APPENDIX K

TIA AND VMT ASSESSMENT

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Katella Avenue High Cube Warehouse

TRAFFIC IMPACT ANALYSIS

CITY OF CYPRESS

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JUNE 30, 2020 (REVISED)

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LIST OF ABBREVIATED TERMS

[1]	Reference
CA MUTCD	California Manual on Uniform Traffic Control Devices
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
E+P	Existing Plus Project
HCM	Highway Capacity Manual
ICU	Intersection Capacity Utilization
ITE	Institute of Transportation Engineers
LOS	Level of Service
OCTA	Orange County Transportation Authority
OPR	Office of Planning and Research
PCE	Passenger Car Equivalents
PHF	Peak Hour Factor
Project	Katella Avenue High Cube Warehouse
SBCTA	San Bernardino County Transportation Authority
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
sf	Square Feet
TIA	Traffic Impact Analysis
tsf	Thousand Square Feet
V/C	Volume to Capacity
VMT	Vehicle Miles Traveled

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1 INTRODUCTION

This report presents the results of the traffic impact analysis (TIA) for the proposed Katella Avenue High Cube Warehouse ("Project"), which is located at 6400 Katella Avenue in the City of Cypress as shown on Exhibit 1-1.

The purpose of this TIA is to evaluate the potential deficiencies to traffic and circulation associated with the development of the proposed Project, and to recommend improvements to improve deficiencies based on a comparison to established City threshold criteria. The study follows the traffic study guidelines outlined in the County of Orange Congestion Management Program (CMP). [1]

1.1 SUMMARY OF FINDINGS

The Project is proposing to construct the following improvements as design features in conjunction with development of the site:

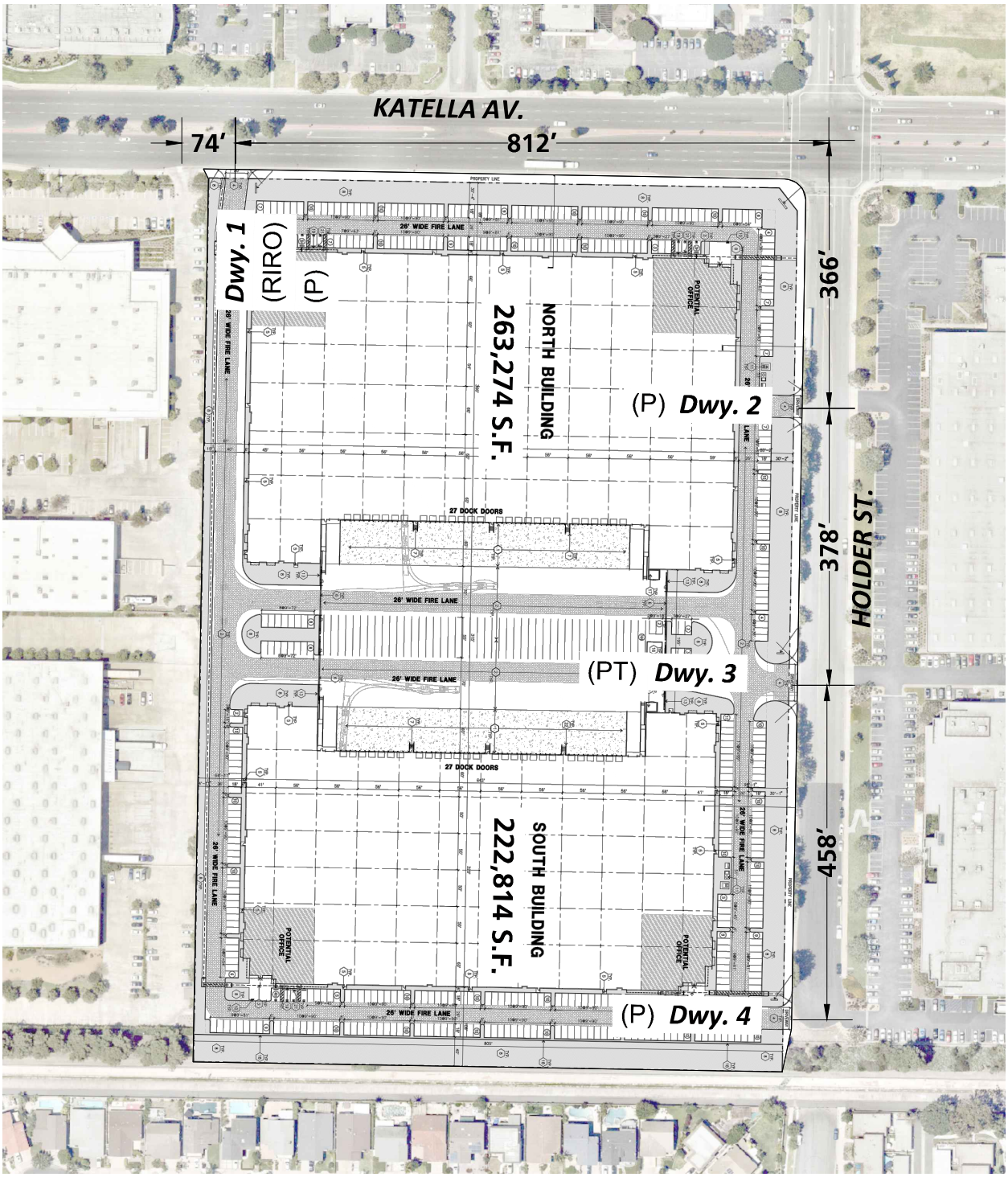
- Both Katella Avenue and Holder Street are currently constructed to their ultimate cross-sections. However, the Project will modify curb and gutter, sidewalk, and landscaping improvements to accommodate the proposed driveways.
- The proposed driveway (Driveway 1) on Katella Avenue will be restricted to right-in/right-out (controlled via the existing raised median) with a stop control for exiting traffic.
- The driveways along Holder Street (Driveways 2 through 4) will accommodate full access (no turn restrictions) and will be controlled with a stop control for exiting traffic. These driveways are to align with the existing driveways on the east side of Holder Street.

Additional details and intersection lane geometrics are provided in Section 1.7 *Recommendations* of this report. The Project is not anticipated to result in any off-site deficiencies to the study area intersections. Therefore, no physical or operational improvements have been recommended. However, the Project Applicant will still be required to pay requisite Citywide and Regional Traffic Improvement fees consistent with the City's requirements.

Recommendation 1.1 – Prior to the issuance of building permits, the Project Applicant shall pay applicable Citywide and Regional Traffic Improvement fees, or as agreed to by the City and Project Applicant.

The site is currently occupied by the former Mitsubishi Motors Corporation, which includes 150,000-sf of warehousing use and a 250,000-sf corporate headquarters office building. These uses will be demolished and replaced by the proposed Project uses. The proposed Project land uses, and intensity are consistent with the allowable use on the site.

EXHIBIT 1-1: PRELIMINARY SITE PLAN



LEGEND:

RIRO = RIGHT-IN/RIGHT-OUT ONLY ACCESS
P = PASSENGER CARS ONLY
PT = PASSENGER CARS AND TRUCKS

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13106 - siteplan.dwg

1.2 PROJECT OVERVIEW

It is our understanding that the Project is to consist of up to 486,088 square feet (sf) of warehousing use within two buildings (northern building is 263,274 sf and southern building is 222,814 sf). The Project is anticipated to be constructed in one phase by the year 2021. As shown on Exhibit 1-1, vehicular access will be provided via the following driveways:

- Driveway 1 on Katella Avenue: Passenger cars only (proposed new driveway)
- Driveway 2 on Holder Street: Passenger cars only
- Driveway 3 on Holder Street: Passenger cars and trucks
- Driveway 4 on Holder Street: Passenger cars only

Trips calculated to be generated by the Project have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) as presented in ITE's most current edition of Trip Generation Manual (10th Edition, 2017) for Warehousing (ITE Land Use Code 150). [2] The Project is calculated to generate a total of 850 trip-ends per day with 87 AM peak hour trips and 97 PM peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in detail in Section 4.1 *Project Trip Generation* of this report.

1.3 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential deficiencies to traffic and circulation have been assessed for each of the following scenarios:

- Existing (2020)
- Existing plus Project
- Opening Year Cumulative (2021), Without and With Project

The proposed Project's land use and zoning are consistent with the City of Cypress' General Plan, as such, long-range traffic conditions have not been evaluated.

1.3.1 EXISTING (2020) CONDITIONS

Information for Existing conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared. Traffic counts were conducted in March 2020 based on vehicle classification and were converted to passenger car equivalents (PCE) due to the presence of heavy trucks within the study area. Additional modifications that were made to intersection counts due to reductions in traffic associated with on-going pandemic are discussed in further detail in Section 3.6 *Existing Traffic Counts* of this report. The Existing traffic volumes also includes 50 percent of the traffic generated by the existing on-site uses.

1.3.2 EXISTING PLUS PROJECT CONDITIONS

The Existing Plus Project (E+P) analysis determines whether or not traffic deficiencies would occur on the existing roadway system with the addition of Project traffic. The E+P analysis is intended to identify the project-specific traffic deficiencies associated solely with the development of the proposed Project (change in trips) based on a comparison of the E+P traffic conditions to Existing (2020) traffic conditions. The change in trips reflects the net difference between the proposed Project and 50 percent of the existing uses.

1.3.3 OPENING YEAR CUMULATIVE (2021) CONDITIONS

The Opening Year Cumulative conditions analysis determines the Project's contribution to near-term traffic deficiencies based on a comparison of the "With Project" traffic scenario to the "Without Project" traffic scenario. To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth from Existing (2020) conditions of 2.0% (annual growth rate at 2% per year, over one year) is included for Opening Year Cumulative. The background ambient growth accounts for increased traffic volumes due to generalized/unknown future development in the region that are not captured by the identified cumulative development projects.

1.4 STUDY AREA

The study area was defined in conformance with the requirements of the City of Cypress traffic study guidelines. Based on these guidelines, the area to be studied shall include any intersections at which the proposed project will add 50 or more peak hour trips. Intersections where the Project contributes less than 50 peak hour trips are indicated below in Table 1-1. A traffic study scoping agreement summarizing the study area, trip generation, trip distribution and analysis methodology was provided to the City of Cypress for review. The agreement approved by the City of Cypress is included in Appendix 1.1.

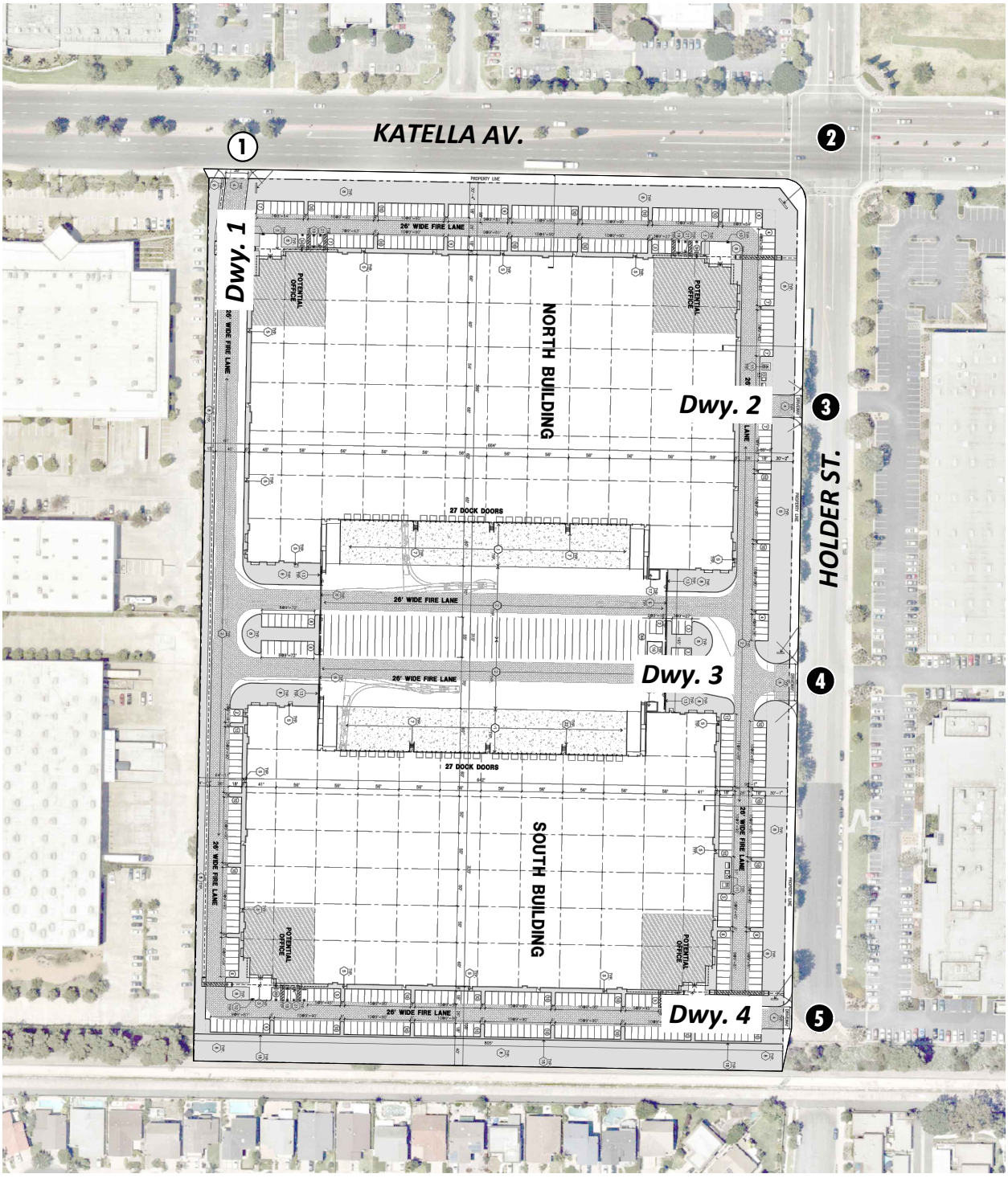
5 study area intersection locations shown on Exhibit 1-2 and listed in Table 1-1 were selected for this TIA based on the City of Cypress's traffic study requirements that require analysis of intersection locations in which a proposed Project is anticipated to contribute 50 or more peak-hour trips and based on Project access.

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
1	Driveway 1 & Katella Avenue – Future Intersection	City of Cypress
2	Holder Street & Katella Avenue	City of Cypress
3	Holder Street & Driveway 2	City of Cypress
4	Holder Street & Driveway 3	City of Cypress
5	Holder Street & Driveway 4 *	City of Cypress

* Note: Project contributes less than 50 peak hour trips.

EXHIBIT 1-2: LOCATION MAP



LEGEND:

0 = EXISTING INTERSECTION ANALYSIS LOCATION

(0) = FUTURE INTERSECTION ANALYSIS LOCATION

N

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URBAN CROSSROADS

1.5 SENATE BILL 743 – VEHICLE MILES TRAVELED (VMT)

Senate Bill 743 (SB 743), approved in 2013, endeavors to change the way transportation impacts will be determined according to the California Environmental Quality Act (CEQA). The Office of Planning and Research (OPR) has recommended the use of vehicle miles traveled (VMT) as the replacement for automobile delay-based LOS. In December 2018, the Natural Resources Agency finalized updates to CEQA Guidelines to incorporate SB 743 (i.e., VMT). While a lead agency has the option to immediately apply the new VMT based analysis methodology and thresholds for the purposes of evaluating transportation impacts, statewide application of the new guidelines is required July 1, 2020. VMT analysis for the Project has been prepared under separate cover. [3] As such, the LOS operations analysis provided in this TIA is for informational purposes only and to confirm General Plan conformity and is not intended to support environmental review findings.

1.6 ANALYSIS FINDINGS

This section provides a summary of the analysis results for Existing, E+P, and Opening Year Cumulative traffic conditions. For signalized intersections, analysis results are provided using the Intersection Capacity Utilization (ICU). Unsignalized study area intersections have been evaluated using the Highway Capacity Manual (HCM) methodology.

Existing (2020) Conditions

A summary of level of service (LOS) results for Existing traffic conditions are presented in Exhibit 1-3. As shown, all of the study area intersections are currently operating at an acceptable LOS.

Existing Plus Project (E+P) Conditions

As shown on Exhibit 1-3 and consistent with Existing (2020) traffic conditions, the study area intersections are anticipated to continue to operate at an acceptable LOS with the addition of Project traffic (net change in trips).

Opening Year Cumulative (2021) Conditions

As shown on Exhibit 1-3, the study area intersections are anticipated to continue to operate at an acceptable LOS for Opening Year Cumulative (2021) Without and With Project traffic conditions.

Based on the summary of analysis results above of the peak hour operations at the study area intersections, the Project is not anticipated to result in either direct or cumulative traffic deficiencies.

EXHIBIT 1-3: SUMMARY OF DEFICIENT INTERSECTIONS BY ANALYSIS SCENARIO

#	Intersection	Existing (2020)	E+P	Opening Year Cumulative (2021) Without Project	Opening Year Cumulative (2021) With Project
1	Dwy. 1 & Katella Av.	NA		NA	
2	Holder St. & Katella Av.				
3	Holder St. & Dwy. 2				
4	Holder St. & Dwy. 3				
5	Holder St. & Dwy. 4				

LEGEND:

-  ▪ AM PEAK HOUR
-  ▪ PM PEAK HOUR
-  ▪ LOS A-D
-  ▪ LOS E
-  ▪ LOS F
- NA ▪ NOT AN ANALYSIS LOCATION FOR THIS SCENARIO

1.7 RECOMMENDATIONS

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 would be in place prior to Project building occupancy.

1.7.1 SITE ACCESS IMPROVEMENT RECOMMENDATIONS

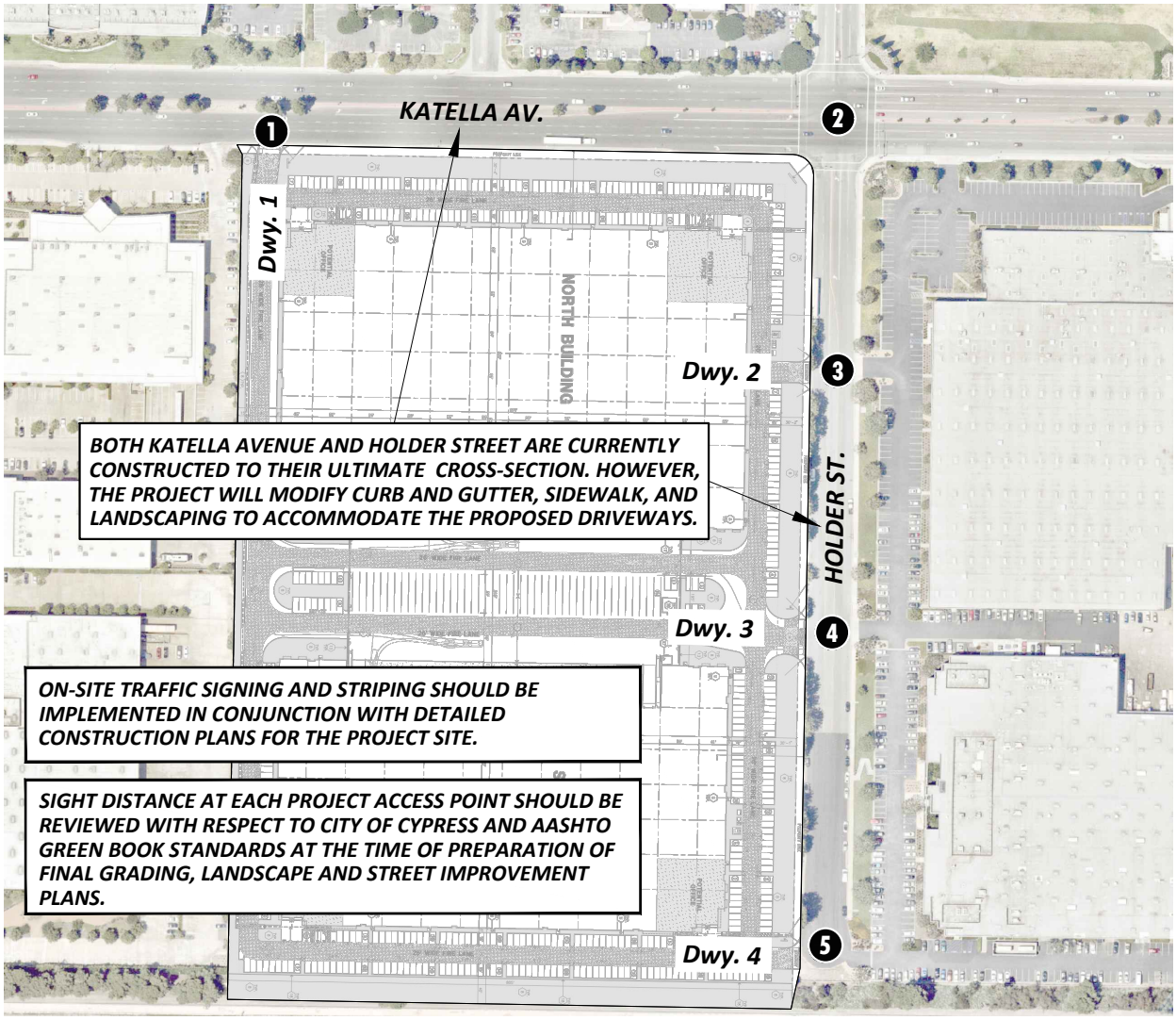
The recommended site access driveway improvements for the Project are described below. Exhibit 1-4 illustrates the recommended site access and site adjacent roadway improvements. Construction of on-site and site adjacent improvements shall occur in conjunction with adjacent Project development activity or as needed for Project access purposes.

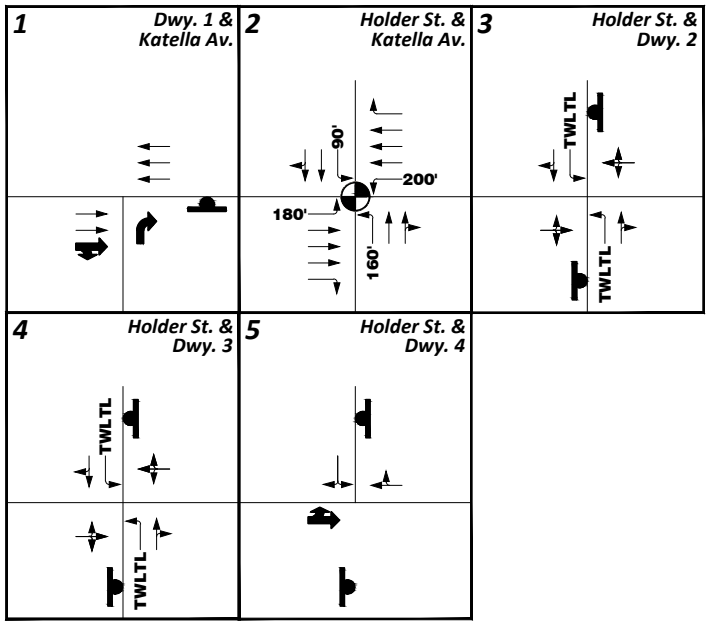
- Both Katella Avenue and Holder Street are currently constructed to their ultimate cross-sections. However, the Project will modify curb and gutter, sidewalk, and landscaping improvements to accommodate the proposed driveways.
- Driveway 1 on Katella Avenue is proposed to be controlled by a stop sign on the northbound approach and a single egress and ingress lane on the driveway. The driveway would be restricted to right-in/right-out access only to be controlled by the existing raised median. This driveway will serve passenger cars only.
- Driveway 2 on Holder Street is proposed to be controlled by a stop sign on the eastbound approach and a single egress and ingress lane on the driveway. The existing painted median (two-way-left-turn-lane) will be utilized for accommodating left turns into and out of Driveway 2. This driveway will serve passenger cars only. It should be noted that this driveway will align with the existing driveway to the east.
- Driveway 3 on Holder Street is proposed to be controlled by a stop sign on the eastbound approach and a single egress and ingress lane on the driveway. The existing painted median (two-way-left-turn-lane) will be utilized for accommodating left turns into and out of Driveway 3. This driveway will serve passenger cars and all heavy trucks. It should be noted that this driveway will align with the existing driveway to the east.
- Driveway 4 on Holder Street is proposed to be controlled by a stop sign on the eastbound approach and a single egress and ingress lane on the driveway. This driveway will serve passenger cars only. It should be noted that this driveway will align with the existing driveway to the east.

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 City of Cypress and American Association of State Highway Transportation Officials' (AASHTO) A Policy on Geometric Design of Highways and Streets (Green Book) sight distance standards at the time of preparation of final grading, landscape and street improvement plans. [4]

EXHIBIT 1-4: SITE ADJACENT ROADWAY AND SITE ACCESS RECOMMENDATIONS





LEGEND:

- = TRAFFIC SIGNAL
- = STOP SIGN
- = EXISTING LANE
- = LANE IMPROVEMENT
- 150' = EXISTING TURN POCKET LENGTH
- TWLTL = TWO WAY LEFT TURN LANE

13106 - recs.dwg

1.7.2 QUEUING ANALYSIS AT THE PROJECT DRIVEWAYS AND SITE ADJACENT INTERSECTIONS

A queuing analysis was conducted at the Project driveways along Katella Avenue and Holder Street for Opening Year Cumulative (2021) With Project traffic conditions to identify the 95th percentile peak hour queues. The analysis was conducted for both the weekday AM and weekday PM peak hours. The 95th percentile queues for the applicable study area intersections can be found in Appendix 1.2.

The traffic modeling and signal timing optimization software package SimTraffic has been utilized to assess queues at the Project driveways and site adjacent intersections. 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 (Version 10) 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).

The random simulations generated by SimTraffic have been utilized to determine the 95th percentile queue lengths observed for each turn lane. A SimTraffic simulation has been recorded 5 times, during the weekday AM and weekday PM peak hours, and has been seeded for 30-minute periods with 60-minute recording intervals. As shown in the worksheets, no queuing issues are anticipated at the Project driveways.

Queuing analysis results are summarized on Table 1.2-1 in Appendix 1.2. As shown on Table 1.2-1, the following turning movements at the intersection of Holder Street and Katella Avenue are anticipated to have 95th percentile peak hour queues that exceed the available storage:

- Southbound left turn lane
- Eastbound left turn lane
- Westbound left turn lane
- Westbound right turn lane

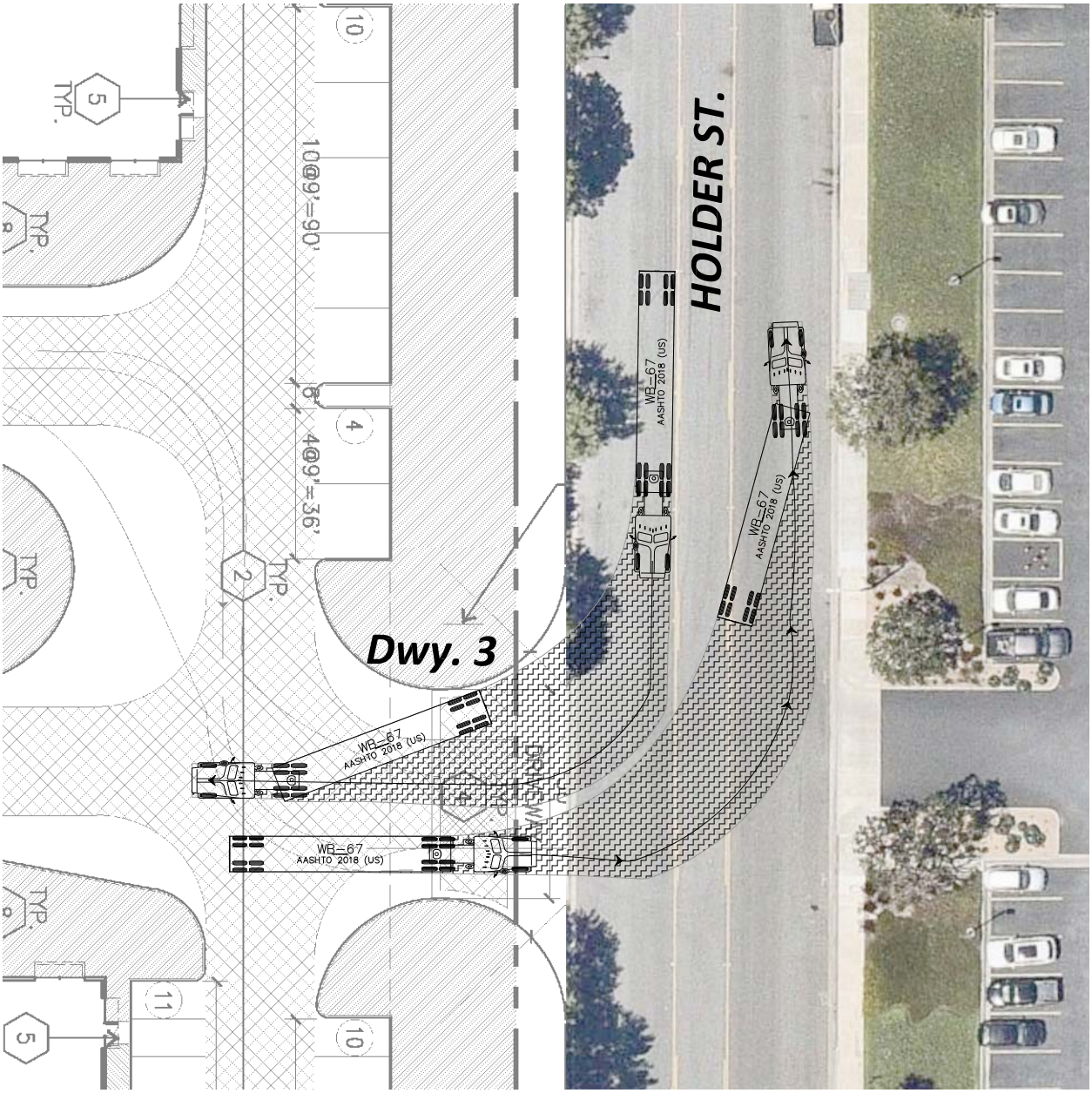
The Project does not contribute any traffic to the southbound left and westbound right turn movements. As such, no improvements have been recommended to address this queuing issue. Upon review of field conditions, the eastbound left turn lane appears to accommodate up to 260-feet of storage within the left turn transition. Due to the proximity of Business Center Drive to the west, it does not appear feasible to lengthen the eastbound left turn lane and accommodate the appropriate transitions. However, since the anticipated 95th percentile queue is within the storage (including the space within the existing transition) without affecting through traffic along Katella Avenue, additional improvements have not been recommended. The Project is anticipated to contribute 2 AM peak hour trips and 6 PM peak hour trips to this turning movement, which is approximately 4-5 percent of the total eastbound left turn traffic.

Similarly, the westbound left turn lane appears to accommodate up to 240-feet of storage within the striped turn pocket and storage area within the left turn transition. Although the westbound left turn pocket storage could be lengthened by modifying the existing raised median, the additional 19-feet of storage necessary during the AM peak hour could be accommodated within the transition without affecting through traffic along Katella Avenue. As such, additional improvements have not been recommended. The Project is anticipated to contribute 37 AM peak hour trips and 98 PM peak hour trips to this turning movement, which is approximately 38-60 percent of the total westbound left turn traffic.

1.8 TRUCK ACCESS AND CIRCULATION

Due to the typical wide turning radius of large trucks, a truck turning template has been overlaid on the site plan at the Project driveway in order to determine appropriate curb radii and to verify that trucks will have sufficient space to execute turning maneuvers (see Exhibit 1-5). As shown on Exhibit 1-5, Driveway 3 on Holder Street is anticipated to accommodate the wide turning radius of heavy trucks (WB-67, which has a 53-foot trailer). No changes are necessary to the current design.

EXHIBIT 1-5: TRUCK ACCESS



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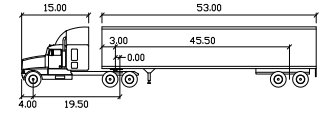


WB-67

feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		

GRAPHIC SCALE
0 20 40
1"=40'

N

2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are generally consistent with the City of Cypress traffic study requirements. [1]

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. LOS analysis was conducted to determine peak hour operations using the Intersection Capacity Utilization (ICU) methodology for signalized study intersections. [5] The Highway Capacity Manual (HCM) (6th Edition) methodology was used to determine LOS's for unsignalized intersections. The HCM (6th Edition) methodology expresses the LOS at an intersection in terms of average control delay time for the various intersection approaches. [5] The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Cypress requires signalized intersections to be evaluated through ICU analysis which compares the peak hour traffic volumes to intersection capacity. Lane capacities of 1,600 vehicles per hour of green time have been assumed for the ICU calculations. 0.10 of volume to capacity (V/C) has been assumed representing 10 seconds of delay for the yellow and all-red signal indication and inherent vehicle delay between cycles with an assumed signal cycle of 100 seconds. The ICU LOS definitions based on V/C ratio are presented in Table 2-1. The Traffix software package has been utilized to evaluate the signalized intersections using the ICU methodology with the analysis parameters discussed above.

