.5	3.6	3.5	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	4.5	4.5	4.6	4.5	5.4	5.4
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	461	1212	11	11	1139	516	11	263	11	399	11	266
Future Volume (veh/h)	461	1212	11	11	1139	516	11	263	11	399	11	266
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	490	1289	10	12	1212	542	12	280	12	424	12	69
Adj No. of Lanes	2	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	535	1903	592	78	1335	815	573	287	12	447	155	132
Arrive On Green	0.16	0.37	0.37	0.04	0.26	0.26	0.32	0.16	0.16	0.25	0.08	0.08
Sat Flow, veh/h	3442	5085	1583	1774	5085	1583	1774	1773	76	1774	1863	1583
Grp Volume(v), veh/h	490	1289	10	12	1212	542	12	0	292	424	12	69
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1774	1695	1583	1774	0	1849	1774	1863	1583
Q Serve(g_s), s	16.8	25.5	0.5	0.8	27.7	12.5	0.6	0.0	18.9	28.2	0.7	5.0
Cycle Q Clear(g_c), s	16.8	25.5	0.5	0.8	27.7	12.5	0.6	0.0	18.9	28.2	0.7	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	535	1903	592	78	1335	815	573	0	299	447	155	132
V/C Ratio(X)	0.92	0.68	0.02	0.15	0.91	0.67	0.02	0.00	0.98	0.95	0.08	0.52
Avail Cap(c_a), veh/h	535	1903	592	78	1335	815	573	0	299	451	685	582
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	49.9	31.5	23.6	55.2	42.8	7.0	27.7	0.0	50.1	44.1	50.7	52.7
Incr Delay (d2), s/veh	20.2	2.0	0.1	0.3	10.6	4.3	0.0	0.0	45.3	28.3	0.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	12.3	0.2	0.4	14.2	6.2	0.3	0.0	13.4	17.3	0.4	2.2
LnGrp Delay(d),s/veh	70.1	33.4	23.7	55.6	53.4	11.2	27.7	0.0	95.4	72.4	50.8	53.8
LnGrp LOS	E	C	C	E	D	B	C		F	E	D	D
Approach Vol, veh/h		1789			1766			304			505	
Approach Delay, s/veh		43.4			40.5			92.7			69.4	
Approach LOS		D			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	51.8	43.3	15.4	22.9	38.4	34.7	24.0
Change Period (Y+Rc), s	4.2	* 6.9	4.6	* 5.4	4.2	* 6.9	4.5	4.6
Max Green Setting (Gmax), s	5.0	* 45	5.0	* 44	18.4	* 32	30.5	19.4
Max Q Clear Time (g_c+I1), s	2.8	27.5	2.6	7.0	18.8	29.7	30.2	20.9
Green Ext Time (p_c), s	0.3	5.1	0.3	0.1	0.0	1.2	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	48.7
HCM 2010 LOS	D

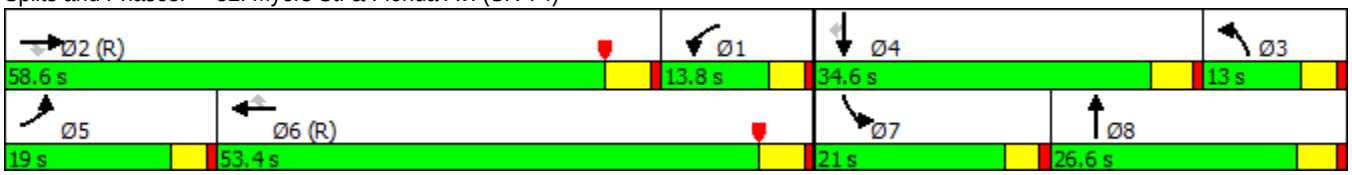
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	220	2015	281	125	2028	251	126	150	223	49	130
Future Volume (vph)	220	2015	281	125	2028	251	126	150	223	49	130
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	19.0	58.6	58.6	13.8	53.4	53.4	13.0	26.6	21.0	34.6	34.6
Total Split (%)	15.8%	48.8%	48.8%	11.5%	44.5%	44.5%	10.8%	22.2%	17.5%	28.8%	28.8%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	2015	281	125	2028	251	126	150	169	223	49	130
Future Volume (veh/h)	220	2015	281	125	2028	251	126	150	169	223	49	130
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	237	2167	292	134	2181	264	135	161	159	240	53	88
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	2267	706	461	3000	934	130	161	159	248	466	396
Arrive On Green	0.12	0.45	0.45	0.52	1.00	1.00	0.07	0.19	0.19	0.14	0.25	0.25
Sat Flow, veh/h	1774	5085	1583	1774	5085	1583	1774	862	851	1774	1863	1583
Grp Volume(v), veh/h	237	2167	292	134	2181	264	135	0	320	240	53	88
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1583	1774	0	1713	1774	1863	1583
Q Serve(g_s), s	14.8	49.4	15.0	5.1	0.0	0.0	8.8	0.0	22.4	16.1	2.6	5.3
Cycle Q Clear(g_c), s	14.8	49.4	15.0	5.1	0.0	0.0	8.8	0.0	22.4	16.1	2.6	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	219	2267	706	461	3000	934	130	0	320	248	466	396
V/C Ratio(X)	1.08	0.96	0.41	0.29	0.73	0.28	1.04	0.00	1.00	0.97	0.11	0.22
Avail Cap(c_a), veh/h	219	2267	706	461	3000	934	130	0	320	248	466	396
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	32.1	22.6	22.5	0.0	0.0	55.6	0.0	48.8	51.3	34.7	35.2
Incr Delay (d2), s/veh	84.7	11.0	1.8	0.1	1.6	0.8	89.3	0.0	50.6	47.3	0.5	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.4	25.4	6.9	2.5	0.4	0.2	7.5	0.0	15.1	11.2	1.4	2.4
LnGrp Delay(d),s/veh	137.3	43.1	24.4	22.7	1.6	0.8	145.4	0.0	99.4	98.6	35.2	36.5
LnGrp LOS	F	D	C	C	A	A	F		F	F	D	D
Approach Vol, veh/h		2696			2579			455			381	
Approach Delay, s/veh		49.4			2.6			113.0			75.5	
Approach LOS		D			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.7	58.6	13.4	34.6	19.0	76.3	21.0	27.0
Change Period (Y+Rc), s	5.1	* 5.1	4.6	* 4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	9.6	* 54	8.8	* 30	* 15	48.3	* 17	22.0
Max Q Clear Time (g_c+I1), s	7.1	51.4	10.8	7.3	16.8	2.0	18.1	24.4
Green Ext Time (p_c), s	1.7	2.1	0.0	0.5	0.0	38.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.0
HCM 2010 LOS	D

Notes

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	1687	122	1476	38
Future Volume (vph)	1687	122	1476	38
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	5.0
Minimum Split (s)	23.8	14.6	22.5	9.6
Total Split (s)	78.0	18.0	96.0	24.0
Total Split (%)	65.0%	15.0%	80.0%	20.0%
Yellow Time (s)	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBL and 6:, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 33: Fisher St. & New Stetson Av.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1687	39	122	1476	38	197
Future Volume (veh/h)	1687	39	122	1476	38	197
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	1834	42	133	1604	41	214
Adj No. of Lanes	2	0	1	2	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	2100	48	159	2554	49	258
Arrive On Green	0.59	0.59	0.09	0.72	0.19	0.19
Sat Flow, veh/h	3631	81	1774	3632	258	1348
Grp Volume(v), veh/h	914	962	133	1604	256	0
Grp Sat Flow(s),veh/h/ln	1770	1848	1774	1770	1612	0
Q Serve(g_s), s	52.1	52.9	8.9	27.7	18.3	0.0
Cycle Q Clear(g_c), s	52.1	52.9	8.9	27.7	18.3	0.0
Prop In Lane		0.04	1.00		0.16	0.84
Lane Grp Cap(c), veh/h	1050	1097	159	2554	309	0
V/C Ratio(X)	0.87	0.88	0.84	0.63	0.83	0.00
Avail Cap(c_a), veh/h	1065	1112	198	2660	309	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	1.00	0.00
Uniform Delay (d), s/veh	20.5	20.7	53.8	8.5	46.6	0.0
Incr Delay (d2), s/veh	7.9	8.0	2.0	0.0	21.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.5	29.1	4.4	13.4	10.1	0.0
LnGrp Delay(d),s/veh	28.4	28.7	55.8	8.5	68.5	0.0
LnGrp LOS	C	C	E	A	E	
Approach Vol, veh/h	1876			1737	256	
Approach Delay, s/veh	28.5			12.2	68.5	
Approach LOS	C			B	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		27.6	15.4	77.0				92.4
Change Period (Y+Rc), s		4.6	4.6	5.8				5.8
Max Green Setting (Gmax), s		19.4	13.4	72.2				90.2
Max Q Clear Time (g_c+I1), s		20.3	10.9	54.9				29.7
Green Ext Time (p_c), s		0.0	0.0	16.4				50.8

Intersection Summary	
HCM 2010 Ctrl Delay	23.8
HCM 2010 LOS	C

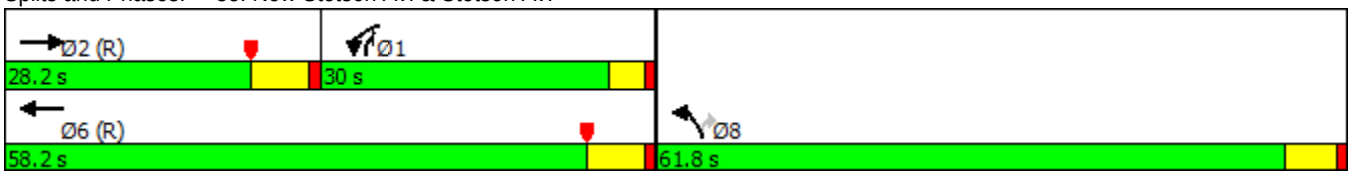
Notes

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	111	1577	115	26	1858
Future Volume (vph)	111	1577	115	26	1858
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	2	1	6	8	1
Permitted Phases					8
Detector Phase	2	1	6	8	1
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	9.2	16.2	32.8	9.2
Total Split (s)	28.2	30.0	58.2	61.8	30.0
Total Split (%)	23.5%	25.0%	48.5%	51.5%	25.0%
Yellow Time (s)	5.2	3.2	5.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.2	6.2	5.8	4.2
Lead/Lag	Lead	Lag			Lag
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	C-Max	None	C-Max	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 59 (49%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 35: New Stetson Av. & Stetson Av.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	111	21	1577	115	26	1858
Future Volume (veh/h)	111	21	1577	115	26	1858
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	121	23	1714	125	28	2020
Adj No. of Lanes	1	0	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	279	53	2300	1683	828	1797
Arrive On Green	0.18	0.18	0.89	1.00	0.47	0.47
Sat Flow, veh/h	1522	289	3442	1863	1774	1583
Grp Volume(v), veh/h	0	144	1714	125	28	2020
Grp Sat Flow(s),veh/h/ln	0	1812	1721	1863	1774	1583
Q Serve(g_s), s	0.0	8.5	19.7	0.0	1.0	56.0
Cycle Q Clear(g_c), s	0.0	8.5	19.7	0.0	1.0	56.0
Prop In Lane		0.16	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	332	2300	1683	828	1797
V/C Ratio(X)	0.00	0.43	0.75	0.07	0.03	1.12
Avail Cap(c_a), veh/h	0	332	2300	1683	828	1797
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.61	0.61	0.33	0.33
Uniform Delay (d), s/veh	0.0	43.5	3.3	0.0	17.3	3.8
Incr Delay (d2), s/veh	0.0	4.1	0.7	0.1	0.0	58.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.6	8.9	0.0	0.5	78.3
LnGrp Delay(d),s/veh	0.0	47.6	4.0	0.1	17.4	62.4
LnGrp LOS		D	A	A	B	F
Approach Vol, veh/h	144			1839	2048	
Approach Delay, s/veh	47.6			3.8	61.8	
Approach LOS	D			A	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	86.4	28.2				114.6		61.8
Change Period (Y+Rc), s	6.2	* 6.2				6.2		5.8
Max Green Setting (Gmax), s	25.8	* 22				52.0		56.0
Max Q Clear Time (g_c+I1), s	21.7	10.5				2.0		58.0
Green Ext Time (p_c), s	2.1	0.3				4.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.8
HCM 2010 LOS	C

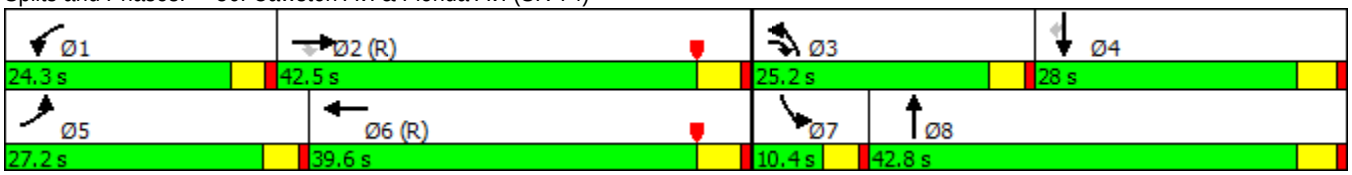
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	305	1086	617	223	1290	541	609	48	331	316
Future Volume (vph)	305	1086	617	223	1290	541	609	48	331	316
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	3	1	6	3	8	7	4	
Permitted Phases			2							4
Detector Phase	5	2	3	1	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	9.2	9.2	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	27.2	42.5	25.2	24.3	39.6	25.2	42.8	10.4	28.0	28.0
Total Split (%)	22.7%	35.4%	21.0%	20.3%	33.0%	21.0%	35.7%	8.7%	23.3%	23.3%
Yellow Time (s)	3.2	4.1	3.2	3.2	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	4.2	4.2	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 54 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	305	1086	617	223	1290	112	541	609	258	48	331	316
Future Volume (veh/h)	305	1086	617	223	1290	112	541	609	258	48	331	316
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	318	1131	641	232	1344	73	564	634	263	50	345	265
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	337	1695	805	259	1427	78	602	810	336	64	363	309
Arrive On Green	0.38	0.67	0.67	0.15	0.29	0.29	0.18	0.33	0.33	0.04	0.20	0.20
Sat Flow, veh/h	1774	5085	1583	1774	4936	268	3442	2426	1006	1774	1863	1583
Grp Volume(v), veh/h	318	1131	641	232	923	494	564	462	435	50	345	265
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1814	1721	1770	1663	1774	1863	1583
Q Serve(g_s), s	20.8	16.0	40.0	15.4	31.9	31.9	19.4	28.3	28.3	3.4	22.0	19.4
Cycle Q Clear(g_c), s	20.8	16.0	40.0	15.4	31.9	31.9	19.4	28.3	28.3	3.4	22.0	19.4
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.61	1.00		1.00
Lane Grp Cap(c), veh/h	337	1695	805	259	980	524	602	591	555	64	363	309
V/C Ratio(X)	0.94	0.67	0.80	0.90	0.94	0.94	0.94	0.78	0.78	0.78	0.95	0.86
Avail Cap(c_a), veh/h	340	1695	805	297	980	524	602	591	555	92	363	309
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	16.0	14.2	50.4	41.7	41.7	48.8	36.0	36.1	57.3	47.7	46.7
Incr Delay (d2), s/veh	33.7	2.1	8.0	23.8	17.7	27.2	22.0	10.0	10.6	14.1	36.1	25.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.2	7.6	21.7	9.2	17.3	19.9	11.1	15.4	14.5	1.9	15.0	10.7
LnGrp Delay(d),s/veh	70.3	18.1	22.2	74.1	59.4	68.9	70.8	46.0	46.6	71.5	83.8	72.0
LnGrp LOS	E	B	C	E	E	E	E	D	D	E	F	E
Approach Vol, veh/h		2090			1649			1461			660	
Approach Delay, s/veh		27.3			64.3			55.8			78.1	
Approach LOS		C			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.7	45.1	25.2	28.0	27.0	39.8	8.5	44.7
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 20	37.4	* 21	23.4	* 23	34.5	* 6.2	38.2
Max Q Clear Time (g_c+I1), s	17.4	42.0	21.4	24.0	22.8	33.9	5.4	30.3
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.0	0.6	0.0	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	50.5
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	229	1421	71	1335	25	99	115	60	8	66	257
Future Volume (vph)	229	1421	71	1335	25	99	115	60	8	66	257
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	27.0	80.9	13.0	66.9	66.9	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	22.5%	67.4%	10.8%	55.8%	55.8%	21.8%	21.8%	21.8%	21.8%	21.8%	21.8%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lag	Lag	Lead	Lead	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 1 (1%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 37: Cawston Av. & Stetson Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	1421	320	71	1335	25	99	115	60	8	66	257
Future Volume (veh/h)	229	1421	320	71	1335	25	99	115	60	8	66	257
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	241	1496	323	75	1405	23	104	121	-26	8	69	244
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	308	1871	393	94	1790	801	212	326	277	212	326	277
Arrive On Green	0.35	1.00	1.00	0.11	1.00	1.00	0.17	0.17	0.00	0.17	0.17	0.17
Sat Flow, veh/h	1774	2912	612	1774	3539	1583	1062	1863	1583	1295	1863	1583
Grp Volume(v), veh/h	241	893	926	75	1405	23	104	121	-26	8	69	244
Grp Sat Flow(s),veh/h/ln	1774	1770	1755	1774	1770	1583	1062	1863	1583	1295	1863	1583
Q Serve(g_s), s	14.6	0.0	0.0	5.0	0.0	0.0	11.2	6.9	0.0	0.7	3.8	18.0
Cycle Q Clear(g_c), s	14.6	0.0	0.0	5.0	0.0	0.0	15.0	6.9	0.0	7.5	3.8	18.0
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	308	1137	1128	94	1790	801	212	326	277	212	326	277
V/C Ratio(X)	0.78	0.79	0.82	0.79	0.78	0.03	0.49	0.37	-0.09	0.04	0.21	0.88
Avail Cap(c_a), veh/h	337	1137	1128	130	1790	801	212	326	277	212	326	277
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.62	0.62	0.62	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	0.0	0.0	53.0	0.0	0.0	48.8	43.7	0.0	47.0	42.4	48.3
Incr Delay (d2), s/veh	0.9	0.5	0.7	9.1	2.2	0.0	7.9	3.2	0.0	0.3	1.5	30.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.2	0.2	2.7	0.6	0.0	3.7	3.8	0.0	0.3	2.1	10.2
LnGrp Delay(d),s/veh	38.1	0.5	0.7	62.1	2.2	0.0	56.7	46.9	0.0	47.3	43.9	78.8
LnGrp LOS	D	A	A	E	A	A	E	D		D	D	E
Approach Vol, veh/h		2060			1503			199			321	
Approach Delay, s/veh		5.0			5.2			58.2			70.5	
Approach LOS		A			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.6	83.3		26.1	27.0	66.9		26.1
Change Period (Y+Rc), s	* 4.2	6.2		5.1	6.2	* 6.2		5.1
Max Green Setting (Gmax), s	* 8.8	74.7		21.0	22.8	* 61		21.0
Max Q Clear Time (g_c+I1), s	7.0	2.0		20.0	16.6	2.0		17.0
Green Ext Time (p_c), s	0.0	11.4		0.2	2.0	7.6		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	12.8
HCM 2010 LOS	B

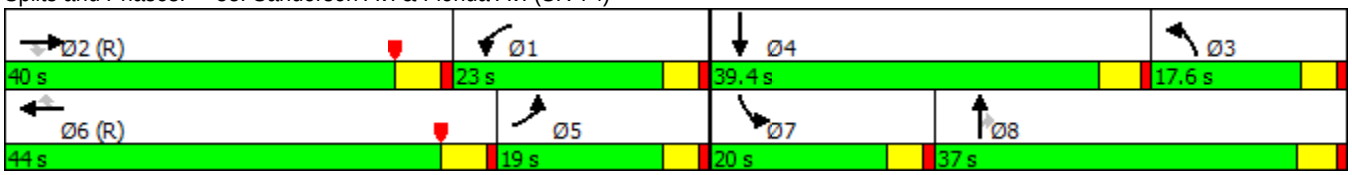
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	292	779	247	396	789	415	238	1124	246	324	916
Future Volume (vph)	292	779	247	396	789	415	238	1124	246	324	916
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6		3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	6	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7
Total Split (s)	19.0	40.0	40.0	23.0	44.0	44.0	17.6	37.0	37.0	20.0	39.4
Total Split (%)	15.8%	33.3%	33.3%	19.2%	36.7%	36.7%	14.7%	30.8%	30.8%	16.7%	32.8%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 119 (99%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	292	779	247	396	789	415	238	1124	246	324	916	154
Future Volume (veh/h)	292	779	247	396	789	415	238	1124	246	324	916	154
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	295	787	209	400	797	362	240	1135	162	327	925	98
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	485	1029	452	599	1147	505	310	1382	422	384	1349	142
Arrive On Green	0.14	0.29	0.29	0.17	0.32	0.32	0.09	0.27	0.27	0.11	0.29	0.29
Sat Flow, veh/h	3442	3539	1556	3442	3539	1558	3442	5085	1551	3442	4665	493
Grp Volume(v), veh/h	295	787	209	400	797	362	240	1135	162	327	671	352
Grp Sat Flow(s),veh/h/ln	1721	1770	1556	1721	1770	1558	1721	1695	1551	1721	1695	1767
Q Serve(g_s), s	9.7	24.3	13.2	13.0	23.6	17.7	8.2	25.1	6.7	11.2	21.1	21.2
Cycle Q Clear(g_c), s	9.7	24.3	13.2	13.0	23.6	17.7	8.2	25.1	6.7	11.2	21.1	21.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	485	1029	452	599	1147	505	310	1382	422	384	980	511
V/C Ratio(X)	0.61	0.76	0.46	0.67	0.69	0.72	0.77	0.82	0.38	0.85	0.68	0.69
Avail Cap(c_a), veh/h	485	1029	452	599	1147	505	384	1382	422	453	980	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	38.8	34.9	46.3	35.4	18.5	53.4	41.0	15.4	52.3	37.8	37.8
Incr Delay (d2), s/veh	1.6	5.4	3.4	2.3	3.5	8.5	5.8	5.6	2.6	11.3	3.9	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	12.7	6.1	6.4	12.1	8.8	4.2	12.5	3.2	5.9	10.4	11.4
LnGrp Delay(d),s/veh	50.0	44.2	38.2	48.6	38.9	27.0	59.3	46.6	18.1	63.6	41.7	45.2
LnGrp LOS	D	D	D	D	D	C	E	D	B	E	D	D
Approach Vol, veh/h		1291			1559			1537			1350	
Approach Delay, s/veh		44.6			38.6			45.5			47.9	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.1	40.0	15.5	39.4	21.1	44.0	17.6	37.3
Change Period (Y+Rc), s	4.2	* 5.1	* 4.7	* 4.7	4.2	* 5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	18.8	* 35	* 13	* 35	14.8	* 39	* 16	* 32
Max Q Clear Time (g_c+I1), s	15.0	26.3	10.2	23.2	11.7	25.6	13.2	27.1
Green Ext Time (p_c), s	0.6	4.8	0.6	5.2	0.6	7.3	0.2	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	44.0
HCM 2010 LOS	D

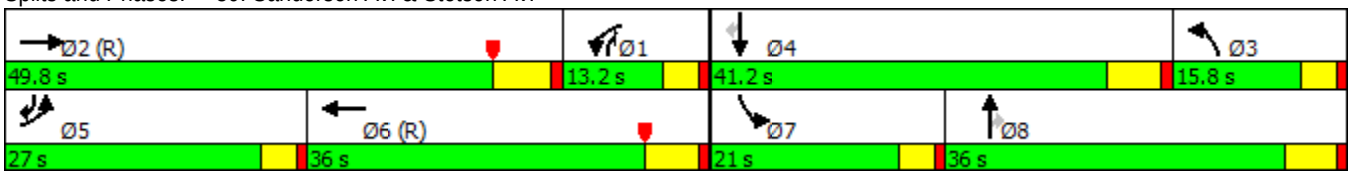
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	527	750	120	731	206	746	164	397	729	495
Future Volume (vph)	527	750	120	731	206	746	164	397	729	495
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8	1	7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8	9.2
Total Split (s)	27.0	49.8	13.2	36.0	15.8	36.0	13.2	21.0	41.2	27.0
Total Split (%)	22.5%	41.5%	11.0%	30.0%	13.2%	30.0%	11.0%	17.5%	34.3%	22.5%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 64 (53%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	527	750	212	120	731	295	206	746	164	397	729	495
Future Volume (veh/h)	527	750	212	120	731	295	206	746	164	397	729	495
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	543	773	217	124	754	283	212	769	-200	409	752	499
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	605	1430	397	224	984	366	275	899	505	462	1044	745
Arrive On Green	0.06	0.12	0.12	0.07	0.27	0.27	0.08	0.25	0.00	0.13	0.30	0.30
Sat Flow, veh/h	3442	3936	1093	3442	3654	1358	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	543	665	325	124	699	338	212	769	-200	409	752	499
Grp Sat Flow(s),veh/h/ln	1721	1695	1638	1721	1695	1621	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	18.8	22.1	22.4	4.2	22.8	23.1	7.2	24.8	0.0	14.0	22.8	17.5
Cycle Q Clear(g_c), s	18.8	22.1	22.4	4.2	22.8	23.1	7.2	24.8	0.0	14.0	22.8	17.5
Prop In Lane	1.00		0.67	1.00		0.84	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	605	1232	595	224	913	437	275	899	505	462	1044	745
V/C Ratio(X)	0.90	0.54	0.55	0.55	0.77	0.77	0.77	0.86	-0.40	0.89	0.72	0.67
Avail Cap(c_a), veh/h	654	1232	595	258	913	437	333	899	505	482	1044	745
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.51	0.51	0.51	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	43.4	43.5	54.4	40.4	40.5	54.1	42.7	0.0	51.0	37.9	10.3
Incr Delay (d2), s/veh	7.8	0.9	1.8	0.8	6.1	12.6	6.9	10.2	0.0	16.5	4.3	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	10.6	10.5	2.0	11.5	11.9	3.7	13.5	0.0	7.7	11.8	8.6
LnGrp Delay(d),s/veh	63.2	44.2	45.3	55.2	46.4	53.0	61.0	52.9	0.0	67.6	42.2	15.0
LnGrp LOS	E	D	D	E	D	D	E	D		E	D	B
Approach Vol, veh/h		1533			1161			781			1660	
Approach Delay, s/veh		51.2			49.3			68.6			40.3	
Approach LOS		D			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	49.8	15.4	41.2	25.3	38.1	20.3	36.3
Change Period (Y+Rc), s	5.8	* 6.2	5.8	* 5.8	* 4.2	5.8	* 4.2	5.8
Max Green Setting (Gmax), s	9.0	* 44	11.6	* 35	* 23	30.2	* 17	30.2
Max Q Clear Time (g_c+I1), s	6.2	24.4	9.2	24.8	20.8	25.1	16.0	26.8
Green Ext Time (p_c), s	0.2	5.8	0.3	6.3	0.3	2.8	0.1	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	49.9
HCM 2010 LOS	D

Notes

APPENDIX 8.6:

GENERAL PLAN BUILDOUT (2040) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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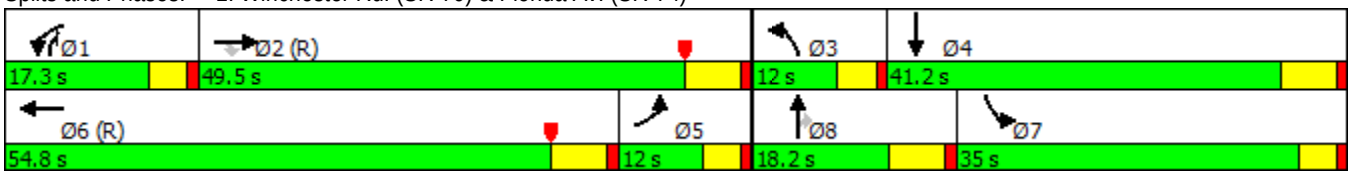
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	75	1693	464	338	1310	212	79	321	228	382
Future Volume (vph)	75	1693	464	338	1310	212	79	321	228	382
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2		1	6	3	8	1	7	4
Permitted Phases			2					8		
Detector Phase	5	2	2	1	6	3	8	1	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	16.0	16.0	9.6	16.0	11.2	16.0	9.6	24.2	16.0
Total Split (s)	12.0	49.5	49.5	17.3	54.8	12.0	18.2	17.3	35.0	41.2
Total Split (%)	10.0%	41.3%	41.3%	14.4%	45.7%	10.0%	15.2%	14.4%	29.2%	34.3%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	4.5	6.0	4.5	4.5	6.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	1693	464	338	1310	63	212	79	321	228	382	188
Future Volume (veh/h)	75	1693	464	338	1310	63	212	79	321	228	382	188
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	77	1745	439	348	1351	63	219	81	151	235	394	194
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	2303	717	367	2025	94	215	189	329	429	346	170
Arrive On Green	0.14	0.45	0.45	0.11	0.41	0.41	0.06	0.10	0.10	0.24	0.29	0.29
Sat Flow, veh/h	1774	5085	1583	3442	4979	232	3442	1863	1579	1774	1179	581
Grp Volume(v), veh/h	77	1745	439	348	920	494	219	81	151	235	0	588
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1821	1721	1863	1579	1774	0	1760
Q Serve(g_s), s	4.7	34.3	25.2	12.1	26.5	26.5	7.5	4.9	6.4	13.9	0.0	35.2
Cycle Q Clear(g_c), s	4.7	34.3	25.2	12.1	26.5	26.5	7.5	4.9	6.4	13.9	0.0	35.2
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	249	2303	717	367	1379	741	215	189	329	429	0	516
V/C Ratio(X)	0.31	0.76	0.61	0.95	0.67	0.67	1.02	0.43	0.46	0.55	0.00	1.14
Avail Cap(c_a), veh/h	249	2303	717	367	1379	741	215	189	329	451	0	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.4	27.3	24.9	53.3	29.0	29.0	56.3	50.6	22.4	39.8	0.0	42.4
Incr Delay (d2), s/veh	0.3	2.4	3.9	33.3	2.6	4.7	66.1	6.9	4.5	0.6	0.0	83.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	16.5	11.7	7.5	12.9	14.3	5.5	2.9	3.2	6.9	0.0	29.1
LnGrp Delay(d),s/veh	46.6	29.7	28.7	86.6	31.6	33.7	122.5	57.5	27.0	40.4	0.0	126.3
LnGrp LOS	D	C	C	F	C	C	F	E	C	D		F
Approach Vol, veh/h		2261			1762			451			823	
Approach Delay, s/veh		30.1			43.0			78.9			101.8	
Approach LOS		C			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.3	60.5	12.0	41.2	23.0	54.8	35.0	18.2
Change Period (Y+Rc), s	4.5	6.0	4.5	6.0	6.0	* 6	6.0	* 6
Max Green Setting (Gmax), s	12.8	43.5	7.5	35.2	7.5	* 49	30.5	* 12
Max Q Clear Time (g_c+I1), s	14.1	36.3	9.5	37.2	6.7	28.5	15.9	8.4
Green Ext Time (p_c), s	0.0	6.5	0.0	0.0	0.0	8.8	5.1	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	49.7
HCM 2010 LOS	D

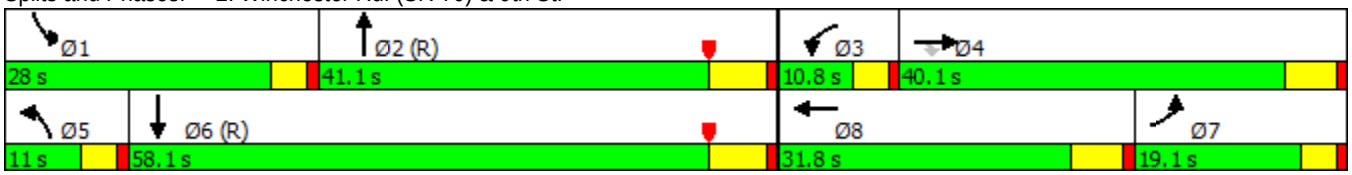
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	150	544	189	33	51	53	650	258	743
Future Volume (vph)	150	544	189	33	51	53	650	258	743
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.2	31.8	31.8	9.2	31.8	9.2	32.2	9.2	32.2
Total Split (s)	19.1	40.1	40.1	10.8	31.8	11.0	41.1	28.0	58.1
Total Split (%)	15.9%	33.4%	33.4%	9.0%	26.5%	9.2%	34.3%	23.3%	48.4%
Yellow Time (s)	3.2	4.8	4.8	3.2	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	5.8	4.2	5.8	4.2	6.2	4.2	6.2
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 62.9 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	544	189	33	51	175	53	650	113	258	743	297
Future Volume (veh/h)	150	544	189	33	51	175	53	650	113	258	743	297
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	161	585	203	35	55	188	57	699	122	277	799	319
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	849	380	51	249	223	73	1176	205	304	1286	513
Arrive On Green	0.11	0.24	0.24	0.03	0.14	0.14	0.04	0.39	0.39	0.17	0.52	0.52
Sat Flow, veh/h	1774	3539	1583	1774	1770	1583	1774	3014	526	1774	2473	986
Grp Volume(v), veh/h	161	585	203	35	55	188	57	410	411	277	571	547
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1770	1774	1770	1689
Q Serve(g_s), s	10.6	18.1	13.4	2.3	3.3	13.9	3.8	22.1	22.1	18.4	27.5	27.6
Cycle Q Clear(g_c), s	10.6	18.1	13.4	2.3	3.3	13.9	3.8	22.1	22.1	18.4	27.5	27.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		0.58
Lane Grp Cap(c), veh/h	203	849	380	51	249	223	73	690	691	304	920	878
V/C Ratio(X)	0.79	0.69	0.53	0.69	0.22	0.84	0.78	0.59	0.59	0.91	0.62	0.62
Avail Cap(c_a), veh/h	220	1012	453	98	383	343	101	690	691	352	920	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	41.5	39.8	57.7	45.7	50.2	57.0	29.0	29.1	48.8	20.4	20.4
Incr Delay (d2), s/veh	14.9	1.6	1.2	6.0	0.4	10.9	13.5	3.3	3.3	23.5	3.1	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	9.0	6.0	1.2	1.6	6.7	2.1	11.3	11.5	11.0	14.1	13.6
LnGrp Delay(d),s/veh	66.6	43.1	40.9	63.7	46.1	61.1	70.5	32.3	32.3	72.3	23.6	23.7
LnGrp LOS	E	D	D	E	D	E	E	C	C	E	C	C
Approach Vol, veh/h		949			278			878			1395	
Approach Delay, s/veh		46.6			58.5			34.8			33.3	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.7	53.0	7.6	34.6	9.2	68.6	19.5	22.7
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	* 4.2	6.2	5.8	* 5.8
Max Green Setting (Gmax), s	* 24	34.9	* 6.6	34.3	* 6.8	51.9	14.9	* 26
Max Q Clear Time (g_c+I1), s	20.4	24.1	4.3	20.1	5.8	29.6	12.6	15.9
Green Ext Time (p_c), s	0.1	9.0	0.0	4.4	0.0	16.4	1.2	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.3
HCM 2010 LOS	D