TABLE 2-1 INTERSECTION CAPACITY UTILIZATION (ICU) LOS DEFINITIONS

Level of Service	Critical Volume to Capacity Ratio
A	0.00 - 0.60
B	0.61 - 0.70
C	0.71 - 0.80
D	0.81 - 0.90
E	0.91 - 1.00
F	>1.00

Source: 2019 Orange County CMP

The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. Common practice for LOS analysis is to use a peak 15-mintue 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. Existing PHFs have been used for all analysis scenarios for HCM intersections. ICU intersections have assumed a PHF of 1.00 per the ICU methodology. Per the HCM, 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. [5] As such, new intersections have been conservatively evaluated with a PHF of 0.92.

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Cypress requires the operations of unsignalized intersections be evaluated using the methodology described in the HCM (6th Edition). [5] 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 HCM LOS THRESHOLDS

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 (6th Edition)

At two-way or side-street stop-controlled intersections, The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not reported for major-street approaches or for the intersection as a whole, but rather the worst movement on the minor

street approaches are reported instead. For all-way stop controlled intersections, LOS is based solely on control delay for assessment of LOS at the approach and intersection levels.

The traffic modeling software package Synchro (Version 10) has been utilized to analyze unsignalized intersections within the study area. Synchro is a macroscopic traffic software program that utilizes the unsignalized intersection capacity analysis as specified in the HCM (6th Edition). [5] 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.

2.3 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 Caltrans 2014 California Manual on Uniform Traffic Control Devices (CA MUTCD) for all study area intersections. [7]

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. The 2014 CAMUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. [7] Specifically, this TIA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for Existing traffic conditions. 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. It should be noted that Holder Street has a posted speed limit of 35 miles per hour. As such, urban (as opposed to rural) warrants have been utilized.

Traffic signal warrant analyses were performed for the following unsignalized study area intersections (see Table 2-3):

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
3	Holder Street & Driveway 2	City of Cypress
4	Holder Street & Driveway 3	City of Cypress

Traffic signal warrant analysis will not be performed for Driveway 1 on Katella Avenue as it is an access-controlled driveway and not a suitable location for the installation of a traffic signal. Similarly, traffic signal warrant analysis will also not be performed at Driveway 4 as the conflict volume is low at the terminus of Holder Street and would not be a suitable location for the installation of a traffic signal.

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 threshold 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.

2.4 LOS CRITERIA

2.4.1 CITY OF CYPRESS

The definition of an intersection deficiency has been obtained from the City's General Plan. The City of Cypress has adopted LOS D or better as the desired citywide operating standard for most City streets. However, given the influence of regional traffic on Valley View Street, Lincoln Avenue, and Katella Avenue, which are beyond the control of the City of Cypress, LOS E or better has been adopted as the minimum operating LOS for street segments and intersections on these arterials due to the high volume of traffic carried on these roadways.

2.4.2 ORANGE COUNTY CMP

The CMP definition of deficiency is based on maintaining a level of service standard of LOS E or better, unless the levels of service from the baseline CMP dataset were lower. [1] However, there are no CMP intersections within the study area.

2.5 THRESHOLD CRITERIA

2.5.1 CITY OF CYPRESS

For the study area intersections that lie within the City of Cypress, to determine whether the addition of project traffic (as defined through the comparison of Existing to E+P traffic conditions) at a study intersection would result in a direct project-specific traffic deficiency, the following conditions must occur:

- Peak hour project traffic plus existing traffic causes an intersection to operate at LOS E or F

2.5.2 ORANGE COUNTY CMP

Projects with the potential to create an impact of more than 3% of LOS E capacity on CMP Highway system links should require a TIA. All projects generating 2,400 or more daily trips should require a TIA for CMP evaluation. If a project will have direct access to a CMP link this threshold should be reduced to 1,600 or more daily trips. A TIA should not be required again if one has already been performed for the project as part of an earlier development approval which takes the impact on the CMP Highway System into account. However, it should be noted that there are no CMP intersections within the study area.

3 AREA CONDITIONS

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

3.1 EXISTING CIRCULATION NETWORK

The study area includes a total of 5 existing and future intersections as shown previously 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 CYPRESS GENERAL PLAN CIRCULATION NETWORK

As previously noted, the Project site is located within the City of Cypress. Exhibit 3-2 shows the City of Cypress General Plan street classification network and Exhibit 3-3 shows the standard street sections for these roadways. [7] The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Cypress General Plan Circulation Network, are described subsequently.

Katella Avenue: Katella Avenue is classified as a Major street. A major street serves as the primary route for the movement of traffic within the City as well as a connector to neighboring cities. A major street includes a 16-foot raised median within a 120-foot right-of-way. Katella Avenue is a 6-lane, divided roadway within the study area.

Holder Street: Holder Street is classified as a Secondary street. A secondary street consists of an 84-foot right-of-way. The existing street includes a painted median (two-way-left-turn lane). Holder Street is a 4-lane, undivided roadway north of Katella Avenue and 2-lanes separated by a painted median south of Katella Avenue.

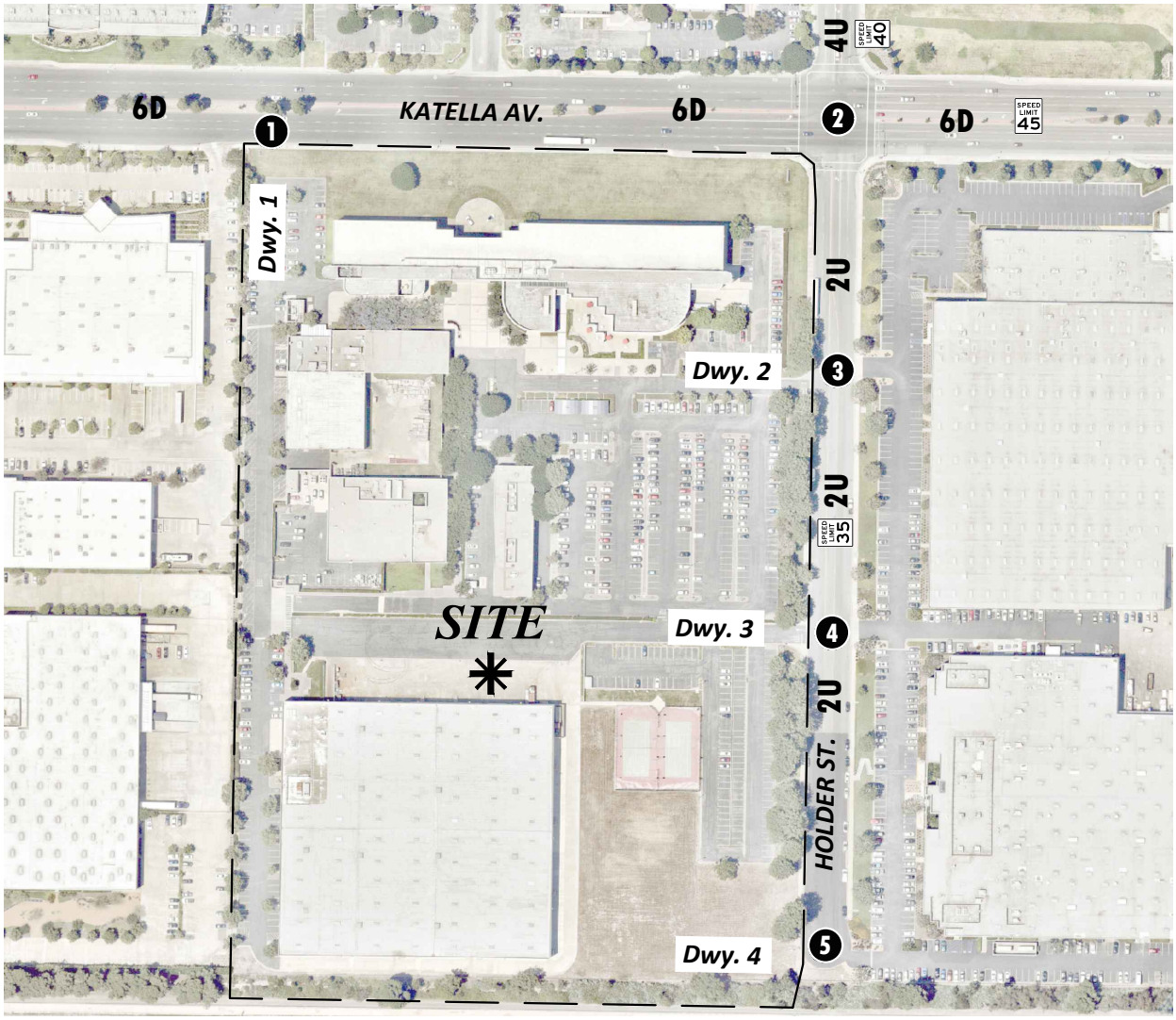
3.3 TRUCK ROUTES

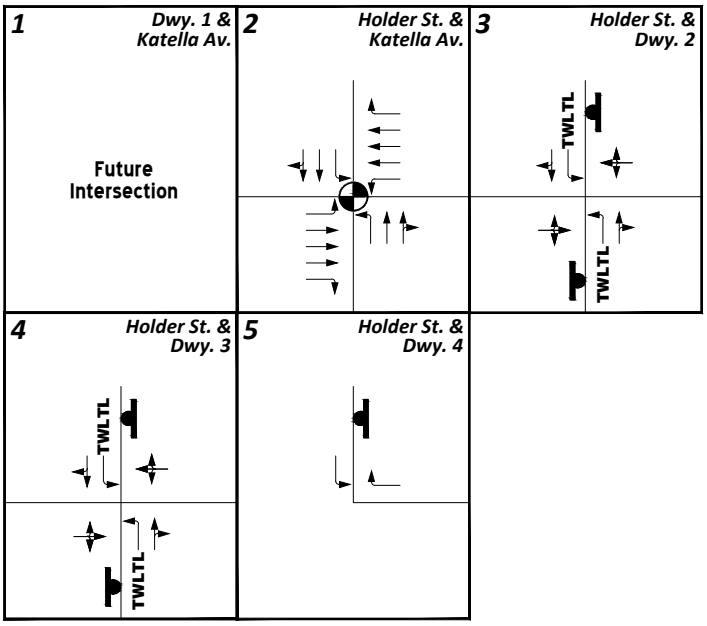
The City of Cypress designated truck route map is shown on Exhibit 3-4. Katella Avenue is a truck route and leads to other City truck routes along Valley View Street to the west and Knott Avenue to the east. The designated truck route map has been utilized to route truck traffic from both the proposed Project and applicable future cumulative development projects in the study area.

3.4 BICYCLE & PEDESTRIAN FACILITIES

The City's bike path plan is shown on Exhibit 3-5. Class I bikeways are off-road bike/pedestrian trails/facilities and Class II bikeways are on-road, striped bike routes. Holder Street is proposed as a future local bikeway. There is an existing Class I off-road bike path on the south side of the Project along the Stanton Storm Channel. Field observations conducted in March 2020 indicate nominal pedestrian and bicycle activity within the study area.

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





LEGEND:

- = TRAFFIC SIGNAL
- = STOP SIGN
- 4 = NUMBER OF LANES
- D = DIVIDED
- U = UNDIVIDED
- TWLTL = TWO WAY LEFT TURN LANE
- SPEED LIMIT 25 = SPEED LIMIT (MPH)

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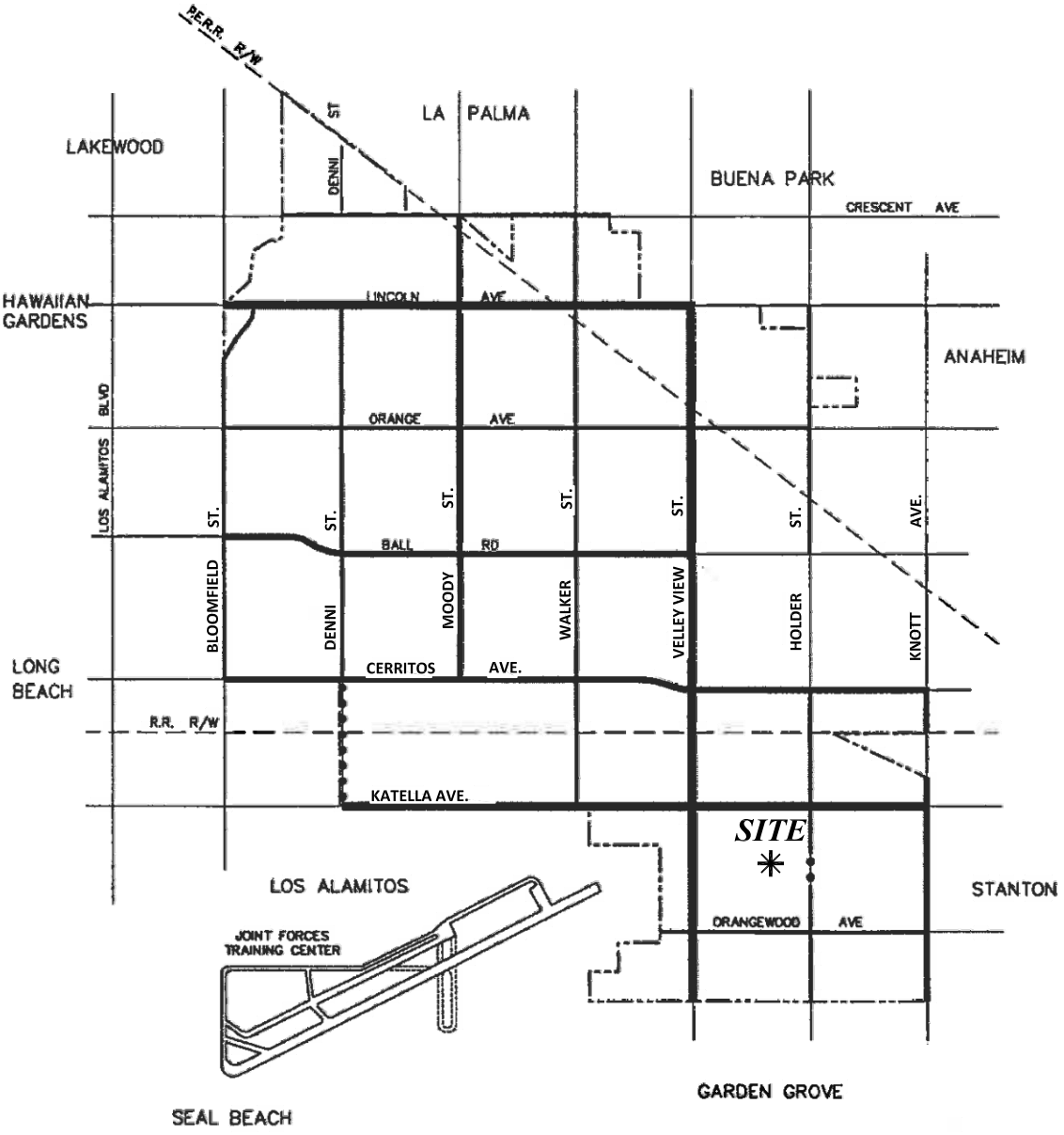
EXHIBIT 3-2: CITY OF CYPRESS GENERAL PLAN ARTERIAL SYSTEM



Source: City of Cypress General Plan

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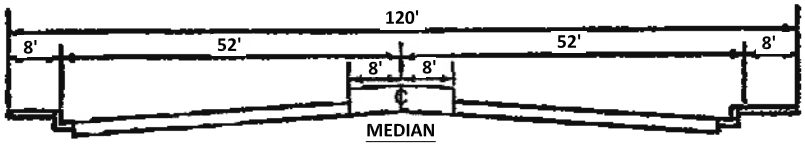
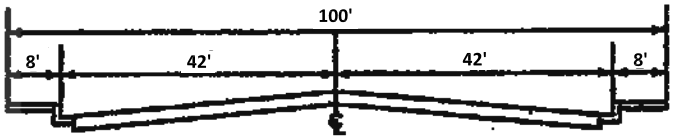
EXHIBIT 3-3: CITY OF CYPRESS ROADWAY CROSS-SECTIONS

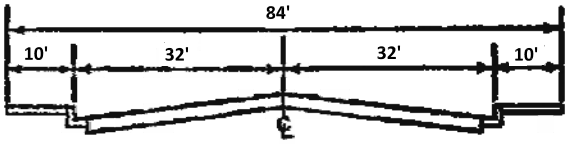
MAJOR STREET



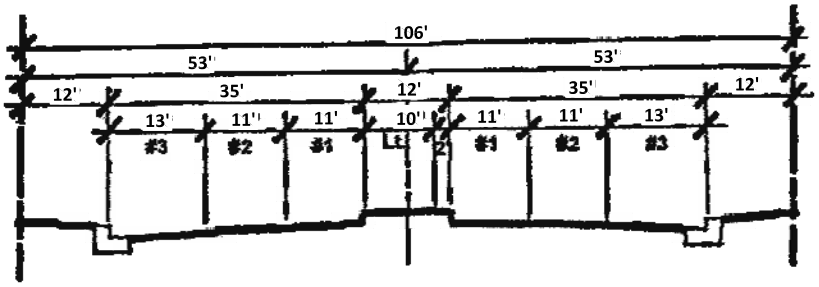
PRIMARY STREET



SECONDARY STREET

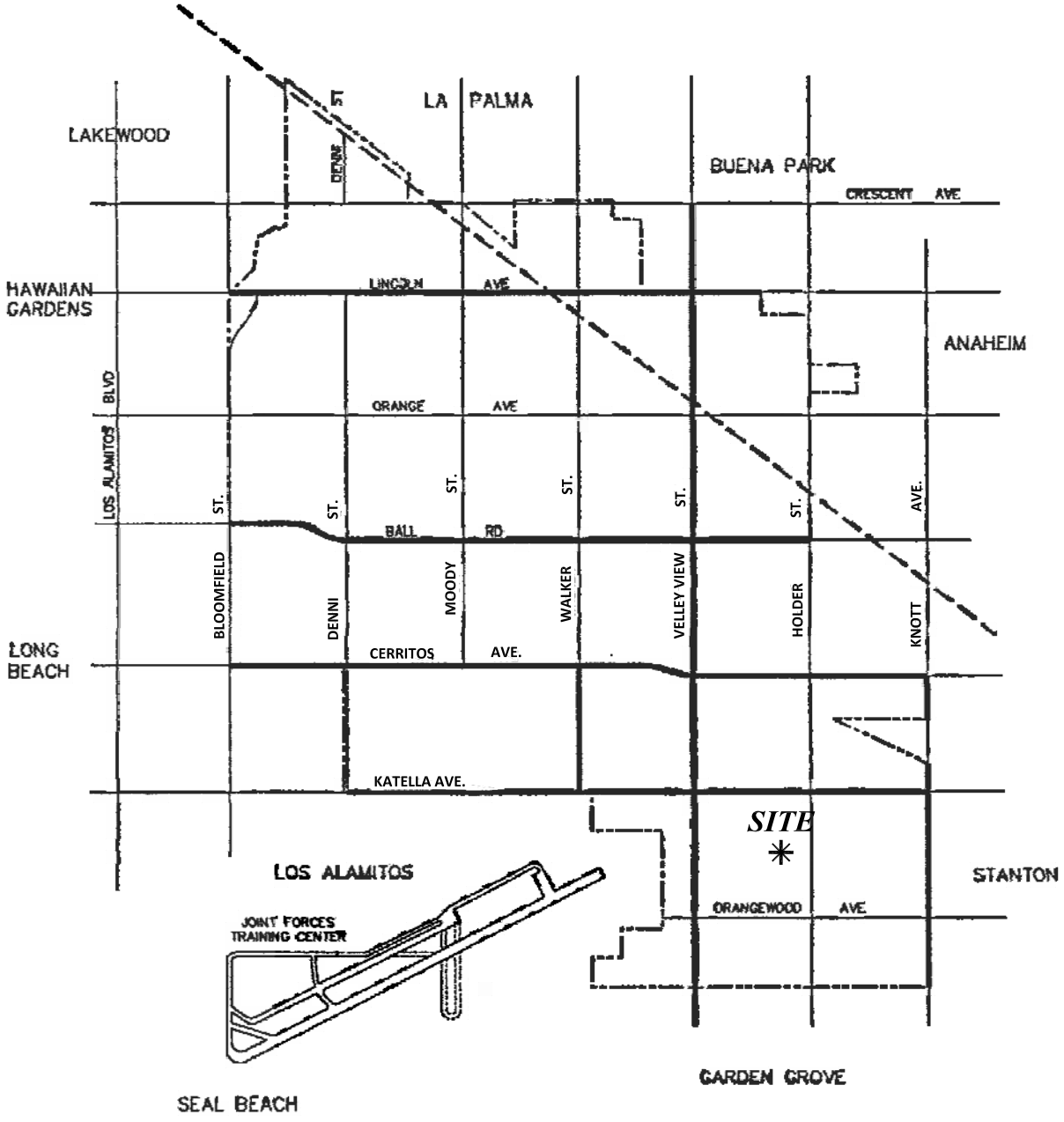


LINCOLN AVENUE TYPICAL STREET SECTION



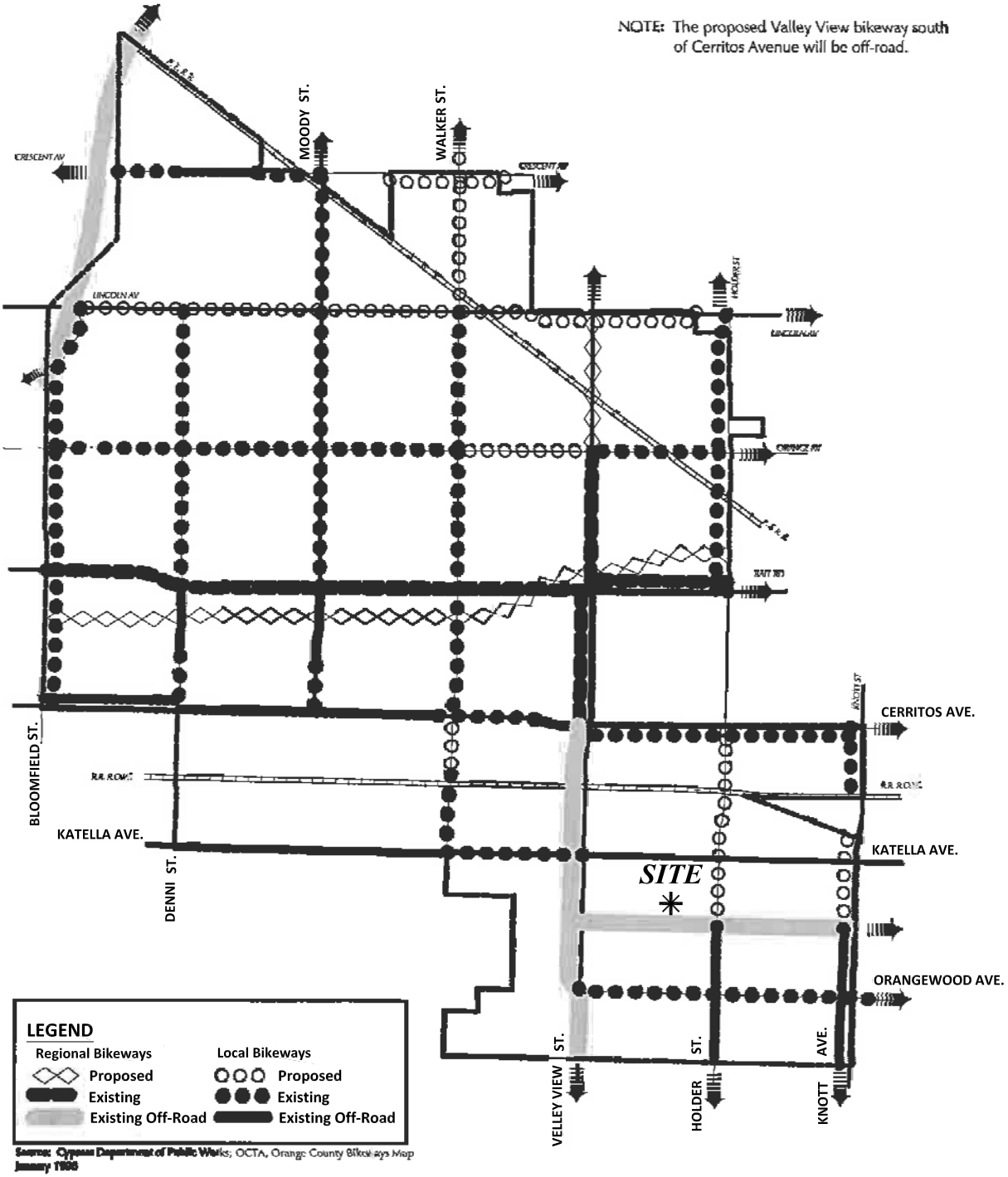
Source: City of Cypress General Plan

EXHIBIT 3-4: CITY OF CYPRESS TRUCK ROUTES



Source: City of Cypress General Plan

EXHIBIT 3-5: CITY OF CYPRESS BIKE PATH PLAN



Source: City of Cypress General Plan

Existing pedestrian facilities (sidewalk and crosswalk) and bus stop locations within the study area are shown on Exhibit 3-6. As shown on Exhibit 3-6, there are existing sidewalks in place along both sides of the street along Holder Street and Katella Avenue. The intersection of Holder Street and Katella Avenue accommodates crosswalks on all approaches.

3.5 TRANSIT SERVICE

The study area is currently served by Orange County Transportation Authority (OCTA) bus Route 50 along Katella Avenue. Exhibit 3-7 shows the existing transit routes. As shown on Exhibit 3-7, there are existing bus stops at Holder Street and Katella Avenue that could serve the proposed Project.

3.6 EXISTING TRAFFIC COUNTS

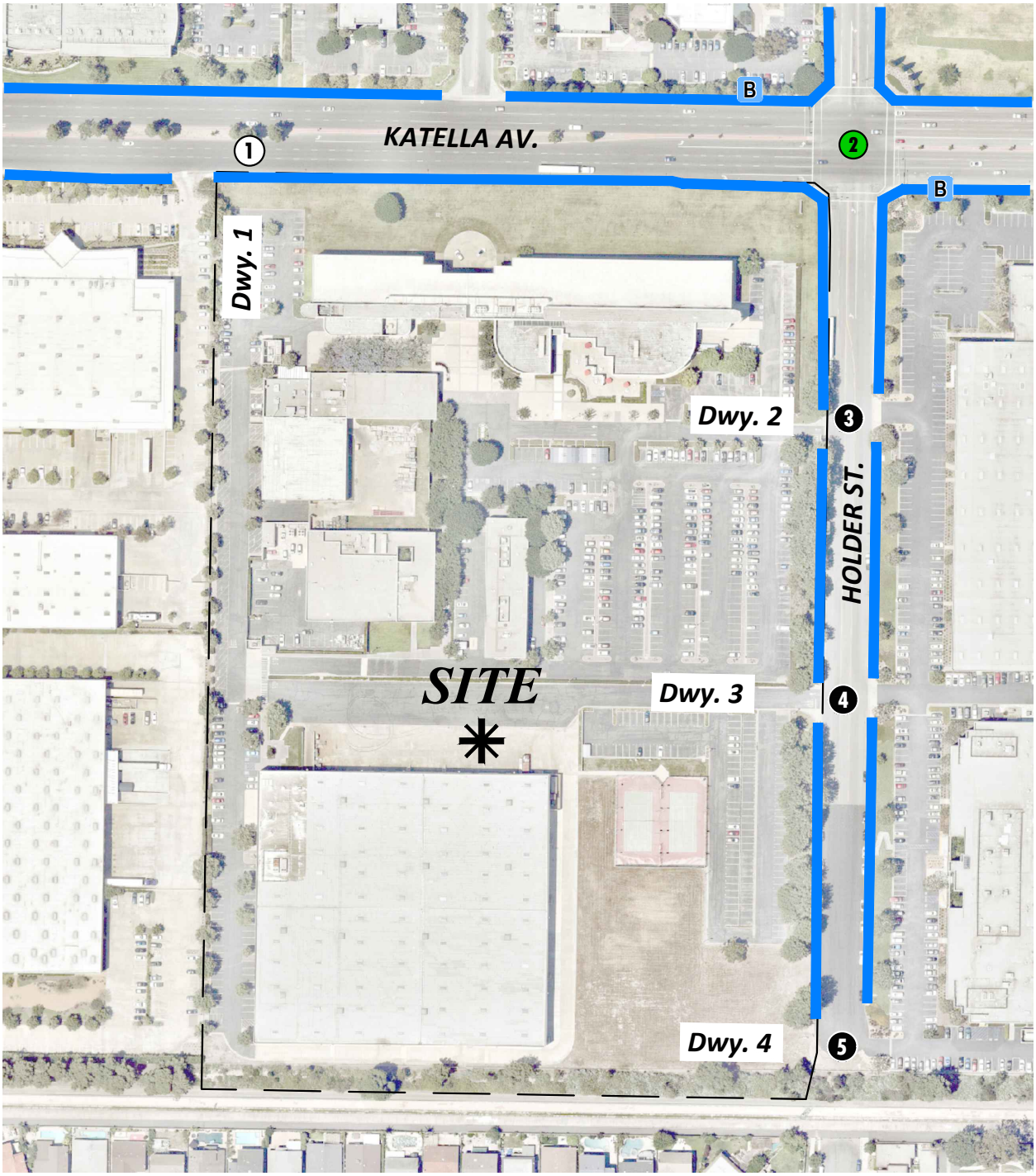
Manual weekday AM and PM peak hour turning movement counts were conducted in March 2020, around the time when uses began to close due to the currently on-going Coronavirus (COVID-19) pandemic. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. The 2020 traffic counts have been adjusted in order to take into account the effects to local traffic associated with the on-going pandemic. Historic traffic counts were obtained from 2018 for the intersections of Valley View Street, Holder Street, and Knott Avenue along Katella Avenue. The historic counts were then compared to the current March 2020 traffic counts that had recently been collected. The adjusted 2020 traffic volumes utilized for the purposes of this TIA were developed by utilizing the higher volume between the March 2020 traffic count or the 2018 historic count plus two years of growth (at 2 percent per year, compounded over 2 years):

Adjusted 2020 = Maximum (March 2020 or 2018 x 1.0404)

In other words, on a movement by movement basis, the 2018 count plus growth was compared to the 2020 traffic counts to utilize the higher of the two numbers (see Appendix 3.1). Through volumes along Holder Street were then flow conserved and distributed proportionally to the driveways for the user on the east.

The existing Mitsubishi buildings were not currently in use at the time of the counts, therefore, trips generated by the existing buildings are not captured in the baseline traffic counts conducted in 2020. However, in order to account for the potential occupancy of the buildings, as by right the site could be occupied with a warehouse use at any time (without additional environmental review). As such, conservatively, 50 percent of trips associated with warehousing use (consistent with the existing trip credit applied to the Project trip generation) was added to the baseline volumes in order to represent traffic that could potentially be generated by the site if occupied. The trips associated with the warehousing use have been allocated to study area intersections using trip distribution patterns that are similar to the proposed Project (see Section 4.0 *Projected Future Traffic*).

EXHIBIT 3-6: EXISTING PEDESTRIAN FACILITIES



LEGEND:

- = SIDEWALK
- B = BUS STOP
- 0 = NO CROSSWALK
- 0 = FUTURE INTERSECTION
- 0 = CROSSWALK ON FOUR APPROACHES

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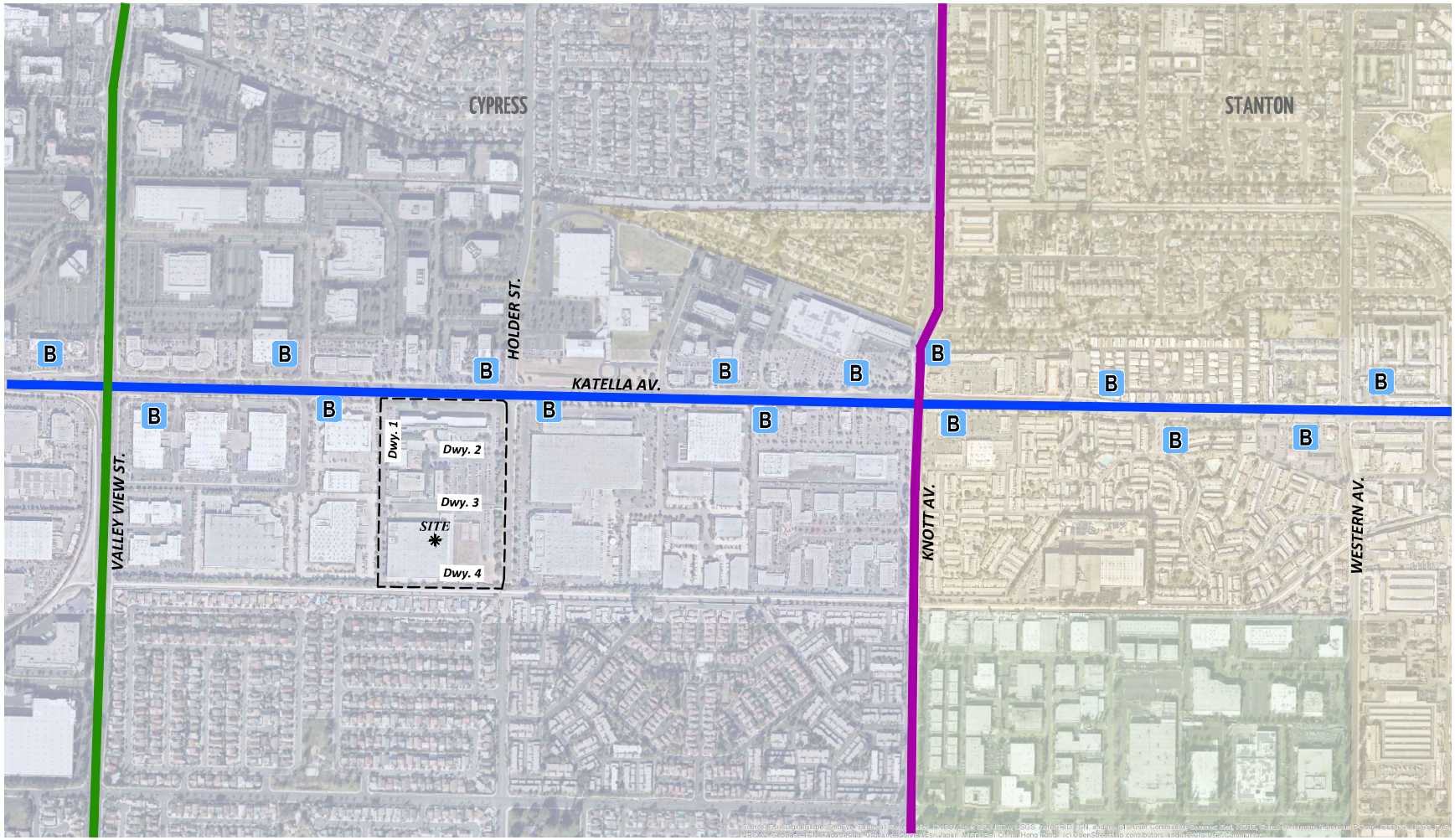
EXHIBIT 3-7: EXISTING TRANSIT ROUTES



URBAN CROSSROADS

The traffic counts collected include the vehicle classifications as shown below:

- Passenger Cars
- 2-Axle Trucks
- 3-Axle Trucks
- 4 or More Axle Trucks

To represent the effects of large trucks, buses and recreational vehicles have on traffic flow; all trucks were converted into passenger car equivalent (PCE). By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for them to accelerate and slow-down is also much longer than for passenger cars, and varies depending on the type of vehicle and number of axles. For the purpose of this analysis, a PCE factor of 1.5 has been applied to 2-axle trucks, 2.0 for 3-axle trucks and 3.0 for 4+-axle trucks to estimate each turning movement. It should be noted that Orange County and the Southern California Association of Governments (SCAG) do not have readily available PCE factor recommendations. As such, the PCE factors used are based on recommendations from San Bernardino County Transportation Authority (SBCTA) which is consistent with standard engineering practice throughout the southern California region. Further use of the SBCTA PCE factors was reviewed by the City of Cypress staff during the traffic study scoping process and is appropriate based on Urban Crossroads' professional engineering judgment.

Existing AM and PM peak hour intersection volumes are shown on Exhibit 3-8. All of the intersection turning movement volumes illustrated on the exhibits and used in the peak hour operations analyses are shown in terms of PCE.

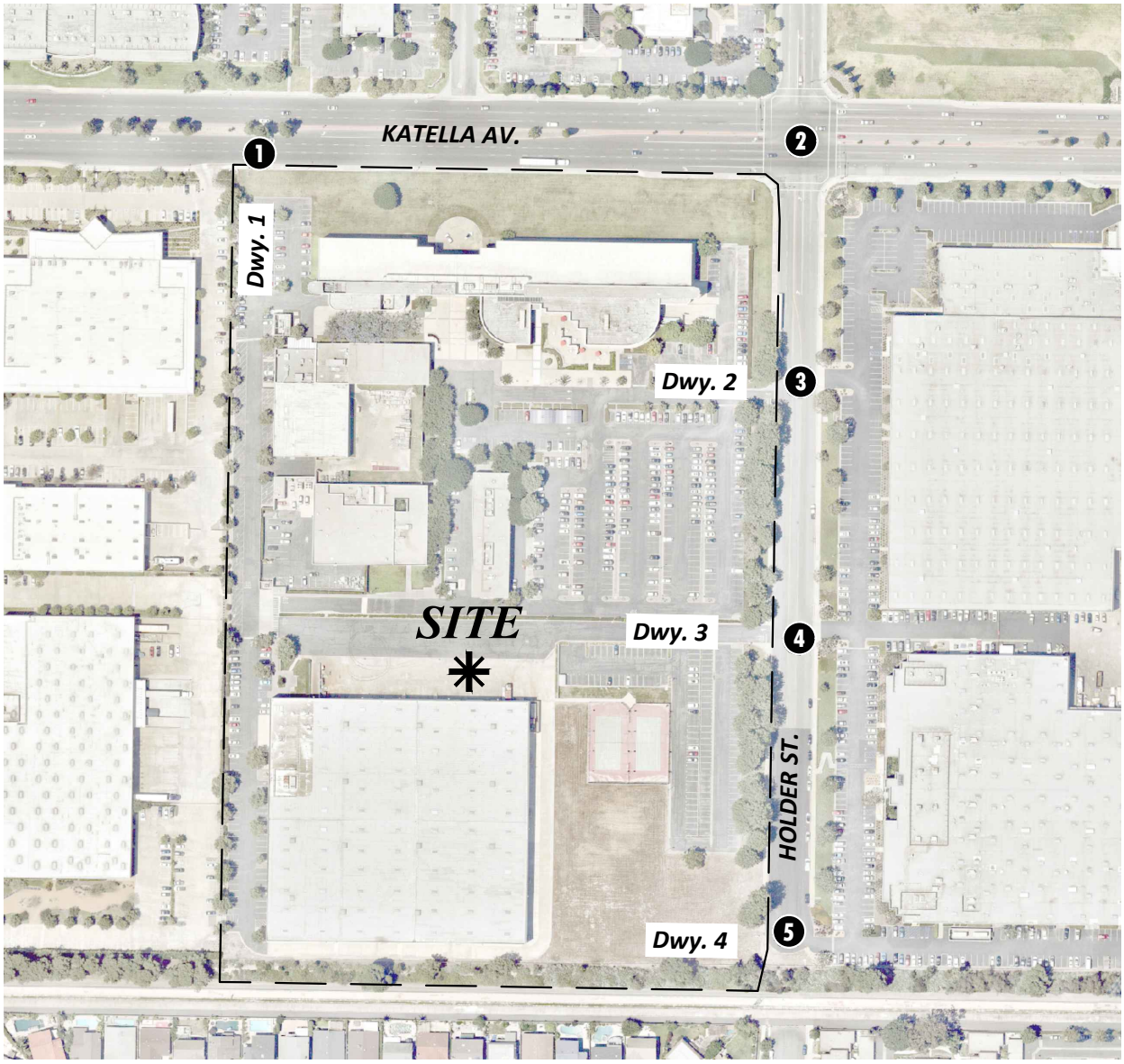
3.7 EXISTING CONDITIONS INTERSECTION OPERATIONS ANALYSIS

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 all of the study area intersections are currently operating at an acceptable LOS during the peak hours. Consistent with Table 3-1, a summary of the peak hour intersection LOS for Existing conditions is shown on Exhibit 3-9. The intersection operations analysis worksheets are included in Appendix 3.2 of this TIA.

3.8 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, there are no study area intersections that currently warrant a traffic signal based on the peak hour traffic volumes (See Appendix 3.3).

EXHIBIT 3-8: EXISTING (2020) TRAFFIC VOLUMES (IN PCE)



1 Dwy. 1 & Katella Av.	2 Holder St. & Katella Av.	3 Holder St. & Dwy. 2	4 Holder St. & Dwy. 3	5 Holder St. & Dwy. 4
Future Intersection	183(114) 42(2) 200(211) → 146(209) ← 1607(1051) ← 104(14) 35(135) ← 1085(1581) ← 154(11) → 10(110) 2(45) 12(103)	66(4) 225(21) 9(2) → 0(29) ← 0(0) ← 0(0) 5(57) → 0(0) → 0(0) ← 0(0) 19(173) 0(0)	32(5) 68(3) 125(13) → 12(90) ← 0(0) ← 0(0) 4(30) → 0(0) → 0(0) ← 0(0) 4(53) 0(0)	68(3) → 4(53)

LEGEND:

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

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URBAN CROSSROADS

EXHIBIT 3-9: EXISTING (2020) SUMMARY OF LOS

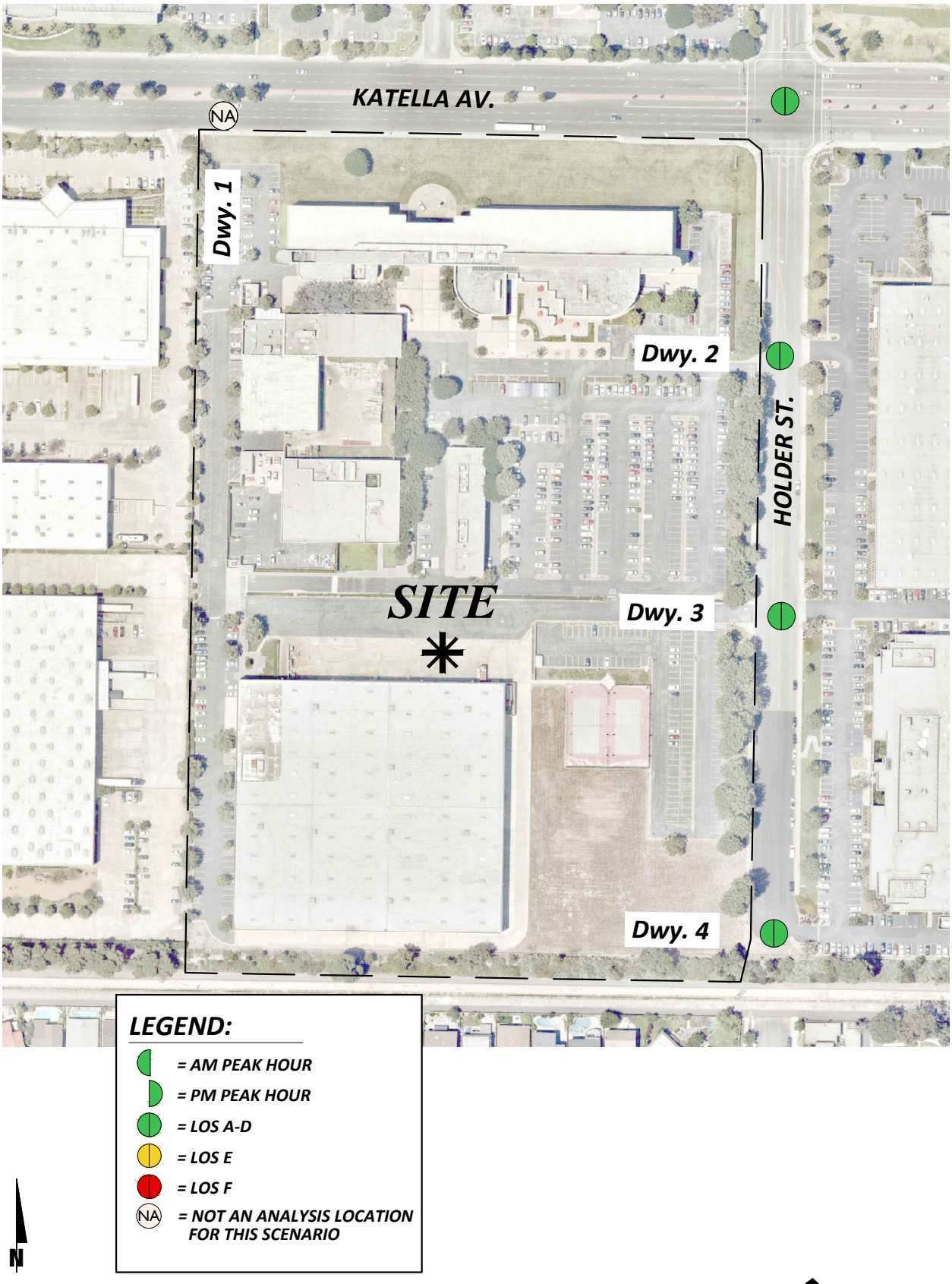

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Table 3-1

Intersection Analysis for Existing (2020) Conditions

#	Intersection	Traffic Control[4]	Intersection Approach Lanes[1]												HCM Delay[2] (secs.)		Level of Service		ICU[3] (v/c)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound										
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM
1	Driveway 1 & Katella Av.		Future Intersection																Not Applicable[6]			
2	Holder St. & Katella Av.	TS	1	2	0	1	2	0	1	3	1	1	3	1	Not Applicable[5]				0.589	0.634	A	B
3	Holder St. & Driveway 2	CSS	1	1	0	1	1	0	0	1	0	0	1	0	12.1	11.9	B	B	Not Applicable[6]			
4	Holder St. & Driveway 3	CSS	1	1	0	1	1	0	0	1	0	0	1	0	13.3	10.9	B	B	Not Applicable[6]			
5	Holder St. & Driveway 4	CSS	0	0	0	1	0	0	0	0	0	0	0	1	0.0	0.0	A	A	Not Applicable[6]			

[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

[2] Per the Highway Capacity Manual (6th Edition), 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] Intersection capacity utilization (ICU) methodology results are presented as a volume-to-capacity ratio.

[4] CSS = Cross-street Stop; TS = Traffic Signal

[5] HCM not reported for signalized intersections.

[6] ICU not reported for unsignalized intersections.

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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. For purposes of this TIA, the Project is to consist of up to 486,088 sf of warehousing use within two buildings (northern building is 263,274 sf and southern building is 222,814 sf). The Project is anticipated to be constructed in one phase by the year 2021. As shown on Exhibit 1-1, vehicular access will be provided via the following driveways:

- Driveway 1 on Katella Avenue: Passenger cars only
- Driveway 2 on Holder Street: Passenger cars only
- Driveway 3 on Holder Street: Passenger cars and trucks
- Driveway 4 on Holder Street: Passenger cars only

The site is currently occupied by the former Mitsubishi Motors Corporation, which includes 150,000 sf of warehousing use and a 250,000-sf corporate headquarters office building. These uses will be demolished and replaced by the proposed Project.

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.

The Institute of Transportation Engineers (ITE) Trip Generation Manual is a nationally recognized source for estimating site-specific trip generation. The trip generation rates used for the Project are based upon data collected by ITE in their Trip Generation Manual, 10th Edition, 2017. [3] A brief description of the proposed Project land use is provided below:

- ITE land use code 150 (Warehousing) has been used to derive site specific trip generation estimates for the proposed Project. The vehicle mix has been obtained from the ITE's Trip Generation Manual Supplement (dated February 2020). [8] This study provides the following vehicle mix: AM Peak Hour: 87.0% passenger cars and 13.0% trucks; PM Peak Hour: 85.0% passenger cars and 15.0% trucks; Weekday Daily: 73.0% passenger cars and 27.0% trucks. The truck percentages were further broken down by axle type per the following South Coast Air Quality Management District's (SCAQMD) Warehouse Truck Trip Study Data Results and Usage (2014) recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%. [9]

The trip generation rate for Warehousing, as described above, has been applied to both the existing warehousing use and the proposed Project. The ITE trip generation rate for Corporate Headquarters (ITE land use code 714) has been utilized for calculating the trip generation associated with the existing corporate headquarters office building. Trip generation rates used to estimate traffic generated by the Project in terms of actual vehicles and PCE are shown in Table 4-1.

Table 4-1

Project Trip Generation Rates

Land Use[1]	ITE LU Code	Units[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicles									
Warehousing[3]	150	TSF	0.131	0.039	0.170	0.051	0.139	0.190	1.740
Passenger Cars (AM-87.0%; PM-85.0%; Daily-73.0%)			0.114	0.034	0.148	0.044	0.118	0.162	1.270
2-Axle Trucks (AM-2.17%; PM-2.51%; Daily-4.51%)			0.003	0.001	0.004	0.001	0.003	0.005	0.078
3-Axle Trucks (AM-2.69%; PM-3.11%; Daily-5.59%)			0.004	0.001	0.005	0.002	0.004	0.006	0.097
4-Axle+ Trucks (AM-8.14%; PM-9.39%; Daily-16.90%)			0.011	0.003	0.014	0.005	0.013	0.018	0.294
Corporate Headquarters	714	TSF	0.684	0.036	0.720	0.018	0.582	0.600	7.950
Passenger Car Equivalent (PCE)[4]									
Warehousing[3]	150	TSF	0.131	0.039	0.170	0.051	0.139	0.190	1.740
Passenger Cars			0.114	0.034	0.148	0.044	0.118	0.162	1.270
2-Axle Trucks (PCE = 1.5)			0.004	0.001	0.006	0.002	0.005	0.007	0.118
3-Axle Trucks (PCE = 2.0)			0.007	0.002	0.009	0.003	0.009	0.012	0.194
4-Axle+ Trucks (PCE = 3.0)			0.032	0.010	0.042	0.014	0.039	0.054	0.882

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

[2] TSF = thousand square feet

[3] Vehicle Mix Source: ITE Trip Generation Handbook Supplement (2020), Appendix C.

Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type.

Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks.

[4] PCE factors: 2-axle = 1.5; 3-axle = 2.0; 4+-axle = 3.0.

Since there are existing buildings (Mitsubishi Motors Corporation) that were previously occupied, credit has been taken for the previous uses. However, field observations indicate the existing uses were not fully occupied. As such, pursuant to discussions with City staff, the trip generation has applied a 50 percent credit to account for existing uses on the site that would be replaced by the proposed Project (50 percent was also manually added to the existing baseline) for the purposes of this analysis. Table 4-2 summarizes the trip generation for the existing uses and shows the resulting 50 percent reduction. As shown in Table 4-2, 50 percent of the existing uses currently generate a total of 1,128 trip ends per day with 105 AM peak hour trips and 92 PM peak hour trips.

Table 4-3 summarizes the proposed Project trip generation in both actual vehicles and PCE. In addition, the change in trip generation from the proposed Project in comparison to 50 percent of the existing uses is also shown. The development of the proposed Project would result in a net reduction of 278 trip ends per day with a net reduction of 18 AM peak hour trips and a net increase of 6 PM peak hour trips. PCE factors have been applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles) consistent with the discussion included in Section 3.6 *Existing Traffic Counts*.

4.2 PROJECT TRIP DISTRIBUTION

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 use and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute. The Project trip distribution was developed based on anticipated travel patterns to and from the Project site. The existing roadway network and location of regional destinations have been reviewed to develop the Project trip distribution pattern. Exhibit 4-1 illustrates the passenger car trip distribution patterns for the Project and Exhibit 4-2 illustrates the truck trip distribution patterns for the Project. Similar trip distribution patterns were utilized for the existing uses.

The majority of Project passenger car traffic will utilize one of the driveways on Holder Street (Driveway 2 = 25%, Driveway 3 = 40%, and Driveway 4 = 15%), while approximately 20% is anticipated to utilize Driveway 1 on Katella Avenue. All truck traffic is proposed to take access from Driveway 3 on Holder Street. Passenger car traffic and truck traffic are anticipated to distribution regionally as follows:

- West on Katella Avenue: 20% passenger cars; 30% trucks
- North on Valley View Street: 10% passenger cars; 10% trucks
- South of Valley View Street: 20% passenger cars; 10% trucks
- North on Holder Street: 5% passenger cars only
- North on Knott Avenue: 10% passenger cars; 10% trucks
- South on Knott Avenue: 15% passenger cars; 10% trucks
- East on Katella Avenue: 20% passenger cars; 30% trucks

Table 4-2

Existing Trip Generation Summary

Existing Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicles									
Warehouse	150.000	TSF							
Passenger Cars:			17	5	22	7	18	25	192
Truck Trips:									
2-axle:			1	1	2	1	1	2	12
3-axle:			1	1	2	1	1	2	16
4+-axle:			2	1	3	1	2	3	46
- Truck Trips (Actual Vehicles)			*4*	*3*	*7*	*3*	*4*	*7*	*74*
Corporate Headquarters	250.000	TSF	171	9	180	5	146	151	1,988
Existing Trips (Actual Vehicles) [2]			***192***	***17***	***209***	***15***	***168***	***183***	***2,254***
50% of Existing Trips (Actual Vehicles)			***96***	***9***	***105***	***8***	***84***	***92***	***1,128***
Passenger Car Equivalent (PCE)									
Warehouse	150.000	TSF							
Passenger Cars:			17	5	22	7	18	25	192
Truck Trips:									
2-axle:			1	1	2	1	1	2	18
3-axle:			2	1	3	1	2	3	30
4+-axle:			5	2	7	3	6	9	134
- Truck Trips (PCE)			*8*	*4*	*12*	*5*	*9*	*14*	*182*
Corporate Headquarters	250.000	TSF	171	9	180	5	146	151	1,988
Existing Trips (PCE) [2]			***196***	***18***	***214***	***17***	***173***	***190***	***2,362***
50% of Existing Trips (PCE)			***98***	***9***	***107***	***9***	***87***	***95***	***1,182***

[2] TSF = thousand square feet

[6] Total Trips = Passenger Cars + Truck Trips.

Table 4-3

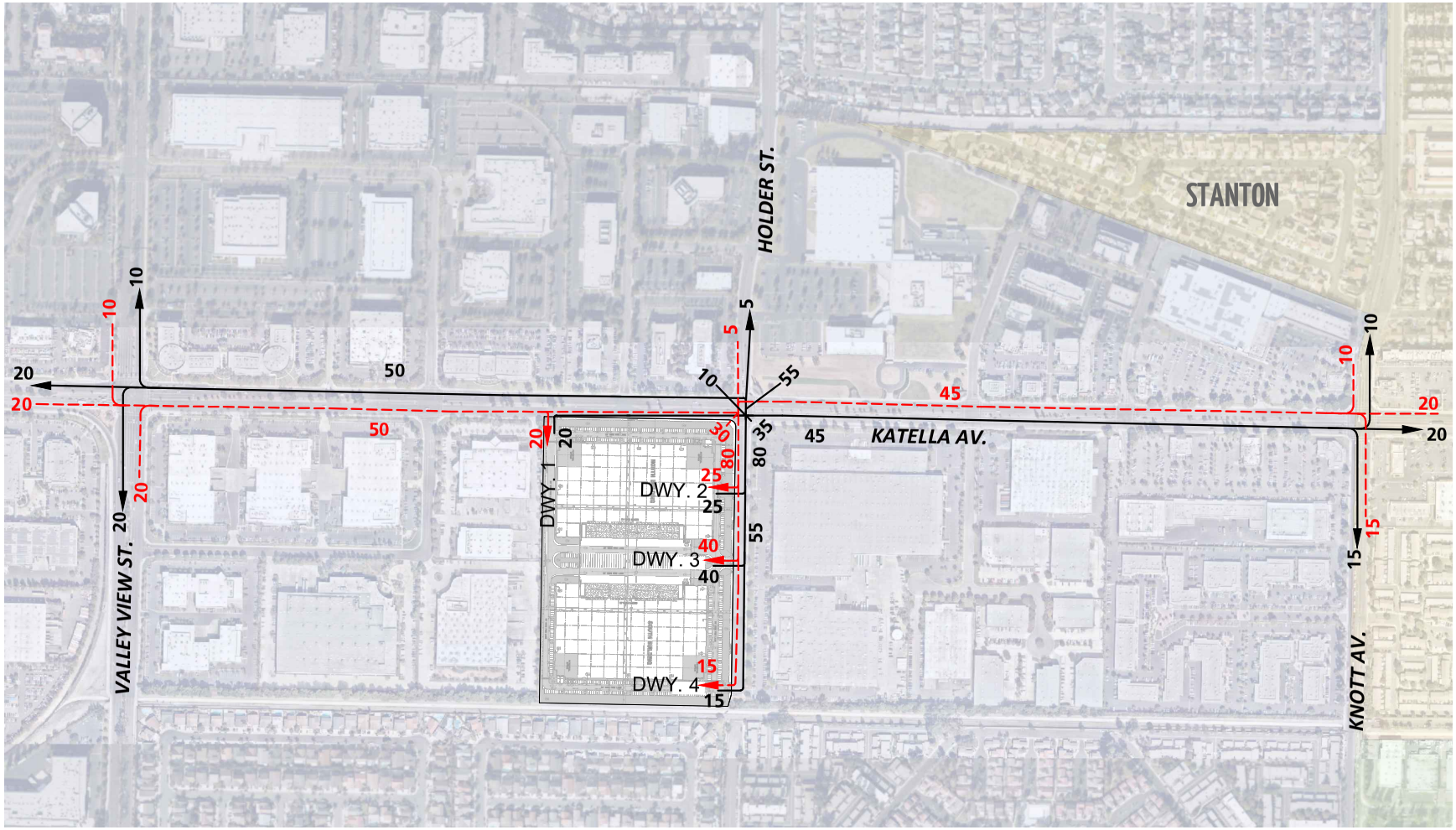
Project Trip Generation Summary

Proposed Project	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicles									
Warehousing	486.088	TSF							
Passenger Cars:			56	17	73	22	58	80	618
Truck Trips:									
2-axle:			2	1	3	1	2	3	40
3-axle:			2	1	3	1	3	4	48
4+-axle:			6	2	8	3	7	10	144
- Truck Trips (Actual Vehicles)			*10*	*4*	*14*	*5*	*12*	*17*	*232*
Project Trips (Actual Vehicles) [2]			***66***	***21***	***87***	***27***	***70***	***97***	***850***
50% of Existing Trips (Actual Vehicles) (From Table 4-2)			***96***	***9***	***105***	***8***	***84***	***92***	***1,128***
Change in Trips			***-30***	***13***	***-18***	***20***	***-14***	***6***	***-278***
Passenger Car Equivalent (PCE)									
Warehousing	486.088	TSF							
Passenger Cars:			56	17	73	22	58	80	618
Truck Trips:									
2-axle:			3	1	4	1	3	4	58
3-axle:			4	2	6	2	5	7	96
4+-axle:			16	5	21	8	19	27	430
- Truck Trips (PCE)			*23*	*8*	*31*	*11*	*27*	*38*	*584*
Project Passenger Cars:			*56*	*17*	*73*	*22*	*58*	*80*	*618*
Project Trucks (PCE):			*23*	*8*	*31*	*11*	*27*	*38*	*584*
Project Trips (PCE) [2]			***79***	***25***	***104***	***33***	***85***	***118***	***1,202***
50% of Existing Passenger Cars:			*94*	*7*	*101*	*6*	*82*	*88*	*1,090*
50% of Existing Trucks (PCE):			*4*	*2*	*6*	*3*	*5*	*7*	*92*
50% of Existing Trips (PCE) (From Table 4-2)			***98***	***9***	***107***	***9***	***87***	***95***	***1,182***
Change in Passenger Cars:			*-38*	*10*	*-28*	*16*	*-24*	*-8*	*-472*
Change in Trucks (PCE):			*19*	*6*	*25*	*9*	*23*	*31*	*492*
Change in Trips			***-19***	***16***	***-3***	***25***	***-2***	***23***	***20***

[1] TSF = thousand square feet

[2] Total Trips = Passenger Cars + Truck Trips.

EXHIBIT 4-1: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION



Note: For informational purposes, distributions are also shown at the intersections of Valley View St. at Katella Av. and Knott Av. at Katella Av.

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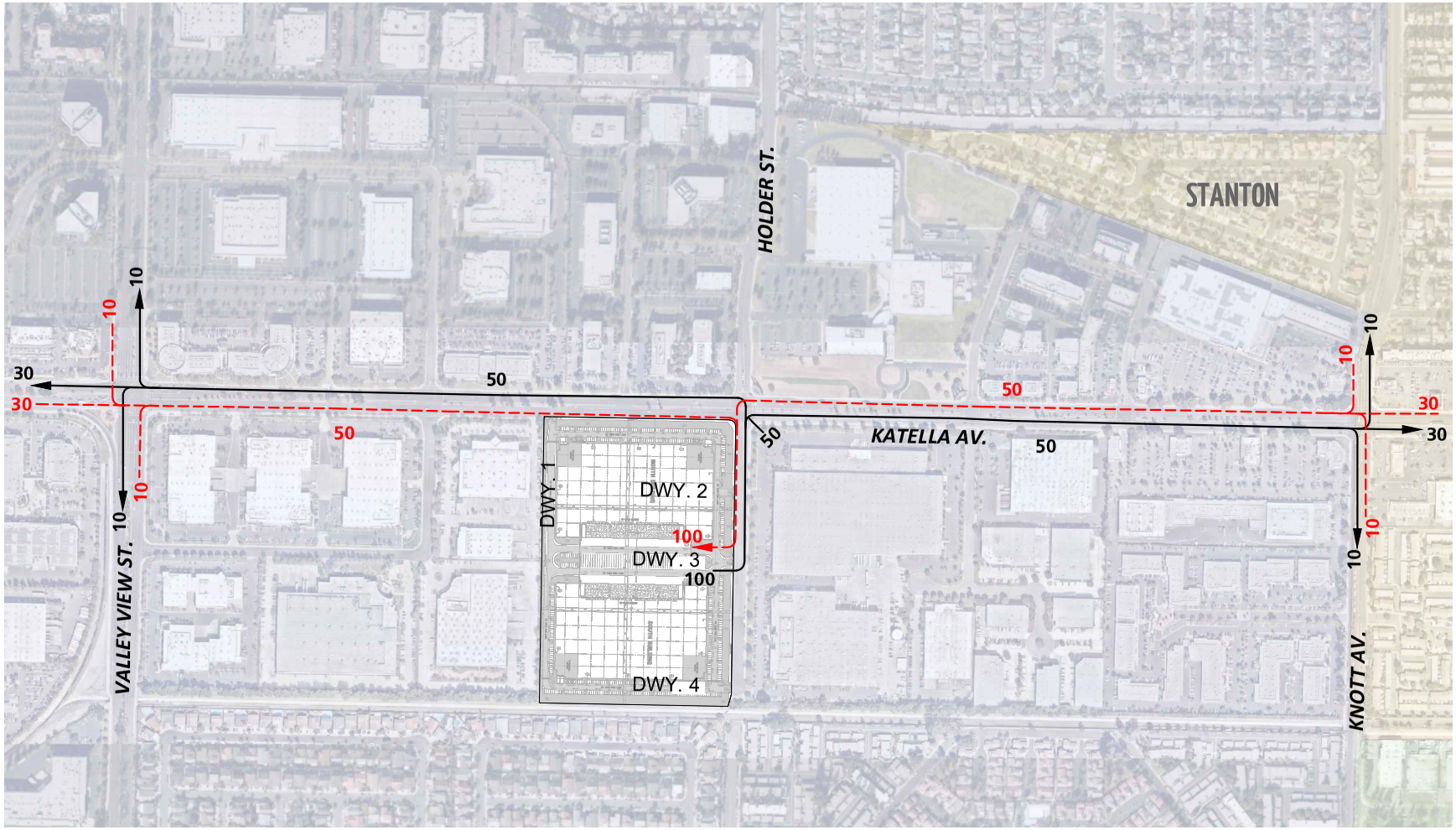
EXHIBIT 4-2: PROJECT (TRUCK) TRIP DISTRIBUTION



LEGEND:

10 = PERCENT TO/FROM PROJECT

= OUTBOUND

= INBOUND

N

Note: For informational purposes, distributions are also shown at the intersections of Valley View St. at Katella Av. and Knott Av. at Katella Av.

4.3 MODAL SPLIT

The traffic reducing potential of public transit, walking or bicycling have not been considered in this TIA, in an effort to conduct a conservative analysis.