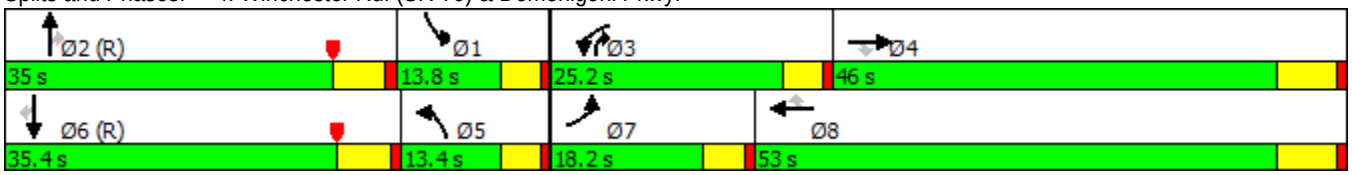
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	208	1568	86	495	673	67	45	169	633	118	390	303
Future Volume (vph)	208	1568	86	495	673	67	45	169	633	118	390	303
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	28.9	28.9	9.6	28.9	28.9	9.6	33.8	9.6	9.6	33.8	33.8
Total Split (s)	18.2	46.0	46.0	25.2	53.0	53.0	13.4	35.0	25.2	13.8	35.4	35.4
Total Split (%)	15.2%	38.3%	38.3%	21.0%	44.2%	44.2%	11.2%	29.2%	21.0%	11.5%	29.5%	29.5%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	3.6	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	6.5	4.6	6.5	6.5	4.6	5.8	4.6	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 28 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	208	1568	86	495	673	67	45	169	633	118	390	303
Future Volume (veh/h)	208	1568	86	495	673	67	45	169	633	118	390	303
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	226	1704	56	538	732	61	49	184	426	128	424	230
Adj No. of Lanes	2	3	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	283	1674	521	591	2128	663	130	861	657	136	873	391
Arrive On Green	0.08	0.33	0.33	0.06	0.14	0.14	0.07	0.24	0.24	0.08	0.25	0.25
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	226	1704	56	538	732	61	49	184	426	128	424	230
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	7.7	39.5	2.2	18.7	15.6	2.9	3.2	5.0	16.9	8.6	12.3	11.9
Cycle Q Clear(g_c), s	7.7	39.5	2.2	18.7	15.6	2.9	3.2	5.0	16.9	8.6	12.3	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	283	1674	521	591	2128	663	130	861	657	136	873	391
V/C Ratio(X)	0.80	1.02	0.11	0.91	0.34	0.09	0.38	0.21	0.65	0.94	0.49	0.59
Avail Cap(c_a), veh/h	390	1674	521	591	2128	663	130	861	657	136	873	391
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	54.1	40.3	15.9	55.7	36.8	16.0	53.0	36.2	13.1	55.1	38.7	24.0
Incr Delay (d2), s/veh	5.4	26.6	0.1	14.9	0.1	0.0	0.7	0.6	4.9	53.2	1.6	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	22.6	1.0	10.1	7.4	1.3	1.6	2.5	8.2	6.2	6.2	5.8
LnGrp Delay(d),s/veh	59.4	66.9	16.0	70.6	36.9	16.0	53.7	36.8	18.0	108.4	40.3	29.4
LnGrp LOS	E	F	B	E	D	B	D	D	B	F	D	C
Approach Vol, veh/h		1986			1331			659			782	
Approach Delay, s/veh		64.6			49.6			25.9			48.3	
Approach LOS		E			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	35.0	25.2	46.0	13.4	35.4	14.5	56.7
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5
Max Green Setting (Gmax), s	9.2	29.2	20.6	39.5	8.8	29.6	13.6	46.5
Max Q Clear Time (g_c+I1), s	10.6	18.9	20.7	41.5	5.2	14.3	9.7	17.6
Green Ext Time (p_c), s	0.0	2.8	0.0	0.0	0.1	4.1	0.1	20.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.3
HCM 2010 LOS	D

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	214	145	84	225	446	206
Future Volume (vph)	214	145	84	225	446	206
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	24.2	16.2	24.2	24.2	16.2	24.2
Total Split (s)	35.0	59.0	26.0	35.0	59.0	85.0
Total Split (%)	29.2%	49.2%	21.7%	29.2%	49.2%	70.8%
Yellow Time (s)	3.6	3.6	4.8	3.6	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	4.6	4.6	5.8
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 5: Patterson Av. & Grand Av.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	214	145	84	225	446	206
Future Volume (veh/h)	214	145	84	225	446	206
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	264	179	104	278	551	254
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	297	1103	314	531	939	1390
Arrive On Green	0.17	0.17	0.17	0.17	0.53	0.75
Sat Flow, veh/h	1774	1583	1863	1583	1774	1863
Grp Volume(v), veh/h	264	179	104	278	551	254
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863
Q Serve(g_s), s	17.5	0.0	5.9	17.0	25.4	4.8
Cycle Q Clear(g_c), s	17.5	0.0	5.9	17.0	25.4	4.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	297	1103	314	531	939	1390
V/C Ratio(X)	0.89	0.16	0.33	0.52	0.59	0.18
Avail Cap(c_a), veh/h	449	1239	314	531	939	1390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.9	6.2	44.0	32.1	19.3	4.5
Incr Delay (d2), s/veh	9.8	0.0	2.8	3.7	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	2.0	3.3	9.7	12.6	2.6
LnGrp Delay(d),s/veh	58.7	6.2	46.8	35.8	19.9	4.8
LnGrp LOS	E	A	D	D	B	A
Approach Vol, veh/h	443		382			805
Approach Delay, s/veh	37.5		38.8			15.1
Approach LOS	D		D			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	69.3	26.0				95.3		24.7
Change Period (Y+Rc), s	5.8	* 5.8				5.8		4.6
Max Green Setting (Gmax), s	54.4	* 20				79.2		30.4
Max Q Clear Time (g_c+I1), s	27.4	19.0				6.8		19.5
Green Ext Time (p_c), s	2.0	0.2				2.0		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	26.8
HCM 2010 LOS	C

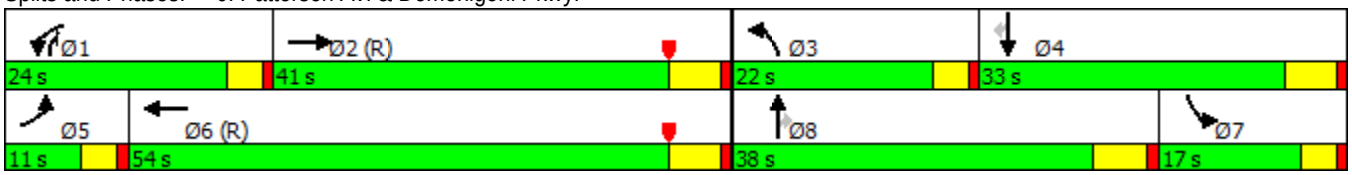
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	43	2070	557	725	247	86	538	166	129	263
Future Volume (vph)	43	2070	557	725	247	86	538	166	129	263
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8	1	7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.8	9.2	32.8	9.2	32.8	9.2	9.2	32.8	32.8
Total Split (s)	11.0	41.0	24.0	54.0	22.0	38.0	24.0	17.0	33.0	33.0
Total Split (%)	9.2%	34.2%	20.0%	45.0%	18.3%	31.7%	20.0%	14.2%	27.5%	27.5%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	4.2	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 45 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 6: Patterson Av. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	2070	206	557	725	113	247	86	538	166	129	263
Future Volume (veh/h)	43	2070	206	557	725	113	247	86	538	166	129	263
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	48	2300	229	619	806	126	274	96	598	184	143	292
Adj No. of Lanes	1	3	0	2	3	0	1	1	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	62	3450	337	568	3823	593	263	500	686	189	447	380
Arrive On Green	0.01	0.24	0.24	0.17	0.86	0.86	0.15	0.27	0.27	0.11	0.24	0.24
Sat Flow, veh/h	1774	4705	460	3442	4428	687	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	48	1645	884	619	616	316	274	96	598	184	143	292
Grp Sat Flow(s),veh/h/ln	1774	1695	1775	1721	1695	1725	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	3.2	52.6	54.2	19.8	3.6	3.7	17.8	4.8	32.2	12.4	7.6	20.6
Cycle Q Clear(g_c), s	3.2	52.6	54.2	19.8	3.6	3.7	17.8	4.8	32.2	12.4	7.6	20.6
Prop In Lane	1.00		0.26	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	62	2486	1302	568	2927	1489	263	500	686	189	447	380
V/C Ratio(X)	0.78	0.66	0.68	1.09	0.21	0.21	1.04	0.19	0.87	0.97	0.32	0.77
Avail Cap(c_a), veh/h	101	2486	1302	568	2927	1489	263	500	686	189	447	380
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.8	32.0	32.7	50.1	1.4	1.4	51.1	33.9	99.7	53.4	37.5	42.5
Incr Delay (d2), s/veh	0.7	0.1	0.3	64.6	0.2	0.3	66.6	0.9	14.3	56.9	1.9	13.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	24.8	26.9	14.5	1.7	1.8	13.6	2.6	2.7	9.1	4.1	10.5
LnGrp Delay(d),s/veh	59.6	32.2	32.9	114.7	1.5	1.7	117.7	34.7	114.0	110.4	39.4	56.4
LnGrp LOS	E	C	C	F	A	A	F	C	F	F	D	E
Approach Vol, veh/h		2577			1551			968			619	
Approach Delay, s/veh		32.9			46.7			107.2			68.5	
Approach LOS		C			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	95.4	22.0	34.6	8.4	111.0	18.6	38.0
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 20	35.2	* 18	27.2	* 6.8	48.2	12.8	* 32
Max Q Clear Time (g_c+I1), s	21.8	56.2	19.8	22.6	5.2	5.7	14.4	34.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	35.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	53.1
HCM 2010 LOS	D

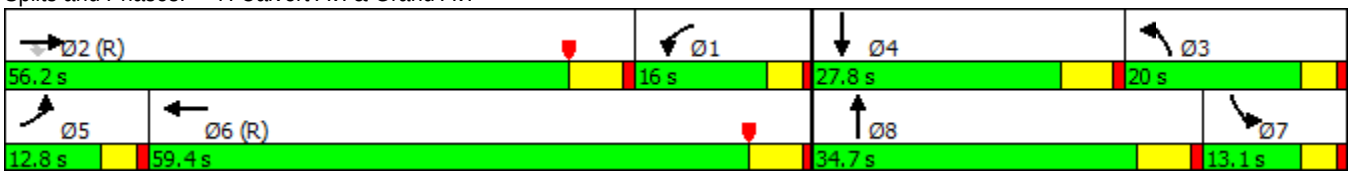
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	41	1244	429	121	744	170	24	46	115
Future Volume (vph)	41	1244	429	121	744	170	24	46	115
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	27.8	27.8	9.5	27.8	9.5	27.8	9.5	27.8
Total Split (s)	12.8	56.2	56.2	16.0	59.4	20.0	34.7	13.1	27.8
Total Split (%)	10.7%	46.8%	46.8%	13.3%	49.5%	16.7%	28.9%	10.9%	23.2%
Yellow Time (s)	3.2	4.8	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 7: Calvert Av. & Grand Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	1244	429	121	744	14	170	24	80	46	115	81
Future Volume (veh/h)	41	1244	429	121	744	14	170	24	80	46	115	81
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	45	1352	466	132	809	15	185	26	87	50	125	88
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	1486	665	172	1770	33	212	91	304	110	187	132
Arrive On Green	0.03	0.42	0.42	0.10	0.50	0.50	0.12	0.24	0.24	0.06	0.18	0.18
Sat Flow, veh/h	1774	3539	1583	1774	3555	66	1774	377	1263	1774	1019	717
Grp Volume(v), veh/h	45	1352	466	132	403	421	185	0	113	50	0	213
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1851	1774	0	1640	1774	0	1736
Q Serve(g_s), s	3.0	43.0	29.0	8.7	17.7	17.8	12.3	0.0	6.7	3.3	0.0	13.7
Cycle Q Clear(g_c), s	3.0	43.0	29.0	8.7	17.7	17.8	12.3	0.0	6.7	3.3	0.0	13.7
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.77	1.00		0.41
Lane Grp Cap(c), veh/h	58	1486	665	172	881	922	212	0	395	110	0	318
V/C Ratio(X)	0.78	0.91	0.70	0.77	0.46	0.46	0.87	0.00	0.29	0.46	0.00	0.67
Avail Cap(c_a), veh/h	127	1486	665	174	881	922	234	0	395	132	0	318
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.6	32.7	28.6	52.8	19.6	19.6	51.9	0.0	37.1	54.3	0.0	45.6
Incr Delay (d2), s/veh	8.1	9.8	6.1	16.3	1.7	1.6	25.1	0.0	1.8	1.1	0.0	10.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	23.1	13.8	5.1	9.0	9.4	7.5	0.0	3.2	1.6	0.0	7.5
LnGrp Delay(d),s/veh	65.8	42.5	34.7	69.1	21.3	21.2	77.0	0.0	39.0	55.4	0.0	56.3
LnGrp LOS	E	D	C	E	C	C	E		D	E		E
Approach Vol, veh/h		1863			956			298			263	
Approach Delay, s/veh		41.1			27.9			62.6			56.1	
Approach LOS		D			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	56.2	18.5	27.8	8.1	65.6	11.6	34.7
Change Period (Y+Rc), s	5.8	* 5.8	4.2	* 5.8	* 4.2	5.8	4.2	* 5.8
Max Green Setting (Gmax), s	11.8	* 50	15.8	* 22	* 8.6	53.6	8.9	* 29
Max Q Clear Time (g_c+I1), s	10.7	45.0	14.3	15.7	5.0	19.8	5.3	8.7
Green Ext Time (p_c), s	0.1	4.1	0.1	0.6	0.0	5.2	0.1	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	40.4
HCM 2010 LOS	D

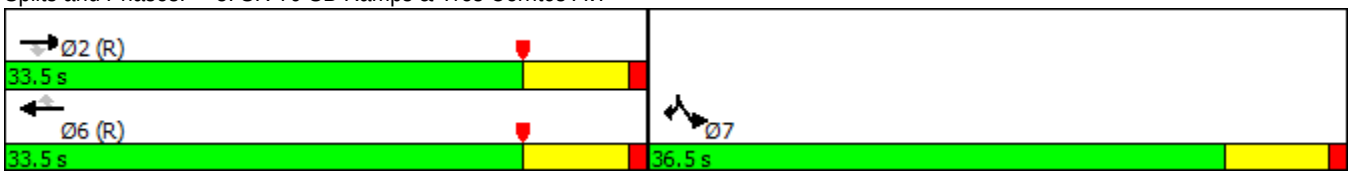
Notes

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	26	9	32	351	575	12
Future Volume (vph)	26	9	32	351	575	12
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	33.5	33.5	33.5	33.5	36.5	36.5
Total Split (%)	47.9%	47.9%	47.9%	47.9%	52.1%	52.1%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 8: SR-79 SB Ramps & Tres Cerritos Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	26	9	0	32	351	0	0	0	575	0	12
Future Volume (veh/h)	0	26	9	0	32	351	0	0	0	575	0	12
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	28	10	0	35	382				625	0	13
Adj No. of Lanes	0	2	1	0	2	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	1537	688	0	1537	688				674	0	602
Arrive On Green	0.00	0.43	0.43	0.00	0.43	0.43				0.38	0.00	0.38
Sat Flow, veh/h	0	3632	1583	0	3632	1583				1774	0	1583
Grp Volume(v), veh/h	0	28	10	0	35	382				625	0	13
Grp Sat Flow(s),veh/h/ln	0	1770	1583	0	1770	1583				1774	0	1583
Q Serve(g_s), s	0.0	0.3	0.3	0.0	0.4	12.6				23.6	0.0	0.4
Cycle Q Clear(g_c), s	0.0	0.3	0.3	0.0	0.4	12.6				23.6	0.0	0.4
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1537	688	0	1537	688				674	0	602
V/C Ratio(X)	0.00	0.02	0.01	0.00	0.02	0.56				0.93	0.00	0.02
Avail Cap(c_a), veh/h	0	1537	688	0	1537	688				760	0	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.99	0.99				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.3	11.3	0.0	11.3	14.8				20.8	0.0	13.6
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	3.2				16.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.1	0.0	0.2	12.1				14.5	0.0	0.2
LnGrp Delay(d),s/veh	0.0	11.3	11.3	0.0	11.3	17.9				37.1	0.0	13.6
LnGrp LOS		B	B		B	B				D		B
Approach Vol, veh/h		38			417						638	
Approach Delay, s/veh		11.3			17.4						36.7	
Approach LOS		B			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		36.9		33.1		36.9		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		27.0		30.0		27.0		
Max Q Clear Time (g_c+I1), s		2.3		25.6		14.6		
Green Ext Time (p_c), s		2.7		1.0		2.1		

Intersection Summary	
HCM 2010 Ctrl Delay	28.4
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2118	309	1388	392	424	217
Future Volume (vph)	2118	309	1388	392	424	217
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	36.0	36.0	36.0	36.0	24.0	24.0
Total Split (%)	60.0%	60.0%	60.0%	60.0%	40.0%	40.0%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 9: SR-79 SB Ramps & Florida Av. (SR-74)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰		↱
Traffic Volume (veh/h)	0	2118	309	0	1388	392	0	0	0	424	0	217
Future Volume (veh/h)	0	2118	309	0	1388	392	0	0	0	424	0	217
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	2302	336	0	1509	426				461	0	236
Adj No. of Lanes	0	3	1	0	3	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	2527	787	0	2527	787				508	0	453
Arrive On Green	0.00	0.50	0.50	0.00	0.50	0.50				0.29	0.00	0.29
Sat Flow, veh/h	0	5253	1583	0	5253	1583				1774	0	1583
Grp Volume(v), veh/h	0	2302	336	0	1509	426				461	0	236
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1774	0	1583
Q Serve(g_s), s	0.0	25.0	8.1	0.0	12.7	11.1				15.0	0.0	7.5
Cycle Q Clear(g_c), s	0.0	25.0	8.1	0.0	12.7	11.1				15.0	0.0	7.5
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2527	787	0	2527	787				508	0	453
V/C Ratio(X)	0.00	0.91	0.43	0.00	0.60	0.54				0.91	0.00	0.52
Avail Cap(c_a), veh/h	0	2527	787	0	2527	787				517	0	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.74	0.74				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.9	9.6	0.0	10.8	10.4				20.6	0.0	18.0
Incr Delay (d2), s/veh	0.0	6.3	1.7	0.0	0.8	2.0				19.6	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.0	3.9	0.0	6.1	5.2				10.1	0.0	3.4
LnGrp Delay(d),s/veh	0.0	20.2	11.3	0.0	11.6	12.4				40.2	0.0	19.0
LnGrp LOS		C	B		B	B				D		B
Approach Vol, veh/h		2638			1935						697	
Approach Delay, s/veh		19.0			11.7						33.0	
Approach LOS		B			B						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		36.3		23.7		36.3		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		29.5		17.5		29.5		
Max Q Clear Time (g_c+I1), s		27.0		17.0		14.7		
Green Ext Time (p_c), s		2.4		0.1		9.5		

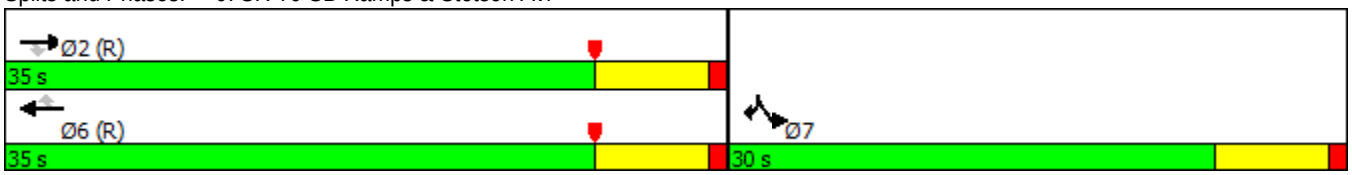
Intersection Summary	
HCM 2010 Ctrl Delay	18.2
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1084	292	614	306	459	251
Future Volume (vph)	1084	292	614	306	459	251
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	35.0	35.0	35.0	35.0	30.0	30.0
Total Split (%)	53.8%	53.8%	53.8%	53.8%	46.2%	46.2%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 9: SR-79 SB Ramps & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1084	292	0	614	306	0	0	0	459	0	251
Future Volume (veh/h)	0	1084	292	0	614	306	0	0	0	459	0	251
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	1178	317	0	667	333				499	0	273
Adj No. of Lanes	0	2	1	0	2	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	1713	766	0	1713	766				561	0	500
Arrive On Green	0.00	0.48	0.48	0.00	0.97	0.97				0.32	0.00	0.32
Sat Flow, veh/h	0	3632	1583	0	3632	1583				1774	0	1583
Grp Volume(v), veh/h	0	1178	317	0	667	333				499	0	273
Grp Sat Flow(s),veh/h/ln	0	1770	1583	0	1770	1583				1774	0	1583
Q Serve(g_s), s	0.0	16.7	8.4	0.0	0.6	0.8				17.4	0.0	9.3
Cycle Q Clear(g_c), s	0.0	16.7	8.4	0.0	0.6	0.8				17.4	0.0	9.3
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1713	766	0	1713	766				561	0	500
V/C Ratio(X)	0.00	0.69	0.41	0.00	0.39	0.43				0.89	0.00	0.55
Avail Cap(c_a), veh/h	0	1713	766	0	1713	766				641	0	572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.89	0.89				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.0	10.8	0.0	0.5	0.5				21.2	0.0	18.4
Incr Delay (d2), s/veh	0.0	2.3	1.6	0.0	0.6	1.6				13.4	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.6	4.0	0.0	0.3	6.5				10.5	0.0	4.1
LnGrp Delay(d),s/veh	0.0	15.2	12.5	0.0	1.1	2.1				34.5	0.0	19.3
LnGrp LOS		B	B		A	A				C		B
Approach Vol, veh/h		1495			1000						772	
Approach Delay, s/veh		14.7			1.5						29.1	
Approach LOS		B			A						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		38.0		27.0		38.0		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		28.5		23.5		28.5		
Max Q Clear Time (g_c+I1), s		18.7		19.4		2.8		
Green Ext Time (p_c), s		8.0		1.1		17.1		

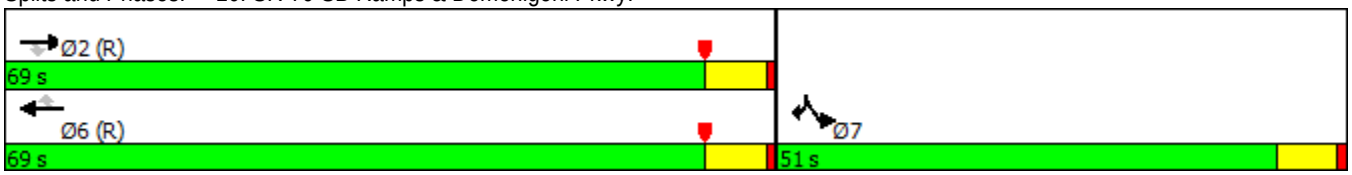
Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2517	257	1177	217	520	218
Future Volume (vph)	2517	257	1177	217	520	218
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	69.0	69.0	69.0	69.0	51.0	51.0
Total Split (%)	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 10: SR-79 SB Ramps & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰		↱
Traffic Volume (veh/h)	0	2517	257	0	1177	217	0	0	0	520	0	218
Future Volume (veh/h)	0	2517	257	0	1177	217	0	0	0	520	0	218
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	2736	279	0	1279	236				565	0	237
Adj No. of Lanes	0	3	1	0	3	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	2815	877	0	2815	877				600	0	535
Arrive On Green	0.00	0.55	0.55	0.00	1.00	1.00				0.34	0.00	0.34
Sat Flow, veh/h	0	5253	1583	0	5253	1583				1774	0	1583
Grp Volume(v), veh/h	0	2736	279	0	1279	236				565	0	237
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1774	0	1583
Q Serve(g_s), s	0.0	62.4	11.5	0.0	0.0	0.0				37.1	0.0	14.0
Cycle Q Clear(g_c), s	0.0	62.4	11.5	0.0	0.0	0.0				37.1	0.0	14.0
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2815	877	0	2815	877				600	0	535
V/C Ratio(X)	0.00	0.97	0.32	0.00	0.45	0.27				0.94	0.00	0.44
Avail Cap(c_a), veh/h	0	2815	877	0	2815	877				658	0	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.43	0.43				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	25.9	14.5	0.0	0.0	0.0				38.6	0.0	30.9
Incr Delay (d2), s/veh	0.0	11.5	1.0	0.0	0.2	0.3				21.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	31.9	5.2	0.0	0.1	8.0				21.7	0.0	6.2
LnGrp Delay(d),s/veh	0.0	37.4	15.5	0.0	0.2	0.3				59.6	0.0	31.5
LnGrp LOS		D	B		A	A				E		C
Approach Vol, veh/h		3015			1515						802	
Approach Delay, s/veh		35.4			0.2						51.3	
Approach LOS		D			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		72.9		47.1		72.9		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		62.5		44.5		62.5		
Max Q Clear Time (g_c+I1), s		64.4		39.1		2.0		
Green Ext Time (p_c), s		0.0		1.4		56.5		

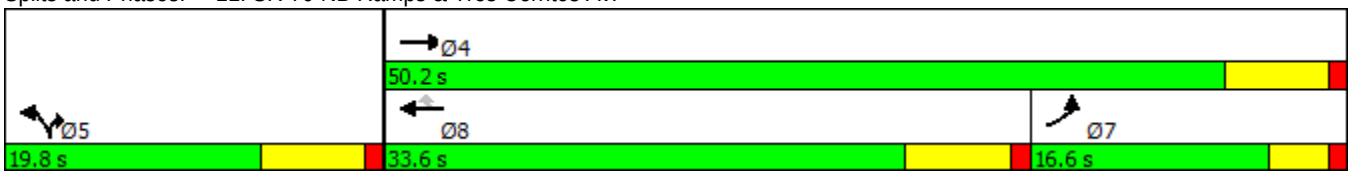
Intersection Summary	
HCM 2010 Ctrl Delay	27.8
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	55	546	290	87	93	207
Future Volume (vph)	55	546	290	87	93	207
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	7	4	8		5	5
Permitted Phases				8		
Detector Phase	7	4	8	8	5	5
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	16.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	16.6	50.2	33.6	33.6	19.8	19.8
Total Split (%)	23.7%	71.7%	48.0%	48.0%	28.3%	28.3%
Yellow Time (s)	3.2	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 11: SR-79 NB Ramps & Tres Cerritos Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	546	0	0	290	87	93	0	207	0	0	0
Future Volume (veh/h)	55	546	0	0	290	87	93	0	207	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	60	593	0	0	315	95	101	0	225			
Adj No. of Lanes	1	2	0	0	2	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	128	1127	0	0	542	243	880	0	785			
Arrive On Green	0.02	0.11	0.00	0.00	0.15	0.15	0.50	0.00	0.50			
Sat Flow, veh/h	1774	3632	0	0	3632	1583	1774	0	1583			
Grp Volume(v), veh/h	60	593	0	0	315	95	101	0	225			
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1583	1774	0	1583			
Q Serve(g_s), s	2.3	11.1	0.0	0.0	5.8	3.8	2.1	0.0	5.8			
Cycle Q Clear(g_c), s	2.3	11.1	0.0	0.0	5.8	3.8	2.1	0.0	5.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	128	1127	0	0	542	243	880	0	785			
V/C Ratio(X)	0.47	0.53	0.00	0.00	0.58	0.39	0.11	0.00	0.29			
Avail Cap(c_a), veh/h	314	2209	0	0	1370	613	880	0	785			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.41	0.41	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	32.8	26.3	0.0	0.0	27.5	26.7	9.4	0.0	10.4			
Incr Delay (d2), s/veh	0.4	0.2	0.0	0.0	1.4	1.5	0.1	0.0	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.2	5.5	0.0	0.0	2.9	1.8	1.1	0.0	2.5			
LnGrp Delay(d),s/veh	33.2	26.5	0.0	0.0	29.0	28.2	9.5	0.0	10.6			
LnGrp LOS	C	C			C	C	A		B			
Approach Vol, veh/h		653			410			326				
Approach Delay, s/veh		27.2			28.8			10.2				
Approach LOS		C			C			B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		41.2		28.8			11.6	17.2
Change Period (Y+Rc), s		6.5		6.5			6.5	* 6.5
Max Green Setting (Gmax), s		13.3		43.7			12.4	* 27
Max Q Clear Time (g_c+I1), s		7.8		13.1			4.3	7.8
Green Ext Time (p_c), s		0.5		5.8			3.0	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	23.7
HCM 2010 LOS	C

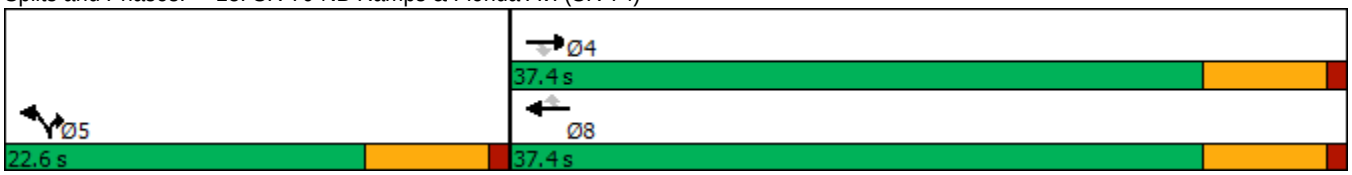
Notes

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2330	212	1520	218	260	410
Future Volume (vph)	2330	212	1520	218	260	410
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	4		8		5	5
Permitted Phases		4		8		
Detector Phase	4	4	8	8	5	5
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	37.4	37.4	37.4	37.4	22.6	22.6
Total Split (%)	62.3%	62.3%	62.3%	62.3%	37.7%	37.7%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 28 (47%), Referenced to phase 2: and 6:, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 13: SR-79 NB Ramps & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2330	212	0	1520	218	260	0	410	0	0	0
Future Volume (veh/h)	0	2330	212	0	1520	218	260	0	410	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	2533	230	0	1652	237	283	0	446			
Adj No. of Lanes	0	3	1	0	3	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	2378	740	0	2378	740	560	0	500			
Arrive On Green	0.00	0.94	0.94	0.00	0.47	0.47	0.32	0.00	0.32			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	1583			
Grp Volume(v), veh/h	0	2533	230	0	1652	237	283	0	446			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1583			
Q Serve(g_s), s	0.0	28.1	0.8	0.0	15.4	5.6	7.8	0.0	16.1			
Cycle Q Clear(g_c), s	0.0	28.1	0.8	0.0	15.4	5.6	7.8	0.0	16.1			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2378	740	0	2378	740	560	0	500			
V/C Ratio(X)	0.00	1.07	0.31	0.00	0.69	0.32	0.51	0.00	0.89			
Avail Cap(c_a), veh/h	0	2619	815	0	2619	815	560	0	500			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.29	0.29	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	1.9	1.1	0.0	12.6	10.0	16.7	0.0	19.6			
Incr Delay (d2), s/veh	0.0	32.5	0.1	0.0	0.7	0.2	0.7	0.0	18.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	13.7	0.3	0.0	7.2	2.5	3.9	0.0	9.4			
LnGrp Delay(d),s/veh	0.0	34.4	1.1	0.0	13.3	10.2	17.4	0.0	37.6			
LnGrp LOS		F	A		B	B	B		D			
Approach Vol, veh/h		2763			1889			729				
Approach Delay, s/veh		31.7			12.9			29.8				
Approach LOS		C			B			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		24.0		36.0				36.0
Change Period (Y+Rc), s		6.5		6.5				6.5
Max Green Setting (Gmax), s		16.1		30.9				30.9
Max Q Clear Time (g_c+I1), s		18.1		30.1				17.4
Green Ext Time (p_c), s		0.0		0.8				9.1

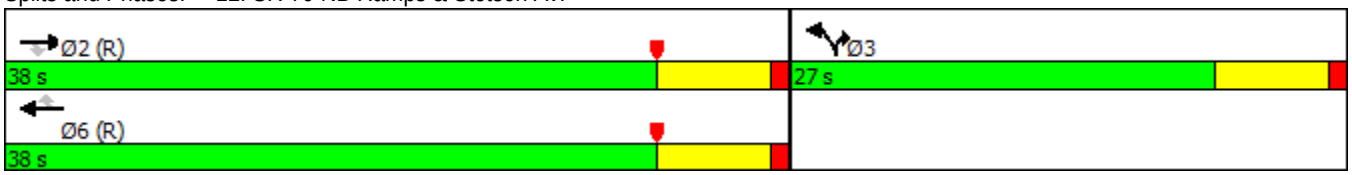
Intersection Summary	
HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1305	238	633	172	287	442
Future Volume (vph)	1305	238	633	172	287	442
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		3	3
Permitted Phases		2		6		
Detector Phase	2	2	6	6	3	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	38.0	38.0	38.0	38.0	27.0	27.0
Total Split (%)	58.5%	58.5%	58.5%	58.5%	41.5%	41.5%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 8 (12%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 12: SR-79 NB Ramps & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1305	238	0	633	172	287	0	442	0	0	0
Future Volume (veh/h)	0	1305	238	0	633	172	287	0	442	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	1418	259	0	688	187	312	0	480			
Adj No. of Lanes	0	2	1	0	2	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	1715	767	0	1715	767	560	0	499			
Arrive On Green	0.00	0.97	0.97	0.00	0.48	0.48	0.32	0.00	0.32			
Sat Flow, veh/h	0	3632	1583	0	3632	1583	1774	0	1583			
Grp Volume(v), veh/h	0	1418	259	0	688	187	312	0	480			
Grp Sat Flow(s),veh/h/ln	0	1770	1583	0	1770	1583	1774	0	1583			
Q Serve(g_s), s	0.0	4.0	0.5	0.0	8.1	4.5	9.5	0.0	19.4			
Cycle Q Clear(g_c), s	0.0	4.0	0.5	0.0	8.1	4.5	9.5	0.0	19.4			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1715	767	0	1715	767	560	0	499			
V/C Ratio(X)	0.00	0.83	0.34	0.00	0.40	0.24	0.56	0.00	0.96			
Avail Cap(c_a), veh/h	0	1715	767	0	1715	767	560	0	499			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.58	0.58	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.6	0.5	0.0	10.7	9.8	18.5	0.0	21.9			
Incr Delay (d2), s/veh	0.0	2.8	0.7	0.0	0.7	0.8	1.2	0.0	30.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.3	0.3	0.0	4.1	2.1	4.8	0.0	12.6			
LnGrp Delay(d),s/veh	0.0	3.4	1.2	0.0	11.4	10.5	19.7	0.0	52.4			
LnGrp LOS		A	A		B	B	B		D			
Approach Vol, veh/h		1677			875			792				
Approach Delay, s/veh		3.0			11.2			39.5				
Approach LOS		A			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		38.0				38.0		27.0
Change Period (Y+Rc), s		6.5				6.5		6.5
Max Green Setting (Gmax), s		31.5				31.5		20.5
Max Q Clear Time (g_c+I1), s		6.0				10.1		21.4
Green Ext Time (p_c), s		18.2				16.0		0.0