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 AM and PM peak hour traffic volumes are shown on Exhibit 4-5. Exhibits 4-3 and 4-4 show the Project passenger car only and Project truck (in PCE) traffic volumes at the study area intersections. The Project volumes shown on Exhibit 4-5 represent the trips associated with the proposed Project as presented in Table 4-3 without reductions for the existing uses. Existing warehouse volumes (50 percent) are shown on Exhibit 4-6.

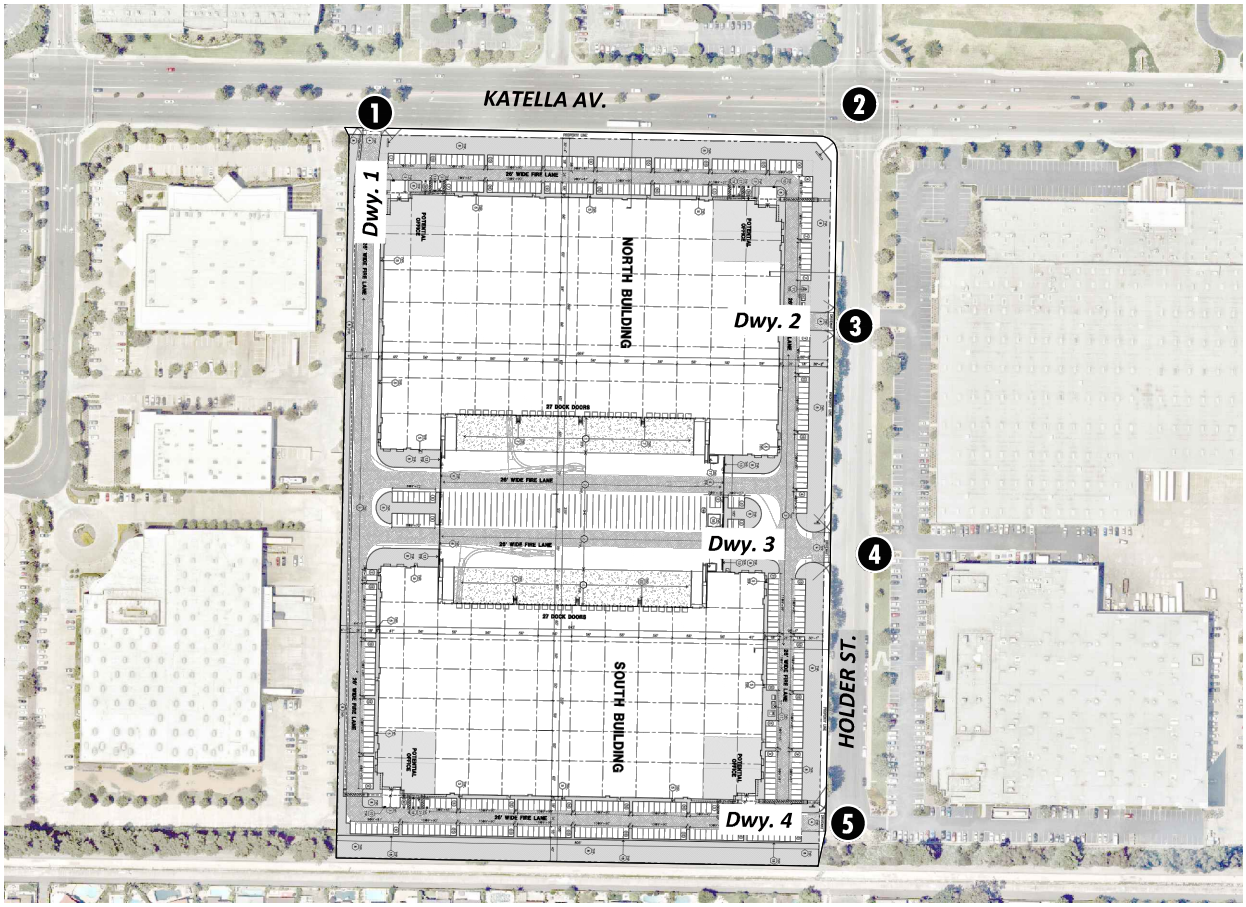
4.5 BACKGROUND TRAFFIC

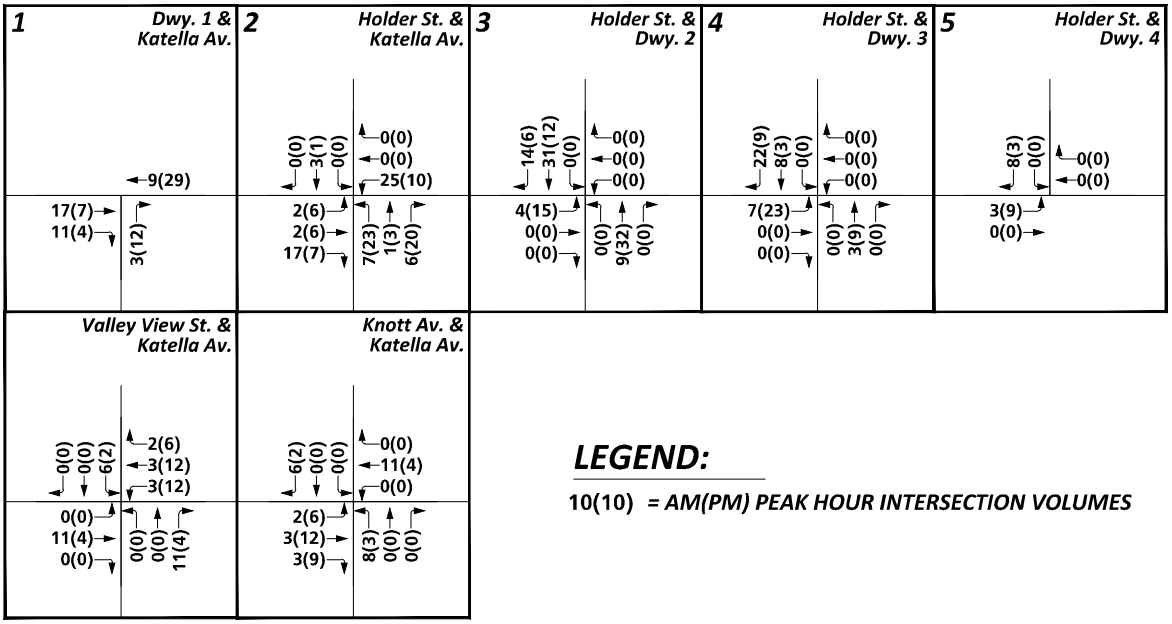
The Opening Year Cumulative conditions analysis determines the Project's contribution to near-term traffic deficiencies based on a comparison of the "With Project" traffic scenario to the "Without Project" traffic scenario. To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth from Existing (2020) conditions of 2.0% (annual growth rate at 2% per year, over one year) is included for Opening Year Cumulative. The background ambient growth accounts for increased traffic volumes due to generalized/unknown future development in the region that are not captured by the identified cumulative development projects.

4.6 CUMULATIVE DEVELOPMENT TRAFFIC

Exhibit 4-7 illustrates the cumulative development location map. A summary of cumulative development projects and their proposed land uses are shown in Table 4-4. If applicable (i.e. if the cumulative projects would contribute trips to study area intersections), the traffic generated by individual cumulative projects was manually added to the Opening Year Cumulative and Horizon Year forecasts to ensure that traffic generated by the listed cumulative development projects in Table 4-4 are reflected as part of the background traffic. Traffic from other cumulative developments farther away from the study area are not anticipated to add significant traffic and are accounted for by the ambient growth rate applied to forecast the background traffic. Cumulative AM and PM peak hour traffic volumes are shown on Exhibit 4-8.

EXHIBIT 4-3: PROJECT ONLY PASSENGER CAR TRAFFIC VOLUMES



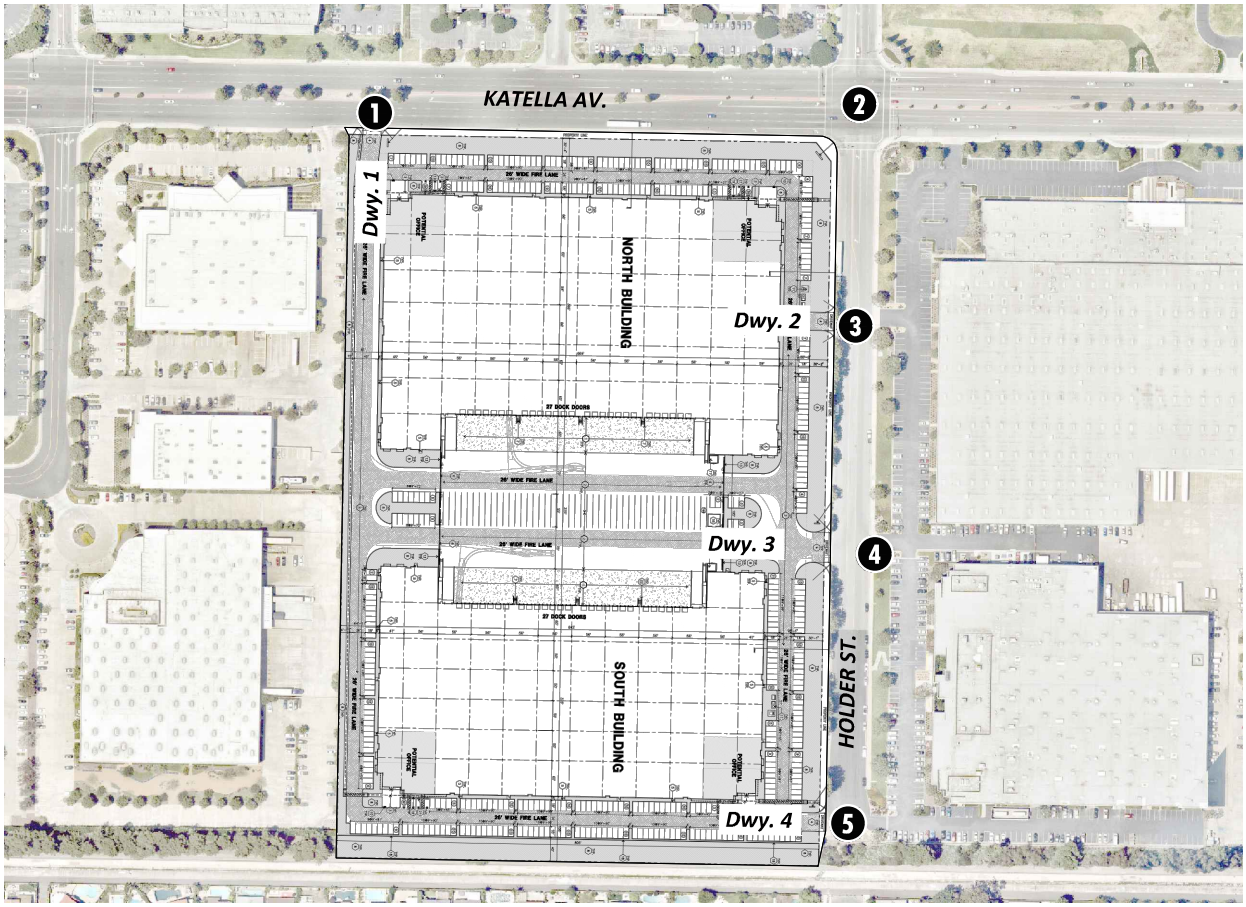


LEGEND:

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

N

EXHIBIT 4-4: PROJECT ONLY TRUCK TRAFFIC VOLUMES (IN PCE)



1 Dwy. 1 & Katella Av.	2 Holder St. & Katella Av.	3 Holder St. & Dwy. 2	4 Holder St. & Dwy. 3	5 Holder St. & Dwy. 4
12(6) → 0(0) ← 4(14); 0(0)	0(0) 0(0) 0(0) → 0(0) ← 0(0) ← 12(6); 0(0) → 0(0) → 12(6); 4(14) 0(0) 4(14)	0(0) 23(11) 0(0) → 0(0) ← 0(0) ← 0(0); 0(0) → 0(0) → 0(0); 0(0) 8(27) 0(0)	23(11) 0(0) 0(0) → 0(0) ← 0(0) ← 0(0); 8(27) → 0(0) → 0(0); 0(0) 0(0) 0(0)	0(0) 0(0) → 0(0) ← 0(0); 0(0) → 0(0)

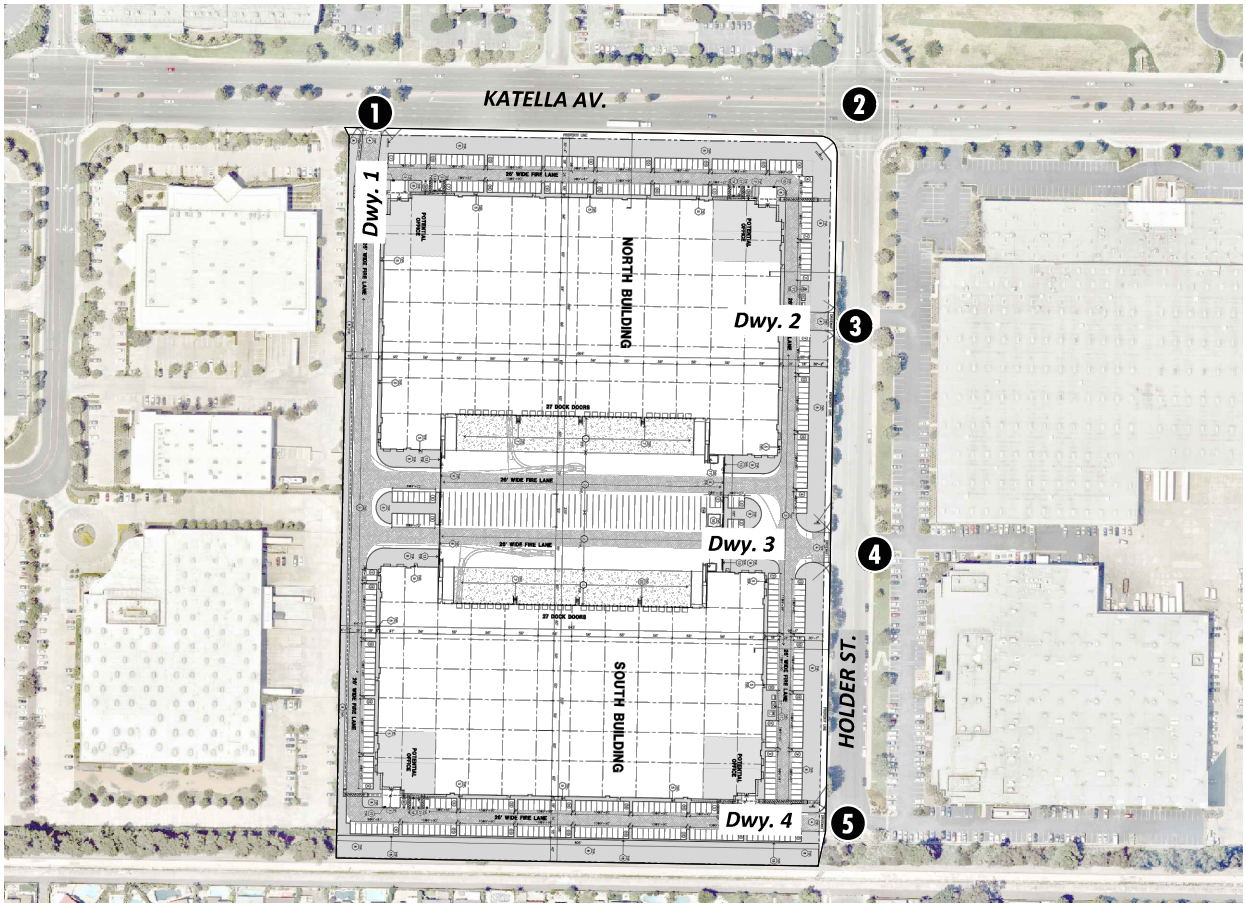
Valley View St. & Katella Av.	Knott Av. & Katella Av.
0(0) 0(0) 2(1) → 1(3) ← 2(8) ← 1(3); 0(0) → 7(3) → 0(0); 0(0) 0(0) 2(1)	2(1) 0(0) 0(0) → 0(0) ← 7(3) ← 0(0); 1(3) → 2(8) → 1(3); 2(1) 0(0) 0(0)

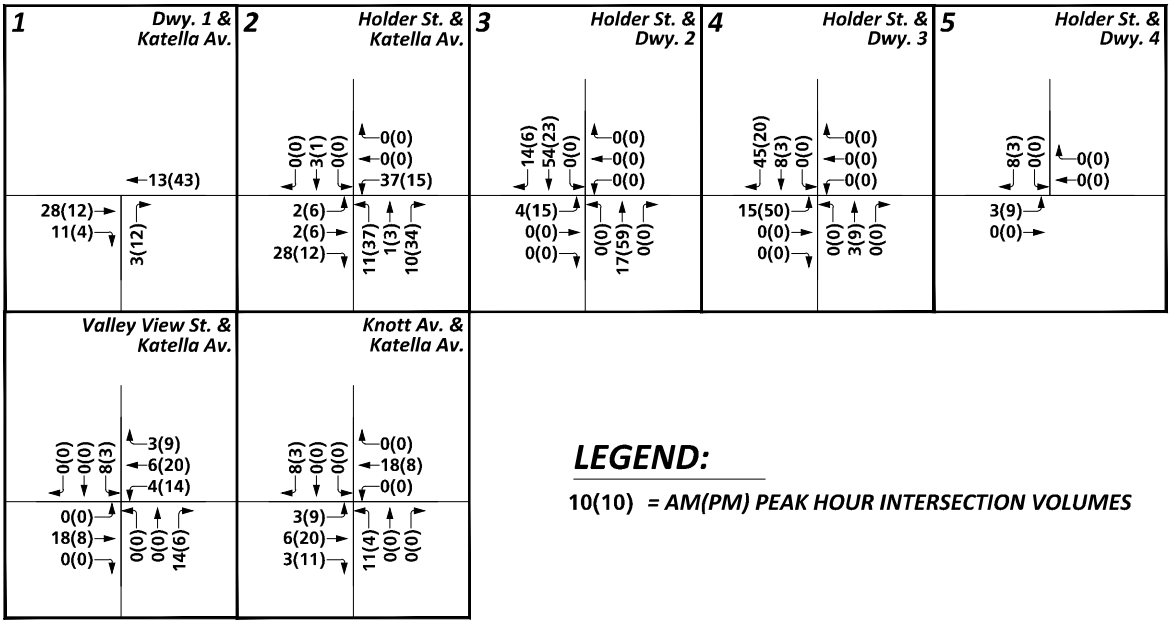
LEGEND:

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

N

EXHIBIT 4-5: TOTAL PROJECT ONLY TRAFFIC VOLUMES (IN PCE)



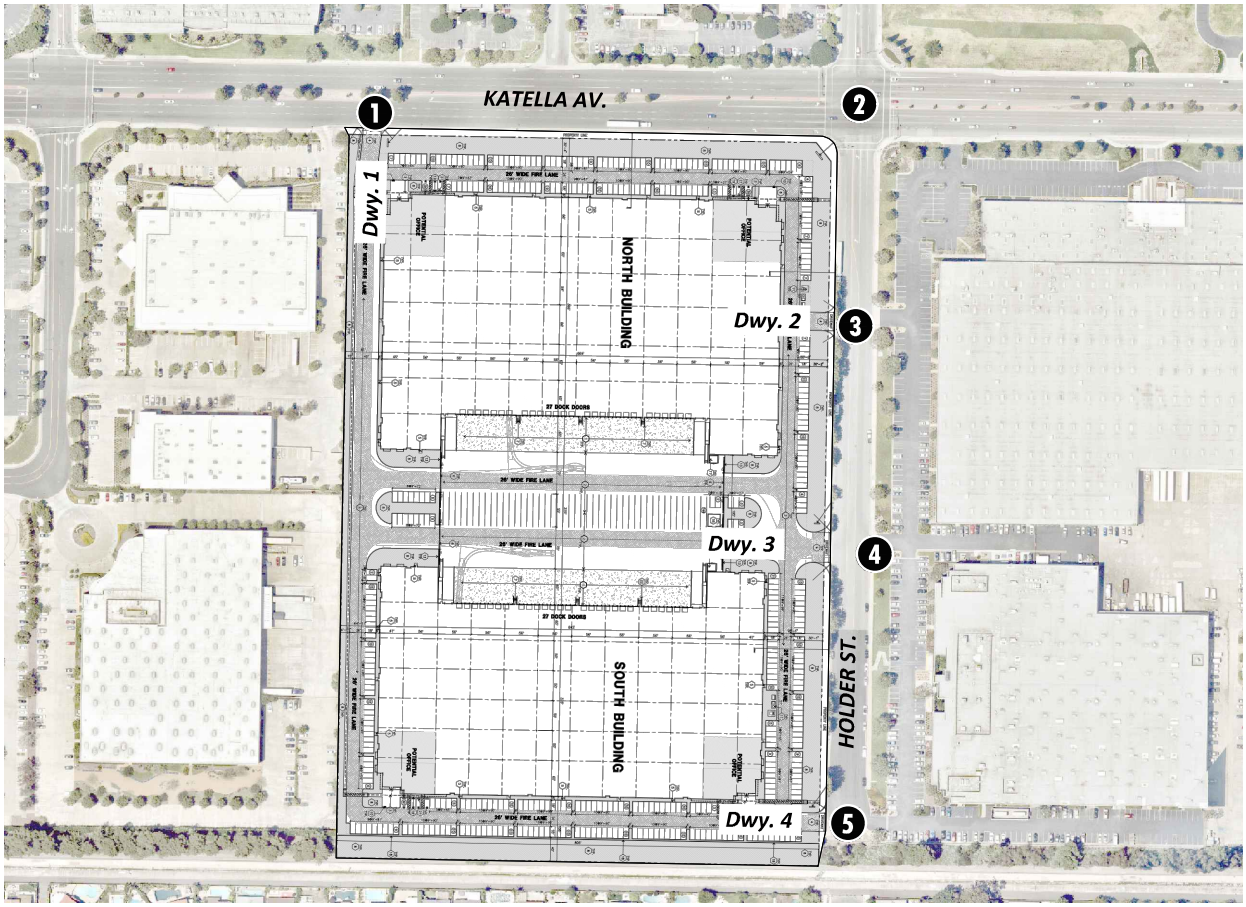


LEGEND:

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

N

EXHIBIT 4-6: EXISTING WAREHOUSE TRAFFIC VOLUMES (IN PCE)



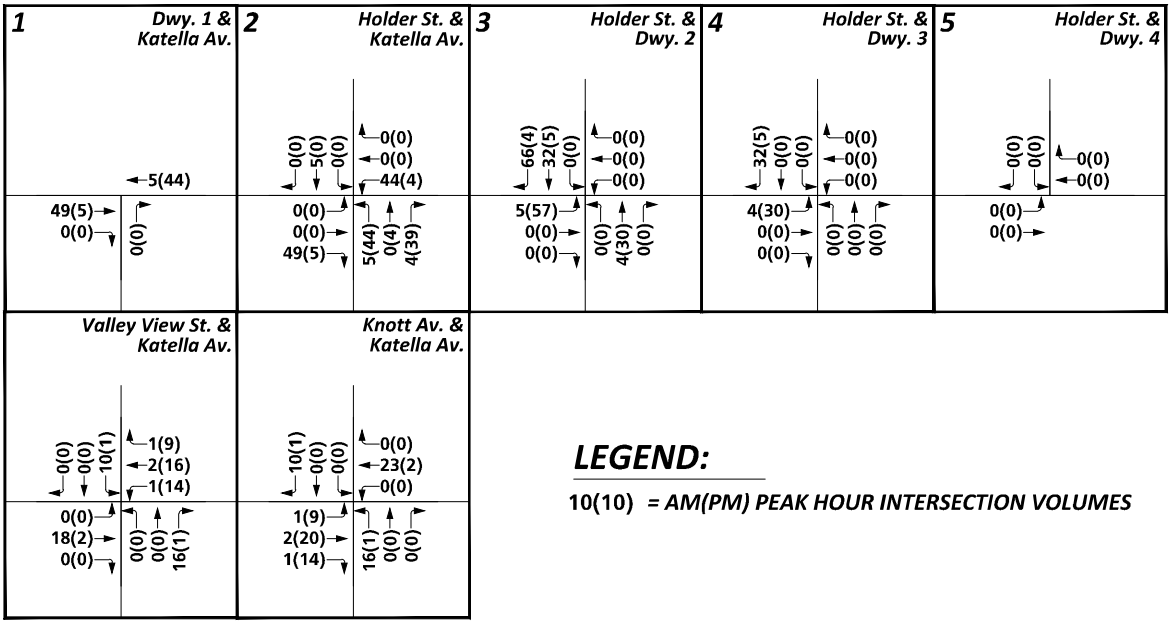
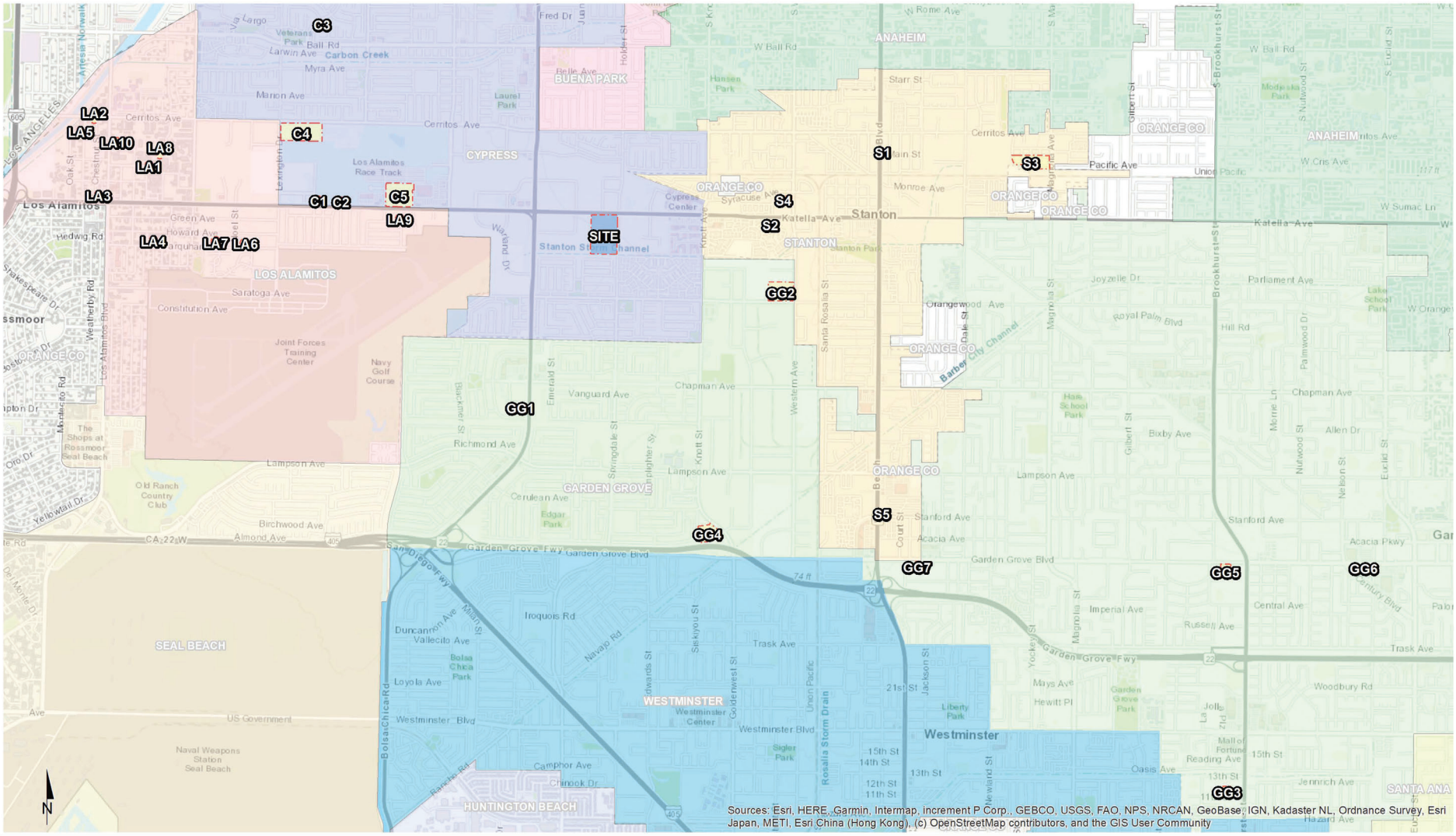


EXHIBIT 4-7: CUMULATIVE DEVELOPMENT PROJECTS LOCATION MAP



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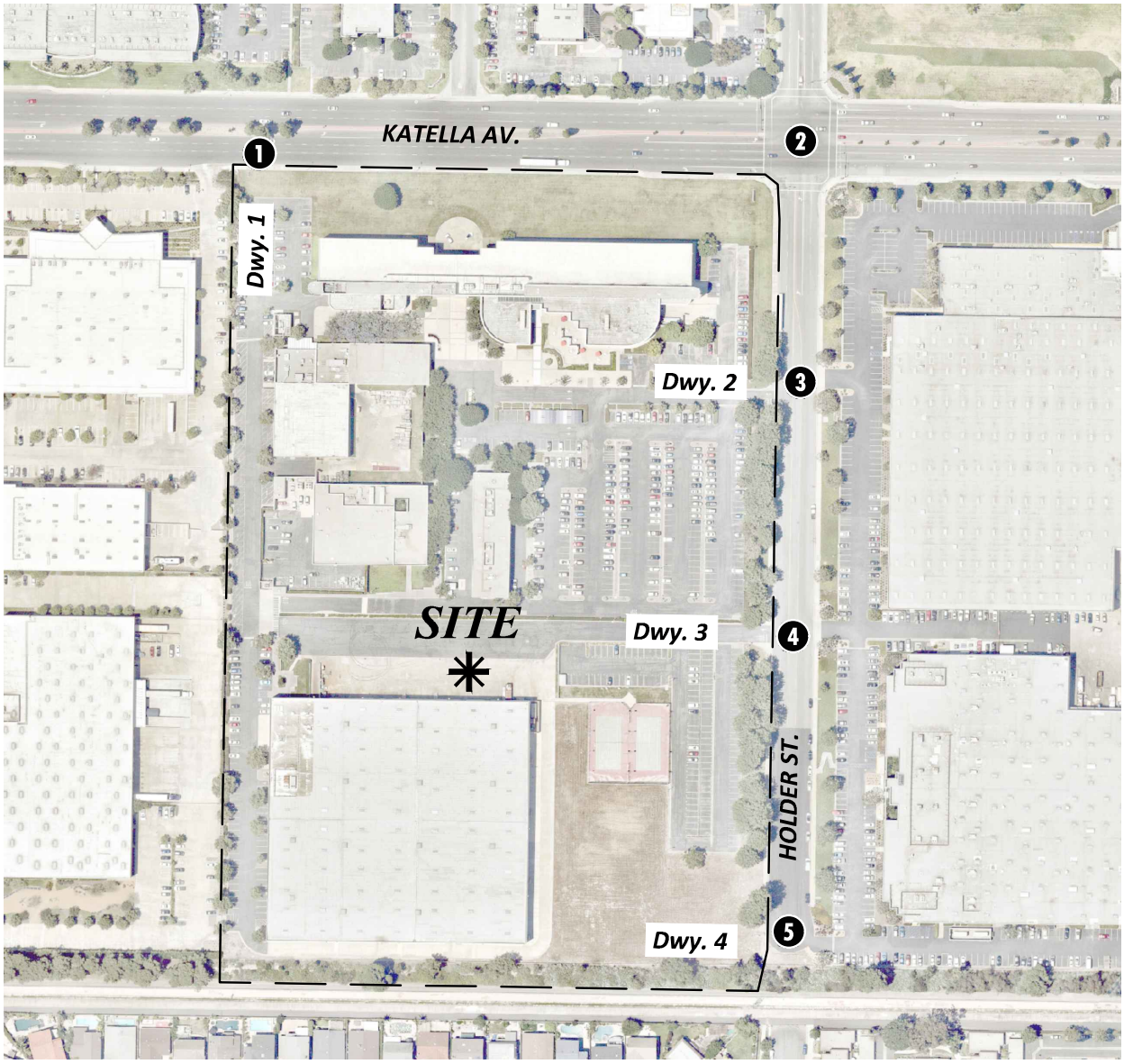
URBAN CROSSROADS

EXHIBIT 4-8: CUMULATIVE ONLY TRAFFIC VOLUMES (IN PCE)



1 Dwy. 1 & Katella Av.	2 Holder St. & Katella Av.	3 Holder St. & Dwy. 2	4 Holder St. & Dwy. 3	5 Holder St. & Dwy. 4
Future Intersection	0(0) 0(0) 1(0) → 0(1) / 34(50) / 0(0) 0(0) 37(43) 0(0) → 0(0) 0(0) 0(0)	0(0) 0(0) 0(0) → 0(0) / 0(0) / 0(0) 0(0) 0(0) 0(0) → 0(0) 0(0) 0(0)	0(0) 0(0) 0(0) → 0(0) / 0(0) / 0(0) 0(0) 0(0) 0(0) → 0(0) 0(0) 0(0)	0(0) → 0(0)

LEGEND:

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

N

Table 4-4

Cumulative Development Land Use Summary

#	Project/Location	Land Use	Quantity	Units[1]
City of Cypress				
C1	Barton Place Mixed Use (Ovation): NEC of Katella & Enterprise	Senior Housing	244	DU
		Shopping Center	35.600	TSF
		Restaurant	11.376	TSF
C2	SRM Cypress (Westmont): NEC Katella & Enterprise	Assisted Living	129	Beds
		Shopping Center	13.700	TSF
C3	Bonanni Development: 4620 Lincoln Av.	Multifamily Housing (Mid-Rise)	67	DU
C4	Sports Park: SEC Lexington & Cerritos	Soccer Fields	6	Fields
C5	Cypress City Center: NWC of Winner's Cir. & Katella	Multifamily Housing (Mid-Rise)	251	DU
		Shopping Center	20.800	TSF
		Hotel	120	Rooms
		Multiplex Movie Theater	10	Screens
City of Los Alamitos				
LA1	Residential Development: 10745 Cherry St.	Duplex - Multifamily (Low-Rise)	2	DU
LA2	Los Alamitos Luxury Apartments[2]: 3342 Cerritos Av.	Multifamily Housing (Mid-Rise)	107	DU
LA3	Residential Development: 10922 Walnut St.	Multifamily Housing (Low-Rise)	4	DU
LA4	Residential Development: 3751 Farquhar Av.	Multifamily Housing (Low-Rise)	4	DU
LA5	Cottonwood Church Site[3]: 3311 Sausalito St.	Multifamily Housing (Low-Rise)	50	DU
LA6	Residential Development: 4071 Farquhar Av.	Multifamily Housing (Low-Rise)	5	DU
LA7	Residential Development: 4061 Farquhar Av.	Multifamily Housing (Low-Rise)	5	DU
LA8	Residential Development: 10700 Regan St.	Duplex - Multifamily (Low-Rise)	2	DU
LA9	Commercial Development: 5250 Katella Av.	Coffee Shop	2.400	TSF
		Restaurant	2.800	TSF
LA10	Hotel Development: 10650 Los Alamitos Bl.	Hotel	107	Rooms
City of Garden Grove				
GG1	Mixed Use Development: 12101-12111 Valley View St.	Automatic Car Wash	4.241	TSF
		Fast-Food w/ Drive-Thru Restaurant	1.870	TSF
		Restaurant	2.700	TSF
		Movie Theater	2.846	TSF
GG2	LLA-015-2018: 7351 & 7421 Orangewood Av.	Food Manufacturing	36.763	TSF
GG3	Melia Homes (TT-18169-2019): 9861 11th St.	Multifamily Housing (Low-Rise)	31	DU
GG4	PUD 104-70: 12821 Knott St.	Warehouse	45.335	TSF
GG5	SP-048-2018MM1: 9860 Larson Av./10080 Garden Grove Bl.	Senior Affordable Housing	394	DU
		Shopping Center	12.938	TSF
GG6	SP-061-2019: 10862 Garden Grove Bl.	Medical Office	9.229	TSF
GG7	SP-062-2019: 8218 Garden Grove Bl.	Multifamily Housing (Mid-Rise)[4]	46	DU
City of Stanton				
S1	Commercial Development: 10580-10600 Beach Bl.	Shopping Center	4.100	TSF
		Warehouse	0.850	TSF
S2	Residential Development: 7320 Katella Av.	Multifamily Housing (Low-Rise)	6	DU
S3	Tina-Pacific: NWC Magnolia & Pacific	Affordable Multifamily Housing (Mid-Rise)	161	DU
S4	Lighthouse Church: 10871 Western Av.	Single Family Detached Residential	40	DU
S5	The Mint: 12736 Beach Bl.	Multifamily Housing (Mid-Rise)	300	DU
		Shopping Center	6.250	TSF

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

[2] Source: Los Alamitos Luxury Apartments Initial Study (2018).

[3] Source: Cottonwood Church Site Residential Development Traffic Impact Study (2017).

[4] 21.7 percent of the development will include affordable units.

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5 E+P TRAFFIC CONDITIONS

This section discusses the traffic forecasts for E+P conditions and the resulting intersection operations 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 Project driveways and those facilities assumed to be constructed by the Project to provide site access, which are also assumed to be in place for E+P conditions. In other words, no other off-site improvements are assumed beyond those that currently exist with the exception of the intersections and roadways that would be improved by the Project for access.

5.2 E+P TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus Project traffic (with existing use credit), where Existing traffic includes 50 percent of the existing on-site uses and Project traffic consists of the net change between the proposed use and existing uses. See Section 3.6 *Existing Traffic Counts* for additional discussion of the existing on-site uses. Existing traffic volumes from the intersection of Holder Street and Katella Avenue have been used to calculate the eastbound and westbound through volumes at Driveway 1 on Katella Avenue. Project traffic was then added to Driveway 1. Exhibit 5-1 shows the AM and PM peak hour traffic volumes which can be expected for E+P traffic conditions.

5.3 INTERSECTION OPERATIONS ANALYSIS

E+P 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 the study area intersections would continue to operate at an acceptable LOS during the peak hours with the addition of Project traffic, consistent with Existing traffic conditions. Consistent with Table 5-1, a summary of the peak hour intersection LOS for E+P conditions are shown on Exhibit 5-2. The intersection operations analysis worksheets for E+P traffic conditions are included in Appendix 5.1 of this TIA.

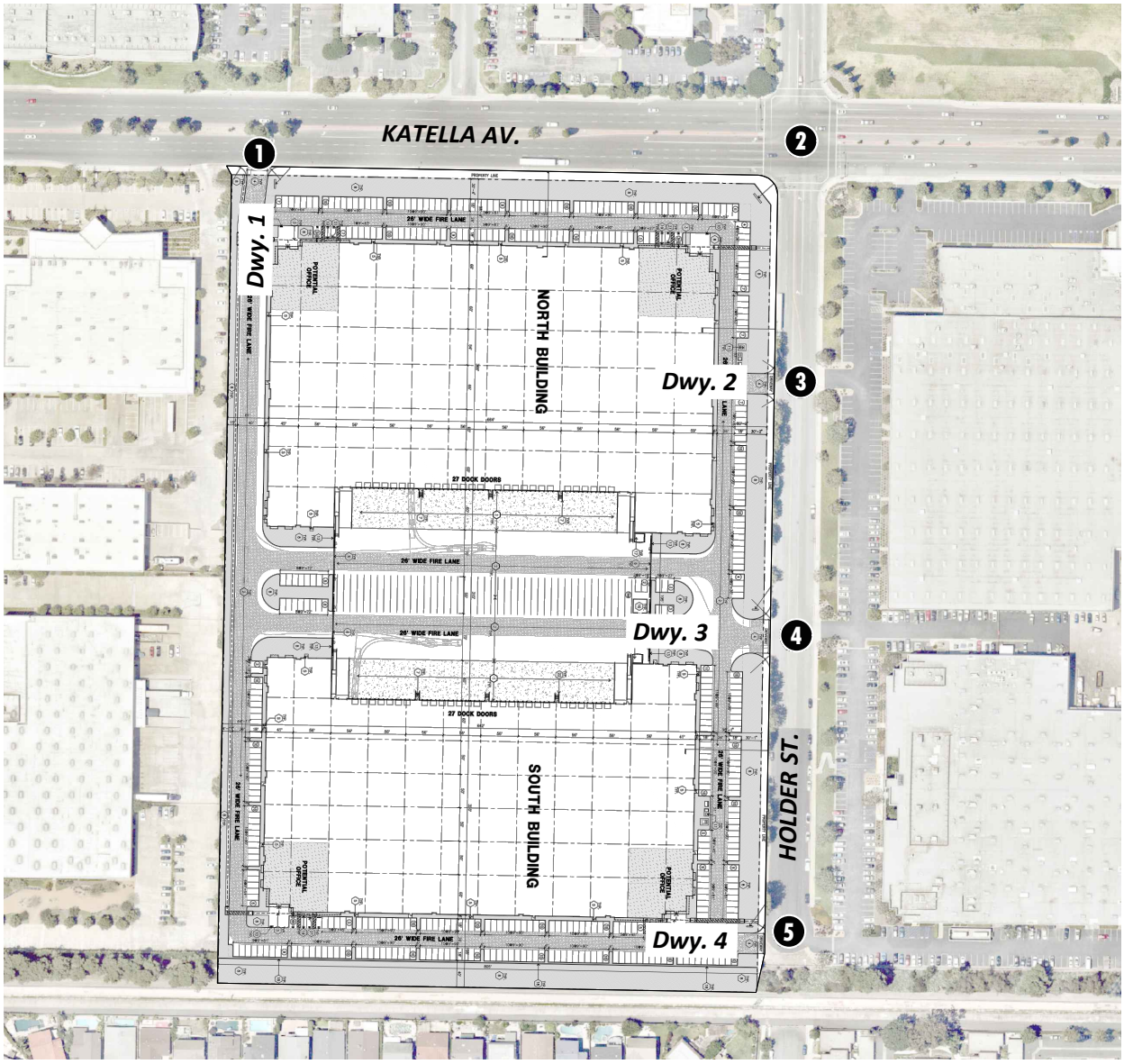
5.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

For E+P conditions, there are no study area intersections anticipated to meet peak hour volume-based traffic signal warrants (see Appendix 5.2).

5.5 E+P RECOMMENDATIONS

Based on the applicable jurisdiction's threshold criteria as discussed in Section 2.6 *Threshold Criteria*, there are no deficiencies anticipated at the study area intersections for E+P traffic conditions. As such, no improvements have been recommended.

EXHIBIT 5-1: E+P TRAFFIC VOLUMES (IN PCE)



1 Dwy. 1 & Katella Av.	2 Holder St. & Katella Av.	3 Holder St. & Dwy. 2	4 Holder St. & Dwy. 3	5 Holder St. & Dwy. 4
1808(1273)	183(114) 40(3) 200(211) / 146(209) 1607(1051) 97(25)	14(6) 247(39) 9(2) / 0(29) 0(0) 0(0)	45(20) 76(6) 125(13) / 12(90) 0(0) 0(0)	8(3) 68(3) / 4(53) 0(0)
1252(1734) 11(4) / 3(12)	37(141) 1087(1587) 133(18) / 16(103) 3(44) 18(98)	4(15) 0(0) 0(0) / 0(0) 32(202) 0(0)	15(50) 0(0) 0(0) / 0(0) 7(62) 0(0)	3(9) 0(0)

LEGEND:

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

EXHIBIT 5-2: E+P SUMMARY OF LOS

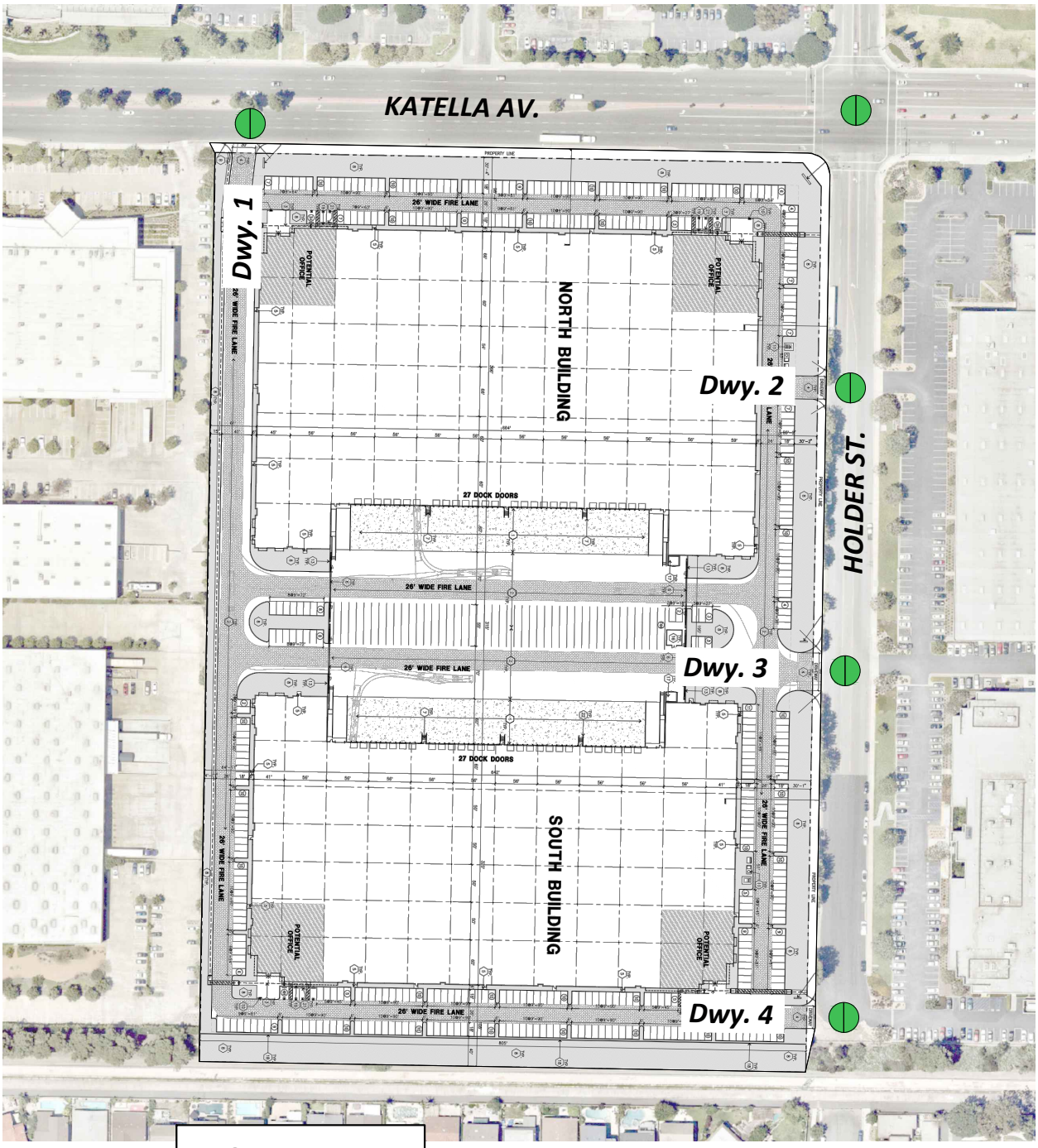


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Table 5-1

Intersection Analysis for E+P Conditions

#	Intersection	Traffic Control[3]	Existing (2020)								E+P							
			HCM Delay[1] (secs.)		Level of Service		ICU[2] (v/c)		Level of Service		HCM Delay[1] (secs.)		Level of Service		ICU[2] (v/c)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	Driveway 1 & Katella Av.	**CSS**	Future Intersection				Not Applicable[5]				15.8	21.7	C	C	Not Applicable[5]			
2	Holder St. & Katella Av.	TS	Not Applicable[4]				0.589	0.634	A	B	Not Applicable[4]				0.602	0.671	B	B
3	Holder St. & Driveway 2	CSS	12.1	11.9	B	B	Not Applicable[5]				12.2	11.9	B	B	Not Applicable[5]			
4	Holder St. & Driveway 3	CSS	13.3	10.9	B	B	Not Applicable[5]				14.0	11.6	B	B	Not Applicable[5]			
5	Holder St. & Driveway 4	CSS	0.0	0.0	A	A	Not Applicable[5]				9.2	8.6	A	A	Not Applicable[5]			

[1] Per the Highway Capacity Manual (6th Edition), 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] Intersection capacity utilization (ICU) methodology results are presented as a volume-to-capacity ratio.

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

[4] HCM not reported for signalized intersections.

[5] ICU not reported for unsignalized intersections.

6 OPENING YEAR CUMULATIVE (2021) TRAFFIC CONDITIONS

This section discusses the methods used to develop Opening Year Cumulative Without and With Project traffic forecasts, and the resulting intersection operations and traffic signal warrant analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the Project driveways and those facilities assumed to be constructed by the Project to provide site access, which would be in place for Opening Year Cumulative traffic conditions.

6.2 OPENING YEAR CUMULATIVE WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

Opening Year Cumulative Without Project traffic forecasts include traffic associated with other known cumulative development projects in conjunction with an ambient growth from Existing (2020) conditions of 2.0% (annual growth rate at 2% per year, over one year) to account for background traffic growth that is not captured by the traffic associated with the cumulative development projects. The weekday AM and PM peak hour volumes which can be expected for Opening Year Cumulative (2021) Without Project traffic conditions are shown on Exhibit 6-1.

6.3 OPENING YEAR CUMULATIVE WITH PROJECT TRAFFIC VOLUME FORECASTS

Opening Year Cumulative With Project traffic forecasts include the addition of Project traffic (with existing use credit) to the Opening Year Cumulative Without Project forecasts described above. The weekday AM and PM peak hour volumes which can be expected for Opening Year Cumulative (2021) With Project traffic conditions are shown on Exhibit 6-2.

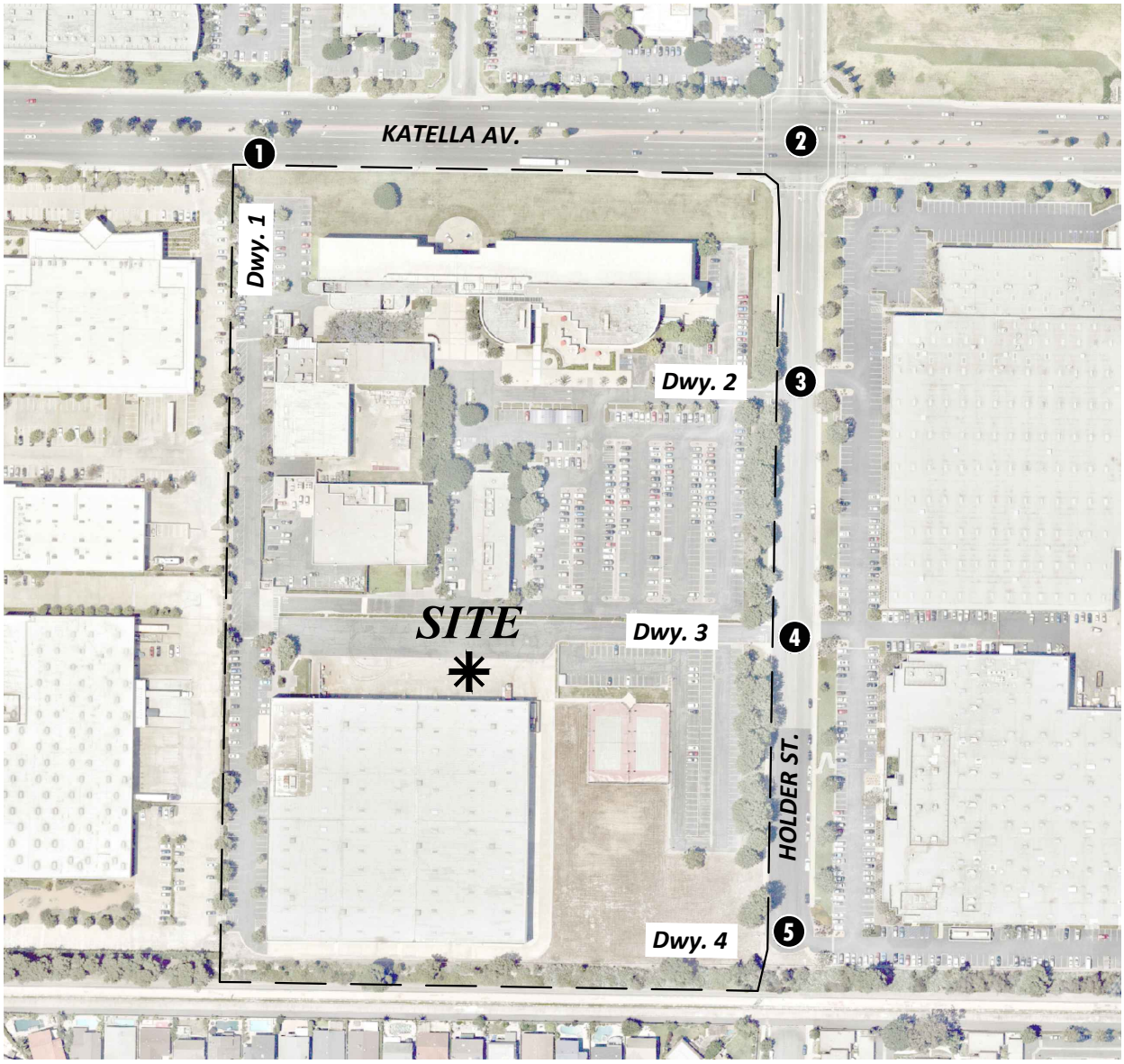
6.4 INTERSECTION OPERATIONS ANALYSIS

LOS calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative Without Project conditions, with roadway and intersection geometrics consistent with Section 6.1 *Roadway Improvements*. As shown in Table 6-1, the study area intersections are anticipated to continue to operate at an acceptable LOS during the peak hours for both Opening Year Cumulative Without and With Project traffic conditions. A summary of the peak hour intersection LOS for Opening Year Cumulative Without and With Project conditions are shown on Exhibits 6-3 and 6-4, respectively. The intersection operations analysis worksheets for Opening Year Cumulative Without and With Project traffic conditions are included in Appendix 6.1 and Appendix 6.2 of this TIA, respectively.

6.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

There are no study area intersections that are anticipated to meet peak hour volume-based traffic signal warrants for Opening Year Cumulative (2021) Without and With Project traffic conditions (see Appendix 6.3 and Appendix 6.4).

EXHIBIT 6-1: OPENING YEAR CUMULATIVE (2021) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)



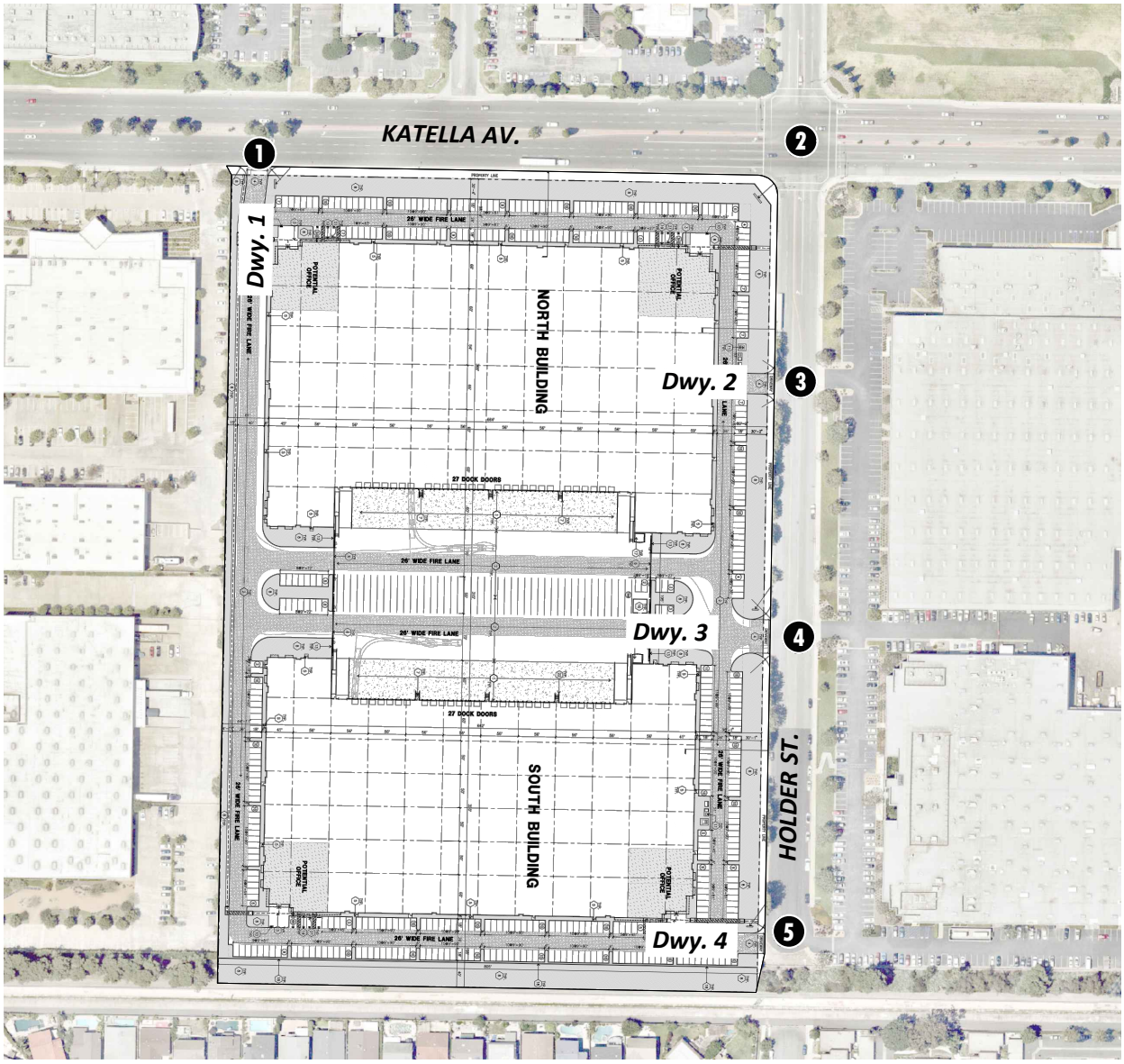
1 Dwy. 1 & Katella Av.	2 Holder St. & Katella Av.	3 Holder St. & Dwy. 2	4 Holder St. & Dwy. 3	5 Holder St. & Dwy. 4
Future Intersection	187(116) 43(2) 205(216) → 149(214) ← 1673(1122) ← 106(14) 35(138) → 1144(1656) → 157(11) → 10(112) 2(46) 12(105) ↑	67(4) 229(21) 9(2) → 0(29) ← 0(0) ← 0(0) 5(58) → 0(0) → 0(0) → 0(0) 20(176) 0(0) ↑	33(5) 69(3) 127(13) → 12(91) ← 0(0) ← 0(0) 4(31) → 0(0) → 0(0) → 0(0) 4(54) 0(0) ↑	69(3) → 4(54)

LEGEND:

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

N

EXHIBIT 6-2: OPENING YEAR CUMULATIVE (2021) WITH PROJECT TRAFFIC VOLUMES (IN PCE)



1 Dwy. 1 & Katella Av.	2 Holder St. & Katella Av.	3 Holder St. & Dwy. 2	4 Holder St. & Dwy. 3	5 Holder St. & Dwy. 4
1877(1348)	187(116) 41(3) 205(216) / 149(214) 1673(1122) 98(25)	14(6) 251(39) 9(2) / 0(29) 0(0) 0(0)	45(20) 77(6) 127(13) / 12(91) 0(0) 0(0)	8(3) 69(3) / 4(54) 0(0)
1314(1811) 11(4) / 3(12)	37(144) 1146(1662) 135(18) / 16(105) 3(45) 18(99)	4(15) 0(0) 0(0) / 0(0) 33(205) 0(0)	15(50) 0(0) 0(0) / 0(0) 7(63) 0(0)	3(9) 0(0)

LEGEND:

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

N

EXHIBIT 6-3: OPENING YEAR CUMULATIVE (2021) WITHOUT PROJECT SUMMARY OF LOS

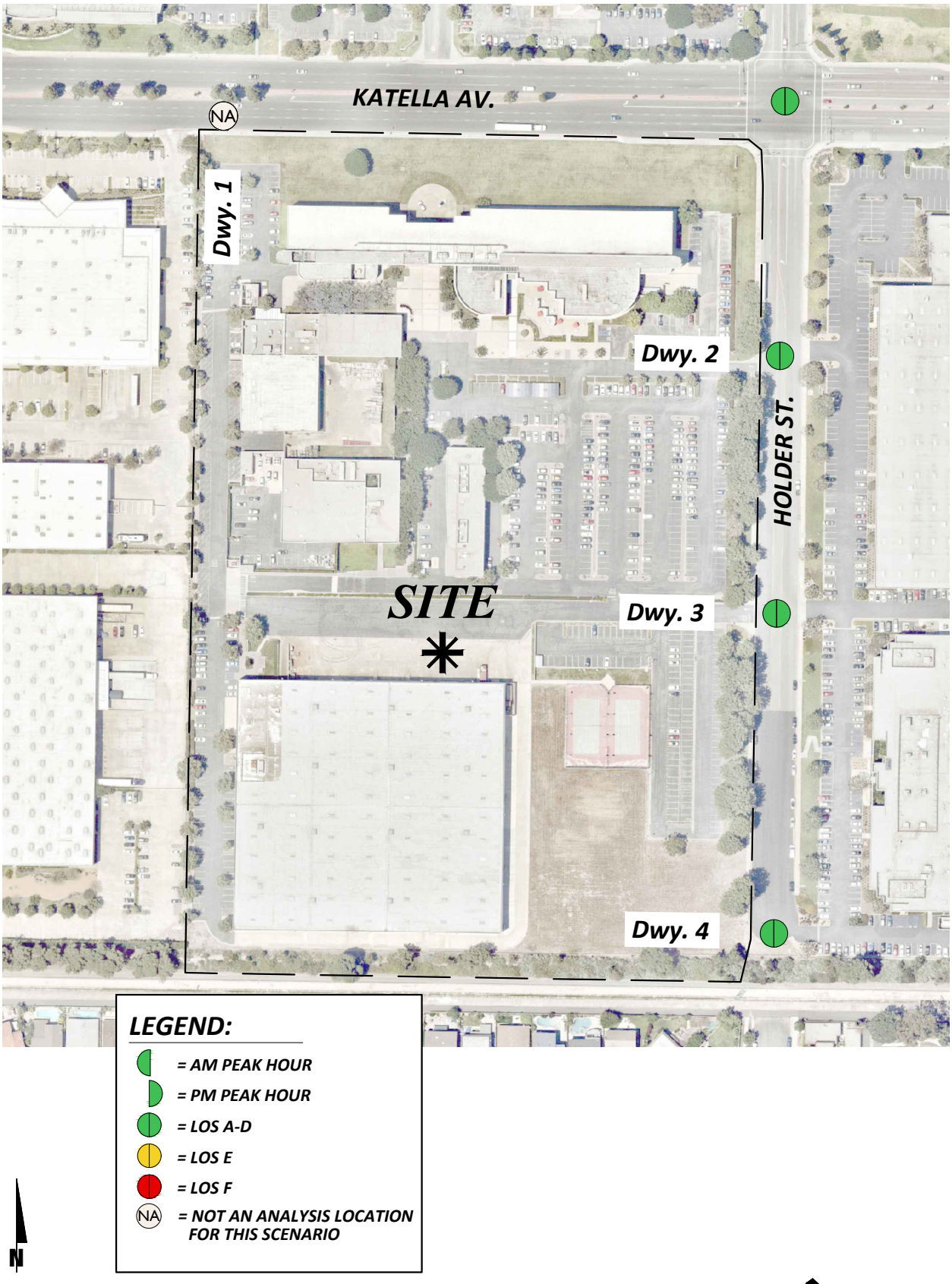


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EXHIBIT 6-4: OPENING YEAR CUMULATIVE (2021) WITH PROJECT SUMMARY OF LOS

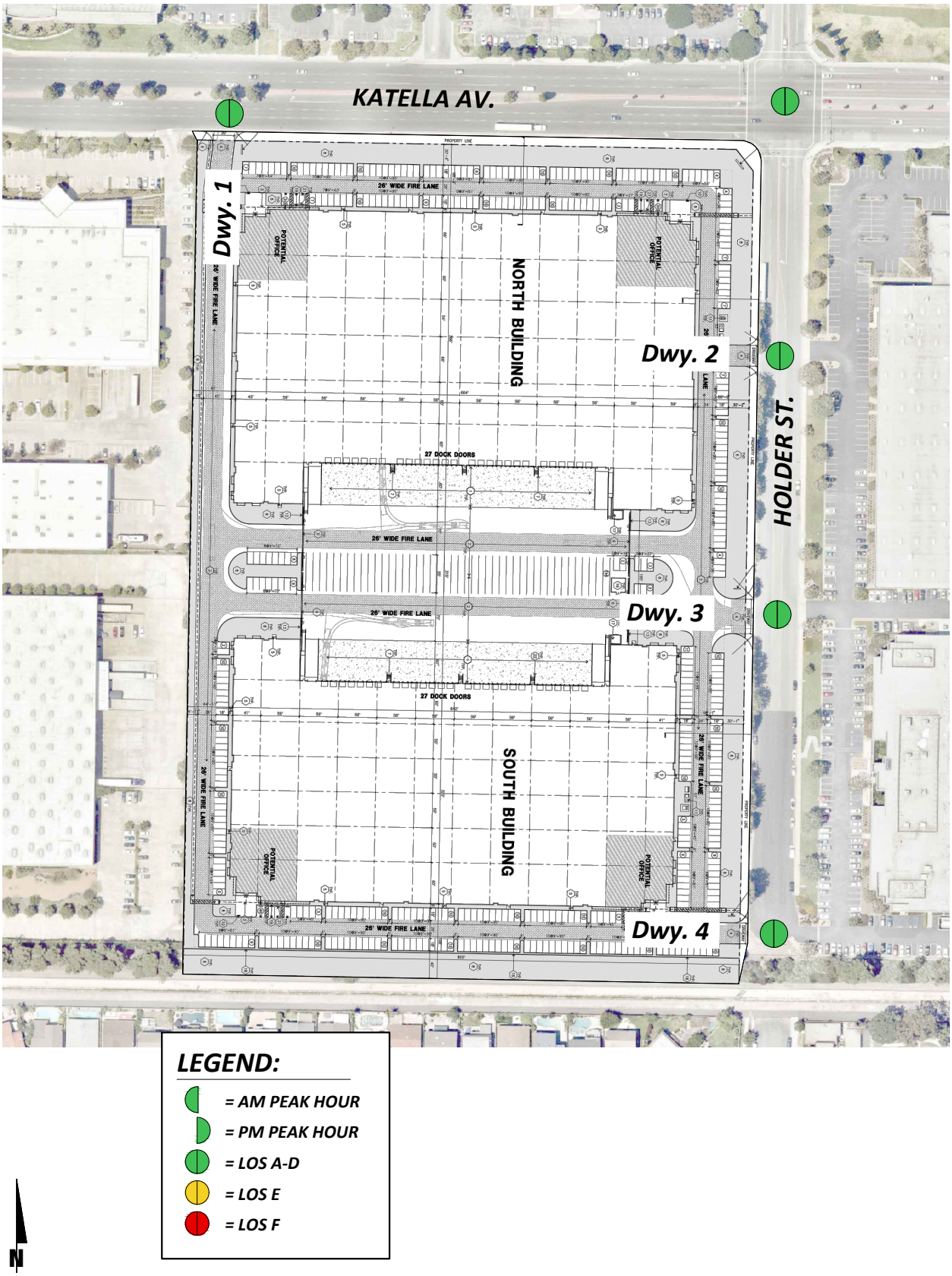

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Table 6-1

Intersection Analysis for Opening Year Cumulative (2021) Conditions

#	Intersection	Traffic Control[3]	2021 Without Project								2021 With Project							
			HCM Delay[1] (secs.)		Level of Service		ICU[2] (v/c)		Level of Service		HCM Delay[1] (secs.)		Level of Service		ICU[2] (v/c)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	Driveway 1 & Katella Av.	**CSS**	Future Intersection				Not Applicable[5]				16.3	22.8	C	C	Not Applicable[5]			
2	Holder St. & Katella Av.	TS	Not Applicable[4]				0.606	0.654	B	B	Not Applicable[4]				0.619	0.691	B	B
3	Holder St. & Driveway 2	CSS	12.2	12.0	B	B	Not Applicable[5]				12.3	12.0	B	B	Not Applicable[5]			
4	Holder St. & Driveway 3	CSS	13.5	11.0	B	B	Not Applicable[5]				14.2	11.6	B	B	Not Applicable[5]			
5	Holder St. & Driveway 4	CSS	0.0	0.0	A	A	Not Applicable[5]				9.2	8.6	A	A	Not Applicable[5]			

[1] Per the Highway Capacity Manual (6th Edition), 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] Intersection capacity utilization (ICU) methodology results are presented as a volume-to-capacity ratio.