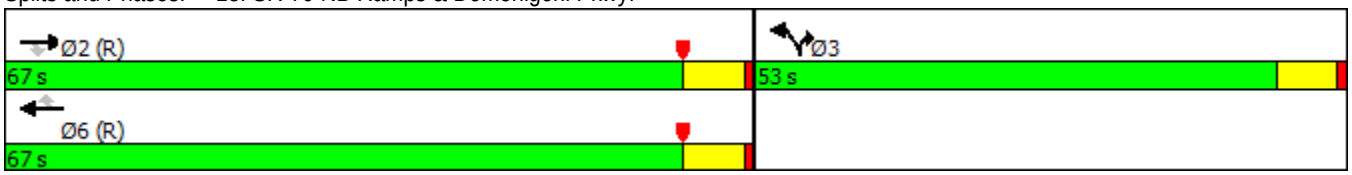
Intersection Summary	
HCM 2010 Ctrl Delay	13.8
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2541	496	593	4	801	89
Future Volume (vph)	2541	496	593	4	801	89
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		3	3
Permitted Phases		2		6		
Detector Phase	2	2	6	6	3	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	67.0	67.0	67.0	67.0	53.0	53.0
Total Split (%)	55.8%	55.8%	55.8%	55.8%	44.2%	44.2%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 13 (11%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 13: SR-79 NB Ramps & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰		↱			
Traffic Volume (veh/h)	0	2541	496	0	593	4	801	0	89	0	0	0
Future Volume (veh/h)	0	2541	496	0	593	4	801	0	89	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	2762	539	0	645	4	871	0	97			
Adj No. of Lanes	0	3	1	0	3	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	2564	798	0	2564	798	687	0	614			
Arrive On Green	0.00	1.00	1.00	0.00	0.50	0.50	0.39	0.00	0.39			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	1583			
Grp Volume(v), veh/h	0	2762	539	0	645	4	871	0	97			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1583			
Q Serve(g_s), s	0.0	60.5	0.0	0.0	8.6	0.2	46.5	0.0	4.8			
Cycle Q Clear(g_c), s	0.0	60.5	0.0	0.0	8.6	0.2	46.5	0.0	4.8			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2564	798	0	2564	798	687	0	614			
V/C Ratio(X)	0.00	1.08	0.68	0.00	0.25	0.01	1.27	0.00	0.16			
Avail Cap(c_a), veh/h	0	2564	798	0	2564	798	687	0	614			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.15	0.15	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	16.9	14.8	36.8	0.0	24.0			
Incr Delay (d2), s/veh	0.0	36.2	0.7	0.0	0.2	0.0	131.5	0.0	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	8.6	0.2	0.0	4.1	0.1	47.8	0.0	2.1			
LnGrp Delay(d),s/veh	0.0	36.2	0.7	0.0	17.1	14.8	168.3	0.0	24.1			
LnGrp LOS		F	A		B	B	F		C			
Approach Vol, veh/h		3301			649			968				
Approach Delay, s/veh		30.4			17.1			153.8				
Approach LOS		C			B			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		67.0				67.0		53.0
Change Period (Y+Rc), s		6.5				6.5		6.5
Max Green Setting (Gmax), s		60.5				60.5		46.5
Max Q Clear Time (g_c+I1), s		62.5				10.6		48.5
Green Ext Time (p_c), s		0.0				44.7		0.0

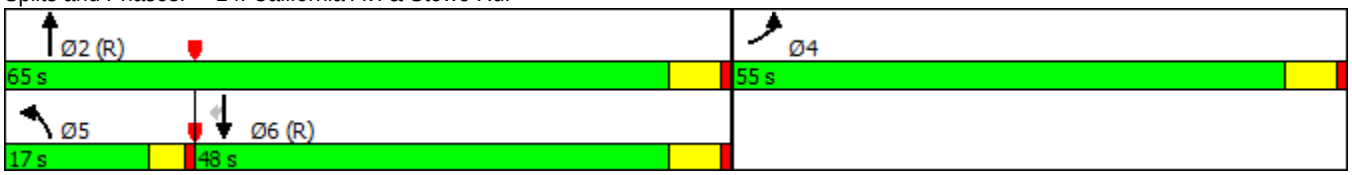
Intersection Summary	
HCM 2010 Ctrl Delay	52.9
HCM 2010 LOS	D

Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	102	94	377	393	107
Future Volume (vph)	102	94	377	393	107
Turn Type	Prot	Prot	NA	NA	Perm
Protected Phases	4	5	2	6	
Permitted Phases					6
Detector Phase	4	5	2	6	6
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	9.5	23.8	27.8	27.8
Total Split (s)	55.0	17.0	65.0	48.0	48.0
Total Split (%)	45.8%	14.2%	54.2%	40.0%	40.0%
Yellow Time (s)	4.8	3.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.2	5.8	5.8	5.8
Lead/Lag		Lead		Lag	Lag
Lead-Lag Optimize?		Yes		Yes	Yes
Recall Mode	None	None	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 14: California Av. & Stowe Rd.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	102	430	94	377	393	107
Future Volume (veh/h)	102	430	94	377	393	107
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	124	524	115	460	479	130
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	127	535	140	919	706	600
Arrive On Green	0.41	0.41	0.08	0.49	0.38	0.38
Sat Flow, veh/h	309	1305	1774	1863	1863	1583
Grp Volume(v), veh/h	649	0	115	460	479	130
Grp Sat Flow(s),veh/h/ln	1617	0	1774	1863	1863	1583
Q Serve(g_s), s	47.5	0.0	7.7	19.9	25.8	6.7
Cycle Q Clear(g_c), s	47.5	0.0	7.7	19.9	25.8	6.7
Prop In Lane	0.19	0.81	1.00			1.00
Lane Grp Cap(c), veh/h	663	0	140	919	706	600
V/C Ratio(X)	0.98	0.00	0.82	0.50	0.68	0.22
Avail Cap(c_a), veh/h	663	0	189	919	706	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	0.0	54.4	20.5	31.1	25.2
Incr Delay (d2), s/veh	29.6	0.0	13.9	1.9	5.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.5	0.0	4.3	10.7	14.2	3.1
LnGrp Delay(d),s/veh	64.5	0.0	68.3	22.4	36.3	26.0
LnGrp LOS	E		E	C	D	C
Approach Vol, veh/h	649			575	609	
Approach Delay, s/veh	64.5			31.6	34.1	
Approach LOS	E			C	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		65.0		55.0	13.7	51.3		
Change Period (Y+Rc), s		5.8		5.8	* 4.2	5.8		
Max Green Setting (Gmax), s		59.2		49.2	* 13	42.2		
Max Q Clear Time (g_c+I1), s		21.9		49.5	9.7	27.8		
Green Ext Time (p_c), s		8.3		0.0	0.0	5.9		

Intersection Summary	
HCM 2010 Ctrl Delay	44.1
HCM 2010 LOS	D

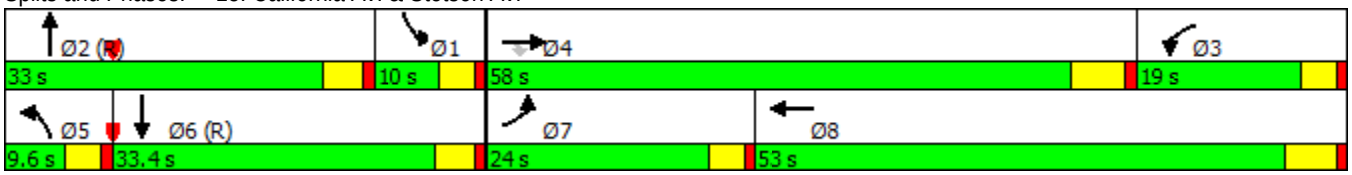
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	128	1385	232	466	764	25	84	313	433
Future Volume (vph)	128	1385	232	466	764	25	84	313	433
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	27.8	27.8	9.5	27.8	9.5	26.6	9.5	26.6
Total Split (s)	24.0	58.0	58.0	19.0	53.0	9.6	33.0	10.0	33.4
Total Split (%)	20.0%	48.3%	48.3%	15.8%	44.2%	8.0%	27.5%	8.3%	27.8%
Yellow Time (s)	3.2	4.8	4.8	3.2	4.8	3.2	3.6	3.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	5.8	4.2	5.8	4.2	4.6	4.2	4.6
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated

Splits and Phases: 15: California Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	1385	232	466	764	259	25	84	101	313	433	77
Future Volume (veh/h)	128	1385	232	466	764	259	25	84	101	313	433	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	139	1505	143	507	830	173	27	91	110	340	471	84
Adj No. of Lanes	1	2	1	2	2	0	1	2	0	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	166	1539	689	424	1394	291	44	419	375	2055	2441	433
Arrive On Green	0.09	0.43	0.43	0.12	0.48	0.48	0.02	0.24	0.24	0.60	0.81	0.81
Sat Flow, veh/h	1774	3539	1583	3442	2917	608	1774	1770	1583	3442	3005	533
Grp Volume(v), veh/h	139	1505	143	507	504	499	27	91	110	340	276	279
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1755	1774	1770	1583	1721	1770	1769
Q Serve(g_s), s	9.2	50.2	12.2	14.8	24.9	24.9	1.8	5.0	6.8	5.3	4.2	4.2
Cycle Q Clear(g_c), s	9.2	50.2	12.2	14.8	24.9	24.9	1.8	5.0	6.8	5.3	4.2	4.2
Prop In Lane	1.00		1.00	1.00		0.35	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	166	1539	689	424	846	839	44	419	375	2055	1437	1437
V/C Ratio(X)	0.84	0.98	0.21	1.19	0.60	0.60	0.62	0.22	0.29	0.17	0.19	0.19
Avail Cap(c_a), veh/h	293	1540	689	424	846	839	80	419	375	2055	1437	1437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.5	33.3	68.9	52.6	22.9	22.9	58.0	36.9	37.6	10.8	2.5	2.5
Incr Delay (d2), s/veh	4.2	17.8	0.1	108.5	1.1	1.1	5.1	1.2	2.0	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	28.3	5.4	13.4	12.4	12.3	0.9	2.6	3.2	2.5	2.1	2.1
LnGrp Delay(d),s/veh	57.7	51.1	69.1	161.1	24.0	24.0	63.1	38.0	39.6	10.8	2.8	2.8
LnGrp LOS	E	D	E	F	C	C	E	D	D	B	A	A
Approach Vol, veh/h		1787			1510			228			895	
Approach Delay, s/veh		53.1			70.0			41.7			5.9	
Approach LOS		D			E			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	78.2	33.0	20.6	58.0	7.2	104.1	15.4	63.2
Change Period (Y+Rc), s	4.6	* 4.6	5.8	* 5.8	* 4.2	4.6	* 4.2	5.8
Max Green Setting (Gmax), s	5.8	* 28	14.8	* 52	* 5.4	28.8	* 20	47.2
Max Q Clear Time (g_c+I1), s	7.3	8.8	16.8	52.2	3.8	6.2	11.2	26.9
Green Ext Time (p_c), s	0.0	1.1	0.0	0.0	0.0	4.3	0.1	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	48.7
HCM 2010 LOS	D

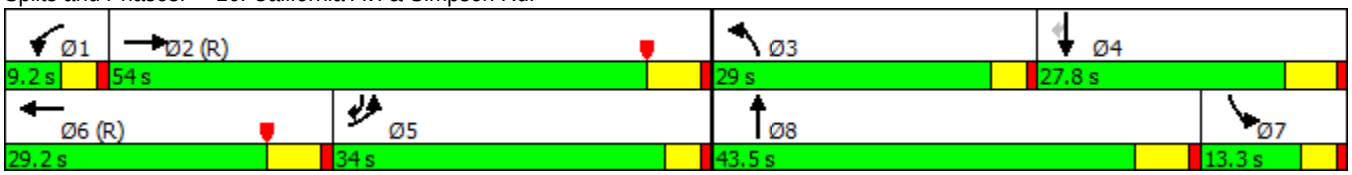
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	155	359	3	385	252	47	49	59	1023
Future Volume (vph)	155	359	3	385	252	47	49	59	1023
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8	7	4	5
Permitted Phases									4
Detector Phase	5	2	1	6	3	8	7	4	5
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.2	27.8	9.2	27.8	9.2	27.8	9.2	27.8	9.2
Total Split (s)	34.0	54.0	9.2	29.2	29.0	43.5	13.3	27.8	34.0
Total Split (%)	28.3%	45.0%	7.7%	24.3%	24.2%	36.3%	11.1%	23.2%	28.3%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	5.8	4.2
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 16: California Av. & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	359	48	3	385	8	252	47	12	49	59	1023
Future Volume (veh/h)	155	359	48	3	385	8	252	47	12	49	59	1023
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	170	395	53	3	423	9	277	52	13	54	65	1124
Adj No. of Lanes	2	2	0	1	2	0	1	1	0	1	1	2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	896	1459	195	7	691	15	304	451	113	66	360	1264
Arrive On Green	0.26	0.46	0.46	0.00	0.20	0.20	0.17	0.31	0.31	0.04	0.19	0.19
Sat Flow, veh/h	3442	3140	419	1774	3544	75	1774	1435	359	1774	1863	2787
Grp Volume(v), veh/h	170	221	227	3	211	221	277	0	65	54	65	1124
Grp Sat Flow(s),veh/h/ln	1721	1770	1789	1774	1770	1849	1774	0	1794	1774	1863	1393
Q Serve(g_s), s	4.6	9.2	9.3	0.2	13.1	13.1	18.4	0.0	3.1	3.6	3.5	16.8
Cycle Q Clear(g_c), s	4.6	9.2	9.3	0.2	13.1	13.1	18.4	0.0	3.1	3.6	3.5	16.8
Prop In Lane	1.00		0.23	1.00		0.04	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	896	822	831	7	345	361	304	0	564	66	360	1264
V/C Ratio(X)	0.19	0.27	0.27	0.43	0.61	0.61	0.91	0.00	0.12	0.82	0.18	0.89
Avail Cap(c_a), veh/h	896	822	831	74	345	361	367	0	564	135	360	1264
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.5	19.6	19.7	59.6	44.1	44.2	48.8	0.0	29.3	57.4	40.5	10.2
Incr Delay (d2), s/veh	0.0	0.8	0.8	14.5	7.9	7.6	21.5	0.0	0.4	9.0	1.1	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.7	4.8	0.1	7.1	7.4	10.8	0.0	1.6	1.9	1.9	9.0
LnGrp Delay(d),s/veh	34.6	20.5	20.5	74.1	52.0	51.7	70.3	0.0	29.7	66.4	41.6	19.9
LnGrp LOS	C	C	C	E	D	D	E		C	E	D	B
Approach Vol, veh/h		618			435			342			1243	
Approach Delay, s/veh		24.3			52.0			62.6			23.0	
Approach LOS		C			D			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	61.6	24.8	29.0	37.0	29.2	10.3	43.5
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	5.8	5.8	* 5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 5	48.2	* 25	22.0	29.8	* 23	9.1	* 38
Max Q Clear Time (g_c+I1), s	2.2	11.3	20.4	18.8	6.6	15.1	5.6	5.1
Green Ext Time (p_c), s	0.0	2.7	0.2	1.8	2.6	1.4	0.1	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	33.2
HCM 2010 LOS	C

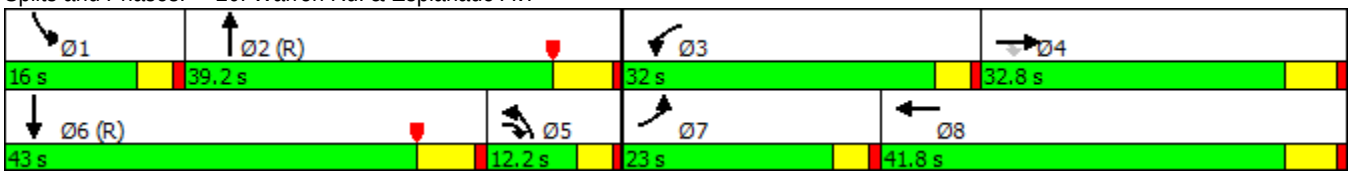
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	200	466	506	454	492	192	671	114	1144
Future Volume (vph)	200	466	506	454	492	192	671	114	1144
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.2	32.8	9.2	9.2	32.8	9.2	33.2	9.2	33.2
Total Split (s)	23.0	32.8	12.2	32.0	41.8	12.2	39.2	16.0	43.0
Total Split (%)	19.2%	27.3%	10.2%	26.7%	34.8%	10.2%	32.7%	13.3%	35.8%
Yellow Time (s)	3.2	4.8	3.2	3.2	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	4.2	5.8	4.2	6.2	4.2	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 135
Control Type: Actuated-Coordinated

Splits and Phases: 20: Warren Rd. & Esplanade Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	466	506	454	492	170	192	671	158	114	1144	160
Future Volume (veh/h)	200	466	506	454	492	170	192	671	158	114	1144	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	213	496	538	483	523	181	204	714	168	121	1217	170
Adj No. of Lanes	1	2	1	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	240	737	590	411	788	271	292	1671	389	146	1384	193
Arrive On Green	0.14	0.21	0.21	0.23	0.30	0.30	0.16	0.41	0.41	0.08	0.31	0.31
Sat Flow, veh/h	1774	3539	1583	1774	2585	891	1774	4125	959	1774	4512	630
Grp Volume(v), veh/h	213	496	538	483	357	347	204	585	297	121	914	473
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1706	1774	1695	1693	1774	1695	1752
Q Serve(g_s), s	14.2	15.5	18.9	27.8	21.1	21.3	13.0	14.9	15.2	8.1	30.7	30.7
Cycle Q Clear(g_c), s	14.2	15.5	18.9	27.8	21.1	21.3	13.0	14.9	15.2	8.1	30.7	30.7
Prop In Lane	1.00		1.00	1.00		0.52	1.00		0.57	1.00		0.36
Lane Grp Cap(c), veh/h	240	737	590	411	539	520	292	1374	686	146	1040	537
V/C Ratio(X)	0.89	0.67	0.91	1.18	0.66	0.67	0.70	0.43	0.43	0.83	0.88	0.88
Avail Cap(c_a), veh/h	278	796	616	411	539	520	292	1374	686	174	1040	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	43.7	20.0	46.1	36.3	36.4	47.3	25.7	25.7	54.2	39.5	39.5
Incr Delay (d2), s/veh	23.2	2.0	17.5	101.6	3.0	3.2	6.2	1.0	2.0	20.3	10.6	18.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	7.8	11.0	25.2	10.8	10.5	6.9	7.2	7.5	4.8	15.9	17.6
LnGrp Delay(d),s/veh	74.2	45.8	37.5	147.7	39.4	39.6	53.5	26.6	27.7	74.5	50.1	57.8
LnGrp LOS	E	D	D	F	D	D	D	C	C	E	D	E
Approach Vol, veh/h		1247			1187			1086			1508	
Approach Delay, s/veh		47.1			83.5			32.0			54.5	
Approach LOS		D			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	54.8	32.0	30.8	25.9	43.0	20.4	42.4
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	6.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 12	33.0	* 28	27.0	8.0	* 37	* 19	36.0
Max Q Clear Time (g_c+I1), s	10.1	17.2	29.8	20.9	15.0	32.7	16.2	23.3
Green Ext Time (p_c), s	0.0	6.6	0.0	4.1	0.0	3.2	0.1	8.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.6
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	366	387	208	655	1935
Future Volume (vph)	366	387	208	655	1935
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	32.8	32.8	9.5	24.2	33.2
Total Split (s)	35.0	35.0	21.2	85.0	63.8
Total Split (%)	29.2%	29.2%	17.7%	70.8%	53.2%
Yellow Time (s)	4.8	4.8	3.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	6.2	6.2
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 21: Warren Rd. & Tres Cerritos Av.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	366	387	208	655	1935	169
Future Volume (veh/h)	366	387	208	655	1935	169
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	398	421	226	712	2103	184
Adj No. of Lanes	1	1	1	3	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	432	385	251	3339	2288	198
Arrive On Green	0.24	0.24	0.14	0.66	0.48	0.48
Sat Flow, veh/h	1774	1583	1774	5253	4934	413
Grp Volume(v), veh/h	398	421	226	712	1490	797
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1695	1695	1790
Q Serve(g_s), s	26.3	29.2	15.0	6.7	48.9	50.1
Cycle Q Clear(g_c), s	26.3	29.2	15.0	6.7	48.9	50.1
Prop In Lane	1.00	1.00	1.00			0.23
Lane Grp Cap(c), veh/h	432	385	251	3339	1627	859
V/C Ratio(X)	0.92	1.09	0.90	0.21	0.92	0.93
Avail Cap(c_a), veh/h	432	385	251	3339	1627	859
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	45.4	50.7	8.2	28.9	29.2
Incr Delay (d2), s/veh	25.2	73.1	30.9	0.1	9.6	17.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	30.3	9.5	3.1	24.9	28.7
LnGrp Delay(d),s/veh	69.5	118.5	81.6	8.4	38.5	46.7
LnGrp LOS	E	F	F	A	D	D
Approach Vol, veh/h	819			938	2287	
Approach Delay, s/veh	94.7			26.0	41.4	
Approach LOS	F			C	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		85.0		35.0	21.2	63.8		
Change Period (Y+Rc), s		6.2		5.8	* 4.2	6.2		
Max Green Setting (Gmax), s		78.8		29.2	* 17	57.6		
Max Q Clear Time (g_c+I1), s		8.7		31.2	17.0	52.1		
Green Ext Time (p_c), s		59.7		0.0	0.0	5.4		

Intersection Summary	
HCM 2010 Ctrl Delay	48.6
HCM 2010 LOS	D

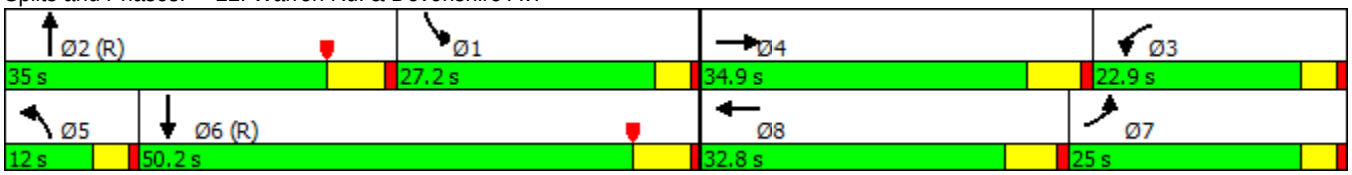
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	330	364	197	293	45	393	280	1674
Future Volume (vph)	330	364	197	293	45	393	280	1674
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.2	32.8	9.2	32.8	9.2	33.2	9.2	33.2
Total Split (s)	25.0	34.9	22.9	32.8	12.0	35.0	27.2	50.2
Total Split (%)	20.8%	29.1%	19.1%	27.3%	10.0%	29.2%	22.7%	41.8%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	6.2	4.2	6.2
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 40.8 (34%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 125
Control Type: Actuated-Coordinated

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	330	364	132	197	293	140	45	393	116	280	1674	368
Future Volume (veh/h)	330	364	132	197	293	140	45	393	116	280	1674	368
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	351	387	140	210	312	149	48	418	123	298	1781	391
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	308	464	166	276	383	179	62	945	268	419	2043	440
Arrive On Green	0.17	0.18	0.18	0.16	0.16	0.16	0.01	0.08	0.08	0.24	0.46	0.46
Sat Flow, veh/h	1774	2558	914	1774	2344	1095	1774	3939	1117	1774	4458	961
Grp Volume(v), veh/h	351	266	261	210	234	227	48	358	183	298	1483	689
Grp Sat Flow(s),veh/h/ln	1774	1770	1702	1774	1770	1669	1774	1695	1666	1774	1863	1693
Q Serve(g_s), s	20.8	17.4	17.8	13.6	15.3	15.8	3.2	12.1	12.6	18.5	43.0	44.6
Cycle Q Clear(g_c), s	20.8	17.4	17.8	13.6	15.3	15.8	3.2	12.1	12.6	18.5	43.0	44.6
Prop In Lane	1.00		0.54	1.00		0.66	1.00		0.67	1.00		0.57
Lane Grp Cap(c), veh/h	308	321	309	276	289	273	62	814	400	419	1707	776
V/C Ratio(X)	1.14	0.83	0.85	0.76	0.81	0.83	0.78	0.44	0.46	0.71	0.87	0.89
Avail Cap(c_a), veh/h	308	429	413	276	398	376	115	814	400	419	1707	776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	47.3	47.5	48.5	48.4	48.6	58.8	47.5	47.8	42.0	29.3	29.7
Incr Delay (d2), s/veh	95.2	9.8	11.5	10.6	8.4	10.8	7.2	1.6	3.6	4.7	6.3	14.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.3	9.4	9.3	7.5	8.1	8.1	1.7	5.9	6.2	9.7	23.5	23.9
LnGrp Delay(d),s/veh	144.8	57.1	59.0	59.1	56.8	59.4	66.0	49.2	51.4	46.8	35.6	44.0
LnGrp LOS	F	E	E	E	E	E	E	D	D	D	D	D
Approach Vol, veh/h		878			671			589			2470	
Approach Delay, s/veh		92.8			58.4			51.3			39.3	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.6	35.0	22.9	27.6	8.4	61.2	25.0	25.4
Change Period (Y+Rc), s	6.2	* 6.2	4.2	* 5.8	* 4.2	6.2	4.2	* 5.8
Max Green Setting (Gmax), s	23.0	* 29	18.7	* 29	* 7.8	44.0	20.8	* 27
Max Q Clear Time (g_c+I1), s	20.5	14.6	15.6	19.8	5.2	46.6	22.8	17.8
Green Ext Time (p_c), s	0.3	3.5	0.3	2.0	0.0	0.0	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	53.8
HCM 2010 LOS	D

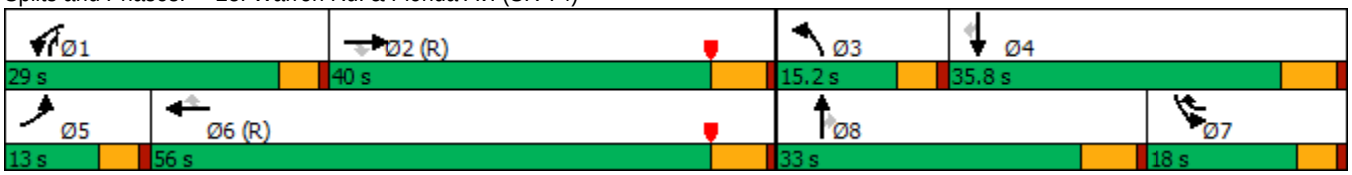
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	1968	382	714	1261	192	254	353	446	536	988	247
Future Volume (vph)	111	1968	382	714	1261	192	254	353	446	536	988	247
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	38.0	38.0	9.6	38.0	9.6	9.6	33.0	9.6	9.6	33.0	33.0
Total Split (s)	13.0	40.0	40.0	29.0	56.0	18.0	15.2	33.0	29.0	18.0	35.8	35.8
Total Split (%)	10.8%	33.3%	33.3%	24.2%	46.7%	15.0%	12.7%	27.5%	24.2%	15.0%	29.8%	29.8%
Yellow Time (s)	3.6	5.0	5.0	3.6	5.0	3.6	3.6	5.0	3.6	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	6.0	4.6	6.0	4.6	4.6	6.0	4.6	4.6	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	Max	None	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 2 (2%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 145
Control Type: Actuated-Coordinated

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	1968	382	714	1261	192	254	353	446	536	988	247
Future Volume (veh/h)	111	1968	382	714	1261	192	254	353	446	536	988	247
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	113	2008	327	729	1287	192	259	360	410	547	1008	188
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	166	3399	1058	700	4188	1480	304	796	677	384	920	410
Arrive On Green	0.05	0.67	0.67	0.20	0.82	0.82	0.09	0.22	0.22	0.07	0.17	0.17
Sat Flow, veh/h	3442	5085	1583	3442	5085	1582	3442	3539	1579	3442	3539	1578
Grp Volume(v), veh/h	113	2008	327	729	1287	192	259	360	410	547	1008	188
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1582	1721	1770	1579	1721	1770	1578
Q Serve(g_s), s	3.9	26.0	10.4	24.4	7.2	1.4	8.9	10.5	27.0	13.4	31.2	12.8
Cycle Q Clear(g_c), s	3.9	26.0	10.4	24.4	7.2	1.4	8.9	10.5	27.0	13.4	31.2	12.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	166	3399	1058	700	4188	1480	304	796	677	384	920	410
V/C Ratio(X)	0.68	0.59	0.31	1.04	0.31	0.13	0.85	0.45	0.61	1.42	1.10	0.46
Avail Cap(c_a), veh/h	241	3399	1058	700	4188	1480	304	796	677	384	920	410
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.44	0.44	0.44	0.16	0.16	0.16
Uniform Delay (d), s/veh	56.2	10.9	8.3	47.8	2.5	5.7	53.9	40.1	45.9	55.5	49.5	42.0
Incr Delay (d2), s/veh	1.8	0.8	0.8	45.4	0.2	0.2	9.5	0.8	1.8	192.9	46.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	12.3	4.7	16.0	3.4	0.7	4.6	5.2	16.5	16.7	21.2	5.7
LnGrp Delay(d),s/veh	58.1	11.7	9.1	93.2	2.7	5.9	63.4	40.9	47.7	248.4	95.7	42.5
LnGrp LOS	E	B	A	F	A	A	E	D	D	F	F	D
Approach Vol, veh/h		2448			2208			1029			1743	
Approach Delay, s/veh		13.5			32.8			49.3			137.9	
Approach LOS		B			C			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	87.6	15.2	37.2	10.4	106.2	19.4	33.0
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	6.0	* 6
Max Green Setting (Gmax), s	24.4	34.0	10.6	29.8	8.4	50.0	13.4	* 27
Max Q Clear Time (g_c+I1), s	26.4	28.0	10.9	33.2	5.9	9.2	15.4	29.0
Green Ext Time (p_c), s	0.0	4.5	0.0	0.0	0.0	6.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	53.4
HCM 2010 LOS	D

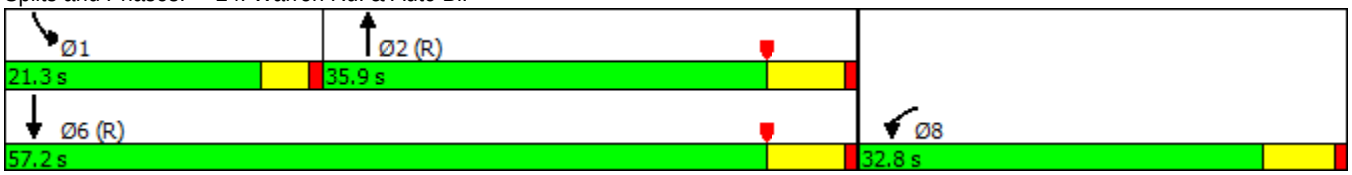
Notes

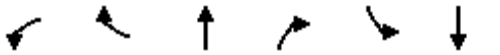
Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	40	1070	308	1967
Future Volume (vph)	40	1070	308	1967
Turn Type	Prot	NA	Prot	NA
Protected Phases	8	2	1	6
Permitted Phases				
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	10.0
Minimum Split (s)	32.8	28.2	9.5	24.2
Total Split (s)	32.8	35.9	21.3	57.2
Total Split (%)	36.4%	39.9%	23.7%	63.6%
Yellow Time (s)	4.8	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	6.2	4.2	6.2
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 21.3 (24%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 24: Warren Rd. & Auto Bl.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	40	95	1070	119	308	1967
Future Volume (veh/h)	40	95	1070	119	308	1967
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	43	101	1138	127	328	2093
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	53	125	1670	186	337	2679
Arrive On Green	0.11	0.11	0.52	0.52	0.19	0.76
Sat Flow, veh/h	486	1140	3304	358	1774	3632
Grp Volume(v), veh/h	145	0	626	639	328	2093
Grp Sat Flow(s),veh/h/ln	1637	0	1770	1799	1774	1770
Q Serve(g_s), s	7.8	0.0	23.7	23.8	16.5	31.7
Cycle Q Clear(g_c), s	7.8	0.0	23.7	23.8	16.5	31.7
Prop In Lane	0.30	0.70		0.20	1.00	
Lane Grp Cap(c), veh/h	180	0	920	936	337	2679
V/C Ratio(X)	0.81	0.00	0.68	0.68	0.97	0.78
Avail Cap(c_a), veh/h	491	0	920	936	337	2679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.78	0.78	0.40	0.40
Uniform Delay (d), s/veh	39.1	0.0	16.0	16.1	36.2	6.5
Incr Delay (d2), s/veh	8.2	0.0	3.2	3.2	24.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	12.3	12.5	10.4	15.5
LnGrp Delay(d),s/veh	47.4	0.0	19.2	19.2	60.7	7.5
LnGrp LOS	D		B	B	E	A
Approach Vol, veh/h	145		1265			2421
Approach Delay, s/veh	47.4		19.2			14.7
Approach LOS	D		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	21.3	53.0				74.3		15.7
Change Period (Y+Rc), s	* 4.2	6.2				6.2		5.8
Max Green Setting (Gmax), s	* 17	29.7				51.0		27.0
Max Q Clear Time (g_c+I1), s	18.5	25.8				33.7		9.8
Green Ext Time (p_c), s	0.0	3.9				16.9		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	123	16	19	59	204	1040	199	1387
Future Volume (vph)	123	16	19	59	204	1040	199	1387
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	32.8	32.8	9.5	28.2	9.5	28.2
Total Split (s)	32.9	32.9	32.9	32.9	18.8	59.4	27.7	68.3
Total Split (%)	27.4%	27.4%	27.4%	27.4%	15.7%	49.5%	23.1%	56.9%
Yellow Time (s)	4.8	4.8	4.8	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.8		5.8	4.2	6.2	4.2	6.2
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated

Splits and Phases: 25: Warren Rd. & Whittier Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	16	91	19	59	26	204	1040	11	199	1387	420
Future Volume (veh/h)	123	16	91	19	59	26	204	1040	11	199	1387	420
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	127	16	94	20	61	27	210	1072	11	205	1430	433
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	23	106	72	198	78	216	1972	20	233	1514	440
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.12	0.55	0.55	0.13	0.56	0.56
Sat Flow, veh/h	752	124	576	197	1077	425	1774	3589	37	1774	2707	786
Grp Volume(v), veh/h	237	0	0	108	0	0	210	529	554	205	914	949
Grp Sat Flow(s),veh/h/ln	1452	0	0	1698	0	0	1774	1770	1856	1774	1770	1724
Q Serve(g_s), s	12.7	0.0	0.0	0.0	0.0	0.0	14.2	23.0	23.0	13.6	56.5	64.8
Cycle Q Clear(g_c), s	19.0	0.0	0.0	6.3	0.0	0.0	14.2	23.0	23.0	13.6	56.5	64.8
Prop In Lane	0.54		0.40	0.19		0.25	1.00		0.02	1.00		0.46
Lane Grp Cap(c), veh/h	314	0	0	348	0	0	216	972	1020	233	989	964
V/C Ratio(X)	0.76	0.00	0.00	0.31	0.00	0.00	0.97	0.54	0.54	0.88	0.92	0.98
Avail Cap(c_a), veh/h	373	0	0	417	0	0	216	972	1020	347	989	964
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.50	0.50	0.50
Uniform Delay (d), s/veh	47.6	0.0	0.0	42.5	0.0	0.0	52.5	17.4	17.4	51.2	24.1	26.0
Incr Delay (d2), s/veh	7.1	0.0	0.0	0.5	0.0	0.0	53.1	2.2	2.1	6.3	8.8	17.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	0.0	0.0	3.2	0.0	0.0	10.1	11.7	12.3	7.1	29.8	35.2
LnGrp Delay(d),s/veh	54.7	0.0	0.0	43.0	0.0	0.0	105.6	19.5	19.4	57.4	32.9	43.2
LnGrp LOS	D			D			F	B	B	E	C	D
Approach Vol, veh/h		237			108			1293			2068	
Approach Delay, s/veh		54.7			43.0			33.5			40.0	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.0	72.1		27.9	18.8	73.3		27.9
Change Period (Y+Rc), s	* 4.2	6.2		5.8	* 4.2	6.2		5.8
Max Green Setting (Gmax), s	* 24	53.2		27.1	* 15	62.1		27.1
Max Q Clear Time (g_c+I1), s	15.6	25.0		21.0	16.2	66.8		8.3
Green Ext Time (p_c), s	0.2	26.0		1.1	0.0	0.0		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	38.8
HCM 2010 LOS	D

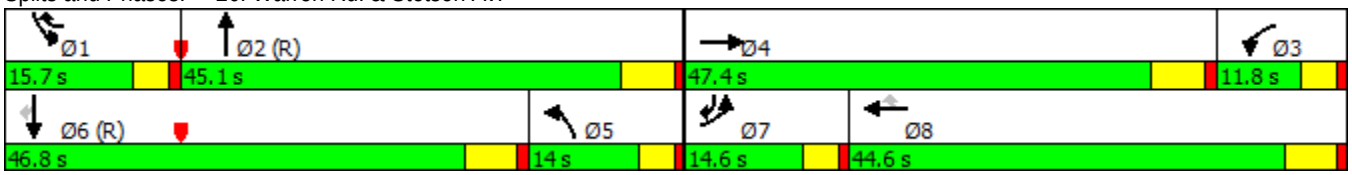
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	202	713	127	973	264	198	789	226	925	347
Future Volume (vph)	202	713	127	973	264	198	789	226	925	347
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	1	5	2	1	6	7
Permitted Phases					8					6
Detector Phase	7	4	3	8	1	5	2	1	6	7
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	9.5	32.8	9.5	32.8	9.5
Total Split (s)	14.6	47.4	11.8	44.6	15.7	14.0	45.1	15.7	46.8	14.6
Total Split (%)	12.2%	39.5%	9.8%	37.2%	13.1%	11.7%	37.6%	13.1%	39.0%	12.2%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2	5.8	4.2
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 57 (48%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	713	251	127	973	264	198	789	154	226	925	347
Future Volume (veh/h)	202	713	251	127	973	264	198	789	154	226	925	347
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	210	743	261	132	1014	275	206	822	160	235	964	361
Adj No. of Lanes	2	2	0	2	2	1	2	2	0	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	820	288	206	1116	633	296	1055	205	290	1209	663
Arrive On Green	0.08	0.32	0.32	0.06	0.32	0.32	0.06	0.24	0.24	0.08	0.34	0.34
Sat Flow, veh/h	3442	2570	903	3442	3539	1583	3442	2956	575	3442	3539	1583
Grp Volume(v), veh/h	210	512	492	132	1014	275	206	492	490	235	964	361
Grp Sat Flow(s),veh/h/ln	1721	1770	1703	1721	1770	1583	1721	1770	1761	1721	1770	1583
Q Serve(g_s), s	7.2	33.2	33.2	4.5	33.0	15.1	7.1	31.2	31.2	8.1	29.6	12.9
Cycle Q Clear(g_c), s	7.2	33.2	33.2	4.5	33.0	15.1	7.1	31.2	31.2	8.1	29.6	12.9
Prop In Lane	1.00		0.53	1.00		1.00	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	265	564	543	206	1116	633	296	632	629	290	1209	663
V/C Ratio(X)	0.79	0.91	0.91	0.64	0.91	0.43	0.69	0.78	0.78	0.81	0.80	0.54
Avail Cap(c_a), veh/h	298	613	591	218	1144	645	296	632	629	330	1209	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	39.2	39.2	55.1	39.4	26.2	55.0	41.2	41.2	54.0	35.7	11.7
Incr Delay (d2), s/veh	10.6	16.5	17.0	4.1	10.5	0.5	4.2	6.8	6.8	11.1	5.5	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	18.8	18.2	2.3	17.7	6.7	3.5	16.5	16.4	4.3	15.4	6.2
LnGrp Delay(d),s/veh	65.1	55.6	56.1	59.3	50.0	26.7	59.2	48.0	48.0	65.1	41.3	14.9
LnGrp LOS	E	E	E	E	D	C	E	D	D	E	D	B
Approach Vol, veh/h		1214			1421			1188			1560	
Approach Delay, s/veh		57.5			46.3			49.9			38.7	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	48.6	13.0	44.1	16.1	46.8	13.4	43.6
Change Period (Y+Rc), s	* 4.2	5.8	5.8	* 5.8	5.8	* 5.8	* 4.2	5.8
Max Green Setting (Gmax), s	* 12	39.3	7.6	* 42	9.8	* 41	* 10	38.8
Max Q Clear Time (g_c+I1), s	10.1	33.2	6.5	35.2	9.1	31.6	9.2	35.0
Green Ext Time (p_c), s	0.1	3.8	0.8	3.0	0.1	6.0	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	47.4
HCM 2010 LOS	D

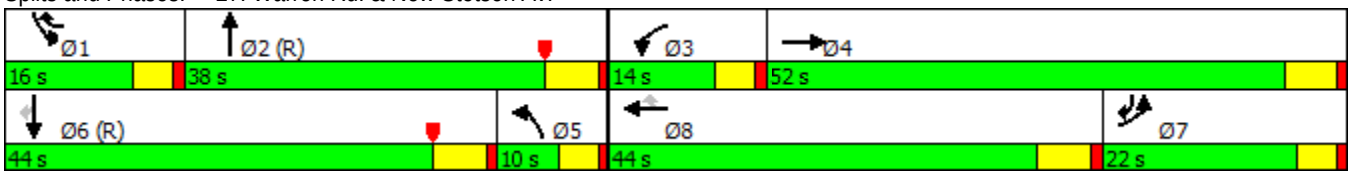
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	403	863	170	913	299	108	440	253	689	361
Future Volume (vph)	403	863	170	913	299	108	440	253	689	361
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	1	5	2	1	6	7
Permitted Phases					8					6
Detector Phase	7	4	3	8	1	5	2	1	6	7
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	34.8	9.6	34.8	9.6	9.6	34.8	9.6	34.8	9.6
Total Split (s)	22.0	52.0	14.0	44.0	16.0	10.0	38.0	16.0	44.0	22.0
Total Split (%)	18.3%	43.3%	11.7%	36.7%	13.3%	8.3%	31.7%	13.3%	36.7%	18.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 43 (36%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 27: Warren Rd. & New Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	403	863	228	170	913	299	108	440	76	253	689	361
Future Volume (veh/h)	403	863	228	170	913	299	108	440	76	253	689	361
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	438	938	248	185	992	325	117	478	83	275	749	392
Adj No. of Lanes	2	2	0	2	2	1	2	2	0	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	490	1077	284	240	1086	636	788	1396	241	327	1127	729
Arrive On Green	0.14	0.39	0.39	0.07	0.31	0.31	0.23	0.46	0.46	0.03	0.11	0.11
Sat Flow, veh/h	3442	2763	729	3442	3539	1583	3442	3019	521	3442	3539	1583
Grp Volume(v), veh/h	438	600	586	185	992	325	117	279	282	275	749	392
Grp Sat Flow(s),veh/h/ln	1721	1770	1722	1721	1770	1583	1721	1770	1771	1721	1770	1583
Q Serve(g_s), s	15.0	37.6	37.8	6.3	32.4	15.8	3.3	12.1	12.2	9.5	24.4	10.4
Cycle Q Clear(g_c), s	15.0	37.6	37.8	6.3	32.4	15.8	3.3	12.1	12.2	9.5	24.4	10.4
Prop In Lane	1.00		0.42	1.00		1.00	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	490	690	671	240	1086	636	788	818	819	327	1127	729
V/C Ratio(X)	0.89	0.87	0.87	0.77	0.91	0.51	0.15	0.34	0.34	0.84	0.66	0.54
Avail Cap(c_a), veh/h	499	690	671	270	1127	654	788	818	819	327	1127	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.46	0.46	0.46	1.00	1.00	1.00	1.00	1.00	1.00	0.59	0.59	0.59
Uniform Delay (d), s/veh	50.6	33.8	33.9	54.9	40.0	22.4	36.9	20.6	20.6	57.2	47.5	33.3
Incr Delay (d2), s/veh	9.3	5.9	6.2	9.8	11.0	0.6	0.0	1.1	1.1	10.6	1.8	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	19.5	19.1	3.3	17.5	7.0	1.5	6.2	6.2	5.0	12.3	4.9
LnGrp Delay(d),s/veh	59.9	39.7	40.1	64.7	51.1	23.1	36.9	21.7	21.8	67.8	49.4	35.0
LnGrp LOS	E	D	D	E	D	C	D	C	C	E	D	D
Approach Vol, veh/h		1624			1502			678			1416	
Approach Delay, s/veh		45.3			46.7			24.4			49.0	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	61.8	13.0	52.6	33.8	44.0	22.9	42.6
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	5.8	* 5.8	5.8	* 5.8
Max Green Setting (Gmax), s	11.4	32.2	9.4	46.2	5.4	* 38	17.4	* 38
Max Q Clear Time (g_c+I1), s	11.5	14.2	8.3	39.8	5.3	26.4	17.0	34.4
Green Ext Time (p_c), s	0.0	4.2	0.0	4.0	0.0	6.3	0.1	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	44.0
HCM 2010 LOS	D

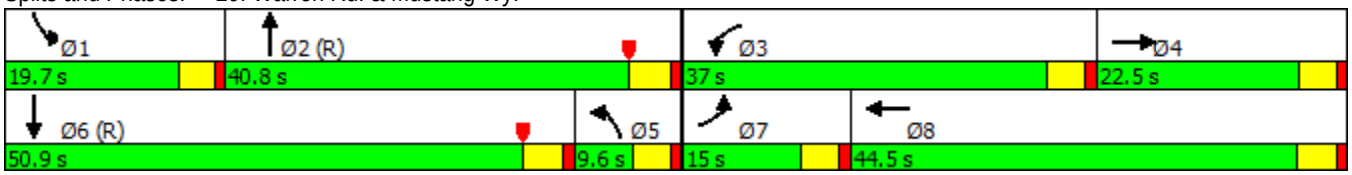
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	64	97	320	75	31	429	149	891
Future Volume (vph)	64	97	320	75	31	429	149	891
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.5	9.5	21.6	9.5	21.7	9.2	14.7
Total Split (s)	15.0	22.5	37.0	44.5	9.6	40.8	19.7	50.9
Total Split (%)	12.5%	18.8%	30.8%	37.1%	8.0%	34.0%	16.4%	42.4%
Yellow Time (s)	3.5	3.5	3.5	3.6	3.5	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.6	4.5	4.7	4.2	4.7
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 83 (69%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	97	70	320	75	130	31	429	190	149	891	48
Future Volume (veh/h)	64	97	70	320	75	130	31	429	190	149	891	48
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	71	108	78	356	83	97	34	477	197	166	990	53
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	128	93	384	230	268	208	978	401	190	1316	70
Arrive On Green	0.05	0.13	0.13	0.22	0.29	0.29	0.12	0.40	0.40	0.21	0.77	0.77
Sat Flow, veh/h	1774	1007	727	1774	784	917	1774	2450	1005	1774	3417	183
Grp Volume(v), veh/h	71	0	186	356	0	180	34	344	330	166	513	530
Grp Sat Flow(s),veh/h/ln	1774	0	1734	1774	0	1701	1774	1770	1685	1774	1770	1830
Q Serve(g_s), s	4.7	0.0	12.6	23.6	0.0	10.0	2.1	17.4	17.6	10.9	19.0	19.0
Cycle Q Clear(g_c), s	4.7	0.0	12.6	23.6	0.0	10.0	2.1	17.4	17.6	10.9	19.0	19.0
Prop In Lane	1.00		0.42	1.00		0.54	1.00		0.60	1.00		0.10
Lane Grp Cap(c), veh/h	91	0	221	384	0	498	208	706	673	190	681	705
V/C Ratio(X)	0.78	0.00	0.84	0.93	0.00	0.36	0.16	0.49	0.49	0.87	0.75	0.75
Avail Cap(c_a), veh/h	155	0	260	480	0	566	208	706	673	229	681	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	56.3	0.0	51.2	46.1	0.0	33.6	47.7	26.9	26.9	46.4	10.7	10.7
Incr Delay (d2), s/veh	5.5	0.0	19.0	19.6	0.0	0.4	0.1	2.4	2.6	21.3	6.9	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	7.2	13.7	0.0	4.8	1.0	9.0	8.6	6.4	10.1	10.4
LnGrp Delay(d),s/veh	61.7	0.0	70.2	65.7	0.0	34.0	47.8	29.3	29.5	67.6	17.6	17.3
LnGrp LOS	E		E	E		C	D	C	C	E	B	B
Approach Vol, veh/h		257			536			708			1209	
Approach Delay, s/veh		67.8			55.0			30.3			24.3	
Approach LOS		E			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.1	52.6	30.5	19.9	18.8	50.9	10.6	39.7
Change Period (Y+Rc), s	* 4.2	* 4.7	4.5	* 4.6	* 4.7	* 4.7	4.5	4.6
Max Green Setting (Gmax), s	* 16	* 36	32.5	* 18	* 5.1	* 46	10.5	39.9
Max Q Clear Time (g_c+I1), s	12.9	19.6	25.6	14.6	4.1	21.0	6.7	12.0
Green Ext Time (p_c), s	0.1	5.4	0.4	0.7	0.0	10.7	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	36.1
HCM 2010 LOS	D

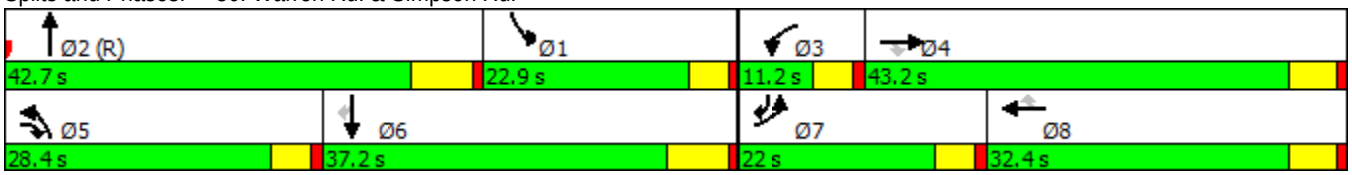
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	403	47	287	30	49	32	571	215	130	716	436
Future Volume (vph)	403	47	287	30	49	32	571	215	130	716	436
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.4	9.6	9.6	32.4	32.4	9.6	33.5	9.6	33.5	9.6
Total Split (s)	22.0	43.2	28.4	11.2	32.4	32.4	28.4	42.7	22.9	37.2	22.0
Total Split (%)	18.3%	36.0%	23.7%	9.3%	27.0%	27.0%	23.7%	35.6%	19.1%	31.0%	18.3%
Yellow Time (s)	3.6	4.4	3.6	3.6	4.4	4.4	3.6	5.5	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	4.6	5.4	5.4	4.6	6.5	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Max	None	None	None	Max	C-Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 88 (73%), Referenced to phase 2:NBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 30: Warren Rd. & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	403	47	287	30	49	32	571	215	30	130	716	436
Future Volume (veh/h)	403	47	287	30	49	32	571	215	30	130	716	436
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	463	54	330	34	56	37	656	247	34	149	823	501
Adj No. of Lanes	2	1	1	1	1	1	2	2	0	1	2	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	499	373	631	50	155	132	683	945	129	494	1407	859
Arrive On Green	0.14	0.20	0.20	0.03	0.08	0.08	0.07	0.10	0.10	0.28	0.40	0.40
Sat Flow, veh/h	3442	1863	1583	1774	1863	1583	3442	3131	426	1774	3539	1583
Grp Volume(v), veh/h	463	54	330	34	56	37	656	138	143	149	823	501
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1721	1770	1788	1774	1770	1583
Q Serve(g_s), s	15.9	2.9	19.0	2.3	3.4	1.5	22.8	8.7	8.9	7.9	21.9	25.4
Cycle Q Clear(g_c), s	15.9	2.9	19.0	2.3	3.4	1.5	22.8	8.7	8.9	7.9	21.9	25.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	499	373	631	50	155	132	683	534	539	494	1407	859
V/C Ratio(X)	0.93	0.14	0.52	0.68	0.36	0.28	0.96	0.26	0.26	0.30	0.58	0.58
Avail Cap(c_a), veh/h	499	587	813	98	419	356	683	534	539	494	1407	859
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.7	39.5	27.4	57.8	52.0	17.9	55.6	41.6	41.7	34.1	28.4	18.4
Incr Delay (d2), s/veh	23.4	0.2	0.7	5.8	1.4	1.1	22.9	1.0	1.0	0.1	1.8	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	1.5	8.4	1.2	1.8	0.7	13.0	4.4	4.5	3.9	11.0	11.7
LnGrp Delay(d),s/veh	74.1	39.7	28.1	63.6	53.4	19.0	78.5	42.6	42.7	34.2	30.2	21.3
LnGrp LOS	E	D	C	E	D	B	E	D	D	C	C	C
Approach Vol, veh/h		847			127			937			1473	
Approach Delay, s/veh		54.0			46.1			67.7			27.5	
Approach LOS		D			D			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	39.9	42.7	8.0	29.4	28.4	54.2	22.0	15.4
Change Period (Y+Rc), s	6.5	* 6.5	4.6	5.4	4.6	6.5	4.6	5.4
Max Green Setting (Gmax), s	18.3	* 36	6.6	37.8	23.8	30.7	17.4	27.0
Max Q Clear Time (g_c+I1), s	9.9	10.9	4.3	21.0	24.8	27.4	17.9	5.4
Green Ext Time (p_c), s	5.7	2.1	0.0	1.6	0.0	2.5	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	46.0
HCM 2010 LOS	D

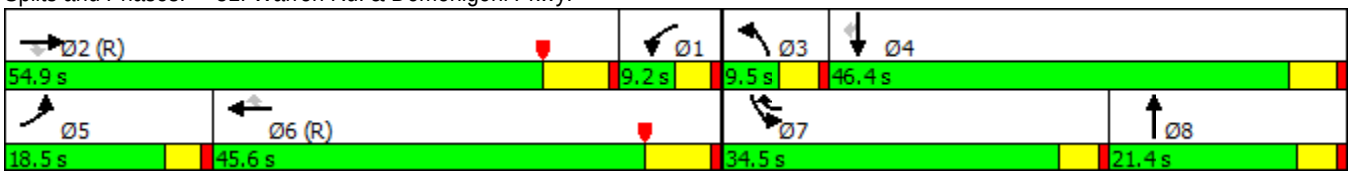
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	293	1148	11	11	1328	513	11	11	332	286	415
Future Volume (vph)	293	1148	11	11	1328	513	11	11	332	286	415
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	7	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	9.5	9.5	14.6	9.5	46.4	46.4
Total Split (s)	18.5	54.9	54.9	9.2	45.6	34.5	9.5	21.4	34.5	46.4	46.4
Total Split (%)	15.4%	45.8%	45.8%	7.7%	38.0%	28.8%	7.9%	17.8%	28.8%	38.7%	38.7%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	3.5	3.5	3.6	3.5	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	4.5	4.5	4.6	4.5	5.4	5.4
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	293	1148	11	11	1328	513	11	11	11	332	286	415
Future Volume (veh/h)	293	1148	11	11	1328	513	11	11	11	332	286	415
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	322	1262	12	12	1459	554	12	12	11	365	314	311
Adj No. of Lanes	2	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	376	2034	620	173	2087	993	24	75	68	394	543	461
Arrive On Green	0.11	0.40	0.40	0.10	0.41	0.41	0.01	0.08	0.08	0.22	0.29	0.29
Sat Flow, veh/h	3442	5085	1550	1774	5085	1563	1774	896	822	1774	1863	1583
Grp Volume(v), veh/h	322	1262	12	12	1459	554	12	0	23	365	314	311
Grp Sat Flow(s),veh/h/ln	1721	1695	1550	1774	1695	1563	1774	0	1718	1774	1863	1583
Q Serve(g_s), s	11.0	23.8	0.5	0.7	28.5	24.2	0.8	0.0	1.5	24.2	17.2	20.8
Cycle Q Clear(g_c), s	11.0	23.8	0.5	0.7	28.5	24.2	0.8	0.0	1.5	24.2	17.2	20.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.48	1.00		1.00
Lane Grp Cap(c), veh/h	376	2034	620	173	2087	993	24	0	143	394	543	461
V/C Ratio(X)	0.86	0.62	0.02	0.07	0.70	0.56	0.49	0.00	0.16	0.93	0.58	0.67
Avail Cap(c_a), veh/h	410	2034	620	173	2087	993	74	0	240	444	636	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.60	0.60	0.60
Uniform Delay (d), s/veh	52.5	28.7	14.6	49.2	29.2	12.6	58.8	0.0	51.1	45.7	36.2	37.5
Incr Delay (d2), s/veh	14.1	1.4	0.1	0.1	2.0	2.3	14.6	0.0	0.2	16.8	0.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	11.4	0.2	0.4	13.6	11.0	0.5	0.0	0.7	13.7	8.9	9.2
LnGrp Delay(d),s/veh	66.6	30.2	14.7	49.3	31.2	14.8	73.3	0.0	51.3	62.6	36.5	38.5
LnGrp LOS	E	C	B	D	C	B	E		D	E	D	D
Approach Vol, veh/h		1596			2025			35			990	
Approach Delay, s/veh		37.4			26.8			58.8			46.7	
Approach LOS		D			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.6	54.9	6.1	40.4	17.3	56.2	31.1	15.4
Change Period (Y+Rc), s	6.9	* 6.9	4.5	5.4	* 4.2	6.9	4.5	* 5.4
Max Green Setting (Gmax), s	5.0	* 48	5.0	41.0	* 14	38.7	30.0	* 17
Max Q Clear Time (g_c+I1), s	2.7	25.8	2.8	22.8	13.0	30.5	26.2	3.5
Green Ext Time (p_c), s	1.1	5.3	0.0	1.6	0.1	4.7	0.4	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	34.9
HCM 2010 LOS	C

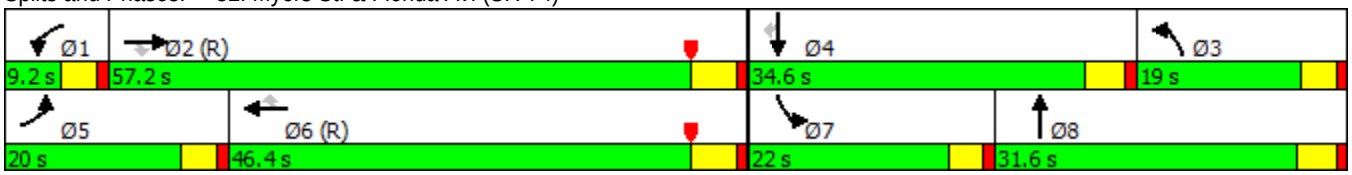
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	256	2437	256	63	1773	265	252	64	139	59	142
Future Volume (vph)	256	2437	256	63	1773	265	252	64	139	59	142
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	20.0	57.2	57.2	9.2	46.4	46.4	19.0	31.6	22.0	34.6	34.6
Total Split (%)	16.7%	47.7%	47.7%	7.7%	38.7%	38.7%	15.8%	26.3%	18.3%	28.8%	28.8%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	2437	256	63	1773	265	252	64	62	139	59	142
Future Volume (veh/h)	256	2437	256	63	1773	265	252	64	62	139	59	142
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	261	2487	261	64	1809	270	257	65	39	142	60	90
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	2767	844	74	2310	717	219	307	184	169	466	396
Arrive On Green	0.13	0.54	0.54	0.08	0.91	0.91	0.12	0.28	0.28	0.10	0.25	0.25
Sat Flow, veh/h	1774	5085	1551	1774	5085	1578	1774	1092	655	1774	1863	1583
Grp Volume(v), veh/h	261	2487	261	64	1809	270	257	0	104	142	60	90
Grp Sat Flow(s),veh/h/ln	1774	1695	1551	1774	1695	1578	1774	0	1747	1774	1863	1583
Q Serve(g_s), s	15.8	52.4	8.9	4.3	13.6	2.9	14.8	0.0	5.5	9.4	3.0	4.8
Cycle Q Clear(g_c), s	15.8	52.4	8.9	4.3	13.6	2.9	14.8	0.0	5.5	9.4	3.0	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	234	2767	844	74	2310	717	219	0	492	169	466	396
V/C Ratio(X)	1.12	0.90	0.31	0.87	0.78	0.38	1.17	0.00	0.21	0.84	0.13	0.23
Avail Cap(c_a), veh/h	234	2767	844	74	2310	717	219	0	492	263	466	396
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	24.4	9.6	54.7	3.6	3.1	52.6	0.0	32.9	53.4	34.9	27.6
Incr Delay (d2), s/veh	94.0	5.2	1.0	59.6	2.7	1.5	116.0	0.0	1.0	7.7	0.6	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.8	25.7	4.0	3.3	5.9	1.4	14.3	0.0	2.8	5.0	1.6	2.2
LnGrp Delay(d),s/veh	146.1	29.6	10.6	114.2	6.4	4.6	168.6	0.0	33.9	61.1	35.4	28.9
LnGrp LOS	F	C	B	F	A	A	F		C	E	D	C
Approach Vol, veh/h		3009			2143			361			292	
Approach Delay, s/veh		38.0			9.4			129.8			45.9	
Approach LOS		D			A			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	70.8	19.4	34.6	20.0	60.0	15.6	38.4
Change Period (Y+Rc), s	* 4.2	5.1	4.6	* 4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 5	52.1	14.8	* 30	* 16	41.3	* 18	27.0
Max Q Clear Time (g_c+I1), s	6.3	54.4	16.8	6.8	17.8	15.6	11.4	7.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	25.7	0.1	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	33.6
HCM 2010 LOS	C

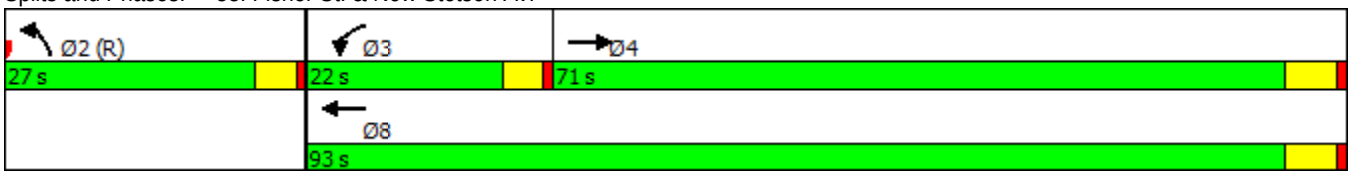
Notes

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	1190	98	1496	32
Future Volume (vph)	1190	98	1496	32
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	5.0
Minimum Split (s)	27.8	14.6	15.8	9.6
Total Split (s)	71.0	22.0	93.0	27.0
Total Split (%)	59.2%	18.3%	77.5%	22.5%
Yellow Time (s)	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBL and 6:, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 33: Fisher St. & New Stetson Av.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1190	34	98	1496	32	79
Future Volume (veh/h)	1190	34	98	1496	32	79
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	1293	37	107	1626	35	86
Adj No. of Lanes	2	0	1	2	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	1781	51	144	2216	135	331
Arrive On Green	0.51	0.51	0.08	0.63	0.29	0.29
Sat Flow, veh/h	3607	100	1774	3632	469	1153
Grp Volume(v), veh/h	651	679	107	1626	122	0
Grp Sat Flow(s),veh/h/ln	1770	1845	1774	1770	1636	0
Q Serve(g_s), s	34.4	34.5	7.1	38.1	6.9	0.0
Cycle Q Clear(g_c), s	34.4	34.5	7.1	38.1	6.9	0.0
Prop In Lane		0.05	1.00		0.29	0.70
Lane Grp Cap(c), veh/h	897	935	144	2216	470	0
V/C Ratio(X)	0.73	0.73	0.74	0.73	0.26	0.00
Avail Cap(c_a), veh/h	961	1002	257	2572	470	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	1.00	0.00
Uniform Delay (d), s/veh	23.1	23.1	53.9	15.5	32.9	0.0
Incr Delay (d2), s/veh	2.6	2.5	0.3	0.1	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.4	18.2	3.5	18.5	3.3	0.0
LnGrp Delay(d),s/veh	25.6	25.6	54.2	15.6	34.3	0.0
LnGrp LOS	C	C	D	B	C	
Approach Vol, veh/h	1330			1733	122	
Approach Delay, s/veh	25.6			18.0	34.3	
Approach LOS	C			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		39.1	14.3	66.6				80.9
Change Period (Y+Rc), s		4.6	4.6	5.8				5.8
Max Green Setting (Gmax), s		22.4	17.4	65.2				87.2
Max Q Clear Time (g_c+I1), s		8.9	9.1	36.5				40.1
Green Ext Time (p_c), s		0.1	0.1	23.7				35.0

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C

Notes

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	19	1538	72	7	1262
Future Volume (vph)	19	1538	72	7	1262
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	2	1	6	8	1
Permitted Phases					8
Detector Phase	2	1	6	8	1
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	9.2	16.2	32.8	9.2
Total Split (s)	28.2	59.0	87.2	32.8	59.0
Total Split (%)	23.5%	49.2%	72.7%	27.3%	49.2%
Yellow Time (s)	5.2	3.2	5.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.2	6.2	5.8	4.2
Lead/Lag	Lead	Lag			Lag
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	C-Max	None	C-Max	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 17 (14%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 35: New Stetson Av. & Stetson Av.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	19	56	1538	72	7	1262
Future Volume (veh/h)	19	56	1538	72	7	1262
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	21	61	1672	78	8	1372
Adj No. of Lanes	1	0	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	77	225	1957	1497	399	1257
Arrive On Green	0.18	0.18	0.57	0.80	0.22	0.22
Sat Flow, veh/h	422	1225	3442	1863	1774	1583
Grp Volume(v), veh/h	0	82	1672	78	8	1372
Grp Sat Flow(s),veh/h/ln	0	1647	1721	1863	1774	1583
Q Serve(g_s), s	0.0	5.1	48.9	1.0	0.4	27.0
Cycle Q Clear(g_c), s	0.0	5.1	48.9	1.0	0.4	27.0
Prop In Lane		0.74	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	302	1957	1497	399	1257
V/C Ratio(X)	0.00	0.27	0.85	0.05	0.02	1.09
Avail Cap(c_a), veh/h	0	302	1957	1497	399	1257
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.52	0.52	0.51	0.51
Uniform Delay (d), s/veh	0.0	42.1	21.7	2.4	36.2	12.4
Incr Delay (d2), s/veh	0.0	2.2	2.0	0.0	0.0	48.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.5	23.5	0.5	0.2	27.5
LnGrp Delay(d),s/veh	0.0	44.3	23.7	2.4	36.2	61.0
LnGrp LOS		D	C	A	D	F
Approach Vol, veh/h	82			1750	1380	
Approach Delay, s/veh	44.3			22.8	60.9	
Approach LOS	D			C	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	74.4	28.2				102.6		32.8
Change Period (Y+Rc), s	6.2	* 6.2				6.2		5.8
Max Green Setting (Gmax), s	54.8	* 22				81.0		27.0
Max Q Clear Time (g_c+I1), s	50.9	7.1				3.0		29.0
Green Ext Time (p_c), s	1.9	0.2				4.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.7
HCM 2010 LOS	D