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

[4] HCM not reported for signalized intersections.

[5] ICU not reported for unsignalized intersections.

6.6 OPENING YEAR CUMULATIVE (2021) RECOMMENDATIONS

Based on the applicable jurisdiction's significance criteria as discussed in Section 2.6 *Threshold Criteria*, there are no deficiencies anticipated at the study area intersections for Opening Year Cumulative (2021) traffic conditions. As such, no improvements have been recommended.

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7 REFERENCES

[1] Orange County Transportation Authority (OCTA), "2019 Congestion Management Program (CMP)," November 2019.

[2] Institute of Transportation Engineers, Trip Generation Manual, 10th Edition ed., 2017.

[3] Urban Crossroads, Inc., "Katella Avenue High-Cube Warehouse Vehicles Miles Travelled Assessment," Cypress, June 2020 (Revised).

[4] American Association of State Highway Transportation Officials, A Policy on Geometric Design of Highways and Streets (Green Book), 7th Edition ed., American Association of State Highway and Transportation Officials, 2018.

[5] Husch, David and Albeck, John, Intersection Capacity Utilization: Evaluation Procedures for Intersections and Interchanges, Albany, California: Trafficware, 2003 Edition.

[6] Transportation Research Board, Highway Capacity Manual (HCM), 6th Edition ed., Washington, D.C.: National Academy of Sciences, 2016.

[7] California Department of Transportation, "California Manual on Uniform Traffic Control Devices (CAMUTCD)," in *California Manual on Uniform Traffic Control Devices (CAMUTCD)*, 2014, Updated March 27, 2020 (Revision 5).

[8] RBF Consulting for City of Cypress, "City of Cypress General Plan Update," Cypress, 2000.

[9] Institute of Transportation Engineers, "Trip Generation Manual Supplement," February 2020.

[10] South Coast Air Quality Management District, "Warehouse Truck Trip Study Data Results and Usage," 2014.

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APPENDIX 1.1:

APPROVED SCOPING AGREEMENT

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URBAN CROSSROADS

260 E. Baker St. | Suite 200 | Costa Mesa, CA 92626 | (949) 660-1994
urbanxroads.com

December 19,2019 (Revised February 12, 2020)

Mr. John P. Ramirez
City of Cypress
5275 Orange Avenue
Cypress, CA 90630

SUBJECT: SCOPING ASSUMPTIONS FOR THE KATELLA AVENUE HIGH CUBE WAREHOUSE TRAFFIC IMPACT ANALYSIS

Dear Mr. John P. Ramirez:

The firm of Urban Crossroads, Inc. is pleased to submit this letter documenting the suggested scope of study for the Katella Avenue High Cube Warehouse ("Project"), which is located at 6400 Katella Avenue, in the City of Cypress. The proposed Project will consist of the demolition of existing buildings and construction of two High-Cube Warehouse buildings totaling 485,772 square feet.

Our goal is to obtain comments from City of Cypress staff, to ensure that the traffic study fully addresses the potential impacts of the proposed Project. The remainder of this letter describes the draft proposed analysis methodology, project trip generation, trip distribution, and project traffic assignment/project trips on the surrounding roadway network, which have been used to establish the draft proposed project study area and analysis locations.

Exhibit 1 depicts the location of the proposed Project in relation to the existing roadway network. For purposes of the traffic analysis it is anticipated that the Project will be evaluated in a single phase with a projected Opening Year of 2021. As indicated on Exhibit 1, access to the Project site is proposed to be provided to Katella Avenue via Driveway 1 and 2, and Holder Street via Driveways 3, 4, and 5. All driveways are proposed to provide full access, except for Driveway 1 which is proposed to have right-in/right-out only access.

ANALYSIS SCENARIOS

Consistent with traffic study guidelines adopted by multiple local jurisdictions throughout the County of Orange, peak hour operations at each of the study area intersections and site access driveways will be assessed for the following analysis scenarios:

1. Existing (2020) Conditions (Baseline)
2. Existing plus Project (E+P) Conditions
3. Opening Year Cumulative (2021) Without Project Conditions
4. Opening Year Cumulative (2021) With Project Conditions

Analysis Scenario #1 establishes the baseline for CEQA purposes.

Consistent with recent CEQA case law, Analysis Scenario #2 identifies significant traffic impacts associated with the proposed Project.

Analysis Scenarios #3 and #4 would identify cumulative impacts for Opening Year Cumulative (near-term) traffic conditions. It is assumed that intersection improvements required to address Opening Year Cumulative traffic impacts will be addressed through either an existing fee program, or through a fair-share contribution. The Opening Year Cumulative (2021) traffic volume forecasts will be derived from Existing (2020) baseline conditions plus ambient growth. Individual cumulative projects will be added, as necessary.

Information for Existing (2020) conditions will be disclosed to represent the baseline traffic conditions as they existed at the time the report is prepared. Weekday AM peak hour (7 AM to 9 AM) and PM peak hour (4 PM to 6 PM) turning movement counts will be collected at the study area intersections shown on Exhibit 2. The traffic counts include the following vehicle classifications: Passenger Cars, 2-Axle Trucks, 3-Axle Trucks, and 4 or More Axle Trucks. Traffic counts will be scheduled while nearby schools are in session.

TRIP GENERATION

Trip generation represents the amount of traffic that is attracted and produced by a development, and is based upon the specific land uses planned for a given project. Actual vehicle trip generation rates for the Project and the actual vehicle trip generation summary illustrating daily, and peak hour trip generation estimates for the proposed Project are shown on Table 1.

The trip generation rates used for this analysis are based upon information collected by the Institute of Transportation Engineers (ITE) as provided in their Trip Generation manual, 10th Edition, 2017. ITE land use code 150 (Warehousing) have been used to derive site specific trip generation estimates for the Project. As noted on Table 1, refinements to the raw trip generation estimates have been made to provide a more detailed breakdown of trips by vehicle mix.

The trip generation summary illustrating daily and peak hour trip generation estimates for the proposed Project in actual vehicles are shown on Table 1. As shown on Table 1, the proposed Project is anticipated to generate a net total of 850 trip-ends per day with 86 AM peak hour trips and 96 PM peak hour trips. Since there are existing buildings (Mitsubishi Motors Corporation) that were previously occupied, credit has been taken for the previous uses. The existing land use was observed to not be fully occupied. For the purposes of this analysis, the trip generation will use a 50% credit. As shown on Table 1, the existing land use is anticipated to generate a net total of 1,128 trip-ends per day with 105 AM peak hour trips and 91 PM peak hour trips. As a result, the net reduction in trips is anticipated to be a net total of 278 fewer actual vehicle trip-ends per day with 19 fewer AM peak hour trips and 5 more PM peak hour trips.

For the purposes of this analysis, it is proposed that the actual vehicles be utilized in order to most accurately reflect the effects of heavy trucks in the analysis. Trucks will be accounted for in the analysis as a percentage of total traffic, which will be input into the analysis software.

TRIP DISTRIBUTION

The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site. The trip distribution pattern of passenger cars is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. Given these differences, separate trip distributions were generated for both passenger cars and truck trips.

Exhibit 3 illustrates the passenger car trip distribution patterns for the proposed Project. Exhibit 4 illustrates the truck trip distribution patterns.

INTERSECTION ANALYSIS METHODOLOGY

For the purposes of this analysis, signalized intersection operations analysis will be based on the Intersection Capacity Utilization (ICU) methodology. Intersection levels of service (LOS) operations are based on an intersection's average control delay. The City of Cypress requires signalized intersections to be evaluated through ICU analysis which compares the peak hour traffic volumes to intersection capacity. Lane capacities of 1,600 vehicles per hour of green time have been assumed for the ICU calculations. 0.10 of volume-to-capacity (v/c) assumed representing 10 seconds of delay for the yellow and all-red signal indication and inherent vehicle delay between cycles with an assumed signal cycle of 100 seconds.

Unsignalized intersections will be evaluated using the methodology described in the HCM 6th Edition. At two-way or side-street stop-controlled intersections, LOS for the intersection will be the worst LOS of all the individual movements. 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.

To represent the impact large trucks, buses and recreational vehicles have on traffic flow, truck traffic will be accounted for in the analysis as a percentage of total traffic at the study area intersections. In other words, the traffic volumes utilized for intersections and roadway segment analyses will utilize the actual vehicle traffic flow and trucks will be reflected in the analysis as a percentage of the total traffic flow.

TRAFFIC SIGNAL WARRANTS

Traffic signal warrant analysis will be conducted for unsignalized intersections. Peak Hour Volume based Warrant 3 based on 2014 California Manual on Uniform Traffic Control Devices (MUTCD) will be utilized to determine whether a signal would be warranted.

LEVEL OF SERVICE (LOS) CRITERIA

The City of Cypress has adopted LOS "D" or better as the desired citywide operating standard for most City streets. However, given the influence of regional traffic on Valley View Street, Lincoln Avenue, and Katella Avenue, which are beyond the control of the City of Cypress, LOS "E" or better has been adopted as the minimum operating Level of Service for street segments and intersections on these arterials. In an effort to be conservative, LOS "D" will be assumed to be the minimum operating LOS.

CEQA COMPLIANCE AND DOCUMENTATION – INTERSECTIONS

For the study area intersections that lie within the City of Cypress, to determine whether the addition of project traffic (as defined through the comparison of Existing to E+P traffic conditions) at a study intersection would result in a direct project-specific traffic impact, the following conditions must occur:

- Peak hour project traffic plus existing traffic causes an intersection to operate at LOS E or F

SPECIAL ISSUES

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

- Truck turning templates will be used to address how Project truck traffic (e.g., large trucks such as a WB-67) would enter and exit the Project site.
- Provide a queuing analysis to determine the 95th percentile queues and the minimum requirement of storage lengths for right and left-turn movements at the Project driveways and site adjacent signalized intersections based on forecasted traffic volumes of Opening Year Cumulative (2021) With Project traffic conditions.

OPEN ITEMS - CUMULATIVE DEVELOPMENT PROJECTS

We request that City staff provide a list of cumulative development projects within the City's jurisdiction for inclusion in the traffic study, and associated mitigation measures where appropriate for recently approved, but not yet constructed development.

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 Katella Avenue High Cube Warehouse 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) 336-5992.

Respectfully submitted,

URBAN CROSSROADS, INC.

Pranesh Tarikere, PE
Senior Engineer

Table 1

Project Trip Generation Summary (Actual Vehicles)

Project Trip Generation Rates									
	ITE LU		AM Peak Hour			PM Peak Hour			
Land Use[1]	Code	Units[2]	In	Out	Total	In	Out	Total	Daily
Warehousing[3]	150	TSF	0.131	0.039	0.170	0.051	0.139	0.190	1.740
Passenger Cars (80.0%)			0.105	0.031	0.136	0.041	0.111	0.152	1.392
2-Axle Trucks (3.34%)			0.004	0.001	0.006	0.002	0.005	0.006	0.058
3-Axle Trucks (4.14%)			0.005	0.002	0.007	0.002	0.006	0.008	0.072
4-Axle+ Trucks (12.52%)			0.016	0.005	0.021	0.006	0.017	0.024	0.218
Corporate Headquarters	714	TSF	0.684	0.036	0.720	0.018	0.582	0.600	7.950

Project Trip Generation									
			AM Peak Hour			PM Peak Hour			
Project	Quantity	Units[2]	In	Out	Total	In	Out	Total	Daily
Proposed Project									
Warehouse	485.772	TSF							
Passenger Cars:			51	16	67	20	54	74	678
Truck Trips:									
2-axle:			3	1	4	1	3	4	30
3-axle:			3	1	4	2	3	5	36
4+-axle:			8	3	11	4	9	13	106
- Net Truck Trips (Actual Vehicles)			*14*	*5*	*19*	*7*	*15*	*22*	*172*
Net Project Trips (Actual Vehicles)[4]			***65***	***21***	***86***	***27***	***69***	***96***	***850***
Existing Use									
Warehouse	150.000	TSF							
Passenger Cars:			16	5	21	6	17	23	210
Truck Trips:									
2-axle:			1	1	2	1	1	2	10
3-axle:			1	1	2	1	1	2	12
4+-axle:			3	1	4	1	3	4	34
- Net Truck Trips (Actual Vehicles)			*5*	*3*	*8*	*3*	*5*	*8*	*56*
Corporate Headquarters	250.000	TSF	171	9	180	5	146	151	1,988
Net Existing Trips (Actual Vehicles)[4]			***192***	***17***	***209***	***14***	***168***	***182***	***2,254***
50% Net Existing Trips (Actual Vehicles)			***96***	***9***	***105***	***7***	***84***	***91***	***1,127***
Net Reduction in Trips			***-31***	***12***	***-19***	***20***	***-15***	***5***	***-277***

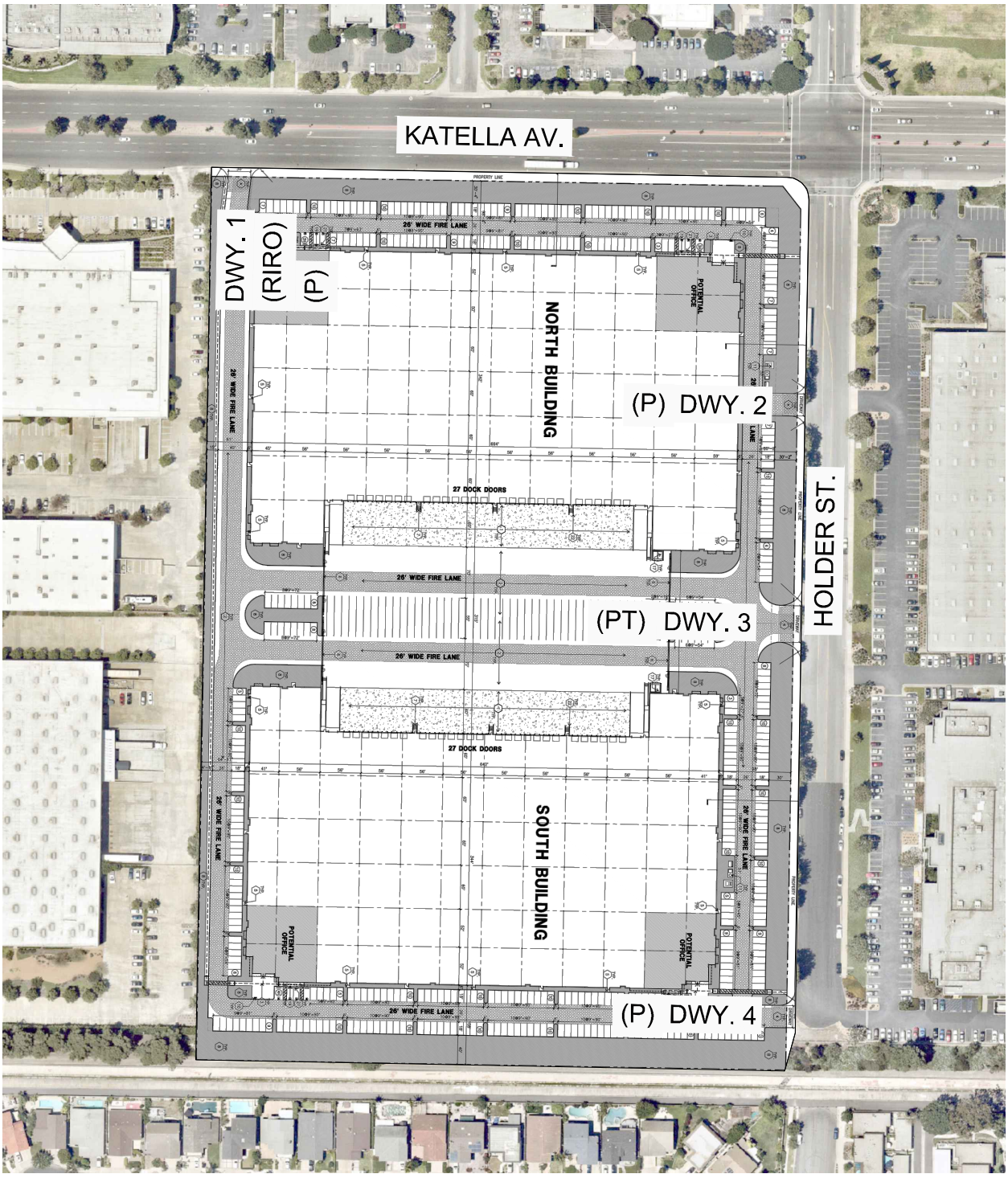
[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

[2] TSF = thousand square feet

[3] Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Handbook, Third Edition (September 2017).

[4] TOTAL NET TRIPS (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks).

EXHIBIT 1: PRELIMINARY SITE PLAN



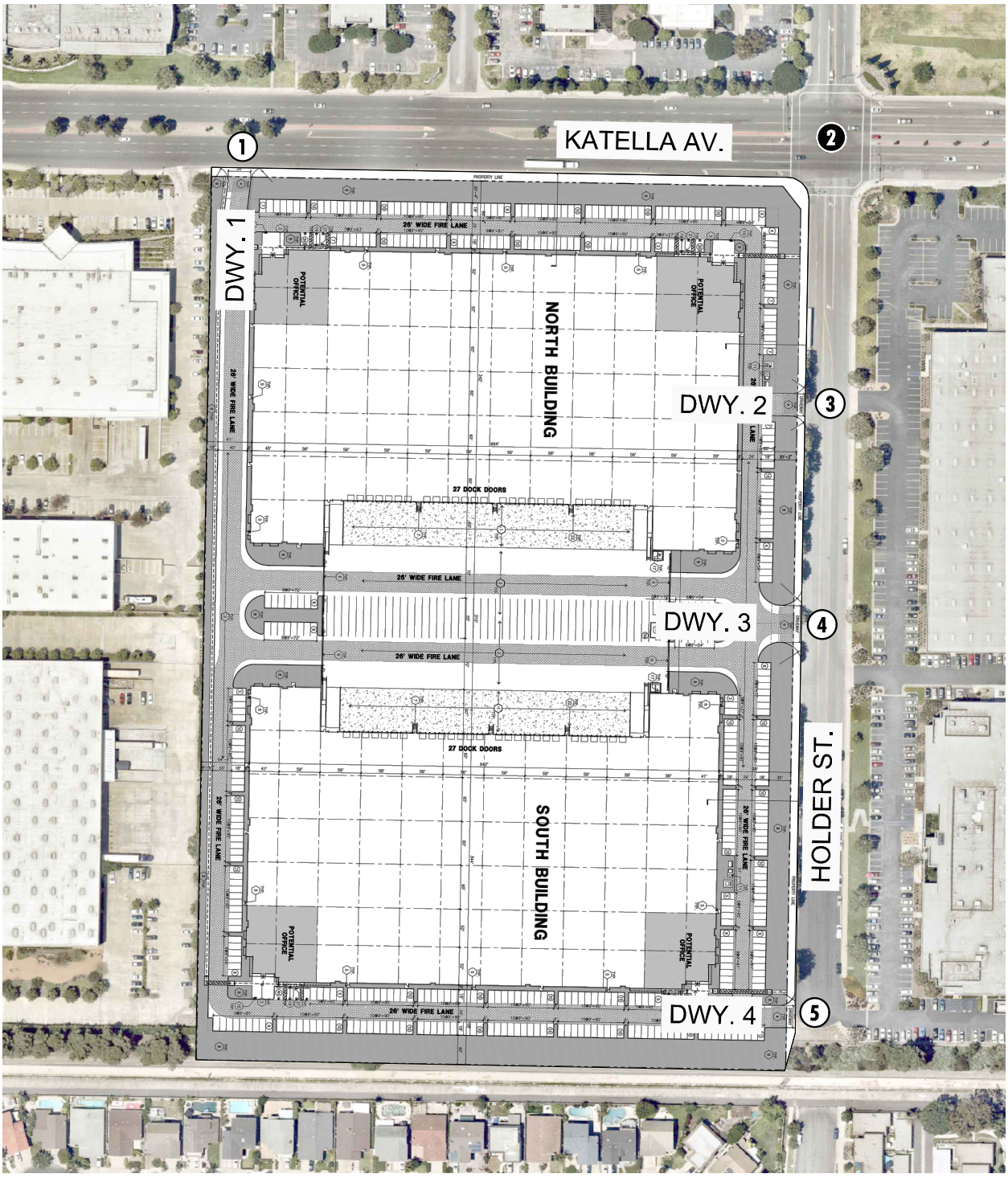
LEGEND:

RIRO = RIGHT-IN/RIGHT-OUT ONLY ACCESS
P = PASSENGER CARS ONLY
PT = PASSENGER CARS AND TRUCKS

N

13106 - siteplan.dwg

EXHIBIT 2: LOCATION MAP



LEGEND:

① = EXISTING INTERSECTION ANALYSIS LOCATION

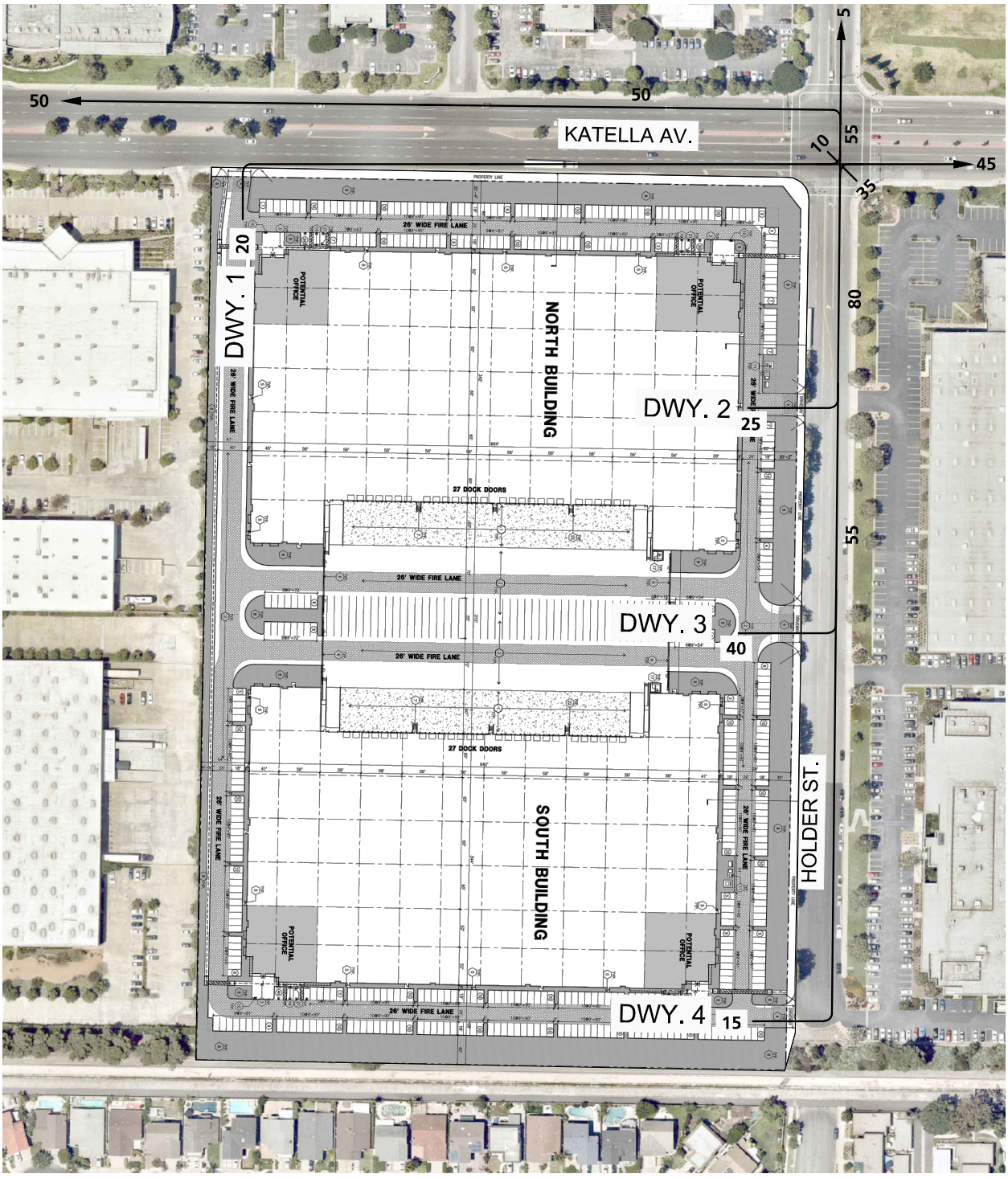
① = FUTURE INTERSECTION ANALYSIS LOCATION

N

13106 - locmap.dwg

URBAN CROSSROADS

EXHIBIT 3: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION



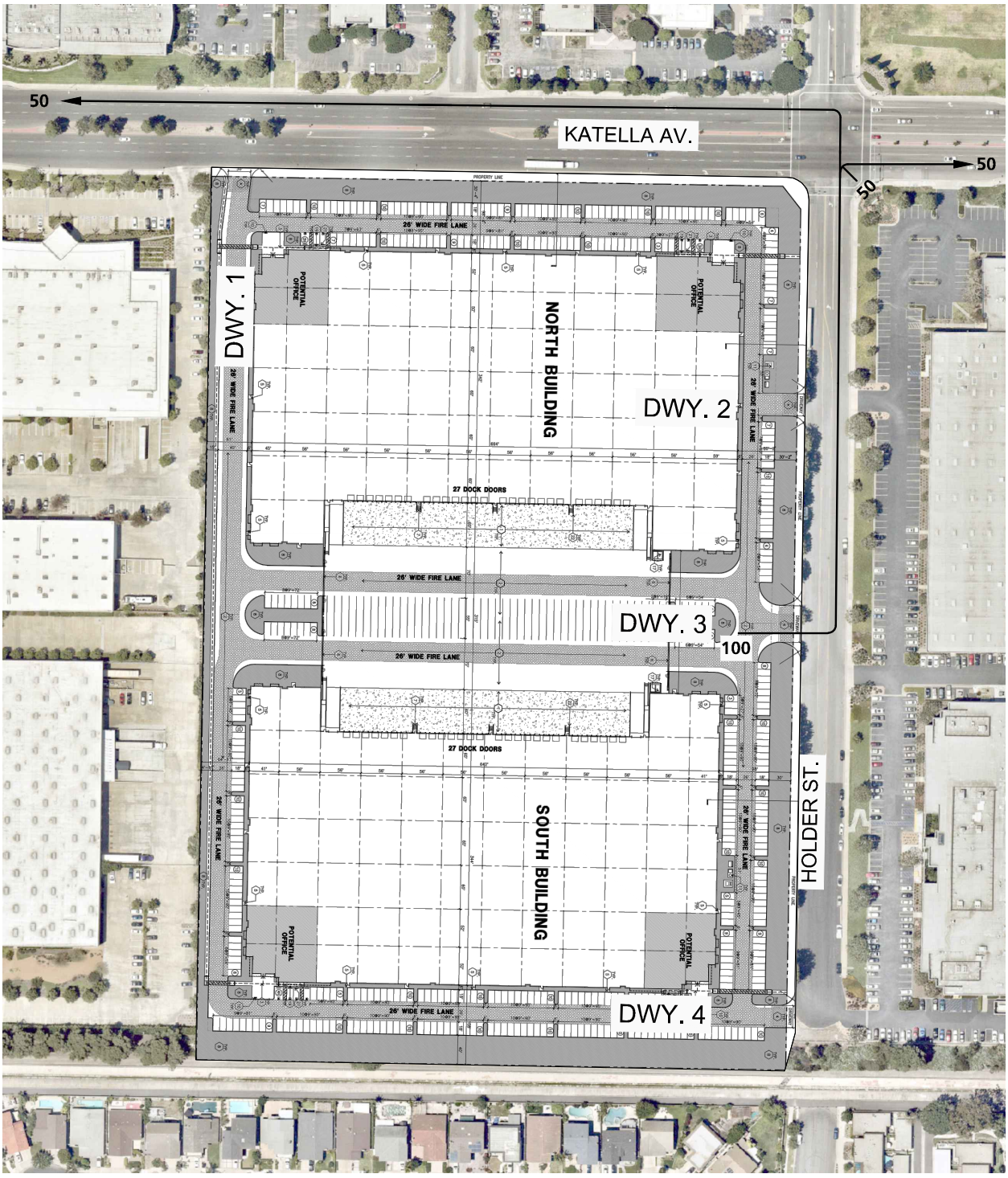
LEGEND:

10 = PERCENT TO/FROM PROJECT

N

13106 - trip.dwg

EXHIBIT 4: PROJECT (TRUCK) TRIP DISTRIBUTION



LEGEND:

10 = PERCENT TO/FROM PROJECT

N

APPENDIX 1.2:

SITE ADJACENT QUEUES

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Table 1.2-1

Peak Hour Queuing Summary

Intersection	Movement	Available Stacking Distance (Feet) [1]	95th Percentile Queue (Feet)		Acceptable? [2]	
			AM Peak Hour	PM Peak Hour	AM	PM
Driveway 1 & Katella Av.	NBR	50	17	38	Yes	Yes
Holder St. & Katella Av.	NBL	160	35	99	Yes	Yes
	NBT/R	260	20	79	Yes	Yes
	SBL	90	**152**	**159**	**No**	**No**
	SBT/R	300	115	108	Yes	Yes
	EBL	180	79	**240**	Yes	**No**
	EBT	410	290	368	Yes	Yes
	EBR	120	94	72	Yes	Yes
	WBL	200	**219**	96	**No**	Yes
	WBT	880	386	345	Yes	Yes
	WBR	120	**150**	**128**	**No**	**No**
Holder St. & Driveway 2	SBL/T/R	260	11	6	Yes	Yes
	EBL/T/R	50	17	36	Yes	Yes
	WBL/T/R	50	0	39	Yes	Yes
Holder St. & Driveway 3	SBL	50*	10	8	Yes	Yes
	EBL/T/R	50	40	49	Yes	Yes
	WBL/T/R	80	35	52	Yes	Yes
Holder St. & Driveway 4	SBL/R	425	50	24	Yes	Yes
	EBL/T	50	0	9	Yes	Yes

* NOTE: Two-way left turn lane identified with 50 feet of storage.