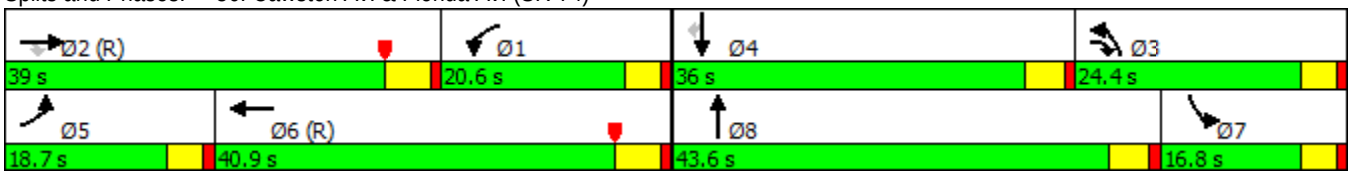
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	154	1147	666	267	1058	380	206	86	458	183
Future Volume (vph)	154	1147	666	267	1058	380	206	86	458	183
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	3	1	6	3	8	7	4	
Permitted Phases			2							4
Detector Phase	5	2	3	1	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	9.2	9.2	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	18.7	39.0	24.4	20.6	40.9	24.4	43.6	16.8	36.0	36.0
Total Split (%)	15.6%	32.5%	20.3%	17.2%	34.1%	20.3%	36.3%	14.0%	30.0%	30.0%
Yellow Time (s)	3.2	4.1	3.2	3.2	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	4.2	4.2	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 54 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	1147	666	267	1058	28	380	206	175	86	458	183
Future Volume (veh/h)	154	1147	666	267	1058	28	380	206	175	86	458	183
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	159	1182	686	275	1091	13	392	212	177	89	472	121
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	186	1437	657	293	1816	22	455	610	485	122	487	414
Arrive On Green	0.10	0.28	0.28	0.17	0.35	0.35	0.13	0.32	0.32	0.07	0.26	0.26
Sat Flow, veh/h	1774	5085	1583	1774	5180	62	3442	1877	1491	1774	1863	1583
Grp Volume(v), veh/h	159	1182	686	275	714	390	392	199	190	89	472	121
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1852	1721	1770	1598	1774	1863	1583
Q Serve(g_s), s	10.6	26.1	33.9	18.4	20.8	20.8	13.4	10.3	10.9	5.9	30.1	5.6
Cycle Q Clear(g_c), s	10.6	26.1	33.9	18.4	20.8	20.8	13.4	10.3	10.9	5.9	30.1	5.6
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.93	1.00		1.00
Lane Grp Cap(c), veh/h	186	1437	657	293	1188	649	455	575	519	122	487	414
V/C Ratio(X)	0.86	0.82	1.04	0.94	0.60	0.60	0.86	0.35	0.37	0.73	0.97	0.29
Avail Cap(c_a), veh/h	214	1437	657	293	1188	649	579	575	519	186	487	414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	40.2	35.1	49.5	32.1	32.1	51.0	30.8	31.0	54.8	43.8	20.4
Incr Delay (d2), s/veh	22.5	5.4	47.2	36.1	2.3	4.1	8.7	1.7	2.0	3.1	33.6	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	12.9	23.4	12.0	10.1	11.4	6.9	5.3	5.1	3.0	20.0	2.6
LnGrp Delay(d),s/veh	75.4	45.7	82.4	85.6	34.3	36.1	59.7	32.5	33.0	57.8	77.4	22.2
LnGrp LOS	E	D	F	F	C	D	E	C	C	E	E	C
Approach Vol, veh/h		2027			1379			781			682	
Approach Delay, s/veh		60.4			45.1			46.2			65.1	
Approach LOS		E			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.9	39.0	20.1	36.0	16.8	47.2	12.5	43.6
Change Period (Y+Rc), s	5.1	* 5.1	4.2	* 4.6	* 4.2	5.1	4.2	* 4.6
Max Green Setting (Gmax), s	16.4	* 34	20.2	* 31	* 15	35.8	12.6	* 39
Max Q Clear Time (g_c+I1), s	20.4	35.9	15.4	32.1	12.6	22.8	7.9	12.9
Green Ext Time (p_c), s	0.0	0.0	0.5	0.0	0.0	7.6	0.5	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	54.4
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	156	1025	212	1370	60	84	123	176	60	121	156
Future Volume (vph)	156	1025	212	1370	60	84	123	176	60	121	156
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	22.0	65.9	28.0	71.9	71.9	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	18.3%	54.9%	23.3%	59.9%	59.9%	21.8%	21.8%	21.8%	21.8%	21.8%	21.8%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 44 (37%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 37: Cawston Av. & Stetson Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	1025	100	212	1370	60	84	123	176	60	121	156
Future Volume (veh/h)	156	1025	100	212	1370	60	84	123	176	60	121	156
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	190	1250	120	259	1671	66	102	150	76	73	148	173
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	1753	168	282	2036	911	169	326	277	178	326	273
Arrive On Green	0.24	1.00	1.00	0.32	1.00	1.00	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1774	3265	313	1774	3539	1583	1054	1863	1583	1150	1863	1562
Grp Volume(v), veh/h	190	676	694	259	1671	66	102	150	76	73	148	173
Grp Sat Flow(s),veh/h/ln	1774	1770	1808	1774	1770	1583	1054	1863	1583	1150	1863	1562
Q Serve(g_s), s	12.4	0.0	0.0	16.9	0.0	0.0	11.5	8.7	5.0	7.3	8.5	12.3
Cycle Q Clear(g_c), s	12.4	0.0	0.0	16.9	0.0	0.0	20.1	8.7	5.0	16.0	8.5	12.3
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	214	950	971	282	2036	911	169	326	277	178	326	273
V/C Ratio(X)	0.89	0.71	0.71	0.92	0.82	0.07	0.60	0.46	0.27	0.41	0.45	0.63
Avail Cap(c_a), veh/h	263	950	971	352	2036	911	169	326	277	178	326	273
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.25	0.25	0.25	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	0.0	0.0	40.2	0.0	0.0	53.4	44.4	42.9	51.6	44.4	45.9
Incr Delay (d2), s/veh	7.1	1.1	1.1	3.1	0.4	0.0	14.8	4.6	2.4	6.8	4.5	10.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.3	0.3	8.4	0.1	0.0	4.1	4.9	2.4	2.7	4.8	6.1
LnGrp Delay(d),s/veh	51.9	1.1	1.1	43.3	0.4	0.0	68.2	49.0	45.3	58.4	48.9	56.6
LnGrp LOS	D	A	A	D	A	A	E	D	D	E	D	E
Approach Vol, veh/h		1560			1996			328			394	
Approach Delay, s/veh		7.3			5.9			54.1			54.0	
Approach LOS		A			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	23.2	70.7		26.1	18.7	75.2		26.1
Change Period (Y+Rc), s	* 4.2	6.2		5.1	* 4.2	6.2		5.1
Max Green Setting (Gmax), s	* 24	59.7		21.0	* 18	65.7		21.0
Max Q Clear Time (g_c+I1), s	18.9	2.0		18.0	14.4	2.0		22.1
Green Ext Time (p_c), s	0.2	25.3		0.7	0.1	26.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

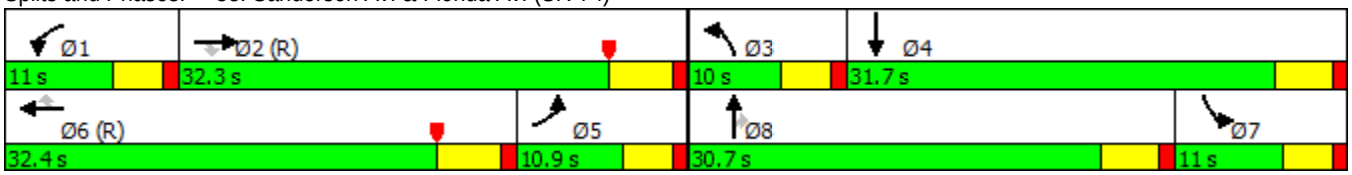
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	165	727	233	331	760	344	134	899	251	321	1025
Future Volume (vph)	165	727	233	331	760	344	134	899	251	321	1025
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6		3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	6	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7
Total Split (s)	10.9	32.3	32.3	11.0	32.4	32.4	10.0	30.7	30.7	11.0	31.7
Total Split (%)	12.8%	38.0%	38.0%	12.9%	38.1%	38.1%	11.8%	36.1%	36.1%	12.9%	37.3%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	727	233	331	760	344	134	899	251	321	1025	118
Future Volume (veh/h)	165	727	233	331	760	344	134	899	251	321	1025	118
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	181	799	227	364	835	319	147	988	166	353	1126	78
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1120	2043	900	275	1137	499	218	1556	469	275	1595	110
Arrive On Green	0.33	0.58	0.58	0.08	0.32	0.32	0.06	0.31	0.31	0.08	0.33	0.33
Sat Flow, veh/h	3442	3539	1560	3442	3539	1555	3442	5085	1535	3442	4857	336
Grp Volume(v), veh/h	181	799	227	364	835	319	147	988	166	353	786	418
Grp Sat Flow(s),veh/h/ln	1721	1770	1560	1721	1770	1555	1721	1695	1535	1721	1695	1803
Q Serve(g_s), s	3.2	10.5	6.1	6.8	17.8	14.9	3.6	14.2	8.0	6.8	17.2	17.2
Cycle Q Clear(g_c), s	3.2	10.5	6.1	6.8	17.8	14.9	3.6	14.2	8.0	6.8	17.2	17.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	1120	2043	900	275	1137	499	218	1556	469	275	1113	592
V/C Ratio(X)	0.16	0.39	0.25	1.32	0.73	0.64	0.67	0.64	0.35	1.28	0.71	0.71
Avail Cap(c_a), veh/h	1120	2043	900	275	1137	499	235	1556	469	275	1113	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	9.8	8.9	39.1	25.6	24.6	38.9	25.4	28.4	39.1	25.0	25.0
Incr Delay (d2), s/veh	0.0	0.6	0.7	168.1	4.2	6.1	5.1	2.0	2.1	151.8	3.8	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.3	2.7	9.6	9.4	7.2	1.9	6.9	3.6	9.0	8.7	9.7
LnGrp Delay(d),s/veh	20.4	10.4	9.6	207.2	29.9	30.8	44.1	27.4	30.5	190.9	28.7	31.9
LnGrp LOS	C	B	A	F	C	C	D	C	C	F	C	C
Approach Vol, veh/h		1207			1518			1301			1557	
Approach Delay, s/veh		11.7			72.6			29.7			66.3	
Approach LOS		B			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	54.7	9.6	32.6	33.3	32.4	11.5	30.7
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	* 4.7	5.1	* 5.1	* 4.7	* 4.7
Max Green Setting (Gmax), s	* 6.8	27.2	* 5.8	* 27	6.7	* 27	* 6.8	* 26
Max Q Clear Time (g_c+I1), s	8.8	12.5	5.6	19.2	5.2	19.8	8.8	16.2
Green Ext Time (p_c), s	0.0	7.4	0.0	4.9	0.8	4.8	0.0	5.1

Intersection Summary	
HCM 2010 Ctrl Delay	47.7
HCM 2010 LOS	D

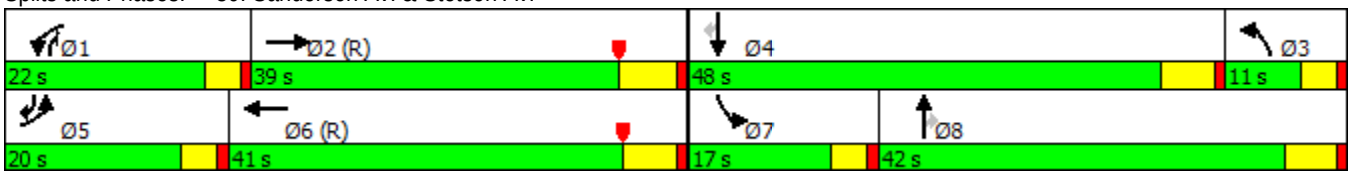
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	446	656	282	1058	181	1024	123	276	1055	403
Future Volume (vph)	446	656	282	1058	181	1024	123	276	1055	403
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8	1	7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8	9.2
Total Split (s)	20.0	39.0	22.0	41.0	11.0	42.0	22.0	17.0	48.0	20.0
Total Split (%)	16.7%	32.5%	18.3%	34.2%	9.2%	35.0%	18.3%	14.2%	40.0%	16.7%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 12.8 (11%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	446	656	159	282	1058	385	181	1024	123	276	1055	403
Future Volume (veh/h)	446	656	159	282	1058	385	181	1024	123	276	1055	403
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	519	763	184	328	1230	431	210	1191	-237	321	1227	463
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	453	3521	840	387	3139	1098	195	1115	677	367	1245	765
Arrive On Green	0.13	0.86	0.86	0.11	0.84	0.84	0.06	0.31	0.00	0.11	0.35	0.35
Sat Flow, veh/h	3442	4083	974	3442	3722	1301	3442	3539	1583	3442	3539	1582
Grp Volume(v), veh/h	519	632	315	328	1120	541	210	1191	-237	321	1227	463
Grp Sat Flow(s),veh/h/ln	1721	1695	1666	1721	1695	1633	1721	1770	1583	1721	1770	1582
Q Serve(g_s), s	15.8	3.8	3.8	11.2	9.3	9.3	6.8	37.8	0.0	11.0	41.3	42.2
Cycle Q Clear(g_c), s	15.8	3.8	3.8	11.2	9.3	9.3	6.8	37.8	0.0	11.0	41.3	42.2
Prop In Lane	1.00		0.58	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	453	2924	1437	387	2859	1377	195	1115	677	367	1245	765
V/C Ratio(X)	1.15	0.22	0.22	0.85	0.39	0.39	1.08	1.07	-0.35	0.87	0.99	0.61
Avail Cap(c_a), veh/h	453	2924	1437	511	2859	1377	195	1115	677	367	1245	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.65	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	1.4	1.4	52.2	2.2	2.2	56.6	41.1	0.0	52.8	38.6	69.7
Incr Delay (d2), s/veh	81.7	0.1	0.2	7.9	0.4	0.8	86.3	47.2	0.0	19.5	22.3	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	1.8	1.8	5.8	4.4	4.4	5.6	25.7	0.0	6.3	24.0	22.4
LnGrp Delay(d),s/veh	133.8	1.5	1.6	60.2	2.6	3.0	142.9	88.3	0.0	72.3	60.9	73.2
LnGrp LOS	F	A	A	E	A	A	F	F		E	E	E
Approach Vol, veh/h		1466			1989			1164			2011	
Approach Delay, s/veh		48.4			12.2			116.1			65.6	
Approach LOS		D			B			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.7	111.7	12.6	48.0	20.0	109.4	17.0	43.6
Change Period (Y+Rc), s	* 4.2	6.2	5.8	* 5.8	* 4.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 18	32.8	6.8	* 42	* 16	* 35	* 13	36.2
Max Q Clear Time (g_c+I1), s	13.2	5.8	8.8	44.2	17.8	11.3	13.0	39.8
Green Ext Time (p_c), s	0.3	19.9	0.0	0.0	0.0	18.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.6
HCM 2010 LOS	D

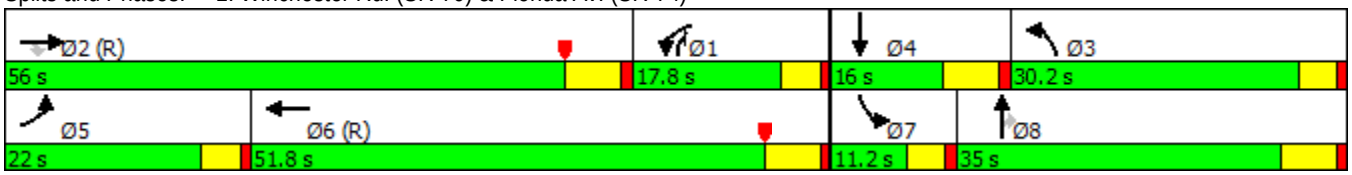
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	260	1875	236	342	1633	580	481	471	51	56
Future Volume (vph)	260	1875	236	342	1633	580	481	471	51	56
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2		1	6	3	8	1	7	4
Permitted Phases			2					8		
Detector Phase	5	2	2	1	6	3	8	1	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	16.0	16.0	9.6	16.0	11.2	16.0	9.6	11.2	16.0
Total Split (s)	22.0	56.0	56.0	17.8	51.8	30.2	35.0	17.8	11.2	16.0
Total Split (%)	18.3%	46.7%	46.7%	14.8%	43.2%	25.2%	29.2%	14.8%	9.3%	13.3%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	4.5	6.0	4.5	4.5	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 18.2 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 1: Winchester Rd. (SR-79) & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	1875	236	342	1633	363	580	481	471	51	56	80
Future Volume (veh/h)	260	1875	236	342	1633	363	580	481	471	51	56	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	295	2131	221	389	1856	406	659	547	327	58	64	86
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	2119	660	1627	3172	679	712	486	1161	74	59	80
Arrive On Green	0.15	0.42	0.42	0.47	0.76	0.76	0.21	0.26	0.26	0.04	0.08	0.08
Sat Flow, veh/h	1774	5085	1583	3442	4196	899	3442	1863	1583	1774	714	959
Grp Volume(v), veh/h	295	2131	221	389	1492	770	659	547	327	58	0	150
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1704	1721	1863	1583	1774	0	1673
Q Serve(g_s), s	17.5	50.0	11.4	8.1	23.0	24.1	22.5	31.3	2.5	3.9	0.0	10.0
Cycle Q Clear(g_c), s	17.5	50.0	11.4	8.1	23.0	24.1	22.5	31.3	2.5	3.9	0.0	10.0
Prop In Lane	1.00		1.00	1.00		0.53	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	259	2119	660	1627	2563	1288	712	486	1161	74	0	139
V/C Ratio(X)	1.14	1.01	0.33	0.24	0.58	0.60	0.92	1.13	0.28	0.78	0.00	1.08
Avail Cap(c_a), veh/h	259	2119	660	1627	2563	1288	737	486	1161	99	0	139
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.3	35.0	23.7	18.8	6.4	6.5	46.7	44.3	16.9	56.9	0.0	55.0
Incr Delay (d2), s/veh	99.1	20.9	1.4	0.0	1.0	2.1	16.8	80.0	0.6	17.2	0.0	98.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.7	27.5	5.2	3.8	10.9	11.9	12.4	26.9	6.5	2.3	0.0	8.4
LnGrp Delay(d),s/veh	150.4	55.9	25.1	18.8	7.4	8.6	63.4	124.3	17.6	74.2	0.0	153.0
LnGrp LOS	F	F	C	B	A	A	E	F	B	E		F
Approach Vol, veh/h		2647			2651			1533			208	
Approach Delay, s/veh		63.9			9.4			75.4			131.0	
Approach LOS		E			A			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	63.5	56.0	30.8	16.0	22.0	97.5	9.5	37.3
Change Period (Y+Rc), s	6.0	* 6	6.0	* 6	4.5	6.0	4.5	6.0
Max Green Setting (Gmax), s	13.3	* 50	25.7	* 10	17.5	45.8	6.7	29.0
Max Q Clear Time (g_c+I1), s	10.1	52.0	24.5	12.0	19.5	26.1	5.9	33.3
Green Ext Time (p_c), s	1.9	0.0	0.3	0.0	0.0	15.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	47.9
HCM 2010 LOS	D

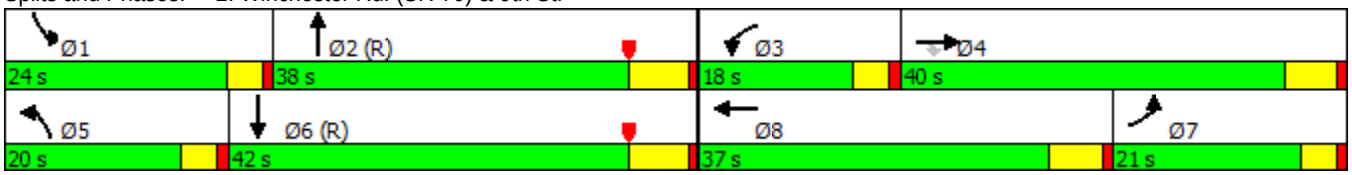
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	229	132	105	143	571	217	868	300	836
Future Volume (vph)	229	132	105	143	571	217	868	300	836
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.2	31.8	31.8	9.2	31.8	9.2	32.2	9.2	32.2
Total Split (s)	21.0	40.0	40.0	18.0	37.0	20.0	38.0	24.0	42.0
Total Split (%)	17.5%	33.3%	33.3%	15.0%	30.8%	16.7%	31.7%	20.0%	35.0%
Yellow Time (s)	3.2	4.8	4.8	3.2	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	5.8	4.2	5.8	4.2	6.2	4.2	6.2
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 55.8 (47%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 2: Winchester Rd. (SR-79) & 9th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	132	105	143	571	227	217	868	66	300	836	148
Future Volume (veh/h)	229	132	105	143	571	227	217	868	66	300	836	148
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	244	140	112	152	607	241	231	923	70	319	889	157
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	1103	494	178	641	254	234	2240	170	293	2121	374
Arrive On Green	0.14	0.31	0.31	0.10	0.26	0.26	0.04	0.22	0.22	0.17	0.71	0.71
Sat Flow, veh/h	1774	3539	1583	1774	2477	982	1774	3335	253	1774	3007	531
Grp Volume(v), veh/h	244	140	112	152	434	414	231	490	503	319	523	523
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1689	1774	1770	1818	1774	1770	1769
Q Serve(g_s), s	16.5	3.4	6.3	10.1	28.9	28.9	15.6	28.4	28.4	19.8	14.8	14.9
Cycle Q Clear(g_c), s	16.5	3.4	6.3	10.1	28.9	28.9	15.6	28.4	28.4	19.8	14.8	14.9
Prop In Lane	1.00		1.00	1.00		0.58	1.00		0.14	1.00		0.30
Lane Grp Cap(c), veh/h	248	1103	494	178	458	438	234	1189	1221	293	1248	1247
V/C Ratio(X)	0.98	0.13	0.23	0.85	0.95	0.95	0.99	0.41	0.41	1.09	0.42	0.42
Avail Cap(c_a), veh/h	248	1103	494	204	460	439	234	1189	1221	293	1248	1247
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.69	0.69	0.69	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	29.6	30.6	53.1	43.6	43.7	57.3	26.4	26.4	50.1	7.4	7.4
Incr Delay (d2), s/veh	51.9	0.1	0.2	22.9	28.7	29.8	45.7	0.7	0.7	78.7	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	1.7	2.8	6.1	17.7	17.1	10.6	14.2	14.6	16.1	7.5	7.5
LnGrp Delay(d),s/veh	103.3	29.6	30.8	76.0	72.3	73.5	103.0	27.1	27.1	128.8	8.4	8.4
LnGrp LOS	F	C	C	E	E	E	F	C	C	F	A	A
Approach Vol, veh/h		496			1000			1224			1365	
Approach Delay, s/veh		66.2			73.4			41.4			36.6	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	88.3	16.3	43.2	20.0	92.3	22.6	36.9
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	* 4.2	6.2	5.8	* 5.8
Max Green Setting (Gmax), s	* 20	31.8	* 14	34.2	* 16	35.8	16.8	* 31
Max Q Clear Time (g_c+I1), s	21.8	30.4	12.1	8.3	17.6	16.9	18.5	30.9
Green Ext Time (p_c), s	0.0	1.3	0.0	1.6	0.0	14.8	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	50.6
HCM 2010 LOS	D

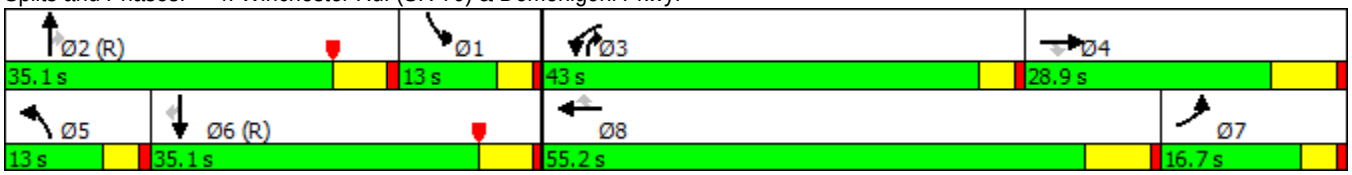
Notes

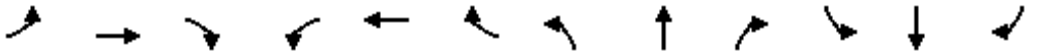
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	716	60	493	1347	114	87	548	835	79	160	195
Future Volume (vph)	193	716	60	493	1347	114	87	548	835	79	160	195
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.2	28.9	28.9	9.2	28.9	28.9	9.2	33.8	9.2	9.2	33.8	33.8
Total Split (s)	16.7	28.9	28.9	43.0	55.2	55.2	13.0	35.1	43.0	13.0	35.1	35.1
Total Split (%)	13.9%	24.1%	24.1%	35.8%	46.0%	46.0%	10.8%	29.3%	35.8%	10.8%	29.3%	29.3%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	5.9	3.2	4.8	3.2	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	6.9	4.2	5.8	4.2	4.2	5.8	5.8
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 110 (92%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 4: Winchester Rd. (SR-79) & Domenigoni Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	716	60	493	1347	114	87	548	835	79	160	195
Future Volume (veh/h)	193	716	60	493	1347	114	87	548	835	79	160	195
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	205	762	33	524	1433	111	93	583	473	84	170	98
Adj No. of Lanes	2	3	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	1420	442	602	1799	560	116	864	664	200	1078	482
Arrive On Green	0.08	0.28	0.28	0.06	0.12	0.12	0.07	0.24	0.24	0.11	0.30	0.30
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	205	762	33	524	1433	111	93	583	473	84	170	98
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	7.0	15.2	1.8	18.1	32.9	7.6	6.2	17.9	17.2	5.3	4.2	4.1
Cycle Q Clear(g_c), s	7.0	15.2	1.8	18.1	32.9	7.6	6.2	17.9	17.2	5.3	4.2	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	1420	442	602	1799	560	116	864	664	200	1078	482
V/C Ratio(X)	0.77	0.54	0.07	0.87	0.80	0.20	0.80	0.67	0.71	0.42	0.16	0.20
Avail Cap(c_a), veh/h	359	1420	442	1113	2047	637	130	864	664	200	1078	482
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.18	0.18	0.18	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	54.3	36.7	31.8	55.2	48.8	37.6	55.3	41.0	11.9	49.6	30.5	16.7
Incr Delay (d2), s/veh	4.5	0.4	0.1	0.3	0.4	0.0	23.7	4.2	6.4	0.5	0.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	7.2	0.8	8.7	15.6	3.3	3.8	9.2	8.6	2.6	2.1	1.9
LnGrp Delay(d),s/veh	58.7	37.1	31.9	55.5	49.1	37.6	79.0	45.2	18.3	50.1	30.8	17.7
LnGrp LOS	E	D	C	E	D	D	E	D	B	D	C	B
Approach Vol, veh/h		1000			2068			1149			352	
Approach Delay, s/veh		41.3			50.1			36.9			31.7	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.3	35.1	25.2	40.4	12.0	42.4	16.2	49.4
Change Period (Y+Rc), s	5.8	* 5.8	* 4.2	6.9	* 4.2	5.8	6.9	* 6.9
Max Green Setting (Gmax), s	8.8	* 29	* 39	22.0	* 8.8	29.3	12.5	* 48
Max Q Clear Time (g_c+I1), s	7.3	19.9	20.1	17.2	8.2	6.2	9.0	34.9
Green Ext Time (p_c), s	0.1	4.9	0.9	2.1	0.0	1.8	0.3	7.5

Intersection Summary	
HCM 2010 Ctrl Delay	43.5
HCM 2010 LOS	D

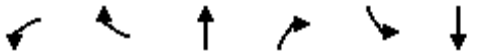
Notes

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	330	416	222	353	256	136
Future Volume (vph)	330	416	222	353	256	136
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	24.2	16.2	24.2	24.2	16.2	24.2
Total Split (s)	47.0	38.0	35.0	47.0	38.0	73.0
Total Split (%)	39.2%	31.7%	29.2%	39.2%	31.7%	60.8%
Yellow Time (s)	3.6	3.6	4.8	3.6	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	4.6	4.6	5.8
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 5: Patterson Av. & Grand Av.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	330	416	222	353	256	136
Future Volume (veh/h)	330	416	222	353	256	136
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	569	717	383	609	441	234
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.58	0.58	0.58	0.58	0.58	0.58
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	614	963	497	970	465	1057
Arrive On Green	0.35	0.35	0.27	0.27	0.26	0.57
Sat Flow, veh/h	1774	1583	1863	1583	1774	1863
Grp Volume(v), veh/h	569	717	383	609	441	234
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863
Q Serve(g_s), s	37.1	38.9	22.8	29.0	29.3	7.5
Cycle Q Clear(g_c), s	37.1	38.9	22.8	29.0	29.3	7.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	614	963	497	970	465	1057
V/C Ratio(X)	0.93	0.74	0.77	0.63	0.95	0.22
Avail Cap(c_a), veh/h	627	975	497	970	494	1057
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	16.8	40.6	14.6	43.5	12.8
Incr Delay (d2), s/veh	19.4	2.7	11.0	3.1	26.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.5	17.7	13.2	21.0	17.8	4.0
LnGrp Delay(d),s/veh	57.2	19.6	51.6	17.7	70.0	13.3
LnGrp LOS	E	B	D	B	E	B
Approach Vol, veh/h	1286		992			675
Approach Delay, s/veh	36.2		30.8			50.3
Approach LOS	D		C			D

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	36.1	37.8				73.9		46.1
Change Period (Y+Rc), s	4.6	5.8				5.8		4.6
Max Green Setting (Gmax), s	33.4	29.2				67.2		42.4
Max Q Clear Time (g_c+I1), s	31.3	31.0				9.5		40.9
Green Ext Time (p_c), s	0.2	0.0				6.8		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	37.6
HCM 2010 LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	134	1191	777	1616	278	308	844	179	202	59
Future Volume (vph)	134	1191	777	1616	278	308	844	179	202	59
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2	1	6	3	8	1	7	4	
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.2	32.8	9.2	32.8	9.2	32.8	9.2	9.2	32.8	32.8
Total Split (s)	14.2	40.2	27.0	53.0	20.0	35.2	27.0	17.6	32.8	32.8
Total Split (%)	11.8%	33.5%	22.5%	44.2%	16.7%	29.3%	22.5%	14.7%	27.3%	27.3%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	3.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	4.2	5.8	5.8
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 114 (95%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 6: Patterson Av. & Domenigoni Pkwy.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	1191	306	777	1616	252	278	308	844	179	202	59
Future Volume (veh/h)	134	1191	306	777	1616	252	278	308	844	179	202	59
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	135	1203	309	785	1632	255	281	311	853	181	204	60
Adj No. of Lanes	1	3	0	2	3	0	1	1	1	1	1	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	1156	297	2710	4459	694	234	481	1656	198	419	356
Arrive On Green	0.03	0.09	0.09	0.79	1.00	1.00	0.13	0.26	0.26	0.11	0.22	0.22
Sat Flow, veh/h	1774	4034	1036	3442	4440	691	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	135	1011	501	785	1244	643	281	311	853	181	204	60
Grp Sat Flow(s),veh/h/ln	1774	1695	1680	1721	1695	1741	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	9.1	34.4	34.4	7.5	0.0	0.0	15.8	17.8	19.4	12.1	11.4	5.8
Cycle Q Clear(g_c), s	9.1	34.4	34.4	7.5	0.0	0.0	15.8	17.8	19.4	12.1	11.4	5.8
Prop In Lane	1.00		0.62	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	148	972	482	2710	3404	1748	234	481	1656	198	419	356
V/C Ratio(X)	0.91	1.04	1.04	0.29	0.37	0.37	1.20	0.65	0.52	0.91	0.49	0.17
Avail Cap(c_a), veh/h	148	972	482	2710	3404	1748	234	481	1656	198	419	356
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.41	0.41	0.41	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.9	54.3	54.3	3.5	0.0	0.0	52.1	39.6	15.4	52.7	40.5	94.7
Incr Delay (d2), s/veh	26.5	30.0	37.4	0.0	0.3	0.6	124.8	6.6	1.1	39.9	4.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	20.2	21.0	3.5	0.1	0.3	15.8	10.0	18.2	8.1	6.4	2.6
LnGrp Delay(d),s/veh	84.4	84.3	91.8	3.5	0.3	0.6	176.9	46.2	16.6	92.6	44.5	95.8
LnGrp LOS	F	F	F	A	A	A	F	D	B	F	D	F
Approach Vol, veh/h		1647			2672			1445			445	
Approach Delay, s/veh		86.6			1.3			54.1			71.0	
Approach LOS		F			A			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	101.9	40.2	21.6	32.8	14.2	127.9	17.6	36.8
Change Period (Y+Rc), s	5.8	* 5.8	5.8	* 5.8	* 4.2	5.8	* 4.2	5.8
Max Green Setting (Gmax), s	22.8	* 34	15.8	* 27	* 10	47.2	* 13	29.4
Max Q Clear Time (g_c+I1), s	9.5	36.4	17.8	13.4	11.1	2.0	14.1	21.4
Green Ext Time (p_c), s	10.0	0.0	0.0	1.0	0.0	21.7	0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	41.2
HCM 2010 LOS	D

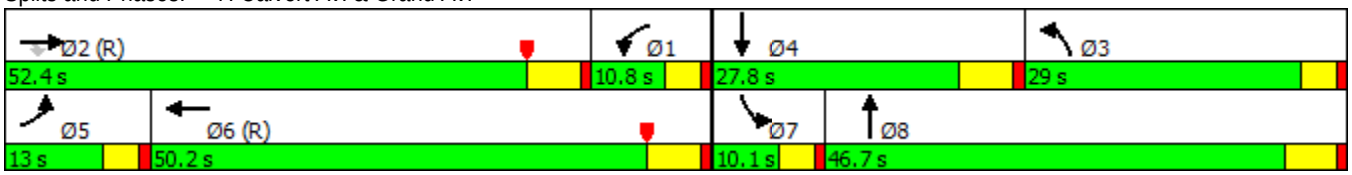
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	140	1089	293	77	1427	470	108	23	43
Future Volume (vph)	140	1089	293	77	1427	470	108	23	43
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	27.8	27.8	9.5	27.8	9.5	27.8	9.5	27.8
Total Split (s)	13.0	52.4	52.4	10.8	50.2	29.0	46.7	10.1	27.8
Total Split (%)	10.8%	43.7%	43.7%	9.0%	41.8%	24.2%	38.9%	8.4%	23.2%
Yellow Time (s)	3.2	4.8	4.8	3.2	4.8	3.2	4.8	3.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	5.8	4.2	5.8	4.2	5.8	4.2	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 7: Calvert Av. & Grand Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	1089	293	77	1427	45	470	108	94	23	43	88
Future Volume (veh/h)	140	1089	293	77	1427	45	470	108	94	23	43	88
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	152	1184	318	84	1551	49	511	117	102	25	47	96
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	1374	615	1139	3398	107	367	349	304	42	100	205
Arrive On Green	0.07	0.39	0.39	0.64	0.97	0.97	0.21	0.38	0.38	0.02	0.18	0.18
Sat Flow, veh/h	1774	3539	1583	1774	3502	110	1774	920	802	1774	547	1118
Grp Volume(v), veh/h	152	1184	318	84	782	818	511	0	219	25	0	143
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1843	1774	0	1721	1774	0	1665
Q Serve(g_s), s	8.8	36.9	18.4	2.1	2.8	2.9	24.8	0.0	10.8	1.7	0.0	9.2
Cycle Q Clear(g_c), s	8.8	36.9	18.4	2.1	2.8	2.9	24.8	0.0	10.8	1.7	0.0	9.2
Prop In Lane	1.00		1.00	1.00		0.06	1.00		0.47	1.00		0.67
Lane Grp Cap(c), veh/h	130	1374	615	1139	1717	1788	367	0	654	42	0	305
V/C Ratio(X)	1.17	0.86	0.52	0.07	0.46	0.46	1.39	0.00	0.34	0.60	0.00	0.47
Avail Cap(c_a), veh/h	130	1374	615	1139	1717	1788	367	0	654	87	0	305
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.6	33.7	28.1	8.1	0.1	0.1	47.6	0.0	26.4	58.0	0.0	43.8
Incr Delay (d2), s/veh	131.2	7.3	3.1	0.0	0.9	0.8	193.1	0.0	1.4	5.0	0.0	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	19.3	8.6	1.1	1.5	1.6	31.8	0.0	5.4	0.9	0.0	4.7
LnGrp Delay(d),s/veh	186.8	41.0	31.2	8.1	1.0	0.9	240.7	0.0	27.8	63.0	0.0	48.9
LnGrp LOS	F	D	C	A	A	A	F		C	E		D
Approach Vol, veh/h		1654			1684			730			168	
Approach Delay, s/veh		52.5			1.3			176.9			51.0	
Approach LOS		D			A			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	84.4	52.4	30.6	27.8	13.0	123.8	7.0	51.4
Change Period (Y+Rc), s	5.8	* 5.8	5.8	* 5.8	* 4.2	5.8	* 4.2	5.8
Max Green Setting (Gmax), s	6.6	* 47	24.8	* 22	* 8.8	44.4	* 5.9	40.9
Max Q Clear Time (g_c+I1), s	4.1	38.9	26.8	11.2	10.8	4.9	3.7	12.8
Green Ext Time (p_c), s	1.3	4.9	0.0	0.5	0.0	15.0	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	53.5
HCM 2010 LOS	D