[1] Stacking distance is measured from the stop bar to the end of the striping for the turn pocket (before transition).

[2] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

Project does not contribute any traffic to these movements.

The eastbound left appears to accommodate up to 260-feet of storage with the striped turn pocket and storage within the left turn transition. Due to the proximity of Business Center Drive to the west, it does not appear feasible to lengthen the eastbound left turn lane and accommodate the appropriate transitions before the intersection of Business Center Drive.

The westbound left turn lane appears to accommodate up to 240-feet of storage with the striped turn pocket and storage within the left turn transition. Although the westbound left turn pocket storage could be increased by modifying the raised median, the additional 19-feet of necessary storage could be accommodated within the transition without affecting through traffic along Katella Avenue.

Intersection: 1: Driveway 1 & Katella Av.

Movement	NB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	3
95th Queue (ft)	17
Link Distance (ft)	459
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Holder St. & Katella Av.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	T	R	L	T	T	T	R	L	T
Maximum Queue (ft)	124	316	299	236	144	329	438	386	329	180	45	18
Average Queue (ft)	30	221	191	137	33	97	297	268	205	57	12	1
95th Queue (ft)	79	290	263	213	94	219	386	357	304	150	35	10
Link Distance (ft)		673	673	673			1004	1004	1004			232
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	180				120	200				120	160	
Storage Blk Time (%)		15		5			25		15			
Queuing Penalty (veh)		6		7			25		22			

Intersection: 2: Holder St. & Katella Av.

Movement	NB	SB	SB	SB
Directions Served	TR	L	T	TR
Maximum Queue (ft)	20	154	150	157
Average Queue (ft)	7	90	32	57
95th Queue (ft)	20	152	99	115
Link Distance (ft)	232		700	700
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		90		
Storage Blk Time (%)		13	0	
Queuing Penalty (veh)		3	0	

Intersection: 3: Holder St. & Driveway 2

Movement	EB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	31	26
Average Queue (ft)	3	1
95th Queue (ft)	17	11
Link Distance (ft)	294	232
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Intersection: 4: Holder St. & Driveway 3

Movement	EB	WB	SB
Directions Served	LTR	LTR	L
Maximum Queue (ft)	36	31	17
Average Queue (ft)	14	11	1
95th Queue (ft)	40	35	10
Link Distance (ft)	325	304	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			50
Storage Blk Time (%)			0
Queuing Penalty (veh)			0

Intersection: 5: Driveway 4 & Holder St.

Movement	SB
Directions Served	LR
Maximum Queue (ft)	54
Average Queue (ft)	28
95th Queue (ft)	47
Link Distance (ft)	455
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 62

Intersection: 1: Driveway 1 & Katella Av.

Movement	NB
Directions Served	R
Maximum Queue (ft)	40
Average Queue (ft)	13
95th Queue (ft)	38
Link Distance (ft)	459
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Holder St. & Katella Av.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	T	R	L	T	T	T	R	L	T
Maximum Queue (ft)	320	393	391	336	152	170	377	376	290	180	126	58
Average Queue (ft)	125	276	257	209	12	29	268	238	171	56	48	20
95th Queue (ft)	240	368	356	316	72	96	345	320	260	128	99	50
Link Distance (ft)		673	673	673			1004	1004	1004			232
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	180				120	200				120	160	
Storage Blk Time (%)	2	25		18			24		8		0	
Queuing Penalty (veh)	13	37		3			6		17		0	

Intersection: 2: Holder St. & Katella Av.

Movement	NB	SB	SB	SB
Directions Served	TR	L	T	TR
Maximum Queue (ft)	103	169	192	66
Average Queue (ft)	37	95	28	24
95th Queue (ft)	79	159	108	50
Link Distance (ft)	232		700	700
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		90		
Storage Blk Time (%)		13		
Queuing Penalty (veh)		0		

Intersection: 3: Holder St. & Driveway 2

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	40	29	6
Average Queue (ft)	11	15	0
95th Queue (ft)	36	39	6
Link Distance (ft)	294	277	232
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Holder St. & Driveway 3

Movement	EB	WB	SB
Directions Served	LTR	LTR	L
Maximum Queue (ft)	49	55	17
Average Queue (ft)	27	33	1
95th Queue (ft)	49	52	8
Link Distance (ft)	325	304	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			50
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Driveway 4 & Holder St.

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	13	30
Average Queue (ft)	1	6
95th Queue (ft)	9	24
Link Distance (ft)	286	455
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 76

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APPENDIX 3.1:

EXISTING TRAFFIC COUNTS – MARCH 2020

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Volume Development

AM Peak Hour

1: Valley View Street & Katella Avenue

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2018:	821	1,498	272	179	1,087	207	234	956	689	198	1,174	140	7,455
Existing 2020:	800	1,404	271	224	1,082	211	128	437	467	163	741	152	6,080
Adjusted 2020:	823	1,501	273	224	1,089	211	235	958	691	198	1,177	152	7,531
Adjusted Growth:	2.8%	6.9%	0.6%	0.0%	0.7%	0.0%	83.2%	119.2%	47.9%	21.7%	58.8%	0.0%	23.9%

2: Holder Street & Katella Avenue

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2018:	5	2	7	198	32	182	34	1,049	92	48	1,575	146	3,370
Existing 2020:	0	0	3	197	13	175	33	701	11	14	1,149	143	2,439
Adjusted 2020:	5	2	7	198	32	182	34	1,051	92	48	1,578	146	3,377
Adjusted Growth:	#DIV/0!	#DIV/0!	133.8%	0.7%	146.7%	4.2%	3.3%	50.0%	738.2%	243.6%	37.4%	2.3%	38.5%
Growth for Dwys:		4.68198			4.53621								

3: Knott Avenue & Katella Avenue

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2018:	349	518	114	109	877	167	72	841	263	153	1,313	104	4,880
Existing 2020:	261	560	115	98	895	106	44	515	221	182	976	103	4,076
Adjusted 2020:	350	560	115	109	879	167	72	843	264	182	1,316	104	4,961
Adjusted Growth:	34.0%	0.0%	0.0%	11.5%	-1.8%	57.9%	64.0%	63.7%	19.3%	0.0%	34.8%	1.2%	21.7%

PM Peak Hour

1: Valley View Street & Katella Avenue

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2018:	654	1,474	176	224	1,351	230	241	1,063	1,005	322	998	217	7,955
Existing 2020:	584	1,344	161	187	1,166	239	260	998	815	341	808	223	7,126
Adjusted 2020:	655	1,477	176	224	1,354	239	260	1,065	1,007	341	1,000	223	8,023
Adjusted Growth:	12.2%	9.9%	9.6%	20.0%	16.1%	0.0%	0.0%	6.7%	23.6%	0.0%	23.8%	0.0%	12.6%

2: Holder Street & Katella Avenue

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2018:	61	41	64	211	2	97	134	1,561	3	5	1,028	188	3,395
Existing 2020:	24	8	20	203	0	113	84	1,418	4	8	955	209	3,046
Adjusted 2020:	61	41	64	211	2	113	134	1,564	4	8	1,030	209	3,443
Adjusted Growth:	154.7%	413.6%	220.7%	4.2%	#DIV/0!	0.0%	59.9%	10.3%	0.0%	0.0%	7.9%	0.0%	13.0%
Growth for Dwys:		3.19929			1.1674								

3: Knott Avenue & Katella Avenue

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2018:	260	882	98	148	698	71	305	1,266	411	136	836	179	5,290
Existing 2020:	257	835	117	161	538	82	312	1,179	356	210	690	181	4,918
Adjusted 2020:	261	884	117	161	700	82	312	1,269	412	210	838	181	5,426
Adjusted Growth:	1.4%	5.9%	0.0%	0.0%	30.0%	0.0%	0.0%	7.6%	15.7%	0.0%	21.4%	0.0%	10.3%

= Not adjusted from 2020 count (higher volume vs. existing 2018 plus growth)

Notes:

1. Entered Existing 2018 Total Vehicle Volume as counted.

2. Entered Existing 2020 Total Vehicle Volume as counted.

3. Developed "Adjusted 2020" volume by applying an annual growth observed over 2018 then further adjusted by adding RTP growth for City of Cypress.

RTP growth is based on the 2016-2045 SCAG RTP growth projections for the City of Cypress - average of households, population, and employment.

4. Movements where 2020 volumes were higher than 2018 with growth were not adjusted (highlighted in pink).

5. Calculated "Adjusted Growth" by movement based on comparison of Adjusted 2020 to Existing 2020 total vehicles.

6. The "Adjusted Growth" was applied (by movement) to corresponding movements for passenger cars, 2-axle, 3-axle, and 4+-axle trucks for the 2020 counts.

7. Volumes used for the analysis were flow conserved with adjacent intersections, where necessary.

8. Growth for driveways used to apply growth to 2020 turning movement volumes at the driveways. Through volumes at driveways determined based on flow conservation.

Volume Development

AM Peak Hour

1: Driveway 1 & Katella Av.

PHF: 0.920 Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2020:								746			1,325		2,071
2-Axle:								17			7		24
3-Axle:								1			6		7
4+-Axle:								7			6		13
Trucks:	0	0	0	0	0	0	0	25	0	0	19	0	44
2020 PCE:	0	0	0	0	0	0	0	770	0	0	1,347	0	2,116
Existing PCE:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,224**	**0**	**0**	**1,795**	**0**	**3,019**
Existing PCE w 50% Use:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,273**	**0**	**0**	**1,800**	**0**	**3,073**

2: Holder St. & Katella Av.

PHF: 0.893 7:15 Count Date: 3/12/2020

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2020:	1	0	3	197	15	175	33	701	12	16	1,149	143	2,445
2-Axle:	1	0	1	3	0	1	1	15	1	1	5	0	29
3-Axle:	0	0	0	0	0	0	0	1	0	1	6	0	8
4+-Axle:	0	0	0	0	0	0	0	7	0	0	6	0	13
Trucks:	1	0	1	3	0	1	1	23	1	2	17	0	50
2020 PCE:	2	0	4	199	15	176	34	724	13	18	1,170	143	2,494
Existing PCE:	**5**	**2**	**8**	**200**	**37**	**183**	**35**	**1,085**	**105**	**60**	**1,607**	**146**	**3,473**
Existing PCE w 50% Use:	**10**	**2**	**12**	**200**	**42**	**183**	**35**	**1,085**	**154**	**104**	**1,607**	**146**	**3,580**

3: Holder St. & Driveway 2

PHF: 0.653 7:45 Count Date: 3/12/2020

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2020:	0	4	0	2	41	0	0	0	0	0	0	0	47
2-Axle:	0	2	0	0	2	0	0	0	0	0	0	0	4
3-Axle:	0	0	0	0	1	0	0	0	0	0	0	0	1
4+-Axle:	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks:	0	2	0	0	3	0	0	0	0	0	0	0	5
2020 PCE:	0	5	0	2	43	0	0	0	0	0	0	0	50
Existing PCE:	**0**	**15**	**0**	**9**	**193**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**217**
Existing PCE w 50% Use:	**0**	**19**	**0**	**9**	**225**	**66**	**5**	**0**	**0**	**0**	**0**	**0**	**324**

4: Holder St. & Driveway 3

PHF: 0.688 7:45 Count Date: 3/12/2020

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2020:	0	2	0	26	15	0	0	0	0	0	0	2	45
2-Axle:	0	1	0	1	1	0	0	0	0	0	0	1	4
3-Axle:	0	0	0	1	0	0	0	0	0	0	0	0	1
4+-Axle:	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks:	0	1	0	2	1	0	0	0	0	0	0	1	5
2020 PCE:	0	3	0	28	16	0	0	0	0	0	0	3	48
Existing PCE:	**0**	**4**	**0**	**125**	**68**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**208**
Existing PCE w 50% Use:	**0**	**4**	**0**	**125**	**68**	**32**	**4**	**0**	**0**	**0**	**0**	**12**	**244**

Volume Development

AM Peak Hour

5: Holder St. & Driveway 4

PHF: 0.500 8:00 Count Date: 3/12/2020

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2020:	0	0	0	**15**	0	0	0	0	0	0	0	2	17
2-Axle:	0	0	0	1	0	0	0	0	0	0	0	1	2
3-Axle:	0	0	0	0	0	0	0	0	0	0	0	0	0
4+-Axle:	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks:	0	0	0	1	0	0	0	0	0	0	0	1	2
2020 PCE:	0	0	0	16	0	0	0	0	0	0	0	3	18
Existing PCE:	**0**	**0**	**0**	**68**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**72**
Existing PCE w 50% Use:	**0**	**0**	**0**	**68**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**72**

Volume Development
PM Peak Hour

1: Driveway 1 & Katella Av.

PHF: 0.920 Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2020:								1,506			1,092		2,598
2-Axle:								9			5		14
3-Axle:								3			3		6
4+-Axle:								5			8		13
Trucks:	0	0	0	0	0	0	0	17	0	0	16	0	33
2020 PCE:	0	0	0	0	0	0	0	1,524	0	0	1,114	0	2,637
Existing PCE:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,722**	**0**	**0**	**1,230**	**0**	**2,953**
Existing PCE w 50% Use:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,727**	**0**	**0**	**1,274**	**0**	**3,002**

2: Holder St. & Katella Av.

PHF: 0.940 4:30 Count Date: 3/12/2020

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2020:	24	8	20	203	0	113	84	1,418	4	8	955	209	3,046
2-Axle:	0	0	0	0	0	1	1	8	0	0	4	0	14
3-Axle:	0	0	0	0	0	0	0	3	0	0	3	0	6
4+-Axle:	1	0	0	0	0	0	0	4	1	1	7	0	14
Trucks:	1	0	0	0	0	1	1	15	1	1	14	0	34
2020 PCE:	26	8	20	203	0	114	85	1,433	6	10	974	209	3,087
Existing PCE:	**66**	**41**	**64**	**211**	**2**	**114**	**135**	**1,581**	**6**	**10**	**1,051**	**209**	**3,490**
Existing PCE w 50% Use:	**110**	**45**	**103**	**211**	**2**	**114**	**135**	**1,581**	**11**	**14**	**1,051**	**209**	**3,586**

3: Holder St. & Driveway 2

PHF: 0.682 4:30 Count Date: 3/12/2020

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2020:	0	43	0	2	10	0	0	0	0	0	0	9	64
2-Axle:	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Axle:	0	0	0	0	0	0	0	0	0	0	0	0	0
4+-Axle:	0	1	0	0	2	0	0	0	0	0	0	0	3
Trucks:	0	1	0	0	2	0	0	0	0	0	0	0	3
2020 PCE:	0	45	0	2	14	0	0	0	0	0	0	9	70
Existing PCE:	**0**	**143**	**0**	**2**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**29**	**189**
Existing PCE w 50% Use:	**0**	**173**	**0**	**2**	**21**	**4**	**57**	**0**	**0**	**0**	**0**	**29**	**285**

4: Holder St. & Driveway 3

PHF: 0.658 4:30 Count Date: 3/12/2020

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2020:	0	17	0	7	3	0	0	0	0	0	0	26	53
2-Axle:	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Axle:	0	0	0	0	0	0	0	0	0	0	0	0	0
4+-Axle:	0	0	0	2	0	0	0	0	0	0	0	1	3
Trucks:	0	0	0	2	0	0	0	0	0	0	0	1	3
2020 PCE:	0	17	0	11	3	0	0	0	0	0	0	28	59
Existing PCE:	**0**	**53**	**0**	**13**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**90**	**158**
Existing PCE w 50% Use:	**0**	**53**	**0**	**13**	**3**	**5**	**30**	**0**	**0**	**0**	**0**	**90**	**193**

Volume Development
PM Peak Hour

5: Holder St. & Driveway 4

PHF: 0.800 4:30 Count Date: 3/12/2020

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing 2020:	0	0	0	**3**	0	0	0	0	0	0	0	**17**	20
2-Axle:	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Axle:	0	0	0	0	0	0	0	0	0	0	0	0	0
4+-Axle:	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks:	0	0	0	0	0	0	0	0	0	0	0	0	0
2020 PCE:	0	0	0	3	0	0	0	0	0	0	0	17	20
Existing PCE:	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**53**	**56**
Existing PCE w 50% Use:	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**53**	**56**

Counts Unlimited
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951-268-6268

City of Cypress
N/S: Holder Street
E/W: Katella Avenue
Weather: Clear

File Name : 06_CYP_Hol_Kat AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Holder Street Southbound					Katella Avenue Westbound					Holder Street Northbound					Katella 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	33	2	29	19	64	1	197	15	4	213	0	0	1	0	1	3	155	4	0	162	23	440	463
07:15 AM	45	1	28	13	74	1	258	35	6	294	0	0	0	0	0	3	155	0	0	158	19	526	545
07:30 AM	41	4	51	25	96	4	327	33	8	364	0	0	1	0	1	4	139	1	0	144	33	605	638
07:45 AM	71	5	59	22	135	4	286	30	6	320	0	0	2	0	2	13	207	6	0	226	28	683	711
Total	190	12	167	79	369	10	1068	113	24	1191	0	0	4	0	4	23	656	11	0	690	103	2254	2357
08:00 AM	40	3	37	19	80	5	278	45	4	328	0	0	0	0	0	13	200	4	1	217	24	625	649
08:15 AM	41	1	17	6	59	2	227	34	4	263	0	0	0	0	0	15	169	6	1	190	11	512	523
08:30 AM	27	6	22	14	55	6	246	39	3	291	0	0	2	0	2	9	152	2	1	163	18	511	529
08:45 AM	34	4	30	17	68	6	189	31	4	226	1	0	1	0	2	7	168	5	0	180	21	476	497
Total	142	14	106	56	262	19	940	149	15	1108	1	0	3	0	4	44	689	17	3	750	74	2124	2198
Grand Total	332	26	273	135	631	29	2008	262	39	2299	1	0	7	0	8	67	1345	28	3	1440	177	4378	4555
Apprch %	52.6	4.1	43.3			1.3	87.3	11.4			12.5	0	87.5			4.7	93.4	1.9					
Total %	7.6	0.6	6.2		14.4	0.7	45.9	6		52.5	0	0	0.2		0.2	1.5	30.7	0.6		32.9	3.9	96.1	
Passenger Vehicles	327	24	268		751	29	1952	260		2280	0	0	7		7	65	1303	28		1399	0	0	4437
% Passenger Vehicles	98.5	92.3	98.2	97.8	98	100	97.2	99.2	100	97.5	0	0	100	0	87.5	97	96.9	100	100	97	0	0	97.4
Large 2 Axle Vehicles	5	0	5		13	0	24	1		25	0	0	0		0	1	25	0		26	0	0	64
% Large 2 Axle Vehicles	1.5	0	1.8	2.2	1.7	0	1.2	0.4	0	1.1	0	0	0	0	0	1.5	1.9	0	0	1.8	0	0	1.4
3 Axle Vehicles	0	0	0		0	0	13	1		14	1	0	0		1	0	4	0		4	0	0	19
% 3 Axle Vehicles	0	0	0	0	0	0	0.6	0.4	0	0.6	100	0	0	0	12.5	0	0.3	0	0	0.3	0	0	0.4
4+ Axle Trucks	0	2	0		2	0	19	0		19	0	0	0		0	1	13	0		14	0	0	35
% 4+ Axle Trucks	0	7.7	0	0	0.3	0	0.9	0	0	0.8	0	0	0	0	0	1.5	1	0	0	1	0	0	0.8

	Holder Street Southbound				Katella Avenue Westbound				Holder Street Northbound				Katella 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	45	1	28	74	1	258	35	294	0	0	0	0	3	155	0	158	526
07:30 AM	41	4	51	96	4	**327**	33	**364**	0	0	1	1	4	139	1	144	605
07:45 AM	**71**	**5**	**59**	**135**	4	286	30	320	0	0	**2**	**2**	**13**	**207**	**6**	**226**	**683**
08:00 AM	40	3	37	80	**5**	278	**45**	328	0	0	0	0	13	200	4	217	625
Total Volume	197	13	175	385	14	1149	143	1306	0	0	3	3	33	701	11	745	2439
% App. Total	51.2	3.4	45.5		1.1	88	10.9		0	0	100		4.4	94.1	1.5		
PHF	.694	.650	.742	.713	.700	.878	.794	.897	.000	.000	.375	.375	.635	.847	.458	.824	.893

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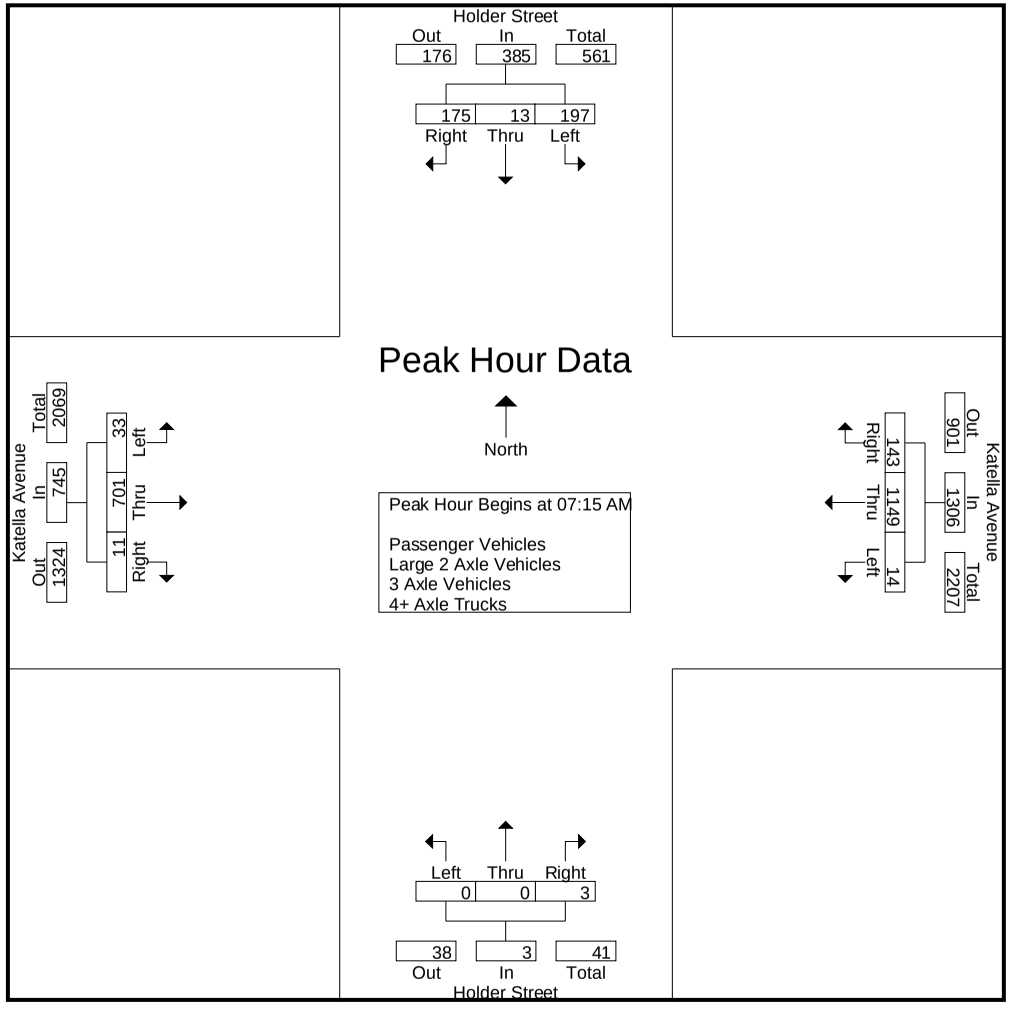

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Groups Printed- Large 2 Axle Vehicles

	Holder Street Southbound					Katella Avenue Westbound					Holder Street Northbound					Katella 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	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	3	3
07:15 AM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	5	5
07:30 AM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	0	7	7
07:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	6	6
Total	2	0	1	0	3	0	5	0	0	5	0	0	0	0	0	0	13	0	0	13	0	21	21
08:00 AM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	1	3	0	0	4	0	7	7
08:15 AM	1	0	1	0	2	0	5	1	0	6	0	0	0	0	0	0	2	0	0	2	0	10	10
08:30 AM	1	0	3	3	4	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	3	11	14
08:45 AM	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	4	0	0	4	0	12	12
Total	3	0	4	3	7	0	19	1	0	20	0	0	0	0	0	1	12	0	0	13	3	40	43
Grand Total	5	0	5	3	10	0	24	1	0	25	0	0	0	0	0	1	25	0	0	26	3	61	64
Apprch %	50	0	50			0	96	4			0	0	0			3.8	96.2	0					
Total %	8.2	0	8.2		16.4	0	39.3	1.6		41	0	0	0		0	1.6	41	0		42.6	4.7	95.3	

	Holder Street Southbound				Katella Avenue Westbound				Holder Street Northbound				Katella 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**1**	0	0	**1**	0	**2**	0	**2**	0	0	0	0	0	2	0	2	5
07:30 AM	0	0	**1**	1	0	1	0	1	0	0	0	0	0	**5**	0	**5**	**7**
07:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	5	0	5	6
08:00 AM	1	0	0	1	0	2	0	2	0	0	0	0	**1**	3	0	4	7
Total Volume	3	0	1	4	0	5	0	5	0	0	0	0	1	15	0	16	25
% App. Total	75	0	25		0	100	0		0	0	0		6.2	93.8	0		
PHF	.750	.000	.250	1.00	.000	.625	.000	.625	.000	.000	.000	.000	.250	.750	.000	.800	.893

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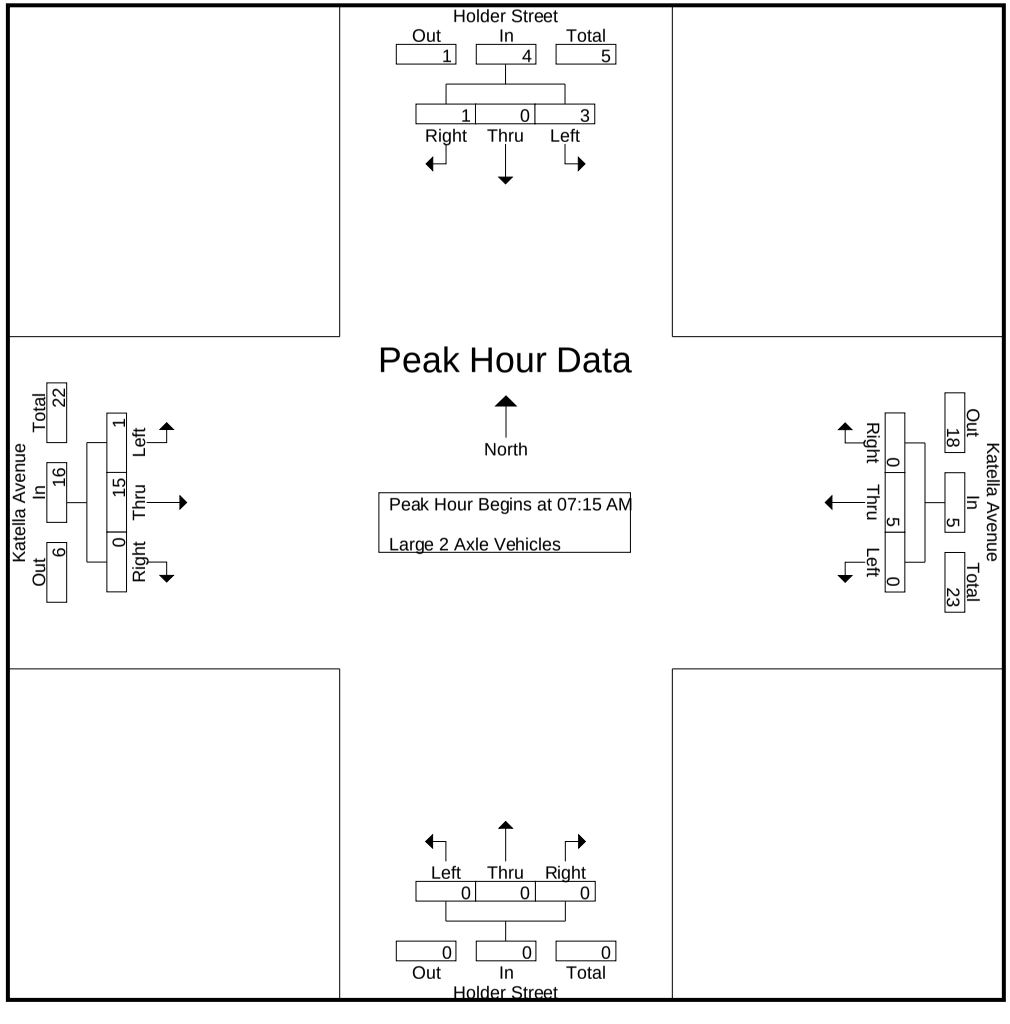
Start Date : 3/12/2020
Page No : 2



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City of Cypress
N/S: Holder Street
E/W: Katella Avenue
Weather: Clear

File Name : 06_CYP_Hol_Kat AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- 3 Axle Vehicles

	Holder Street Southbound					Katella Avenue Westbound					Holder Street Northbound					Katella 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	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
07:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
07:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
07:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
Total	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	1	0	0	1	0	7	7
08:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
08:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
08:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	4	4
08:45 AM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	0	1	0	0	1	0	4	4
Total	0	0	0	0	0	0	7	1	0	8	1	0	0	0	1	0	3	0	0	3	0	12	12
Grand Total	0	0	0	0	0	0	13	1	0	14	1	0	0	0	1	0	4	0	0	4	0	19	19
Apprch %	0	0	0			0	92.9	7.1			100	0	0			0	100	0					
Total %	0	0	0		0	0	68.4	5.3		73.7	5.3	0	0		5.3	0	21.1	0		21.1	0	100	

3.1-10

	Holder Street Southbound				Katella Avenue Westbound				Holder Street Northbound				Katella 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	**2**
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	**1**	0	**1**	2
08:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	6	0	6	0	0	0	0	0	1	0	1	7
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.000	.250	.000	.250	.875