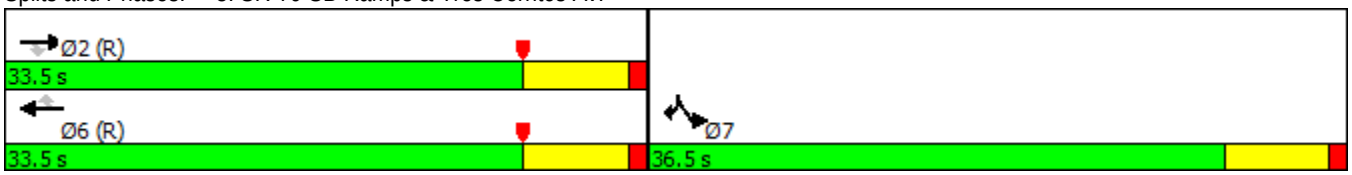
Notes

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	7	3	43	427	547	9
Future Volume (vph)	7	3	43	427	547	9
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	33.5	33.5	33.5	33.5	36.5	36.5
Total Split (%)	47.9%	47.9%	47.9%	47.9%	52.1%	52.1%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 8: SR-79 SB Ramps & Tres Cerritos Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	7	3	0	43	427	0	0	0	547	0	9
Future Volume (veh/h)	0	7	3	0	43	427	0	0	0	547	0	9
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	8	3	0	47	464				595	0	10
Adj No. of Lanes	0	2	1	0	2	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	1591	712	0	1591	712				647	0	577
Arrive On Green	0.00	0.45	0.45	0.00	0.45	0.45				0.36	0.00	0.36
Sat Flow, veh/h	0	3632	1583	0	3632	1583				1774	0	1583
Grp Volume(v), veh/h	0	8	3	0	47	464				595	0	10
Grp Sat Flow(s),veh/h/ln	0	1770	1583	0	1770	1583				1774	0	1583
Q Serve(g_s), s	0.0	0.1	0.1	0.0	0.5	16.0				22.4	0.0	0.3
Cycle Q Clear(g_c), s	0.0	0.1	0.1	0.0	0.5	16.0				22.4	0.0	0.3
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1591	712	0	1591	712				647	0	577
V/C Ratio(X)	0.00	0.01	0.00	0.00	0.03	0.65				0.92	0.00	0.02
Avail Cap(c_a), veh/h	0	1591	712	0	1591	712				760	0	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.93	0.93				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	10.6	10.6	0.0	10.7	15.0				21.3	0.0	14.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	4.3				14.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.3	14.7				13.6	0.0	0.1
LnGrp Delay(d),s/veh	0.0	10.6	10.6	0.0	10.8	19.3				36.1	0.0	14.2
LnGrp LOS		B	B		B	B				D		B
Approach Vol, veh/h		11			511						605	
Approach Delay, s/veh		10.6			18.5						35.8	
Approach LOS		B			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		38.0		32.0		38.0		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		27.0		30.0		27.0		
Max Q Clear Time (g_c+I1), s		2.1		24.4		18.0		
Green Ext Time (p_c), s		3.2		1.1		2.1		

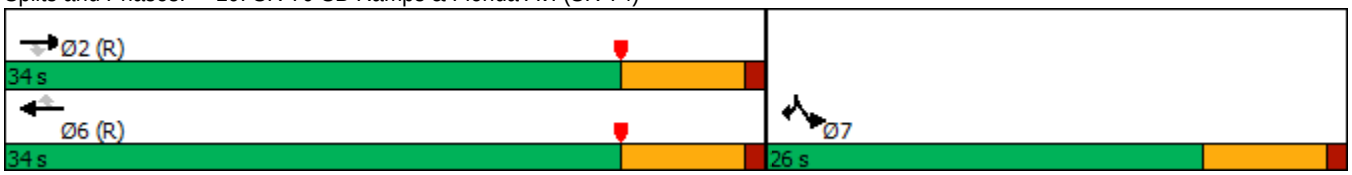
Intersection Summary	
HCM 2010 Ctrl Delay	27.7
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1912	328	2338	602	368	243
Future Volume (vph)	1912	328	2338	602	368	243
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	34.0	34.0	34.0	34.0	26.0	26.0
Total Split (%)	56.7%	56.7%	56.7%	56.7%	43.3%	43.3%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 19: SR-79 SB Ramps & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰		↱
Traffic Volume (veh/h)	0	1912	328	0	2338	602	0	0	0	368	0	243
Future Volume (veh/h)	0	1912	328	0	2338	602	0	0	0	368	0	243
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	2078	357	0	2541	654				400	0	264
Adj No. of Lanes	0	3	1	0	3	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	2637	821	0	2637	821				470	0	419
Arrive On Green	0.00	0.52	0.52	0.00	0.52	0.52				0.26	0.00	0.26
Sat Flow, veh/h	0	5253	1583	0	5253	1583				1774	0	1583
Grp Volume(v), veh/h	0	2078	357	0	2541	654				400	0	264
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1774	0	1583
Q Serve(g_s), s	0.0	20.0	8.4	0.0	28.8	20.3				12.8	0.0	8.8
Cycle Q Clear(g_c), s	0.0	20.0	8.4	0.0	28.8	20.3				12.8	0.0	8.8
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2637	821	0	2637	821				470	0	419
V/C Ratio(X)	0.00	0.79	0.43	0.00	0.96	0.80				0.85	0.00	0.63
Avail Cap(c_a), veh/h	0	2637	821	0	2637	821				577	0	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.09	0.09				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.8	9.0	0.0	13.9	11.8				20.9	0.0	19.5
Incr Delay (d2), s/veh	0.0	2.5	1.7	0.0	1.5	0.8				10.0	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.8	4.1	0.0	13.5	8.9				7.5	0.0	4.0
LnGrp Delay(d),s/veh	0.0	14.2	10.7	0.0	15.4	12.6				30.9	0.0	21.2
LnGrp LOS		B	B		B	B				C		C
Approach Vol, veh/h		2435			3195						664	
Approach Delay, s/veh		13.7			14.8						27.0	
Approach LOS		B			B						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		37.6		22.4		37.6		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		27.5		19.5		27.5		
Max Q Clear Time (g_c+I1), s		22.0		14.8		30.8		
Green Ext Time (p_c), s		4.9		1.0		0.0		

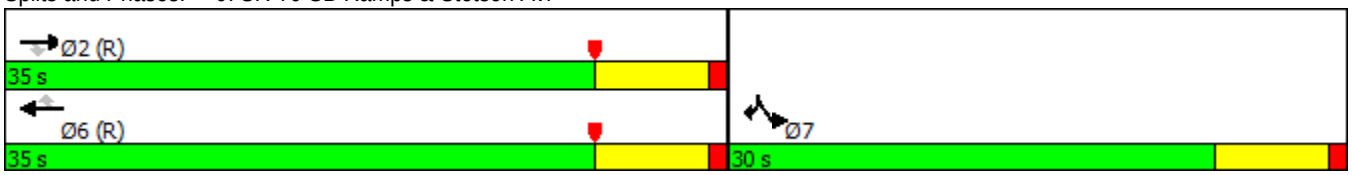
Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	926	285	1309	754	414	218
Future Volume (vph)	926	285	1309	754	414	218
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	35.0	35.0	35.0	35.0	30.0	30.0
Total Split (%)	53.8%	53.8%	53.8%	53.8%	46.2%	46.2%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 9: SR-79 SB Ramps & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱				↰		↱
Traffic Volume (veh/h)	0	926	285	0	1309	754	0	0	0	414	0	218
Future Volume (veh/h)	0	926	285	0	1309	754	0	0	0	414	0	218
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	1007	310	0	1423	820				450	0	237
Adj No. of Lanes	0	2	1	0	2	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	1801	806	0	1801	806				516	0	461
Arrive On Green	0.00	0.51	0.51	0.00	1.00	1.00				0.29	0.00	0.29
Sat Flow, veh/h	0	3632	1583	0	3632	1583				1774	0	1583
Grp Volume(v), veh/h	0	1007	310	0	1423	820				450	0	237
Grp Sat Flow(s),veh/h/ln	0	1770	1583	0	1770	1583				1774	0	1583
Q Serve(g_s), s	0.0	12.7	7.8	0.0	0.0	33.1				15.7	0.0	8.1
Cycle Q Clear(g_c), s	0.0	12.7	7.8	0.0	0.0	33.1				15.7	0.0	8.1
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1801	806	0	1801	806				516	0	461
V/C Ratio(X)	0.00	0.56	0.38	0.00	0.79	1.02				0.87	0.00	0.51
Avail Cap(c_a), veh/h	0	1801	806	0	1801	806				641	0	572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.16	0.16				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.0	9.7	0.0	0.0	0.0				21.9	0.0	19.2
Incr Delay (d2), s/veh	0.0	1.3	1.4	0.0	0.6	17.3				10.6	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.5	3.7	0.0	0.1	18.4				9.1	0.0	3.7
LnGrp Delay(d),s/veh	0.0	12.2	11.1	0.0	0.6	17.3				32.5	0.0	20.1
LnGrp LOS		B	B		A	F				C		C
Approach Vol, veh/h		1317			2243						687	
Approach Delay, s/veh		12.0			6.7						28.2	
Approach LOS		B			A						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		39.6		25.4		39.6		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		28.5		23.5		28.5		
Max Q Clear Time (g_c+I1), s		14.7		17.7		35.1		
Green Ext Time (p_c), s		12.8		1.3		0.0		

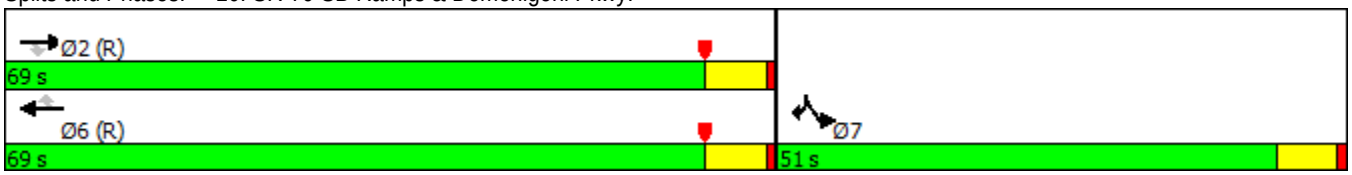
Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1967	247	2300	363	274	345
Future Volume (vph)	1967	247	2300	363	274	345
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		7	7
Permitted Phases		2		6		
Detector Phase	2	2	6	6	7	7
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	69.0	69.0	69.0	69.0	51.0	51.0
Total Split (%)	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 10: SR-79 SB Ramps & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰		↱
Traffic Volume (veh/h)	0	1967	247	0	2300	363	0	0	0	274	0	345
Future Volume (veh/h)	0	1967	247	0	2300	363	0	0	0	274	0	345
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	2138	268	0	2500	395				298	0	375
Adj No. of Lanes	0	3	1	0	3	1				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3202	997	0	3202	997				465	0	415
Arrive On Green	0.00	0.63	0.63	0.00	1.00	1.00				0.26	0.00	0.26
Sat Flow, veh/h	0	5253	1583	0	5253	1583				1774	0	1583
Grp Volume(v), veh/h	0	2138	268	0	2500	395				298	0	375
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1774	0	1583
Q Serve(g_s), s	0.0	32.2	9.1	0.0	0.0	0.0				17.9	0.0	27.5
Cycle Q Clear(g_c), s	0.0	32.2	9.1	0.0	0.0	0.0				17.9	0.0	27.5
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3202	997	0	3202	997				465	0	415
V/C Ratio(X)	0.00	0.67	0.27	0.00	0.78	0.40				0.64	0.00	0.90
Avail Cap(c_a), veh/h	0	3202	997	0	3202	997				658	0	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.51	0.51				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.2	9.9	0.0	0.0	0.0				39.3	0.0	42.8
Incr Delay (d2), s/veh	0.0	1.1	0.7	0.0	1.0	0.6				1.5	0.0	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.4	4.1	0.0	0.3	13.3				9.0	0.0	13.5
LnGrp Delay(d),s/veh	0.0	15.3	10.6	0.0	1.0	0.6				40.7	0.0	56.3
LnGrp LOS		B	B		A	A				D		E
Approach Vol, veh/h		2406			2895						673	
Approach Delay, s/veh		14.8			0.9						49.4	
Approach LOS		B			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		82.1		37.9		82.1		
Change Period (Y+Rc), s		6.5		6.5		6.5		
Max Green Setting (Gmax), s		62.5		44.5		62.5		
Max Q Clear Time (g_c+I1), s		34.2		29.5		2.0		
Green Ext Time (p_c), s		27.9		2.0		58.8		

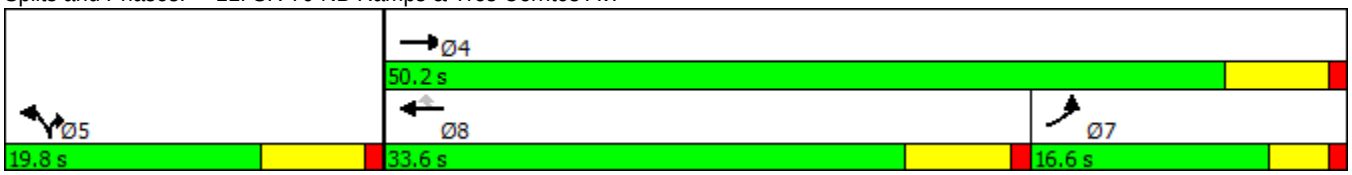
Intersection Summary	
HCM 2010 Ctrl Delay	12.0
HCM 2010 LOS	B

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	213	341	333	261	137	153
Future Volume (vph)	213	341	333	261	137	153
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	7	4	8		5	5
Permitted Phases				8		
Detector Phase	7	4	8	8	5	5
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	16.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	16.6	50.2	33.6	33.6	19.8	19.8
Total Split (%)	23.7%	71.7%	48.0%	48.0%	28.3%	28.3%
Yellow Time (s)	3.2	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 11: SR-79 NB Ramps & Tres Cerritos Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	341	0	0	333	261	137	0	153	0	0	0
Future Volume (veh/h)	213	341	0	0	333	261	137	0	153	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	232	371	0	0	362	284	149	0	166			
Adj No. of Lanes	1	2	0	0	2	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	2			
Cap, veh/h	289	1780	0	0	875	392	552	0	493			
Arrive On Green	0.05	0.17	0.00	0.00	0.25	0.25	0.31	0.00	0.31			
Sat Flow, veh/h	1774	3632	0	0	3632	1583	1774	0	1583			
Grp Volume(v), veh/h	232	371	0	0	362	284	149	0	166			
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1583	1774	0	1583			
Q Serve(g_s), s	9.1	6.3	0.0	0.0	6.0	11.5	4.4	0.0	5.6			
Cycle Q Clear(g_c), s	9.1	6.3	0.0	0.0	6.0	11.5	4.4	0.0	5.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	289	1780	0	0	875	392	552	0	493			
V/C Ratio(X)	0.80	0.21	0.00	0.00	0.41	0.73	0.27	0.00	0.34			
Avail Cap(c_a), veh/h	314	2209	0	0	1370	613	552	0	493			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.40	0.40	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	32.0	17.2	0.0	0.0	22.1	24.2	18.1	0.0	18.5			
Incr Delay (d2), s/veh	5.0	0.0	0.0	0.0	0.4	3.6	0.3	0.0	0.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.9	3.1	0.0	0.0	3.0	5.4	2.2	0.0	2.5			
LnGrp Delay(d),s/veh	37.0	17.2	0.0	0.0	22.5	27.8	18.4	0.0	18.9			
LnGrp LOS	D	B			C	C	B		B			
Approach Vol, veh/h		603			646			315				
Approach Delay, s/veh		24.8			24.8			18.7				
Approach LOS		C			C			B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		28.3		41.7			17.9	23.8
Change Period (Y+Rc), s		6.5		6.5			6.5	* 6.5
Max Green Setting (Gmax), s		13.3		43.7			12.4	* 27
Max Q Clear Time (g_c+I1), s		7.6		8.3			11.1	13.5
Green Ext Time (p_c), s		0.5		3.4			0.5	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

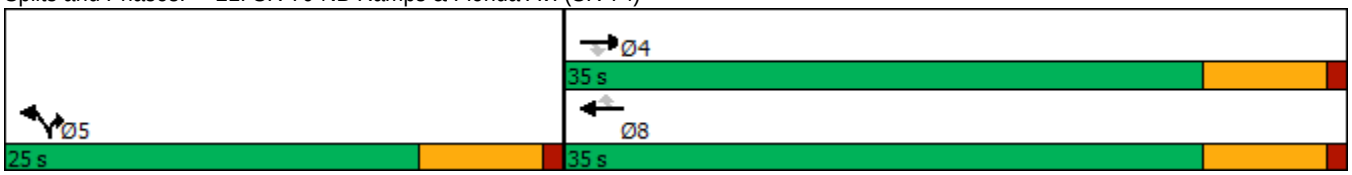
Notes

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1914	366	2605	454	335	306
Future Volume (vph)	1914	366	2605	454	335	306
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	4		8		5	5
Permitted Phases		4		8		
Detector Phase	4	4	8	8	5	5
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	35.0	35.0	35.0	35.0	25.0	25.0
Total Split (%)	58.3%	58.3%	58.3%	58.3%	41.7%	41.7%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 28 (47%), Referenced to phase 2: and 6:, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 21: SR-79 NB Ramps & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1914	366	0	2605	454	335	0	306	0	0	0
Future Volume (veh/h)	0	1914	366	0	2605	454	335	0	306	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	2080	398	0	2832	493	364	0	333			
Adj No. of Lanes	0	3	1	0	3	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	2416	752	0	2416	752	547	0	488			
Arrive On Green	0.00	0.95	0.95	0.00	0.47	0.47	0.31	0.00	0.31			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	1583			
Grp Volume(v), veh/h	0	2080	398	0	2832	493	364	0	333			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1583			
Q Serve(g_s), s	0.0	6.7	1.5	0.0	28.5	14.2	10.7	0.0	11.1			
Cycle Q Clear(g_c), s	0.0	6.7	1.5	0.0	28.5	14.2	10.7	0.0	11.1			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2416	752	0	2416	752	547	0	488			
V/C Ratio(X)	0.00	0.86	0.53	0.00	1.17	0.66	0.67	0.00	0.68			
Avail Cap(c_a), veh/h	0	2416	752	0	2416	752	547	0	488			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.47	0.47	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	1.0	0.8	0.0	15.8	12.0	18.1	0.0	18.2			
Incr Delay (d2), s/veh	0.0	1.7	0.3	0.0	82.4	2.1	3.1	0.0	3.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.5	0.5	0.0	31.6	6.6	5.6	0.0	5.3			
LnGrp Delay(d),s/veh	0.0	2.6	1.2	0.0	98.1	14.1	21.1	0.0	22.0			
LnGrp LOS		A	A		F	B	C		C			
Approach Vol, veh/h		2478			3325			697				
Approach Delay, s/veh		2.4			85.7			21.6				
Approach LOS		A			F			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		25.0		35.0				35.0
Change Period (Y+Rc), s		6.5		6.5				6.5
Max Green Setting (Gmax), s		18.5		28.5				28.5
Max Q Clear Time (g_c+I1), s		13.1		8.7				30.5
Green Ext Time (p_c), s		1.2		15.0				0.0

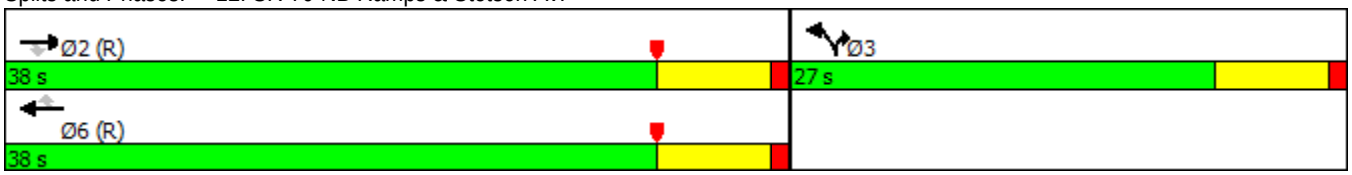
Intersection Summary	
HCM 2010 Ctrl Delay	47.0
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1066	274	1673	306	390	289
Future Volume (vph)	1066	274	1673	306	390	289
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		3	3
Permitted Phases		2		6		
Detector Phase	2	2	6	6	3	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	38.0	38.0	38.0	38.0	27.0	27.0
Total Split (%)	58.5%	58.5%	58.5%	58.5%	41.5%	41.5%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 8 (12%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 12: SR-79 NB Ramps & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1066	274	0	1673	306	390	0	289	0	0	0
Future Volume (veh/h)	0	1066	274	0	1673	306	390	0	289	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	1159	298	0	1818	333	424	0	314			
Adj No. of Lanes	0	2	1	0	2	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	1861	833	0	1861	833	486	0	434			
Arrive On Green	0.00	1.00	1.00	0.00	0.53	0.53	0.27	0.00	0.27			
Sat Flow, veh/h	0	3632	1583	0	3632	1583	1774	0	1583			
Grp Volume(v), veh/h	0	1159	298	0	1818	333	424	0	314			
Grp Sat Flow(s),veh/h/ln	0	1770	1583	0	1770	1583	1774	0	1583			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	32.5	8.2	14.8	0.0	11.7			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	32.5	8.2	14.8	0.0	11.7			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1861	833	0	1861	833	486	0	434			
V/C Ratio(X)	0.00	0.62	0.36	0.00	0.98	0.40	0.87	0.00	0.72			
Avail Cap(c_a), veh/h	0	1861	833	0	1861	833	560	0	499			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.71	0.71	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	15.0	9.2	22.5	0.0	21.4			
Incr Delay (d2), s/veh	0.0	1.1	0.8	0.0	16.0	1.4	12.8	0.0	4.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.2	0.0	19.8	3.8	8.9	0.0	5.6			
LnGrp Delay(d),s/veh	0.0	1.1	0.8	0.0	31.0	10.7	35.3	0.0	25.7			
LnGrp LOS		A	A		C	B	D		C			
Approach Vol, veh/h		1457			2151			738				
Approach Delay, s/veh		1.1			27.9			31.2				
Approach LOS		A			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		40.7				40.7		24.3
Change Period (Y+Rc), s		6.5				6.5		6.5
Max Green Setting (Gmax), s		31.5				31.5		20.5
Max Q Clear Time (g_c+I1), s		2.0				34.5		16.8
Green Ext Time (p_c), s		26.5				0.0		1.0

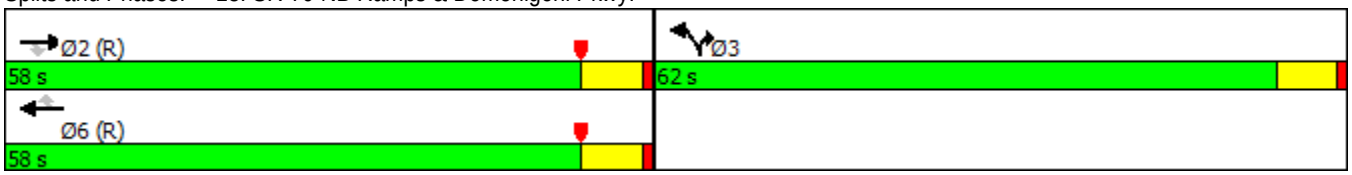
Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1678	563	2314	689	349	211
Future Volume (vph)	1678	563	2314	689	349	211
Turn Type	NA	Perm	NA	Perm	Prot	Prot
Protected Phases	2		6		3	3
Permitted Phases		2		6		
Detector Phase	2	2	6	6	3	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.5	28.5	33.5	33.5	16.5	16.5
Total Split (s)	58.0	58.0	58.0	58.0	62.0	62.0
Total Split (%)	48.3%	48.3%	48.3%	48.3%	51.7%	51.7%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 13: SR-79 NB Ramps & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1678	563	0	2314	689	349	0	211	0	0	0
Future Volume (veh/h)	0	1678	563	0	2314	689	349	0	211	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	1824	612	0	2515	749	379	0	229			
Adj No. of Lanes	0	3	1	0	3	1	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3318	1033	0	3318	1033	424	0	379			
Arrive On Green	0.00	1.00	1.00	0.00	0.65	0.65	0.24	0.00	0.24			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	1583			
Grp Volume(v), veh/h	0	1824	612	0	2515	749	379	0	229			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1583			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	40.8	37.4	24.8	0.0	15.4			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	40.8	37.4	24.8	0.0	15.4			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3318	1033	0	3318	1033	424	0	379			
V/C Ratio(X)	0.00	0.55	0.59	0.00	0.76	0.73	0.89	0.00	0.60			
Avail Cap(c_a), veh/h	0	3318	1033	0	3318	1033	820	0	732			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.69	0.69	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	14.3	13.8	44.2	0.0	40.6			
Incr Delay (d2), s/veh	0.0	0.5	1.7	0.0	1.7	4.4	6.7	0.0	1.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.5	0.0	19.4	17.5	12.9	0.0	6.9			
LnGrp Delay(d),s/veh	0.0	0.5	1.7	0.0	16.0	18.2	50.9	0.0	42.2			
LnGrp LOS		A	A		B	B	D		D			
Approach Vol, veh/h		2436			3264			608				
Approach Delay, s/veh		0.8			16.5			47.6				
Approach LOS		A			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		84.8				84.8		35.2
Change Period (Y+Rc), s		6.5				6.5		6.5
Max Green Setting (Gmax), s		51.5				51.5		55.5
Max Q Clear Time (g_c+I1), s		2.0				42.8		26.8
Green Ext Time (p_c), s		48.6				8.7		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	159	596	635	478	114
Future Volume (vph)	159	596	635	478	114
Turn Type	Prot	Prot	NA	NA	Perm
Protected Phases	4	5	2	6	
Permitted Phases					6
Detector Phase	4	5	2	6	6
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	9.5	22.5	27.8	27.8
Total Split (s)	28.4	49.0	91.6	42.6	42.6
Total Split (%)	23.7%	40.8%	76.3%	35.5%	35.5%
Yellow Time (s)	4.8	3.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.2	5.8	5.8	5.8
Lead/Lag		Lag		Lead	Lead
Lead-Lag Optimize?		Yes		Yes	Yes
Recall Mode	None	None	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 130
Control Type: Actuated-Coordinated

Splits and Phases: 14: California Av. & Stowe Rd.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	159	154	596	635	478	114
Future Volume (veh/h)	159	154	596	635	478	114
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	189	183	710	756	569	136
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	160	155	917	1624	571	486
Arrive On Green	0.19	0.19	0.52	0.87	0.31	0.31
Sat Flow, veh/h	849	822	1774	1863	1863	1583
Grp Volume(v), veh/h	373	0	710	756	569	136
Grp Sat Flow(s),veh/h/ln	1675	0	1774	1863	1863	1583
Q Serve(g_s), s	22.6	0.0	38.7	10.5	36.6	7.8
Cycle Q Clear(g_c), s	22.6	0.0	38.7	10.5	36.6	7.8
Prop In Lane	0.51	0.49	1.00			1.00
Lane Grp Cap(c), veh/h	316	0	917	1624	571	486
V/C Ratio(X)	1.18	0.00	0.77	0.47	1.00	0.28
Avail Cap(c_a), veh/h	316	0	917	1624	571	486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	0.0	23.4	1.7	41.5	31.6
Incr Delay (d2), s/veh	109.7	0.0	3.8	1.0	36.7	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.0	0.0	19.9	5.7	24.6	3.6
LnGrp Delay(d),s/veh	158.4	0.0	27.2	2.6	78.2	33.0
LnGrp LOS	F		C	A	E	C
Approach Vol, veh/h	373			1466	705	
Approach Delay, s/veh	158.4			14.5	69.5	
Approach LOS	F			B	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		110.4		28.4	67.8	42.6		
Change Period (Y+Rc), s		5.8		5.8	5.8	* 5.8		
Max Green Setting (Gmax), s		85.8		22.6	44.8	* 37		
Max Q Clear Time (g_c+I1), s		12.5		24.6	40.7	38.6		
Green Ext Time (p_c), s		8.6		0.0	2.5	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	50.8
HCM 2010 LOS	D

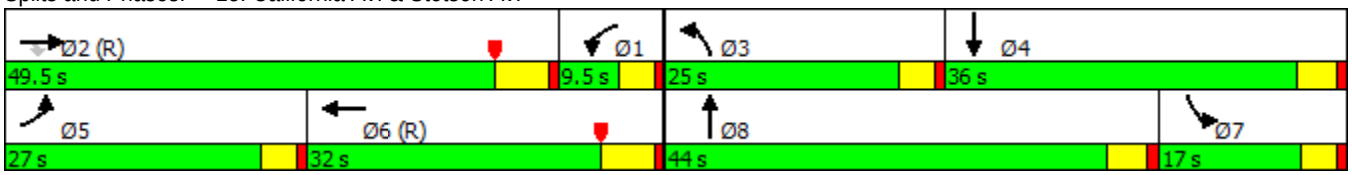
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	170	1128	86	235	1630	226	595	281	200
Future Volume (vph)	170	1128	86	235	1630	226	595	281	200
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	3	8	7	4
Permitted Phases			2						
Detector Phase	5	2	2	1	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	27.8	27.8	9.5	27.8	9.5	27.8	9.5	27.8
Total Split (s)	27.0	49.5	49.5	9.5	32.0	25.0	44.0	17.0	36.0
Total Split (%)	22.5%	41.3%	41.3%	7.9%	26.7%	20.8%	36.7%	14.2%	30.0%
Yellow Time (s)	3.2	4.8	4.8	3.2	4.8	3.2	3.6	3.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	5.8	4.2	5.8	4.2	4.6	4.2	4.6
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 15: California Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	1128	86	235	1630	466	226	595	419	281	200	151
Future Volume (veh/h)	170	1128	86	235	1630	466	226	595	419	281	200	151
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	185	1226	93	255	1772	507	246	647	455	305	217	164
Adj No. of Lanes	1	2	1	2	2	0	1	2	0	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	213	1289	577	1770	2122	579	273	653	458	359	554	400
Arrive On Green	0.12	0.36	0.36	0.51	0.77	0.77	0.15	0.33	0.33	0.10	0.28	0.28
Sat Flow, veh/h	1774	3539	1583	3442	2749	751	1774	1990	1396	3442	1964	1418
Grp Volume(v), veh/h	185	1226	93	255	1110	1169	246	575	527	305	194	187
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1730	1774	1770	1616	1721	1770	1613
Q Serve(g_s), s	12.3	40.4	6.6	4.7	46.1	57.0	16.3	38.8	39.0	10.5	10.6	11.3
Cycle Q Clear(g_c), s	12.3	40.4	6.6	4.7	46.1	57.0	16.3	38.8	39.0	10.5	10.6	11.3
Prop In Lane	1.00		1.00	1.00		0.43	1.00		0.86	1.00		0.88
Lane Grp Cap(c), veh/h	213	1289	577	1770	1366	1335	273	581	531	359	499	455
V/C Ratio(X)	0.87	0.95	0.16	0.14	0.81	0.88	0.90	0.99	0.99	0.85	0.39	0.41
Avail Cap(c_a), veh/h	337	1289	577	1770	1366	1335	308	581	531	367	499	455
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.9	37.1	49.7	15.3	8.4	9.6	49.9	40.1	40.2	52.8	34.7	35.0
Incr Delay (d2), s/veh	8.3	15.8	0.6	0.0	5.4	8.2	24.7	35.0	37.3	15.9	2.3	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	22.6	3.0	2.2	23.9	29.7	9.9	24.5	22.9	5.7	5.5	5.4
LnGrp Delay(d),s/veh	60.2	52.9	50.3	15.3	13.8	17.9	74.5	75.1	77.4	68.7	37.0	37.7
LnGrp LOS	E	D	D	B	B	B	E	E	E	E	D	D
Approach Vol, veh/h		1504			2534			1348			686	
Approach Delay, s/veh		53.7			15.8			75.9			51.3	
Approach LOS		D			B			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	69.2	49.5	22.6	38.5	18.6	100.1	17.1	44.0
Change Period (Y+Rc), s	5.8	* 5.8	* 4.2	4.6	* 4.2	5.8	4.6	* 4.6
Max Green Setting (Gmax), s	5.3	* 44	* 21	31.4	* 23	26.2	12.8	* 39
Max Q Clear Time (g_c+I1), s	6.7	42.4	18.3	13.3	14.3	59.0	12.5	41.0
Green Ext Time (p_c), s	0.0	0.9	0.1	2.8	0.1	0.0	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	42.5
HCM 2010 LOS	D

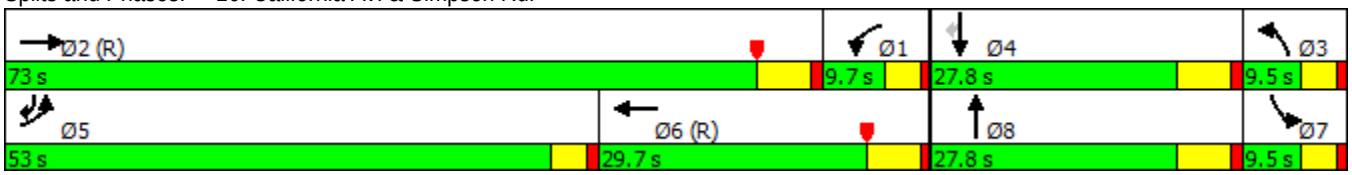
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	1130	499	17	445	19	30	29	126	366
Future Volume (vph)	1130	499	17	445	19	30	29	126	366
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8	7	4	5
Permitted Phases									4
Detector Phase	5	2	1	6	3	8	7	4	5
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.5	27.8	9.5	27.8	9.5	27.8	9.5	27.8	9.5
Total Split (s)	53.0	73.0	9.7	29.7	9.5	27.8	9.5	27.8	53.0
Total Split (%)	44.2%	60.8%	8.1%	24.8%	7.9%	23.2%	7.9%	23.2%	44.2%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	4.8	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	5.8	4.2	5.8	4.2
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 16: California Av. & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1130	499	237	17	445	80	19	30	9	29	126	366
Future Volume (veh/h)	1130	499	237	17	445	80	19	30	9	29	126	366
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	1284	567	269	19	506	91	22	34	10	33	143	416
Adj No. of Lanes	2	2	0	1	2	0	1	1	0	1	1	2
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1341	1306	619	87	697	125	49	254	75	49	342	1597
Arrive On Green	0.39	0.56	0.56	0.05	0.23	0.23	0.03	0.18	0.18	0.03	0.18	0.18
Sat Flow, veh/h	3442	2333	1105	1774	3000	537	1774	1384	407	1774	1863	2787
Grp Volume(v), veh/h	1284	430	406	19	298	299	22	0	44	33	143	416
Grp Sat Flow(s),veh/h/ln	1721	1770	1668	1774	1770	1768	1774	0	1791	1774	1863	1393
Q Serve(g_s), s	43.6	16.9	17.0	1.2	18.6	18.8	1.5	0.0	2.5	2.2	8.1	5.9
Cycle Q Clear(g_c), s	43.6	16.9	17.0	1.2	18.6	18.8	1.5	0.0	2.5	2.2	8.1	5.9
Prop In Lane	1.00		0.66	1.00		0.30	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	1341	991	934	87	411	411	49	0	328	49	342	1597
V/C Ratio(X)	0.96	0.43	0.43	0.22	0.72	0.73	0.45	0.00	0.13	0.67	0.42	0.26
Avail Cap(c_a), veh/h	1400	991	934	87	411	411	78	0	328	78	342	1597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	15.3	15.4	54.9	42.5	42.6	57.4	0.0	41.0	57.8	43.3	5.8
Incr Delay (d2), s/veh	14.5	1.4	1.5	0.5	10.5	10.8	2.3	0.0	0.8	5.7	3.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.4	8.6	8.2	0.6	10.3	10.4	0.8	0.0	1.3	1.2	4.6	2.3
LnGrp Delay(d),s/veh	50.2	16.7	16.8	55.3	53.0	53.4	59.8	0.0	41.9	63.5	47.1	6.2
LnGrp LOS	D	B	B	E	D	D	E		D	E	D	A
Approach Vol, veh/h		2120			616			66			592	
Approach Delay, s/veh		37.0			53.3			47.8			19.3	
Approach LOS		D			D			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	73.0	7.5	27.8	51.0	33.7	7.5	27.8
Change Period (Y+Rc), s	5.8	* 5.8	4.2	* 5.8	* 4.2	5.8	4.2	* 5.8
Max Green Setting (Gmax), s	5.5	* 67	5.3	* 22	* 49	23.9	5.3	* 22
Max Q Clear Time (g_c+I1), s	3.2	19.0	3.5	10.1	45.6	20.8	4.2	4.5
Green Ext Time (p_c), s	0.3	5.7	0.0	2.1	1.2	1.0	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	37.1
HCM 2010 LOS	D

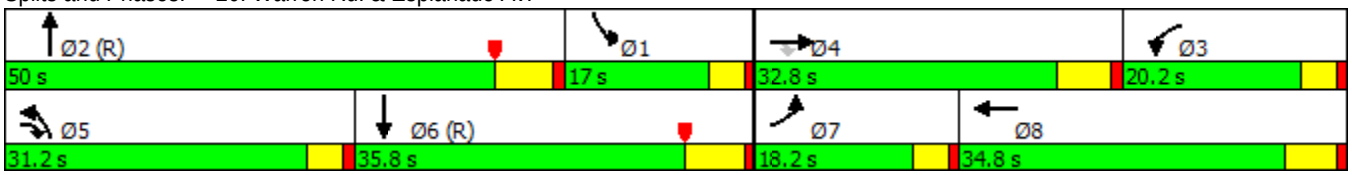
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	188	612	265	230	411	378	1343	198	776
Future Volume (vph)	188	612	265	230	411	378	1343	198	776
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	32.8	9.5	9.5	32.8	9.5	33.2	9.5	33.2
Total Split (s)	18.2	32.8	31.2	20.2	34.8	31.2	50.0	17.0	35.8
Total Split (%)	15.2%	27.3%	26.0%	16.8%	29.0%	26.0%	41.7%	14.2%	29.8%
Yellow Time (s)	3.2	4.8	3.2	3.2	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	4.2	5.8	4.2	6.2	4.2	6.2
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 125
Control Type: Actuated-Coordinated

Splits and Phases: 20: Warren Rd. & Esplanade Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	612	265	230	411	162	378	1343	441	198	776	154
Future Volume (veh/h)	188	612	265	230	411	162	378	1343	441	198	776	154
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	190	618	268	232	415	164	382	1357	445	200	784	156
Adj No. of Lanes	1	2	1	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	722	679	237	582	227	399	1386	452	621	2160	426
Arrive On Green	0.12	0.20	0.20	0.13	0.23	0.23	0.23	0.37	0.37	0.35	0.51	0.51
Sat Flow, veh/h	1774	3539	1583	1774	2488	973	1774	3797	1238	1774	4263	841
Grp Volume(v), veh/h	190	618	268	232	294	285	382	1211	591	200	622	318
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1691	1774	1695	1644	1774	1695	1714
Q Serve(g_s), s	12.7	20.2	13.6	15.6	18.3	18.6	25.5	42.3	42.8	9.9	13.3	13.5
Cycle Q Clear(g_c), s	12.7	20.2	13.6	15.6	18.3	18.6	25.5	42.3	42.8	9.9	13.3	13.5
Prop In Lane	1.00		1.00	1.00		0.58	1.00		0.75	1.00		0.49
Lane Grp Cap(c), veh/h	207	722	679	237	414	395	399	1237	600	621	1717	868
V/C Ratio(X)	0.92	0.86	0.39	0.98	0.71	0.72	0.96	0.98	0.98	0.32	0.36	0.37
Avail Cap(c_a), veh/h	207	796	712	237	428	409	399	1237	600	621	1717	868
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	46.1	24.9	51.8	42.2	42.4	45.9	37.6	37.8	28.6	17.9	17.9
Incr Delay (d2), s/veh	39.8	8.5	0.4	52.8	5.2	5.9	33.7	20.9	33.2	0.1	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	10.7	6.0	11.1	9.6	9.4	16.3	23.3	24.9	4.9	6.4	6.6
LnGrp Delay(d),s/veh	92.2	54.6	25.3	104.6	47.5	48.3	79.6	58.6	71.0	28.7	18.5	19.1
LnGrp LOS	F	D	C	F	D	D	E	E	E	C	B	B
Approach Vol, veh/h		1076			811			2184			1140	
Approach Delay, s/veh		53.9			64.1			65.6			20.5	
Approach LOS		D			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	48.5	50.0	21.8	30.3	31.2	67.3	18.2	33.9
Change Period (Y+Rc), s	6.2	* 6.2	5.8	* 5.8	* 4.2	6.2	* 4.2	5.8
Max Green Setting (Gmax), s	12.8	* 44	16.0	* 27	* 27	29.6	* 14	29.0
Max Q Clear Time (g_c+I1), s	11.9	44.8	17.6	22.2	27.5	15.5	14.7	20.6
Green Ext Time (p_c), s	0.1	0.0	0.0	2.3	0.0	6.6	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	53.1
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	328	166	249	1834	926
Future Volume (vph)	328	166	249	1834	926
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	32.8	32.8	9.5	24.2	33.2
Total Split (s)	41.0	41.0	32.0	79.0	47.0
Total Split (%)	34.2%	34.2%	26.7%	65.8%	39.2%
Yellow Time (s)	4.8	4.8	3.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.2	6.2	6.2
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 21: Warren Rd. & Tres Cerritos Av.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	328	166	249	1834	926	345
Future Volume (veh/h)	328	166	249	1834	926	345
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	357	180	271	1993	1007	375
Adj No. of Lanes	1	1	1	3	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	396	353	299	3443	1730	644
Arrive On Green	0.22	0.22	0.17	0.68	0.47	0.47
Sat Flow, veh/h	1774	1583	1774	5253	3821	1360
Grp Volume(v), veh/h	357	180	271	1993	935	447
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1695	1695	1623
Q Serve(g_s), s	23.5	12.0	18.0	25.0	24.0	24.1
Cycle Q Clear(g_c), s	23.5	12.0	18.0	25.0	24.0	24.1
Prop In Lane	1.00	1.00	1.00			0.84
Lane Grp Cap(c), veh/h	396	353	299	3443	1605	768
V/C Ratio(X)	0.90	0.51	0.91	0.58	0.58	0.58
Avail Cap(c_a), veh/h	520	464	411	3443	1605	768
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	40.9	49.0	10.3	23.0	23.0
Incr Delay (d2), s/veh	15.7	1.1	15.8	0.7	1.5	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.2	10.7	10.1	11.9	11.5	11.4
LnGrp Delay(d),s/veh	61.1	42.0	64.8	11.0	24.5	26.2
LnGrp LOS	E	D	E	B	C	C
Approach Vol, veh/h	537			2264	1382	
Approach Delay, s/veh	54.7			17.4	25.1	
Approach LOS	D			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		87.4		32.6	24.4	63.0		
Change Period (Y+Rc), s		6.2		5.8	* 4.2	6.2		
Max Green Setting (Gmax), s		72.8		35.2	* 28	40.8		
Max Q Clear Time (g_c+I1), s		27.0		25.5	20.0	26.1		
Green Ext Time (p_c), s		42.9		1.3	0.2	14.4		

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

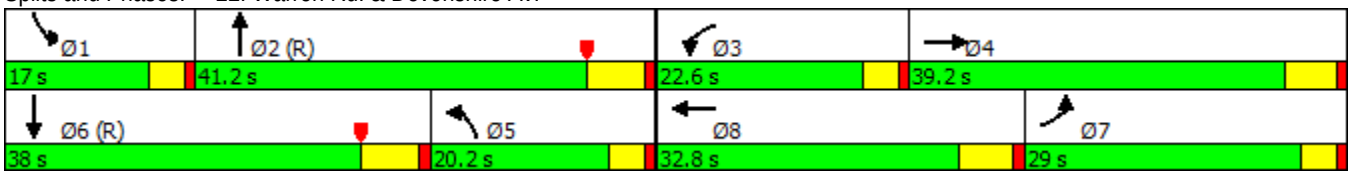
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	423	385	145	469	212	1369	192	514
Future Volume (vph)	423	385	145	469	212	1369	192	514
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.2	32.8	9.2	32.8	9.2	33.2	9.2	33.2
Total Split (s)	29.0	39.2	22.6	32.8	20.2	41.2	17.0	38.0
Total Split (%)	24.2%	32.7%	18.8%	27.3%	16.8%	34.3%	14.2%	31.7%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	6.2	4.2	6.2
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 40 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 125
Control Type: Actuated-Coordinated

Splits and Phases: 22: Warren Rd. & Devonshire Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	423	385	112	145	469	291	212	1369	237	192	514	386
Future Volume (veh/h)	423	385	112	145	469	291	212	1369	237	192	514	386
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	441	401	117	151	489	303	221	1426	247	200	535	402
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	367	934	270	178	473	292	1488	4425	765	189	898	420
Arrive On Green	0.21	0.34	0.34	0.10	0.22	0.22	0.28	0.33	0.33	0.11	0.27	0.27
Sat Flow, veh/h	1774	2711	783	1774	2104	1299	1774	4365	755	1774	3390	1583
Grp Volume(v), veh/h	441	260	258	151	411	381	221	1107	566	200	535	402
Grp Sat Flow(s),veh/h/ln	1774	1770	1725	1774	1770	1633	1774	1695	1729	1774	1695	1583
Q Serve(g_s), s	24.8	13.6	13.8	10.0	27.0	27.0	11.3	0.0	0.0	12.8	16.5	30.0
Cycle Q Clear(g_c), s	24.8	13.6	13.8	10.0	27.0	27.0	11.3	0.0	0.0	12.8	16.5	30.0
Prop In Lane	1.00		0.45	1.00		0.80	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	367	610	594	178	398	368	1488	3437	1753	189	898	420
V/C Ratio(X)	1.20	0.43	0.43	0.85	1.03	1.04	0.15	0.32	0.32	1.06	0.60	0.96
Avail Cap(c_a), veh/h	367	610	594	272	398	368	1488	3437	1753	189	898	420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.41	0.41	0.41	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.6	30.2	30.3	53.1	46.5	46.5	11.1	0.0	0.0	53.6	38.5	43.4
Incr Delay (d2), s/veh	114.5	0.5	0.5	9.0	53.6	56.7	0.0	0.1	0.2	81.3	2.9	34.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.8	6.7	6.7	5.4	19.1	17.9	5.6	0.0	0.1	10.5	8.1	17.1
LnGrp Delay(d),s/veh	162.1	30.7	30.8	62.0	100.1	103.2	11.1	0.1	0.2	134.9	41.4	78.0
LnGrp LOS	F	C	C	E	F	F	B	A	A	F	D	E
Approach Vol, veh/h		959			943			1894			1137	
Approach Delay, s/veh		91.1			95.3			1.4			70.8	
Approach LOS		F			F			A			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	129.6	16.3	47.1	108.6	38.0	30.6	32.8
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	6.2	* 6.2	5.8	* 5.8
Max Green Setting (Gmax), s	* 13	35.0	* 18	33.4	16.0	* 32	24.8	* 27
Max Q Clear Time (g_c+I1), s	14.8	2.0	12.0	15.8	13.3	32.0	26.8	29.0
Green Ext Time (p_c), s	0.0	19.2	0.1	3.1	0.9	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.8
HCM 2010 LOS	D

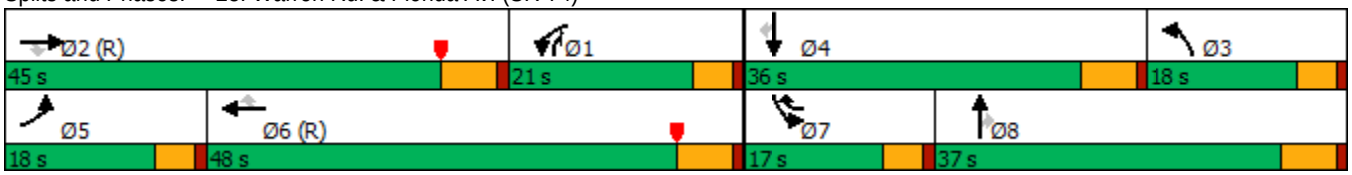
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	204	1428	206	458	1272	597	374	1105	792	331	445	189
Future Volume (vph)	204	1428	206	458	1272	597	374	1105	792	331	445	189
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	38.0	38.0	9.6	38.0	9.6	9.6	33.0	9.6	9.6	33.0	33.0
Total Split (s)	18.0	45.0	45.0	21.0	48.0	17.0	18.0	37.0	21.0	17.0	36.0	36.0
Total Split (%)	15.0%	37.5%	37.5%	17.5%	40.0%	14.2%	15.0%	30.8%	17.5%	14.2%	30.0%	30.0%
Yellow Time (s)	3.6	5.0	5.0	3.6	5.0	3.6	3.6	5.0	3.6	3.6	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.0	6.0	4.6	6.0	4.6	4.6	6.0	4.6	4.6	6.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	Max	None	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 1 (1%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 23: Warren Rd. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	1428	206	458	1272	597	374	1105	792	331	445	189
Future Volume (veh/h)	204	1428	206	458	1272	597	374	1105	792	331	445	189
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	215	1503	152	482	1339	622	394	1163	718	348	468	131
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	1653	515	1453	3457	1240	384	956	1096	356	885	396
Arrive On Green	0.08	0.32	0.32	0.42	0.68	0.68	0.04	0.09	0.09	0.03	0.08	0.08
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	215	1503	152	482	1339	622	394	1163	718	348	468	131
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	7.4	34.0	8.6	11.3	13.7	16.8	13.4	32.4	15.4	12.1	15.2	11.1
Cycle Q Clear(g_c), s	7.4	34.0	8.6	11.3	13.7	16.8	13.4	32.4	15.4	12.1	15.2	11.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	272	1653	515	1453	3457	1240	384	956	1096	356	885	396
V/C Ratio(X)	0.79	0.91	0.30	0.33	0.39	0.50	1.03	1.22	0.66	0.98	0.53	0.33
Avail Cap(c_a), veh/h	384	1653	515	1453	3457	1240	384	956	1096	356	885	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	0.67	0.67	0.67
Uniform Delay (d), s/veh	54.3	38.8	30.2	23.3	8.3	4.6	57.8	54.7	28.4	57.8	48.3	64.4
Incr Delay (d2), s/veh	4.5	9.0	1.5	0.0	0.3	1.5	20.7	98.6	0.3	33.2	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	17.2	4.0	5.4	6.4	7.8	7.5	29.0	6.8	7.4	7.7	5.1
LnGrp Delay(d),s/veh	58.8	47.8	31.7	23.3	8.7	6.1	78.5	153.3	28.7	91.1	49.8	65.9
LnGrp LOS	E	D	C	C	A	A	F	F	C	F	D	E
Approach Vol, veh/h		1870			2443			2275			947	
Approach Delay, s/veh		47.7			10.9			101.0			67.2	
Approach LOS		D			B			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	56.7	45.0	19.4	36.0	14.1	87.6	17.0	38.4
Change Period (Y+Rc), s	6.0	* 6	6.0	* 6	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	16.4	* 39	13.4	* 30	13.4	42.0	12.4	31.0
Max Q Clear Time (g_c+I1), s	13.3	36.0	15.4	17.2	9.4	18.8	14.1	34.4
Green Ext Time (p_c), s	0.3	2.0	0.0	1.6	0.1	7.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.3
HCM 2010 LOS	D

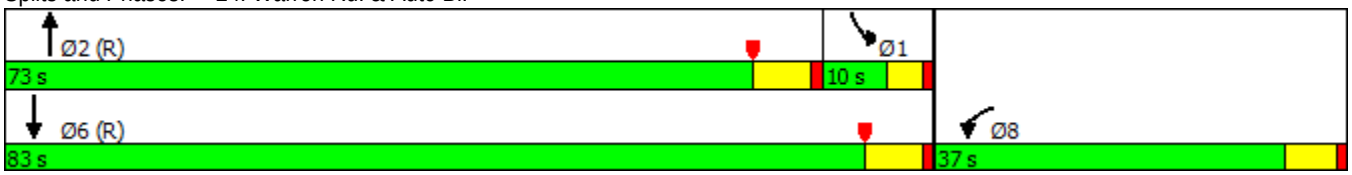
Notes

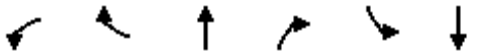
Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	107	1961	126	982
Future Volume (vph)	107	1961	126	982
Turn Type	Prot	NA	Prot	NA
Protected Phases	8	2	1	6
Permitted Phases				
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	10.0
Minimum Split (s)	32.8	28.2	9.5	24.2
Total Split (s)	37.0	73.0	10.0	83.0
Total Split (%)	30.8%	60.8%	8.3%	69.2%
Yellow Time (s)	4.8	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	6.2	4.2	6.2
Lead/Lag		Lead	Lag	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 54 (45%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 130
Control Type: Actuated-Coordinated

Splits and Phases: 24: Warren Rd. & Auto Bl.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	107	321	1961	59	126	982
Future Volume (veh/h)	107	321	1961	59	126	982
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	124	373	2280	69	147	1142
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	105	317	2003	60	1061	4494
Arrive On Green	0.26	0.26	1.00	1.00	0.20	0.40
Sat Flow, veh/h	405	1219	3598	108	1774	3725
Grp Volume(v), veh/h	498	0	1175	1175	147	1142
Grp Sat Flow(s),veh/h/ln	1627	0	1863	1844	1774	1863
Q Serve(g_s), s	31.2	0.0	66.8	64.3	8.2	0.0
Cycle Q Clear(g_c), s	31.2	0.0	66.8	64.3	8.2	0.0
Prop In Lane	0.25	0.75		0.06	1.00	
Lane Grp Cap(c), veh/h	423	0	1037	1026	1061	4494
V/C Ratio(X)	1.18	0.00	1.13	1.14	0.14	0.25
Avail Cap(c_a), veh/h	423	0	1037	1026	1061	4494
HCM Platoon Ratio	1.00	1.00	2.00	2.00	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.09	0.09	0.82	0.82
Uniform Delay (d), s/veh	44.4	0.0	0.0	0.0	22.7	0.0
Incr Delay (d2), s/veh	101.8	0.0	61.0	66.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.9	0.0	17.6	18.9	4.0	0.1
LnGrp Delay(d),s/veh	146.2	0.0	61.0	66.2	22.7	0.1
LnGrp LOS	F		F	F	C	A
Approach Vol, veh/h	498		2349			1289
Approach Delay, s/veh	146.2		63.6			2.7
Approach LOS	F		E			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	80.0	73.0				153.0		37.0
Change Period (Y+Rc), s	6.2	* 6.2				6.2		5.8
Max Green Setting (Gmax), s	5.8	* 67				76.8		31.2
Max Q Clear Time (g_c+I1), s	10.2	68.8				2.0		33.2
Green Ext Time (p_c), s	0.0	0.0				14.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.6
HCM 2010 LOS	D

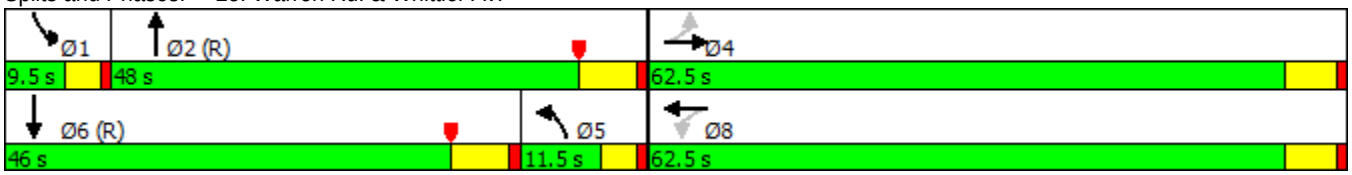
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	403	162	43	77	138	1546	77	805
Future Volume (vph)	403	162	43	77	138	1546	77	805
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.8	32.8	32.8	32.8	9.5	28.2	9.5	28.2
Total Split (s)	62.5	62.5	62.5	62.5	11.5	48.0	9.5	46.0
Total Split (%)	52.1%	52.1%	52.1%	52.1%	9.6%	40.0%	7.9%	38.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	3.2	5.2	3.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.8		5.8	4.2	6.2	4.2	6.2
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 15 (13%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 25: Warren Rd. & Whittier Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	403	162	245	43	77	71	138	1546	51	77	805	207
Future Volume (veh/h)	403	162	245	43	77	71	138	1546	51	77	805	207
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	438	176	266	47	84	77	150	1680	55	84	875	225
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	131	198	179	317	270	1053	3140	102	78	925	238
Arrive On Green	0.47	0.47	0.47	0.47	0.47	0.47	0.59	0.90	0.90	0.06	0.44	0.44
Sat Flow, veh/h	689	277	419	301	672	572	1774	3498	114	1774	2789	717
Grp Volume(v), veh/h	880	0	0	208	0	0	150	847	888	84	555	545
Grp Sat Flow(s),veh/h/ln	1385	0	0	1545	0	0	1774	1770	1843	1774	1770	1736
Q Serve(g_s), s	47.9	0.0	0.0	0.0	0.0	0.0	4.5	11.3	11.4	5.3	36.1	36.1
Cycle Q Clear(g_c), s	56.7	0.0	0.0	8.8	0.0	0.0	4.5	11.3	11.4	5.3	36.1	36.1
Prop In Lane	0.50		0.30	0.23		0.37	1.00		0.06	1.00		0.41
Lane Grp Cap(c), veh/h	699	0	0	767	0	0	1053	1589	1654	78	587	576
V/C Ratio(X)	1.26	0.00	0.00	0.27	0.00	0.00	0.14	0.53	0.54	1.07	0.95	0.95
Avail Cap(c_a), veh/h	699	0	0	767	0	0	1053	1589	1654	78	587	576
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.71	0.71	0.71
Uniform Delay (d), s/veh	34.0	0.0	0.0	19.0	0.0	0.0	10.8	1.2	1.2	56.5	32.5	32.5
Incr Delay (d2), s/veh	127.7	0.0	0.0	0.2	0.0	0.0	0.0	1.3	1.3	106.6	20.6	21.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	47.9	0.0	0.0	4.1	0.0	0.0	2.2	5.7	6.0	4.9	20.8	20.5
LnGrp Delay(d),s/veh	161.7	0.0	0.0	19.2	0.0	0.0	10.9	2.5	2.5	164.1	53.1	53.6
LnGrp LOS	F			B			B	A	A	F	D	D
Approach Vol, veh/h		880			208			1885			1184	
Approach Delay, s/veh		161.7			19.2			3.1			61.2	
Approach LOS		F			B			A			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.5	115.1		62.5	78.6	46.0		62.5
Change Period (Y+Rc), s	* 4.2	6.2		5.8	6.2	* 6.2		5.8
Max Green Setting (Gmax), s	* 5.3	41.8		56.7	7.3	* 40		56.7
Max Q Clear Time (g_c+I1), s	7.3	13.4		58.7	6.5	38.1		10.8
Green Ext Time (p_c), s	0.0	19.2		0.0	0.0	1.2		12.5

Intersection Summary	
HCM 2010 Ctrl Delay	54.0
HCM 2010 LOS	D

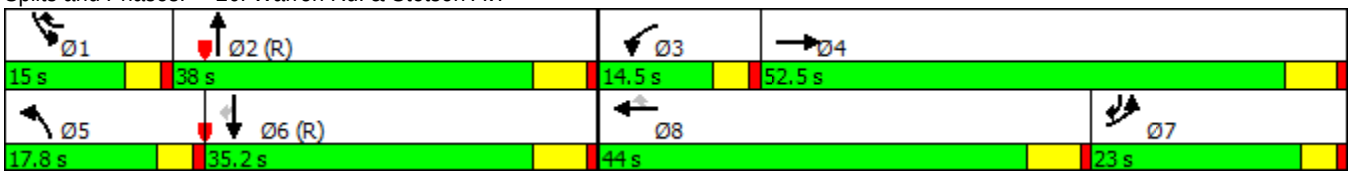
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	555	1198	206	1119	330	298	850	300	672	121
Future Volume (vph)	555	1198	206	1119	330	298	850	300	672	121
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	1	5	2	1	6	7
Permitted Phases					8					6
Detector Phase	7	4	3	8	1	5	2	1	6	7
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.5	32.8	9.5	32.8	9.5	9.5	32.8	9.5	32.8	9.5
Total Split (s)	23.0	52.5	14.5	44.0	15.0	17.8	38.0	15.0	35.2	23.0
Total Split (%)	19.2%	43.8%	12.1%	36.7%	12.5%	14.8%	31.7%	12.5%	29.3%	19.2%
Yellow Time (s)	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2	5.8	4.2
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 55 (46%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 135
Control Type: Actuated-Coordinated

Splits and Phases: 26: Warren Rd. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	555	1198	121	206	1119	330	298	850	143	300	672	121
Future Volume (veh/h)	555	1198	121	206	1119	330	298	850	143	300	672	121
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	566	1222	123	210	1142	337	304	867	146	306	686	123
Adj No. of Lanes	2	2	0	2	2	1	2	2	0	2	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	539	1336	134	265	1127	647	362	2147	362	310	2454	1346
Arrive On Green	0.16	0.41	0.41	0.08	0.32	0.32	0.03	0.23	0.23	0.09	0.69	0.69
Sat Flow, veh/h	3442	3249	326	3442	3539	1583	3442	3032	511	3442	3539	1583
Grp Volume(v), veh/h	566	664	681	210	1142	337	304	506	507	306	686	123
Grp Sat Flow(s),veh/h/ln	1721	1770	1805	1721	1770	1583	1721	1770	1773	1721	1770	1583
Q Serve(g_s), s	18.8	42.4	42.8	7.2	38.2	24.6	10.5	29.0	29.0	10.7	8.9	1.4
Cycle Q Clear(g_c), s	18.8	42.4	42.8	7.2	38.2	24.6	10.5	29.0	29.0	10.7	8.9	1.4
Prop In Lane	1.00		0.18	1.00		1.00	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	539	728	743	265	1127	647	362	1253	1256	310	2454	1346
V/C Ratio(X)	1.05	0.91	0.92	0.79	1.01	0.52	0.84	0.40	0.40	0.99	0.28	0.09
Avail Cap(c_a), veh/h	539	728	743	295	1127	647	390	1253	1256	310	2454	1346
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	33.3	33.4	54.4	40.9	46.8	56.9	24.5	24.5	54.5	7.0	10.0
Incr Delay (d2), s/veh	52.4	15.9	16.2	10.9	30.2	0.8	4.9	0.3	0.3	47.6	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	23.9	24.5	3.8	23.4	10.9	5.3	14.3	14.4	7.1	4.4	0.7
LnGrp Delay(d),s/veh	103.0	49.1	49.6	65.4	71.1	47.6	61.8	24.9	24.9	102.1	7.3	10.2
LnGrp LOS	F	D	D	E	F	D	E	C	C	F	A	B
Approach Vol, veh/h		1911			1689			1317			1115	
Approach Delay, s/veh		65.2			65.7			33.4			33.6	
Approach LOS		E			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	92.4	13.4	55.2	16.8	90.6	24.6	44.0
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	5.8	* 4.2	5.8	5.8	* 5.8
Max Green Setting (Gmax), s	* 11	32.2	* 10	46.7	* 14	29.4	18.8	* 38
Max Q Clear Time (g_c+I1), s	12.7	31.0	9.2	44.8	12.5	10.9	20.8	40.2
Green Ext Time (p_c), s	0.0	1.1	0.0	1.5	0.1	13.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.6
HCM 2010 LOS	D

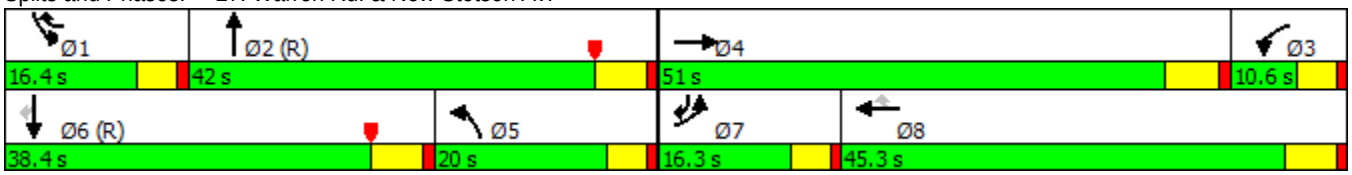
Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	305	1101	136	1085	222	342	764	313	264	422
Future Volume (vph)	305	1101	136	1085	222	342	764	313	264	422
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	1	5	2	1	6	7
Permitted Phases					8					6
Detector Phase	7	4	3	8	1	5	2	1	6	7
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	34.8	9.6	34.8	9.6	9.6	34.8	9.6	34.8	9.6
Total Split (s)	16.3	51.0	10.6	45.3	16.4	20.0	42.0	16.4	38.4	16.3
Total Split (%)	13.6%	42.5%	8.8%	37.8%	13.7%	16.7%	35.0%	13.7%	32.0%	13.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 7 (6%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 27: Warren Rd. & New Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	305	1101	187	136	1085	222	342	764	266	313	264	422
Future Volume (veh/h)	305	1101	187	136	1085	222	342	764	266	313	264	422
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	314	1135	193	140	1119	229	353	788	274	323	272	435
Adj No. of Lanes	2	2	0	2	2	1	2	2	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	336	1138	193	172	1200	693	1611	1679	584	338	961	585
Arrive On Green	0.10	0.38	0.38	0.05	0.34	0.34	0.47	0.65	0.65	0.03	0.09	0.09
Sat Flow, veh/h	3442	3022	512	3442	3539	1583	3442	2578	896	3442	3539	1583
Grp Volume(v), veh/h	314	663	665	140	1119	229	353	541	521	323	272	435
Grp Sat Flow(s),veh/h/ln	1721	1770	1765	1721	1770	1583	1721	1770	1705	1721	1770	1583
Q Serve(g_s), s	10.9	44.8	45.2	4.8	36.7	11.4	7.3	18.4	18.4	11.2	8.6	32.5
Cycle Q Clear(g_c), s	10.9	44.8	45.2	4.8	36.7	11.4	7.3	18.4	18.4	11.2	8.6	32.5
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	336	667	665	172	1200	693	1611	1153	1110	338	961	585
V/C Ratio(X)	0.94	0.99	1.00	0.81	0.93	0.33	0.22	0.47	0.47	0.95	0.28	0.74
Avail Cap(c_a), veh/h	336	667	665	172	1200	693	1611	1153	1110	338	961	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.45	0.45	0.45	1.00	1.00	1.00	1.00	1.00	1.00	0.55	0.55	0.55
Uniform Delay (d), s/veh	53.8	37.3	37.4	56.4	38.3	22.2	18.9	10.5	10.5	57.8	43.7	71.2
Incr Delay (d2), s/veh	18.9	22.0	23.8	23.4	12.9	0.3	0.0	1.4	1.4	25.2	0.4	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	25.8	26.4	2.9	20.0	5.0	3.5	9.3	9.0	6.6	4.3	15.0
LnGrp Delay(d),s/veh	72.7	59.3	61.2	79.9	51.3	22.5	18.9	11.9	11.9	83.0	44.1	75.9
LnGrp LOS	E	E	F	E	D	C	B	B	B	F	D	E
Approach Vol, veh/h		1642			1488			1415			1030	
Approach Delay, s/veh		62.6			49.5			13.7			69.7	
Approach LOS		E			D			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	85.2	11.8	51.0	63.2	38.4	16.3	46.5
Change Period (Y+Rc), s	4.6	5.8	5.8	* 5.8	5.8	* 5.8	4.6	5.8
Max Green Setting (Gmax), s	11.8	36.2	6.0	* 45	15.4	* 33	11.7	39.5
Max Q Clear Time (g_c+I1), s	13.2	20.4	6.8	47.2	9.3	34.5	12.9	38.7
Green Ext Time (p_c), s	0.0	8.4	0.0	0.0	4.1	0.0	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	48.0
HCM 2010 LOS	D

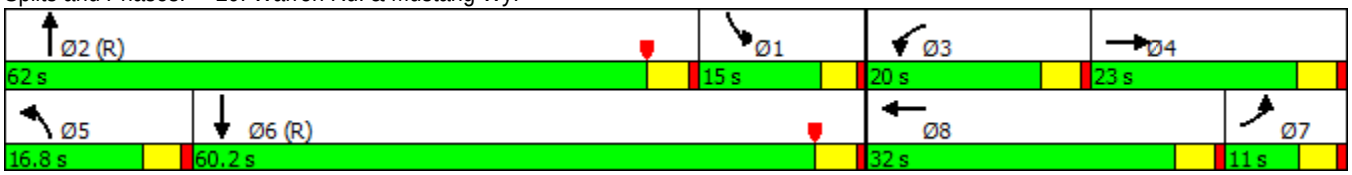
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	67	104	176	154	81	1124	121	402
Future Volume (vph)	67	104	176	154	81	1124	121	402
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.5	22.6	9.5	21.6	9.5	21.7	9.2	14.7
Total Split (s)	11.0	23.0	20.0	32.0	16.8	62.0	15.0	60.2
Total Split (%)	9.2%	19.2%	16.7%	26.7%	14.0%	51.7%	12.5%	50.2%
Yellow Time (s)	3.5	3.6	3.5	3.6	3.5	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.5	4.6	4.5	4.7	4.2	4.7
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 4 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 29: Warren Rd. & Mustang Wy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	104	55	176	154	181	81	1124	323	121	402	63
Future Volume (veh/h)	67	104	55	176	154	181	81	1124	323	121	402	63
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	68	106	56	180	157	158	83	1147	306	123	410	64
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	156	82	207	173	174	105	1323	349	206	1647	255
Arrive On Green	0.05	0.14	0.14	0.12	0.20	0.20	0.06	0.48	0.48	0.23	1.00	1.00
Sat Flow, veh/h	1774	1149	607	1774	853	858	1774	2771	731	1774	3072	476
Grp Volume(v), veh/h	68	0	162	180	0	315	83	728	725	123	235	239
Grp Sat Flow(s),veh/h/ln	1774	0	1756	1774	0	1711	1774	1770	1733	1774	1770	1779
Q Serve(g_s), s	4.5	0.0	10.5	12.0	0.0	21.6	5.5	43.8	45.1	7.4	0.0	0.0
Cycle Q Clear(g_c), s	4.5	0.0	10.5	12.0	0.0	21.6	5.5	43.8	45.1	7.4	0.0	0.0
Prop In Lane	1.00		0.35	1.00		0.50	1.00		0.42	1.00		0.27
Lane Grp Cap(c), veh/h	87	0	238	207	0	346	105	845	827	206	949	954
V/C Ratio(X)	0.78	0.00	0.68	0.87	0.00	0.91	0.79	0.86	0.88	0.60	0.25	0.25
Avail Cap(c_a), veh/h	96	0	269	229	0	391	182	845	827	206	949	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	56.4	0.0	49.4	52.1	0.0	46.8	55.7	27.8	28.2	43.5	0.0	0.0
Incr Delay (d2), s/veh	27.1	0.0	5.8	24.9	0.0	23.2	5.0	11.2	12.6	3.2	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	5.5	7.3	0.0	12.5	2.9	23.9	24.4	3.8	0.2	0.2
LnGrp Delay(d),s/veh	83.6	0.0	55.2	77.0	0.0	70.0	60.7	39.1	40.7	46.7	0.6	0.6
LnGrp LOS	F		E	E		E	E	D	D	D	A	A
Approach Vol, veh/h		230			495			1536			597	
Approach Delay, s/veh		63.6			72.6			41.0			10.1	
Approach LOS		E			E			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.6	62.0	18.5	20.9	11.6	69.1	10.5	28.9
Change Period (Y+Rc), s	* 4.7	* 4.7	4.5	4.6	4.5	* 4.7	4.6	* 4.6
Max Green Setting (Gmax), s	* 11	* 57	15.5	18.4	12.3	* 56	6.5	* 27
Max Q Clear Time (g_c+I1), s	9.4	47.1	14.0	12.5	7.5	2.0	6.5	23.6
Green Ext Time (p_c), s	0.1	7.9	0.0	0.4	0.0	4.6	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	41.8
HCM 2010 LOS	D

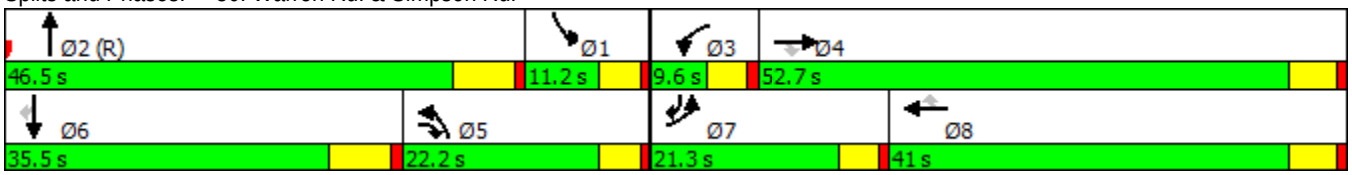
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	447	635	448	27	523	328	468	753	33	211	390
Future Volume (vph)	447	635	448	27	523	328	468	753	33	211	390
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.4	9.6	9.6	32.4	32.4	9.6	33.5	9.6	33.5	9.6
Total Split (s)	21.3	52.7	22.2	9.6	41.0	41.0	22.2	46.5	11.2	35.5	21.3
Total Split (%)	17.8%	43.9%	18.5%	8.0%	34.2%	34.2%	18.5%	38.8%	9.3%	29.6%	17.8%
Yellow Time (s)	3.6	4.4	3.6	3.6	4.4	4.4	3.6	5.5	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	4.6	5.4	5.4	4.6	6.5	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Max	None	None	None	Max	C-Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 10 (8%), Referenced to phase 2:NBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 30: Warren Rd. & Simpson Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	447	635	448	27	523	328	468	753	34	33	211	390
Future Volume (veh/h)	447	635	448	27	523	328	468	753	34	33	211	390
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	471	668	472	28	551	345	493	793	36	35	222	411
Adj No. of Lanes	2	1	1	1	1	1	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	479	765	882	45	553	470	505	1149	52	98	855	603
Arrive On Green	0.14	0.41	0.41	0.03	0.30	0.30	0.10	0.22	0.22	0.06	0.24	0.24
Sat Flow, veh/h	3442	1863	1583	1774	1863	1583	3442	3448	157	1774	3539	1583
Grp Volume(v), veh/h	471	668	472	28	551	345	493	407	422	35	222	411
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1721	1770	1835	1774	1770	1583
Q Serve(g_s), s	16.4	39.5	3.2	1.9	35.5	18.9	17.1	25.3	25.3	2.3	6.1	14.4
Cycle Q Clear(g_c), s	16.4	39.5	3.2	1.9	35.5	18.9	17.1	25.3	25.3	2.3	6.1	14.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	479	765	882	45	553	470	505	590	612	98	855	603
V/C Ratio(X)	0.98	0.87	0.53	0.62	1.00	0.73	0.98	0.69	0.69	0.36	0.26	0.68
Avail Cap(c_a), veh/h	479	765	882	74	553	470	505	590	612	98	855	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.49	0.49	0.49	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	32.5	7.8	57.9	42.1	24.5	53.9	40.9	40.9	54.7	36.8	12.2
Incr Delay (d2), s/veh	36.6	10.9	0.6	5.2	37.5	5.9	22.9	3.2	3.1	0.8	0.7	6.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	22.5	6.6	1.0	24.0	9.0	9.8	13.0	13.4	1.1	3.1	7.3
LnGrp Delay(d),s/veh	88.1	43.4	8.5	63.1	79.6	30.4	76.8	44.1	44.0	55.5	37.5	18.4
LnGrp LOS	F	D	A	E	E	C	E	D	D	E	D	B
Approach Vol, veh/h		1611			924			1322			668	
Approach Delay, s/veh		46.2			60.7			56.3			26.7	
Approach LOS		D			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.2	46.5	7.6	54.7	22.2	35.5	21.3	41.0
Change Period (Y+Rc), s	4.6	6.5	4.6	5.4	4.6	6.5	4.6	5.4
Max Green Setting (Gmax), s	6.6	40.0	5.0	47.3	17.6	29.0	16.7	35.6
Max Q Clear Time (g_c+I1), s	4.3	27.3	3.9	41.5	19.1	16.4	18.4	37.5
Green Ext Time (p_c), s	0.3	5.3	0.0	4.3	0.0	3.3	0.0	0.0

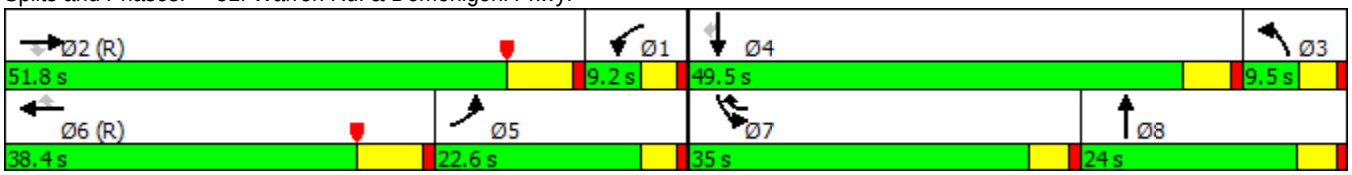
Intersection Summary	
HCM 2010 Ctrl Delay	49.2
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	464	1212	11	11	1139	528	11	263	408	11	268
Future Volume (vph)	464	1212	11	11	1139	528	11	263	408	11	268
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	7	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	23.9	23.9	9.2	23.9	9.5	9.5	14.6	9.5	46.4	46.4
Total Split (s)	22.6	51.8	51.8	9.2	38.4	35.0	9.5	24.0	35.0	49.5	49.5
Total Split (%)	18.8%	43.2%	43.2%	7.7%	32.0%	29.2%	7.9%	20.0%	29.2%	41.3%	41.3%
Yellow Time (s)	3.2	5.9	5.9	3.2	5.9	3.5	3.5	3.6	3.5	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.9	6.9	4.2	6.9	4.5	4.5	4.6	4.5	5.4	5.4
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 31: Warren Rd. & Domenigoni Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	1212	11	11	1139	528	11	263	11	408	11	268
Future Volume (veh/h)	464	1212	11	11	1139	528	11	263	11	408	11	268
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	494	1289	10	12	1212	555	12	280	12	434	12	71
Adj No. of Lanes	2	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	528	1903	592	74	1335	818	577	287	12	451	155	132
Arrive On Green	0.15	0.37	0.37	0.04	0.26	0.26	0.32	0.16	0.16	0.25	0.08	0.08
Sat Flow, veh/h	3442	5085	1583	1774	5085	1583	1774	1773	76	1774	1863	1583
Grp Volume(v), veh/h	494	1289	10	12	1212	555	12	0	292	434	12	71
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1774	1695	1583	1774	0	1849	1774	1863	1583
Q Serve(g_s), s	17.0	25.5	0.5	0.8	27.7	13.0	0.6	0.0	18.9	29.0	0.7	5.2
Cycle Q Clear(g_c), s	17.0	25.5	0.5	0.8	27.7	13.0	0.6	0.0	18.9	29.0	0.7	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	528	1903	592	74	1335	818	577	0	299	451	155	132
V/C Ratio(X)	0.94	0.68	0.02	0.16	0.91	0.68	0.02	0.00	0.98	0.96	0.08	0.54
Avail Cap(c_a), veh/h	528	1903	592	74	1335	818	577	0	299	451	685	582
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	50.2	31.5	23.6	55.5	42.8	7.0	27.5	0.0	50.1	44.2	50.7	52.8
Incr Delay (d2), s/veh	24.0	2.0	0.1	0.4	10.6	4.5	0.0	0.0	45.3	31.4	0.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	12.3	0.2	0.4	14.2	6.6	0.3	0.0	13.4	18.2	0.4	2.3
LnGrp Delay(d),s/veh	74.2	33.4	23.7	55.9	53.4	11.5	27.5	0.0	95.4	75.6	50.8	54.0
LnGrp LOS	E	C	C	E	D	B	C		F	E	D	D
Approach Vol, veh/h		1793			1779			304			517	
Approach Delay, s/veh		44.6			40.4			92.7			72.1	
Approach LOS		D			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	51.8	43.6	15.4	22.6	38.4	35.0	24.0
Change Period (Y+Rc), s	4.2	* 6.9	4.6	* 5.4	4.2	* 6.9	4.5	4.6
Max Green Setting (Gmax), s	5.0	* 45	5.0	* 44	18.4	* 32	30.5	19.4
Max Q Clear Time (g_c+I1), s	2.8	27.5	2.6	7.2	19.0	29.7	31.0	20.9
Green Ext Time (p_c), s	0.3	5.1	0.3	0.1	0.0	1.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	49.5
HCM 2010 LOS	D

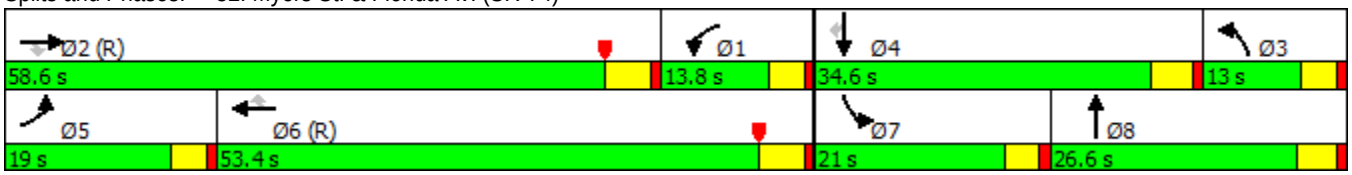
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	222	2047	281	125	2067	251	126	150	223	49	133
Future Volume (vph)	222	2047	281	125	2067	251	126	150	223	49	133
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases			2			6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	29.1	29.1	9.2	29.1	29.1	9.2	14.6	9.2	34.6	34.6
Total Split (s)	19.0	58.6	58.6	13.8	53.4	53.4	13.0	26.6	21.0	34.6	34.6
Total Split (%)	15.8%	48.8%	48.8%	11.5%	44.5%	44.5%	10.8%	22.2%	17.5%	28.8%	28.8%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 32: Myers St. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	2047	281	125	2067	251	126	150	169	223	49	133
Future Volume (veh/h)	222	2047	281	125	2067	251	126	150	169	223	49	133
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	239	2201	292	134	2223	264	135	161	159	240	53	91
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	2267	706	461	3000	934	130	161	159	248	466	396
Arrive On Green	0.12	0.45	0.45	0.52	1.00	1.00	0.07	0.19	0.19	0.14	0.25	0.25
Sat Flow, veh/h	1774	5085	1583	1774	5085	1583	1774	862	851	1774	1863	1583
Grp Volume(v), veh/h	239	2201	292	134	2223	264	135	0	320	240	53	91
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1583	1774	0	1713	1774	1863	1583
Q Serve(g_s), s	14.8	50.7	15.0	5.1	0.0	0.0	8.8	0.0	22.4	16.1	2.6	5.4
Cycle Q Clear(g_c), s	14.8	50.7	15.0	5.1	0.0	0.0	8.8	0.0	22.4	16.1	2.6	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	219	2267	706	461	3000	934	130	0	320	248	466	396
V/C Ratio(X)	1.09	0.97	0.41	0.29	0.74	0.28	1.04	0.00	1.00	0.97	0.11	0.23
Avail Cap(c_a), veh/h	219	2267	706	461	3000	934	130	0	320	248	466	396
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	32.5	22.6	22.6	0.0	0.0	55.6	0.0	48.8	51.3	34.7	35.2
Incr Delay (d2), s/veh	87.7	13.2	1.8	0.1	1.7	0.8	89.3	0.0	50.6	47.3	0.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	26.4	6.9	2.5	0.5	0.2	7.5	0.0	15.1	11.2	1.4	2.5
LnGrp Delay(d),s/veh	140.3	45.7	24.4	22.7	1.7	0.8	145.4	0.0	99.4	98.6	35.2	36.6
LnGrp LOS	F	D	C	C	A	A	F		F	F	D	D
Approach Vol, veh/h		2732			2621			455			384	
Approach Delay, s/veh		51.7			2.7			113.0			75.2	
Approach LOS		D			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.7	58.6	13.4	34.6	19.0	76.3	21.0	27.0
Change Period (Y+Rc), s	5.1	* 5.1	4.6	* 4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	9.6	* 54	8.8	* 30	* 15	48.3	* 17	22.0
Max Q Clear Time (g_c+I1), s	7.1	52.7	10.8	7.4	16.8	2.0	18.1	24.4
Green Ext Time (p_c), s	1.7	0.7	0.0	0.5	0.0	38.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.9
HCM 2010 LOS	D

Notes

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	1731	122	1537	42
Future Volume (vph)	1731	122	1537	42
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	5.0
Minimum Split (s)	23.8	14.6	22.5	9.6
Total Split (s)	78.0	18.0	96.0	24.0
Total Split (%)	65.0%	15.0%	80.0%	20.0%
Yellow Time (s)	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBL and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 33: Fisher St. & New Stetson Av.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1731	42	122	1537	42	197
Future Volume (veh/h)	1731	42	122	1537	42	197
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1900
Adj Flow Rate, veh/h	1882	46	133	1671	46	214
Adj No. of Lanes	2	0	1	2	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	2108	51	159	2565	54	250
Arrive On Green	0.60	0.60	0.09	0.72	0.19	0.19
Sat Flow, veh/h	3624	86	1774	3632	285	1324
Grp Volume(v), veh/h	939	989	133	1671	261	0
Grp Sat Flow(s),veh/h/ln	1770	1848	1774	1770	1615	0
Q Serve(g_s), s	54.7	55.7	8.9	29.5	18.8	0.0
Cycle Q Clear(g_c), s	54.7	55.7	8.9	29.5	18.8	0.0
Prop In Lane		0.05	1.00		0.18	0.82
Lane Grp Cap(c), veh/h	1056	1103	159	2565	304	0
V/C Ratio(X)	0.89	0.90	0.84	0.65	0.86	0.00
Avail Cap(c_a), veh/h	1065	1112	198	2660	304	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	1.00	0.00
Uniform Delay (d), s/veh	20.8	21.0	53.8	8.6	47.1	0.0
Incr Delay (d2), s/veh	9.4	9.7	2.0	0.0	25.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	29.4	31.0	4.4	14.2	10.5	0.0
LnGrp Delay(d),s/veh	30.2	30.7	55.8	8.7	72.6	0.0
LnGrp LOS	C	C	E	A	E	
Approach Vol, veh/h	1928			1804	261	
Approach Delay, s/veh	30.4			12.1	72.6	
Approach LOS	C			B	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		27.2	15.4	77.4				92.8
Change Period (Y+Rc), s		4.6	4.6	5.8				5.8
Max Green Setting (Gmax), s		19.4	13.4	72.2				90.2
Max Q Clear Time (g_c+I1), s		20.8	10.9	57.7				31.5
Green Ext Time (p_c), s		0.0	0.0	13.9				51.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.9
HCM 2010 LOS	C

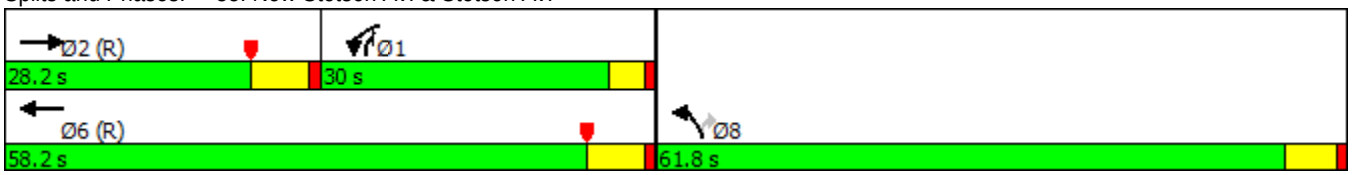
Notes

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	111	1638	115	26	1902
Future Volume (vph)	111	1638	115	26	1902
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	2	1	6	8	1
Permitted Phases					8
Detector Phase	2	1	6	8	1
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	9.2	16.2	32.8	9.2
Total Split (s)	28.2	30.0	58.2	61.8	30.0
Total Split (%)	23.5%	25.0%	48.5%	51.5%	25.0%
Yellow Time (s)	5.2	3.2	5.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.2	6.2	5.8	4.2
Lead/Lag	Lead	Lag			Lag
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	C-Max	None	C-Max	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 59 (49%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 35: New Stetson Av. & Stetson Av.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	111	21	1638	115	26	1902
Future Volume (veh/h)	111	21	1638	115	26	1902
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	121	23	1780	125	28	2067
Adj No. of Lanes	1	0	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	279	53	2337	1703	828	1814
Arrive On Green	0.18	0.18	0.90	1.00	0.47	0.47
Sat Flow, veh/h	1522	289	3442	1863	1774	1583
Grp Volume(v), veh/h	0	144	1780	125	28	2067
Grp Sat Flow(s),veh/h/ln	0	1812	1721	1863	1774	1583
Q Serve(g_s), s	0.0	8.5	19.3	0.0	1.0	56.0
Cycle Q Clear(g_c), s	0.0	8.5	19.3	0.0	1.0	56.0
Prop In Lane		0.16	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	332	2337	1703	828	1814
V/C Ratio(X)	0.00	0.43	0.76	0.07	0.03	1.14
Avail Cap(c_a), veh/h	0	332	2337	1703	828	1814
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.58	0.58	0.29	0.29
Uniform Delay (d), s/veh	0.0	43.5	2.8	0.0	17.3	4.1
Incr Delay (d2), s/veh	0.0	4.1	0.8	0.0	0.0	65.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.6	8.5	0.0	0.5	82.4
LnGrp Delay(d),s/veh	0.0	47.6	3.6	0.0	17.4	69.1
LnGrp LOS		D	A	A	B	F
Approach Vol, veh/h	144			1905	2095	
Approach Delay, s/veh	47.6			3.4	68.4	
Approach LOS	D			A	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	87.7	28.2				115.9		61.8
Change Period (Y+Rc), s	6.2	* 6.2				6.2		5.8
Max Green Setting (Gmax), s	25.8	* 22				52.0		56.0
Max Q Clear Time (g_c+I1), s	21.3	10.5				2.0		58.0
Green Ext Time (p_c), s	2.3	0.3				5.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.8
HCM 2010 LOS	D

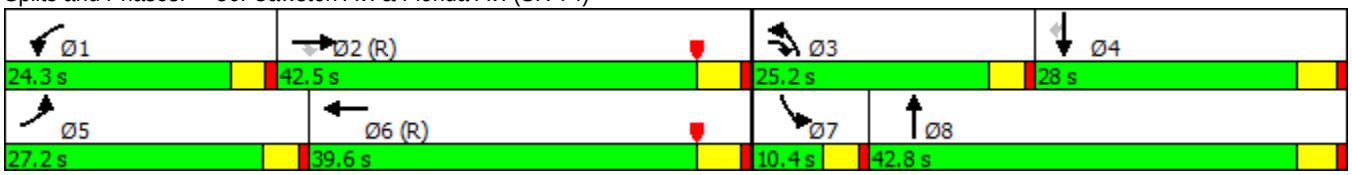
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	313	1100	617	223	1308	544	609	48	331	325
Future Volume (vph)	313	1100	617	223	1308	544	609	48	331	325
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	3	1	6	3	8	7	4	
Permitted Phases			2							4
Detector Phase	5	2	3	1	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.2	27.1	9.2	9.2	27.1	9.2	35.6	9.2	14.6	14.6
Total Split (s)	27.2	42.5	25.2	24.3	39.6	25.2	42.8	10.4	28.0	28.0
Total Split (%)	22.7%	35.4%	21.0%	20.3%	33.0%	21.0%	35.7%	8.7%	23.3%	23.3%
Yellow Time (s)	3.2	4.1	3.2	3.2	4.1	3.2	3.6	3.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	4.2	4.2	5.1	4.2	4.6	4.2	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 54 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 36: Cawston Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	313	1100	617	223	1308	112	544	609	258	48	331	325
Future Volume (veh/h)	313	1100	617	223	1308	112	544	609	258	48	331	325
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	326	1146	641	232	1362	73	567	634	263	50	345	275
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	340	1695	805	259	1420	76	602	810	336	64	363	309
Arrive On Green	0.38	0.67	0.67	0.15	0.29	0.29	0.18	0.33	0.33	0.04	0.20	0.20
Sat Flow, veh/h	1774	5085	1583	1774	4940	265	3442	2426	1006	1774	1863	1583
Grp Volume(v), veh/h	326	1146	641	232	935	500	567	462	435	50	345	275
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1814	1721	1770	1663	1774	1863	1583
Q Serve(g_s), s	21.5	16.4	40.0	15.4	32.5	32.5	19.5	28.3	28.3	3.4	22.0	20.3
Cycle Q Clear(g_c), s	21.5	16.4	40.0	15.4	32.5	32.5	19.5	28.3	28.3	3.4	22.0	20.3
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.61	1.00		1.00
Lane Grp Cap(c), veh/h	340	1695	805	259	975	522	602	591	555	64	363	309
V/C Ratio(X)	0.96	0.68	0.80	0.90	0.96	0.96	0.94	0.78	0.78	0.78	0.95	0.89
Avail Cap(c_a), veh/h	340	1695	805	297	975	522	602	591	555	92	363	309
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	16.1	14.2	50.4	42.1	42.1	48.9	36.0	36.1	57.3	47.7	47.1
Incr Delay (d2), s/veh	37.6	2.2	8.0	23.8	20.5	30.5	22.9	10.0	10.6	14.1	36.1	29.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.9	7.8	21.7	9.2	18.0	20.7	11.2	15.4	14.5	1.9	15.0	11.4
LnGrp Delay(d),s/veh	74.1	18.3	22.2	74.1	62.5	72.5	71.8	46.0	46.6	71.5	83.8	76.7
LnGrp LOS	E	B	C	E	E	E	E	D	D	E	F	E
Approach Vol, veh/h		2113			1667			1464			670	
Approach Delay, s/veh		28.1			67.1			56.2			80.0	
Approach LOS		C			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.7	45.1	25.2	28.0	27.2	39.6	8.5	44.7
Change Period (Y+Rc), s	* 4.2	5.1	* 4.2	4.6	* 4.2	5.1	* 4.2	4.6
Max Green Setting (Gmax), s	* 20	37.4	* 21	23.4	* 23	34.5	* 6.2	38.2
Max Q Clear Time (g_c+I1), s	17.4	42.0	21.5	24.0	23.5	34.5	5.4	30.3
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.0	0.0	0.0	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	51.9
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	231	1451	71	1379	25	114	115	60	8	66	260
Future Volume (vph)	231	1451	71	1379	25	114	115	60	8	66	260
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6			8			4	
Permitted Phases					6	8		8	4		4
Detector Phase	5	2	1	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.2	28.2	9.2	16.2	16.2	26.1	26.1	26.1	15.1	15.1	15.1
Total Split (s)	27.0	80.9	13.0	66.9	66.9	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	22.5%	67.4%	10.8%	55.8%	55.8%	21.8%	21.8%	21.8%	21.8%	21.8%	21.8%
Yellow Time (s)	3.2	5.2	3.2	5.2	5.2	4.1	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	6.2	6.2	5.1	5.1	5.1	5.1	5.1	5.1
Lead/Lag	Lag	Lag	Lead	Lead	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 1 (1%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 37: Cawston Av. & Stetson Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	1451	331	71	1379	25	114	115	60	8	66	260
Future Volume (veh/h)	231	1451	331	71	1379	25	114	115	60	8	66	260
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	243	1527	334	75	1452	23	120	121	-26	8	69	247
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	308	1868	396	94	1790	801	212	326	277	212	326	277
Arrive On Green	0.35	1.00	1.00	0.11	1.00	1.00	0.17	0.17	0.00	0.17	0.17	0.17
Sat Flow, veh/h	1774	2907	617	1774	3539	1583	1059	1863	1583	1295	1863	1583
Grp Volume(v), veh/h	243	911	950	75	1452	23	120	121	-26	8	69	247
Grp Sat Flow(s),veh/h/ln	1774	1770	1754	1774	1770	1583	1059	1863	1583	1295	1863	1583
Q Serve(g_s), s	14.8	0.0	0.0	5.0	0.0	0.0	13.1	6.9	0.0	0.7	3.8	18.3
Cycle Q Clear(g_c), s	14.8	0.0	0.0	5.0	0.0	0.0	16.9	6.9	0.0	7.5	3.8	18.3
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	308	1137	1127	94	1790	801	212	326	277	212	326	277
V/C Ratio(X)	0.79	0.80	0.84	0.79	0.81	0.03	0.57	0.37	-0.09	0.04	0.21	0.89
Avail Cap(c_a), veh/h	337	1137	1127	130	1790	801	212	326	277	212	326	277
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.59	0.59	0.59	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	0.0	0.0	53.0	0.0	0.0	49.7	43.7	0.0	47.0	42.4	48.4
Incr Delay (d2), s/veh	1.0	0.6	0.8	8.7	2.5	0.0	10.5	3.2	0.0	0.3	1.5	32.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.2	0.2	2.6	0.6	0.0	4.5	3.8	0.0	0.3	2.1	10.5
LnGrp Delay(d),s/veh	38.2	0.6	0.8	61.7	2.5	0.0	60.2	46.9	0.0	47.3	43.9	80.5
LnGrp LOS	D	A	A	E	A	A	E	D		D	D	F
Approach Vol, veh/h		2104			1550			215			324	
Approach Delay, s/veh		5.0			5.3			60.0			71.9	
Approach LOS		A			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.6	83.3		26.1	27.0	66.9		26.1
Change Period (Y+Rc), s	* 4.2	6.2		5.1	6.2	* 6.2		5.1
Max Green Setting (Gmax), s	* 8.8	74.7		21.0	22.8	* 61		21.0
Max Q Clear Time (g_c+I1), s	7.0	2.0		20.3	16.8	2.0		18.9
Green Ext Time (p_c), s	0.0	12.1		0.1	1.8	8.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.1
HCM 2010 LOS	B

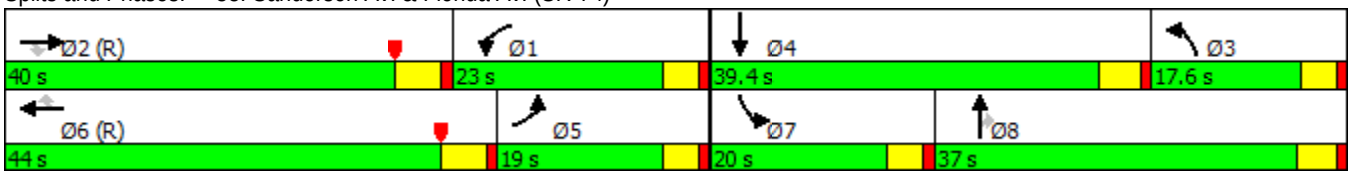
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	300	784	247	402	796	415	238	1132	250	324	928
Future Volume (vph)	300	784	247	402	796	415	238	1132	250	324	928
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6		3	8		7	4
Permitted Phases			2			6			8		
Detector Phase	5	2	2	1	6	6	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.2	32.1	32.1	9.2	32.1	32.1	9.2	30.7	30.7	9.2	14.7
Total Split (s)	19.0	40.0	40.0	23.0	44.0	44.0	17.6	37.0	37.0	20.0	39.4
Total Split (%)	15.8%	33.3%	33.3%	19.2%	36.7%	36.7%	14.7%	30.8%	30.8%	16.7%	32.8%
Yellow Time (s)	3.2	4.1	4.1	3.2	4.1	4.1	3.2	3.7	3.7	3.2	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	5.1	5.1	4.2	5.1	5.1	4.2	4.7	4.7	4.2	4.7
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 119 (99%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 38: Sanderson Av. & Florida Av. (SR-74)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	784	247	402	796	415	238	1132	250	324	928	163
Future Volume (veh/h)	300	784	247	402	796	415	238	1132	250	324	928	163
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	303	792	209	406	804	362	240	1143	167	327	937	107
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	485	1029	452	599	1147	505	310	1382	422	384	1337	152
Arrive On Green	0.14	0.29	0.29	0.17	0.32	0.32	0.09	0.27	0.27	0.11	0.29	0.29
Sat Flow, veh/h	3442	3539	1556	3442	3539	1558	3442	5085	1551	3442	4624	526
Grp Volume(v), veh/h	303	792	209	406	804	362	240	1143	167	327	686	358
Grp Sat Flow(s),veh/h/ln	1721	1770	1556	1721	1770	1558	1721	1695	1551	1721	1695	1761
Q Serve(g_s), s	10.0	24.5	13.2	13.3	23.8	17.7	8.2	25.3	6.9	11.2	21.6	21.8
Cycle Q Clear(g_c), s	10.0	24.5	13.2	13.3	23.8	17.7	8.2	25.3	6.9	11.2	21.6	21.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	485	1029	452	599	1147	505	310	1382	422	384	980	509
V/C Ratio(X)	0.63	0.77	0.46	0.68	0.70	0.72	0.77	0.83	0.40	0.85	0.70	0.70
Avail Cap(c_a), veh/h	485	1029	452	599	1147	505	384	1382	422	453	980	509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	38.9	34.9	46.4	35.5	18.5	53.4	41.0	15.5	52.3	38.0	38.1
Incr Delay (d2), s/veh	1.9	5.5	3.4	2.5	3.6	8.5	5.9	5.8	2.8	11.3	4.2	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	12.8	6.1	6.5	12.2	8.8	4.2	12.6	3.3	5.9	10.7	11.7
LnGrp Delay(d),s/veh	50.5	44.4	38.2	48.9	39.0	27.0	59.3	46.8	18.3	63.6	42.2	46.0
LnGrp LOS	D	D	D	D	D	C	E	D	B	E	D	D
Approach Vol, veh/h		1304			1572			1550			1371	
Approach Delay, s/veh		44.8			38.8			45.7			48.3	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.1	40.0	15.5	39.4	21.1	44.0	17.6	37.3
Change Period (Y+Rc), s	4.2	* 5.1	* 4.7	* 4.7	4.2	* 5.1	* 4.2	* 4.7
Max Green Setting (Gmax), s	18.8	* 35	* 13	* 35	14.8	* 39	* 16	* 32
Max Q Clear Time (g_c+I1), s	15.3	26.5	10.2	23.8	12.0	25.8	13.2	27.3
Green Ext Time (p_c), s	0.6	4.7	0.6	5.1	0.5	7.2	0.2	3.5

Intersection Summary	
HCM 2010 Ctrl Delay	44.2
HCM 2010 LOS	D

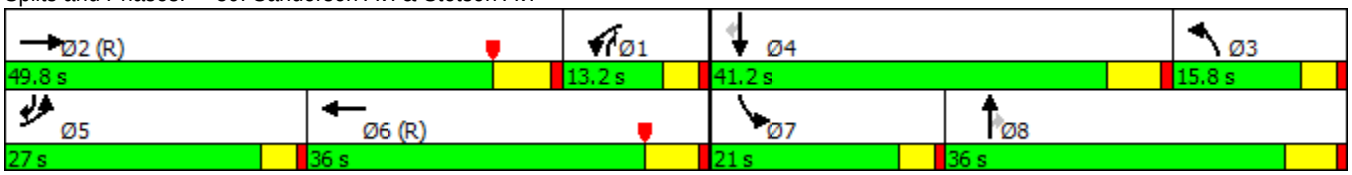
Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	538	764	120	752	211	746	164	397	729	512
Future Volume (vph)	538	764	120	752	211	746	164	397	729	512
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8	1	7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	1	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.2	33.2	9.2	15.8	9.2	28.8	9.2	9.2	28.8	9.2
Total Split (s)	27.0	49.8	13.2	36.0	15.8	36.0	13.2	21.0	41.2	27.0
Total Split (%)	22.5%	41.5%	11.0%	30.0%	13.2%	30.0%	11.0%	17.5%	34.3%	22.5%
Yellow Time (s)	3.2	5.2	3.2	4.8	3.2	4.8	3.2	3.2	4.8	3.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2	6.2	4.2	5.8	4.2	5.8	4.2	4.2	5.8	4.2
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	None	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 64 (53%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 39: Sanderson Av. & Stetson Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	538	764	217	120	752	295	211	746	164	397	729	512
Future Volume (veh/h)	538	764	217	120	752	295	211	746	164	397	729	512
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	555	788	222	124	775	283	218	769	-200	409	752	517
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	616	1428	398	220	976	353	279	903	505	462	1044	750
Arrive On Green	0.06	0.12	0.12	0.06	0.27	0.27	0.08	0.26	0.00	0.13	0.30	0.30
Sat Flow, veh/h	3442	3931	1097	3442	3683	1333	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	555	678	332	124	713	345	218	769	-200	409	752	517
Grp Sat Flow(s),veh/h/ln	1721	1695	1638	1721	1695	1626	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	19.2	22.6	22.9	4.2	23.5	23.8	7.5	24.8	0.0	14.0	22.8	18.2
Cycle Q Clear(g_c), s	19.2	22.6	22.9	4.2	23.5	23.8	7.5	24.8	0.0	14.0	22.8	18.2
Prop In Lane	1.00		0.67	1.00		0.82	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	616	1232	595	220	898	431	279	903	505	462	1044	750
V/C Ratio(X)	0.90	0.55	0.56	0.56	0.79	0.80	0.78	0.85	-0.40	0.89	0.72	0.69
Avail Cap(c_a), veh/h	654	1232	595	258	898	431	333	903	505	482	1044	750
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.48	0.48	0.48	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	43.6	43.7	54.5	41.0	41.1	54.1	42.5	0.0	51.0	37.9	10.2
Incr Delay (d2), s/veh	7.8	0.9	1.8	0.8	7.1	14.5	7.8	9.9	0.0	16.5	4.3	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	10.8	10.7	2.0	11.9	12.4	3.8	13.3	0.0	7.7	11.8	8.9
LnGrp Delay(d),s/veh	63.2	44.4	45.5	55.4	48.2	55.6	61.9	52.4	0.0	67.6	42.2	15.4
LnGrp LOS	E	D	D	E	D	E	E	D		E	D	B
Approach Vol, veh/h		1565			1182			787			1678	
Approach Delay, s/veh		51.3			51.1			68.4			40.1	
Approach LOS		D			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	49.8	15.5	41.2	25.7	37.6	20.3	36.4
Change Period (Y+Rc), s	5.8	* 6.2	5.8	* 5.8	* 4.2	5.8	* 4.2	5.8
Max Green Setting (Gmax), s	9.0	* 44	11.6	* 35	* 23	30.2	* 17	30.2
Max Q Clear Time (g_c+I1), s	6.2	24.9	9.5	24.8	21.2	25.8	16.0	26.8
Green Ext Time (p_c), s	0.2	5.9	0.3	6.3	0.2	2.6	0.1	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	50.2
HCM 2010 LOS	D

Notes