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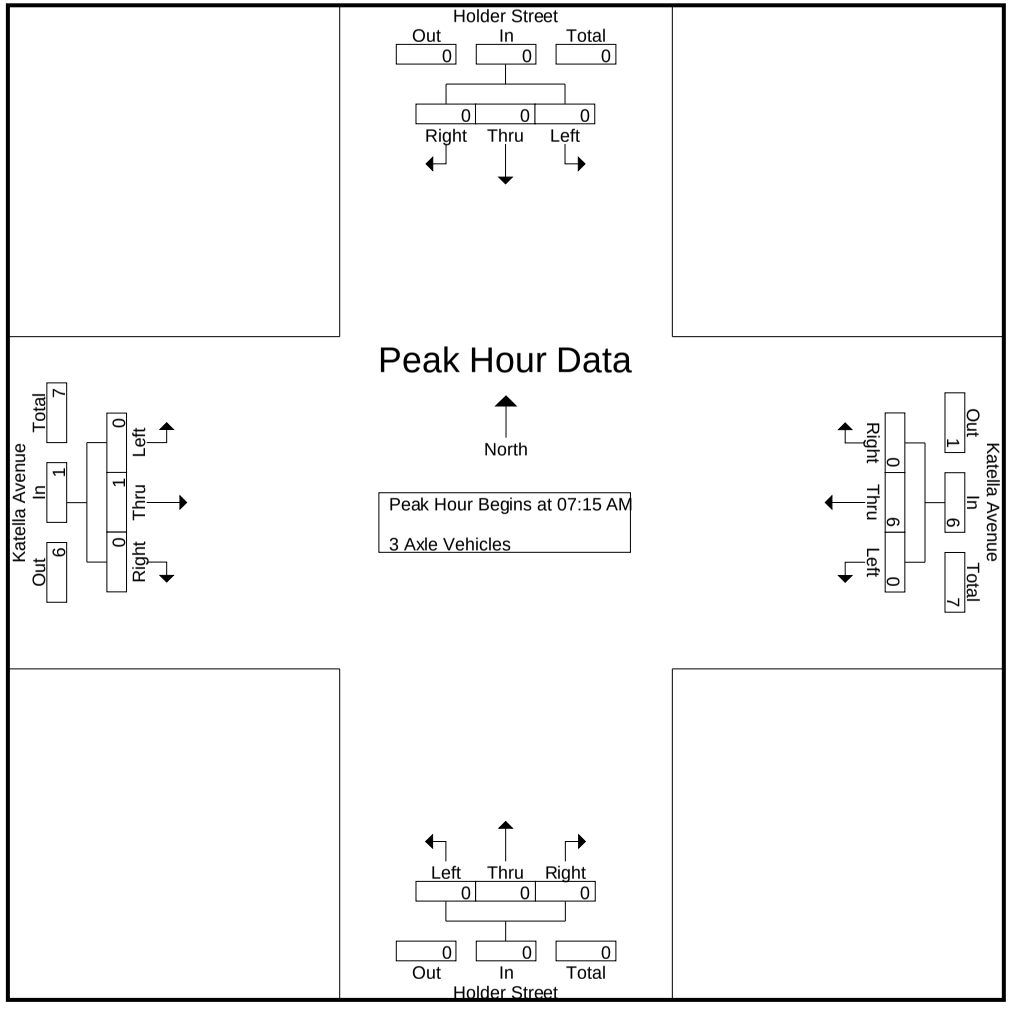
City of Cypress
N/S: Holder Street
E/W: Katella Avenue
Weather: Clear

File Name : 06_CYP_Hol_Kat AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



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City of Cypress
N/S: Holder Street
E/W: Katella Avenue
Weather: Clear

File Name : 06_CYP_Hol_Kat AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- 4+ Axle Trucks

	Holder Street Southbound					Katella Avenue Westbound					Holder Street Northbound					Katella 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	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
07:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	6	0	0	6	0	7	7
07:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
07:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	4	4
Total	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	8	0	0	8	0	14	14
08:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	1	2	0	0	3	0	6	6
08:30 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	6	6
08:45 AM	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	1	0	0	1	0	8	8
Total	0	2	0	0	2	0	13	0	0	13	0	0	0	0	0	1	5	0	0	6	0	21	21
Grand Total	0	2	0	0	2	0	19	0	0	19	0	0	0	0	0	1	13	0	0	14	0	35	35
Apprch %	0	100	0			0	100	0			0	0	0			7.1	92.9	0					
Total %	0	5.7	0		5.7	0	54.3	0		54.3	0	0	0		0	2.9	37.1	0		40	0	100	

3.1-12

	Holder Street Southbound				Katella Avenue Westbound				Holder Street Northbound				Katella 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	**6**	0	**6**	**7**
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	**3**	0	**3**	0	0	0	0	0	1	0	1	4
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	6	0	6	0	0	0	0	0	7	0	7	13
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.292	.000	.292	.464

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City of Cypress
N/S: Holder Street
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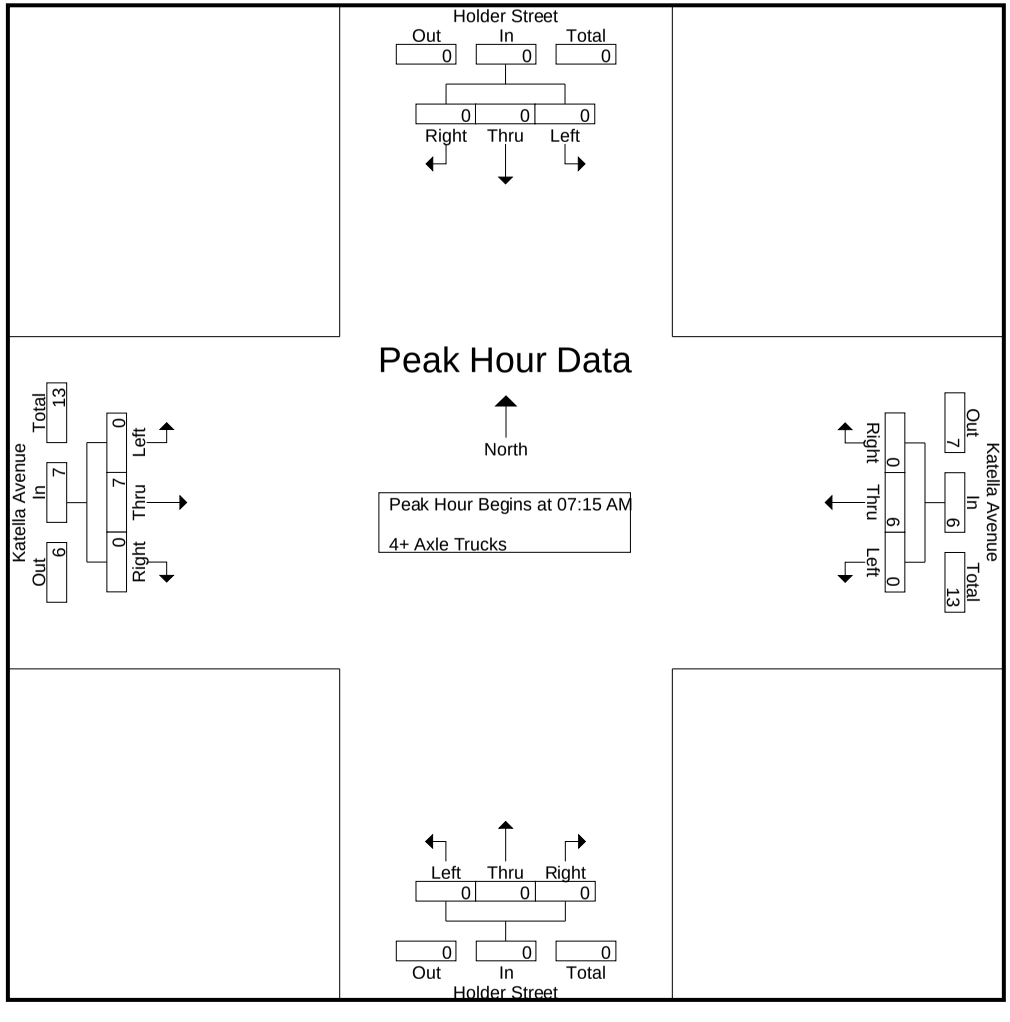
File Name : 06_CYP_Hol_Kat AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



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City of Cypress
N/S: Holder Street
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File Name : 06_CYP_Hol_Kat PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Holder Street Southbound					Katella Avenue Westbound					Holder Street Northbound					Katella 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	34	1	14	8	49	2	233	31	2	266	1	1	3	0	5	9	281	0	0	290	10	610	620
04:15 PM	37	0	13	6	50	1	217	37	4	255	3	1	2	0	6	25	331	1	0	357	10	668	678
04:30 PM	39	0	22	11	61	2	262	50	13	314	3	0	9	3	12	16	350	2	0	368	27	755	782
04:45 PM	42	0	22	11	64	3	214	41	6	258	2	1	2	0	5	19	340	0	0	359	17	686	703
Total	152	1	71	36	224	8	926	159	25	1093	9	3	16	3	28	69	1302	3	0	1374	64	2719	2783
05:00 PM	72	0	34	13	106	2	242	64	14	308	13	4	5	1	22	27	346	1	0	374	28	810	838
05:15 PM	50	0	35	26	85	1	237	54	21	292	6	3	4	1	13	22	382	1	0	405	48	795	843
05:30 PM	52	0	16	6	68	3	252	38	8	293	3	2	2	1	7	22	350	2	0	374	15	742	757
05:45 PM	46	0	19	9	65	1	252	32	4	285	4	1	3	0	8	14	318	0	0	332	13	690	703
Total	220	0	104	54	324	7	983	188	47	1178	26	10	14	3	50	85	1396	4	0	1485	104	3037	3141
Grand Total	372	1	175	90	548	15	1909	347	72	2271	35	13	30	6	78	154	2698	7	0	2859	168	5756	5924
Apprch %	67.9	0.2	31.9			0.7	84.1	15.3			44.9	16.7	38.5			5.4	94.4	0.2					
Total %	6.5	0	3		9.5	0.3	33.2	6		39.5	0.6	0.2	0.5		1.4	2.7	46.9	0.1		49.7	2.8	97.2	
Passenger Vehicles	368	1	172		630	14	1879	343		2308	34	13	30		83	153	2663	5		2821	0	0	5842
% Passenger Vehicles	98.9	100	98.3	98.9	98.7	93.3	98.4	98.8	100	98.5	97.1	100	100	100	98.8	99.4	98.7	71.4	0	98.7	0	0	98.6
Large 2 Axle Vehicles	3	0	2		6	0	18	3		21	0	0	0		0	1	20	0		21	0	0	48
% Large 2 Axle Vehicles	0.8	0	1.1	1.1	0.9	0	0.9	0.9	0	0.9	0	0	0	0	0	0.6	0.7	0	0	0.7	0	0	0.8
3 Axle Vehicles	0	0	0		0	0	4	1		5	0	0	0		0	0	5	0		5	0	0	10
% 3 Axle Vehicles	0	0	0	0	0	0	0.2	0.3	0	0.2	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0.2
4+ Axle Trucks	1	0	1		2	1	8	0		9	1	0	0		1	0	10	2		12	0	0	24
% 4+ Axle Trucks	0.3	0	0.6	0	0.3	6.7	0.4	0	0	0.4	2.9	0	0	0	1.2	0	0.4	28.6	0	0.4	0	0	0.4

	Holder Street Southbound				Katella Avenue Westbound				Holder Street Northbound				Katella 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	39	0	22	61	2	**262**	50	**314**	3	0	**9**	12	16	350	**2**	368	755
04:45 PM	42	0	22	64	**3**	214	41	258	2	1	2	5	19	340	0	359	686
05:00 PM	**72**	0	34	**106**	2	242	**64**	308	**13**	**4**	5	**22**	**27**	346	1	374	**810**
05:15 PM	50	0	**35**	85	1	237	54	292	6	3	4	13	22	**382**	1	**405**	795
Total Volume	203	0	113	316	8	955	209	1172	24	8	20	52	84	1418	4	1506	3046
% App. Total	64.2	0	35.8		0.7	81.5	17.8		46.2	15.4	38.5		5.6	94.2	0.3		
PHF	.705	.000	.807	.745	.667	.911	.816	.933	.462	.500	.556	.591	.778	.928	.500	.930	.940

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City of Cypress
N/S: Holder Street
E/W: Katella Avenue
Weather: Clear

File Name : 06_CYP_Hol_Kat PM
Site Code : 05120183
Start Date : 3/12/2020
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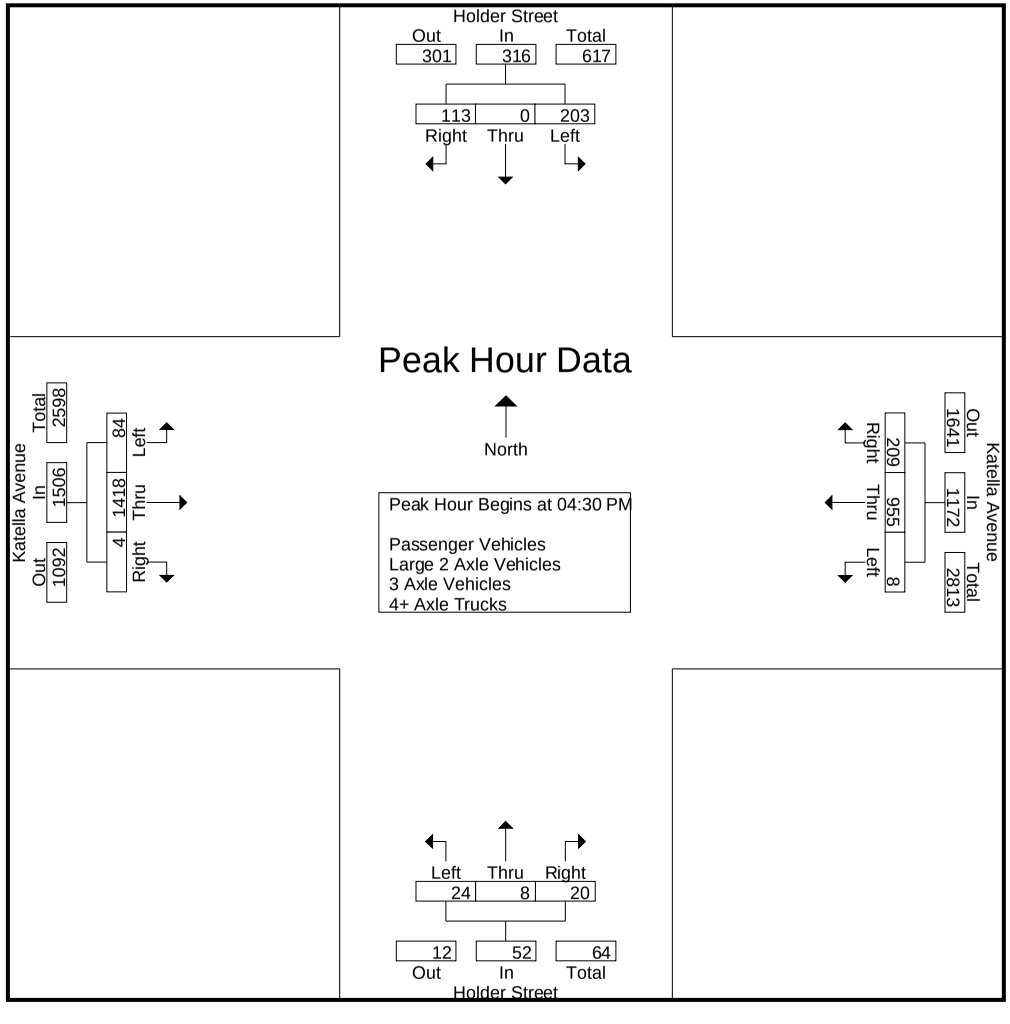

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City of Cypress
N/S: Holder Street
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File Name : 06_CYP_Hol_Kat PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Holder Street Southbound					Katella Avenue Westbound					Holder Street Northbound					Katella 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	1	0	1	1	2	0	1	2	0	3	0	0	0	0	0	0	3	0	0	3	1	8	9
04:15 PM	2	0	0	0	2	0	7	0	0	7	0	0	0	0	0	0	8	0	0	8	0	17	17
04:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	1	0	0	2	0	4	4
04:45 PM	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	7	7
Total	3	0	2	1	5	0	12	2	0	14	0	0	0	0	0	1	16	0	0	17	1	36	37
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	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	2	0	0	2	0	2	2
05:30 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	5	5
05:45 PM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	3	3
Total	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	0	4	0	0	4	0	11	11
Grand Total	3	0	2	1	5	0	18	3	0	21	0	0	0	0	0	1	20	0	0	21	1	47	48
Apprch %	60	0	40			0	85.7	14.3			0	0	0			4.8	95.2	0					
Total %	6.4	0	4.3		10.6	0	38.3	6.4		44.7	0	0	0		0	2.1	42.6	0		44.7	2.1	97.9	

3.1-16

	Holder Street Southbound				Katella Avenue Westbound				Holder Street Northbound				Katella 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	**1**	1	0	2	4
04:45 PM	0	0	**1**	**1**	0	2	0	2	0	0	0	0	0	**4**	0	**4**	**7**
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Total Volume	0	0	1	1	0	4	0	4	0	0	0	0	1	8	0	9	14
% App. Total	0	0	100		0	100	0		0	0	0		11.1	88.9	0		
PHF	.000	.000	.250	.250	.000	.500	.000	.500	.000	.000	.000	.000	.250	.500	.000	.563	.500

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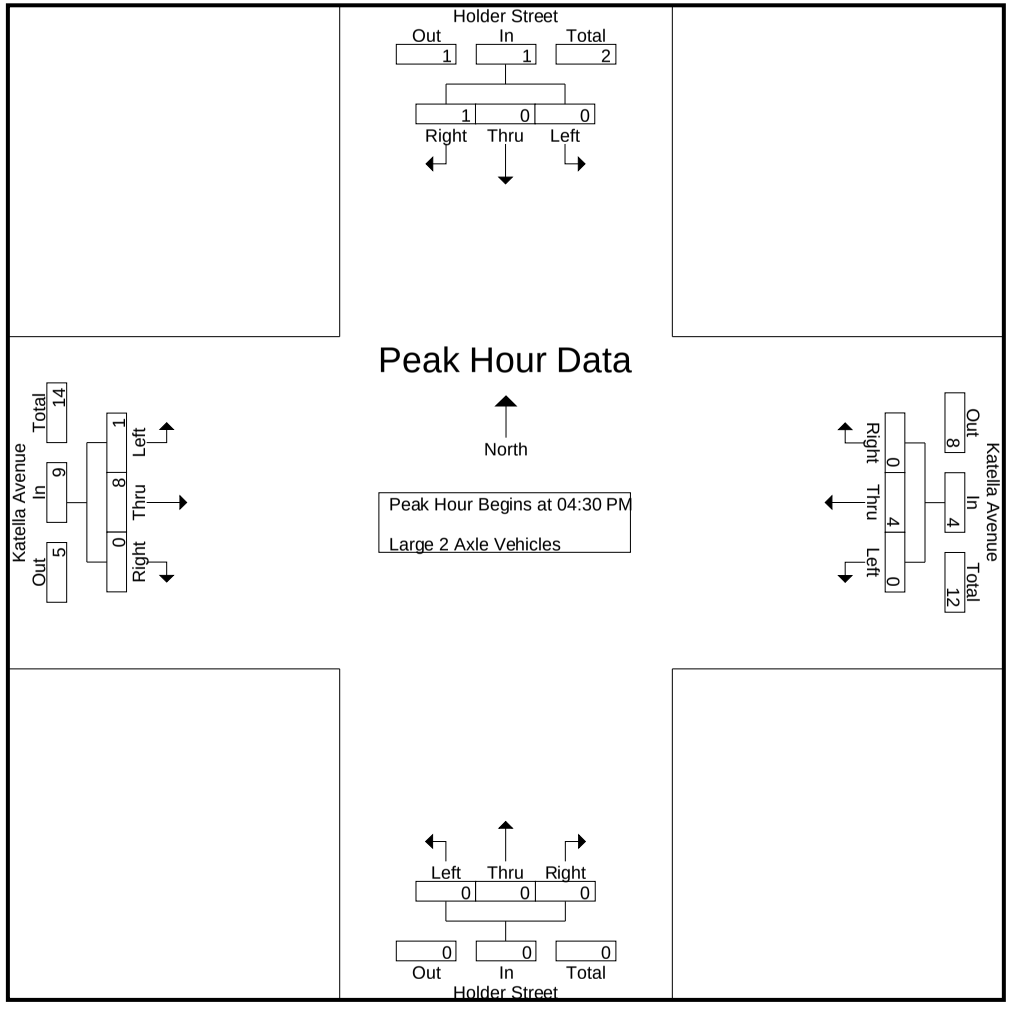

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Groups Printed- 3 Axle Vehicles

	Holder Street Southbound					Katella Avenue Westbound					Holder Street Northbound					Katella 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	0	0	0	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	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	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
Total	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	3	0	0	3	0	6	6
05:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
05:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
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	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	4	4
Grand Total	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	5	0	0	5	0	10	10
Apprch %	0	0	0			0	80	20			0	0	0			0	100	0					
Total %	0	0	0		0	0	40	10		50	0	0	0		0	0	50	0		50	0	100	

3.1-18

	Holder Street Southbound				Katella Avenue Westbound				Holder Street Northbound				Katella 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	**1**	0	**1**	**2**
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.000	.750	.000	.750	.750

Counts Unlimited
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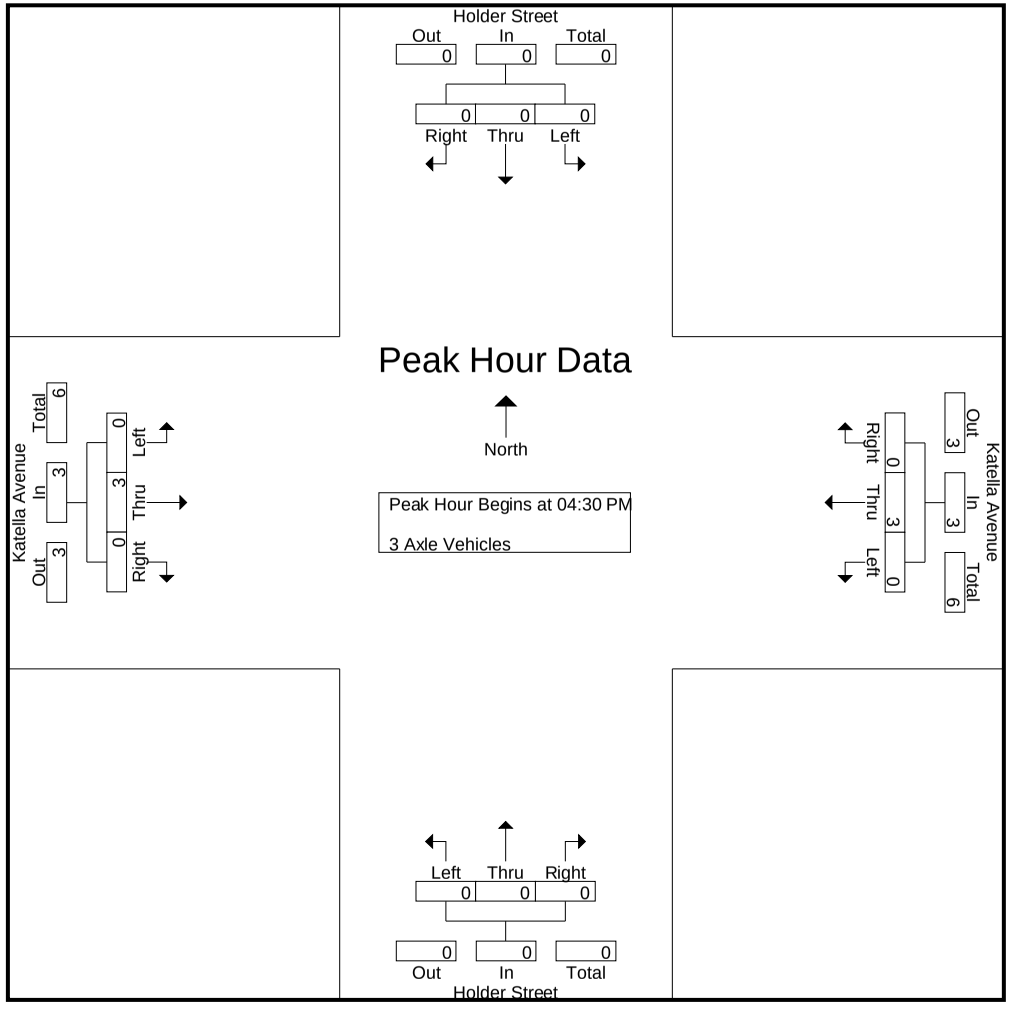
951-268-6268

City of Cypress
N/S: Holder Street
E/W: Katella Avenue
Weather: Clear

File Name : 06_CYP_Hol_Kat PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



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City of Cypress
N/S: Holder Street
E/W: Katella Avenue
Weather: Clear

File Name : 06_CYP_Hol_Kat PM
Site Code : 05120183
Start Date : 3/12/2020

Groups Printed- 4+ Axle Trucks

	Holder Street Southbound					Katella Avenue Westbound					Holder Street Northbound					Katella 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	0	1	0	2	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	5	5
04:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	1	0	3	0	5	5
04:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	3	3
Total	1	0	1	0	2	0	5	0	0	5	0	0	0	0	0	0	5	1	0	6	0	13	13
05:00 PM	0	0	0	0	0	1	1	0	0	2	1	0	0	0	1	0	1	0	0	1	0	4	4
05:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	3	3
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
Total	0	0	0	0	0	1	3	0	0	4	1	0	0	0	1	0	5	1	0	6	0	11	11
Grand Total	1	0	1	0	2	1	8	0	0	9	1	0	0	0	1	0	10	2	0	12	0	24	24
Apprch %	50	0	50			11.1	88.9	0			100	0	0			0	83.3	16.7					
Total %	4.2	0	4.2		8.3	4.2	33.3	0		37.5	4.2	0	0		4.2	0	41.7	8.3		50	0	100	

3.1-20

	Holder Street Southbound				Katella Avenue Westbound				Holder Street Northbound				Katella 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	**2**	**1**	**3**	**5**
04:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
05:00 PM	0	0	0	0	**1**	1	0	2	**1**	0	0	**1**	0	1	0	1	4
05:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	1	7	0	8	1	0	0	1	0	4	1	5	14
% App. Total	0	0	0		12.5	87.5	0		100	0	0		0	80	20		
PHF	.000	.000	.000	.000	.250	.875	.000	1.00	.250	.000	.000	.250	.000	.500	.250	.417	.700

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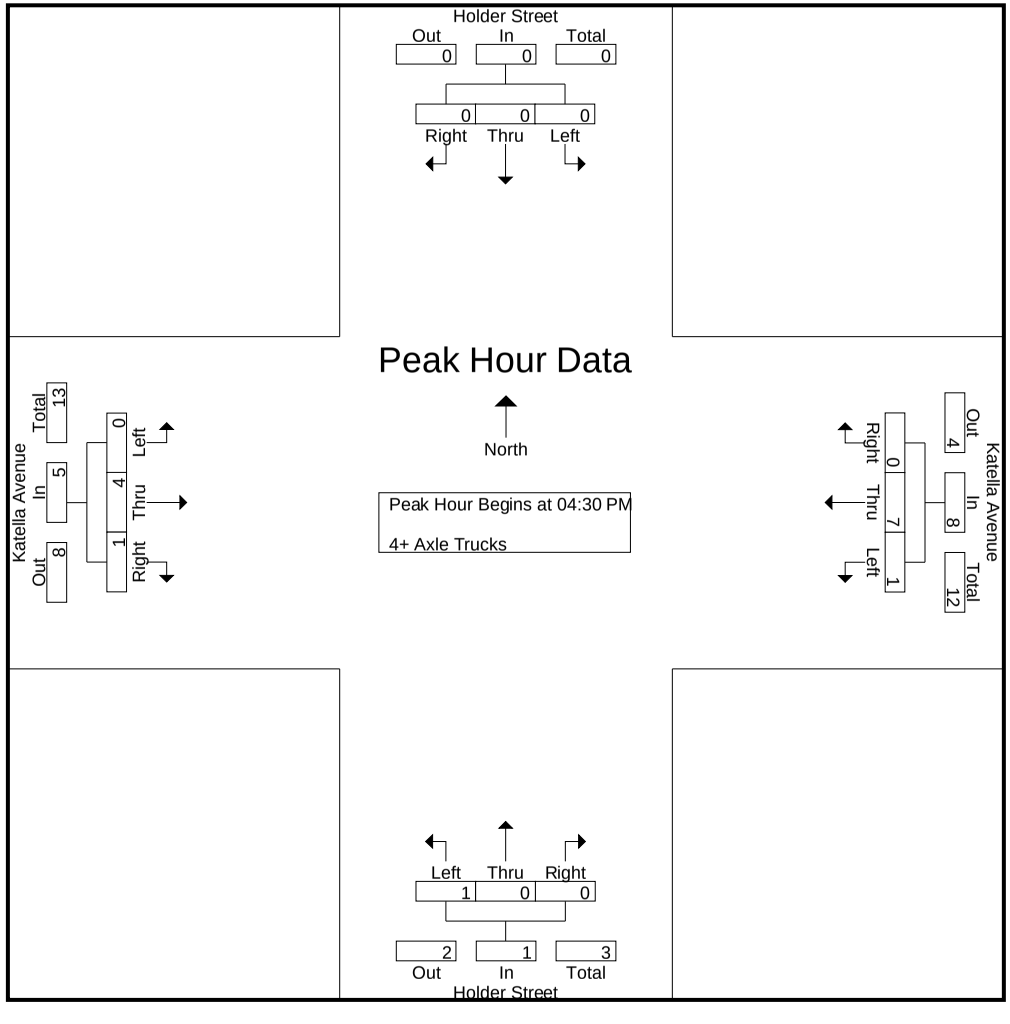
City of Cypress
N/S: Holder Street
E/W: Katella Avenue
Weather: Clear

File Name : 06_CYP_Hol_Kat PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



Location: Cypress
N/S: Holder Street
E/W: Katella Avenue

Date: 3/12/2020
Day: Thursday

PEDESTRIANS

	North Leg Holder Street	East Leg Katella Avenue	South Leg Holder Street	West Leg Katella Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	1	1	3	0	5
7:45 AM	0	0	0	0	0
8:00 AM	1	1	2	0	4
8:15 AM	2	0	2	0	4
8:30 AM	2	0	3	0	5
8:45 AM	0	0	3	0	3
TOTAL VOLUMES:	6	2	13	0	21

	North Leg Holder Street	East Leg Katella Avenue	South Leg Holder Street	West Leg Katella Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	1	0	0	1
4:15 PM	5	0	1	0	6
4:30 PM	0	0	0	0	0
4:45 PM	0	0	2	1	3
5:00 PM	0	0	0	0	0
5:15 PM	1	0	0	1	2
5:30 PM	2	0	0	0	2
5:45 PM	2	0	0	0	2
TOTAL VOLUMES:	10	1	3	2	16

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Location: Cypress
N/S: Holder Street
E/W: Katella Avenue

Date: 3/12/2020
Day: Thursday

BICYCLES

	Southbound Holder Street			Westbound Katella Avenue			Northbound Holder Street			Eastbound Katella Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	2	0	0	0	0	0	0	0	3

	Southbound Holder Street			Westbound Katella Avenue			Northbound Holder Street			Eastbound Katella Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	2	0	0	0	0	0	0	0	2

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City of Cypress
N/S: Holder Street
E/W: Driveway 2
Weather: Clear

File Name : 12_CYP_Holder_Dwy 2_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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
07:00 AM	1	6	0	7	0	0	0	0	0	1	0	1	0	0	0	0	8
07:15 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:30 AM	0	8	0	8	0	0	0	0	0	1	0	1	0	0	0	0	9
07:45 AM	2	14	0	16	0	0	0	0	0	2	0	2	0	0	0	0	18
Total	3	30	0	33	0	0	0	0	0	4	0	4	0	0	0	0	37
08:00 AM	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
08:15 AM	0	9	0	9	0	0	0	0	0	0	0	0	0	0	0	0	9
08:30 AM	0	11	0	11	0	0	0	0	0	2	0	2	0	0	0	0	13
08:45 AM	1	14	0	15	0	0	0	0	0	2	0	2	0	0	0	0	17
Total	1	41	0	42	0	0	0	0	0	4	0	4	0	0	0	0	46
Grand Total	4	71	0	75	0	0	0	0	0	8	0	8	0	0	0	0	83
Apprch %	5.3	94.7	0		0	0	0		0	100	0		0	0	0		
Total %	4.8	85.5	0	90.4	0	0	0	0	0	9.6	0	9.6	0	0	0	0	
Passenger Vehicles	4	69	0	73	0	0	0	0	0	7	0	7	0	0	0	0	80
% Passenger Vehicles	100	97.2	0	97.3	0	0	0	0	0	87.5	0	87.5	0	0	0	0	96.4
Large 2 Axle Vehicles	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
% Large 2 Axle Vehicles	0	1.4	0	1.3	0	0	0	0	0	12.5	0	12.5	0	0	0	0	2.4
3 Axle Vehicles	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% 3 Axle Vehicles	0	1.4	0	1.3	0	0	0	0	0	0	0	0	0	0	0	0	1.2
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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	**2**	**14**	0	**16**	0	0	0	0	0	**2**	0	**2**	0	0	0	0	**18**
08:00 AM	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
08:15 AM	0	9	0	9	0	0	0	0	0	0	0	0	0	0	0	0	9
08:30 AM	0	11	0	11	0	0	0	0	0	2	0	2	0	0	0	0	13
Total Volume	2	41	0	43	0	0	0	0	0	4	0	4	0	0	0	0	47
% App. Total	4.7	95.3	0		0	0	0		0	100	0		0	0	0		
PHF	.250	.732	.000	.672	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.653

Counts Unlimited
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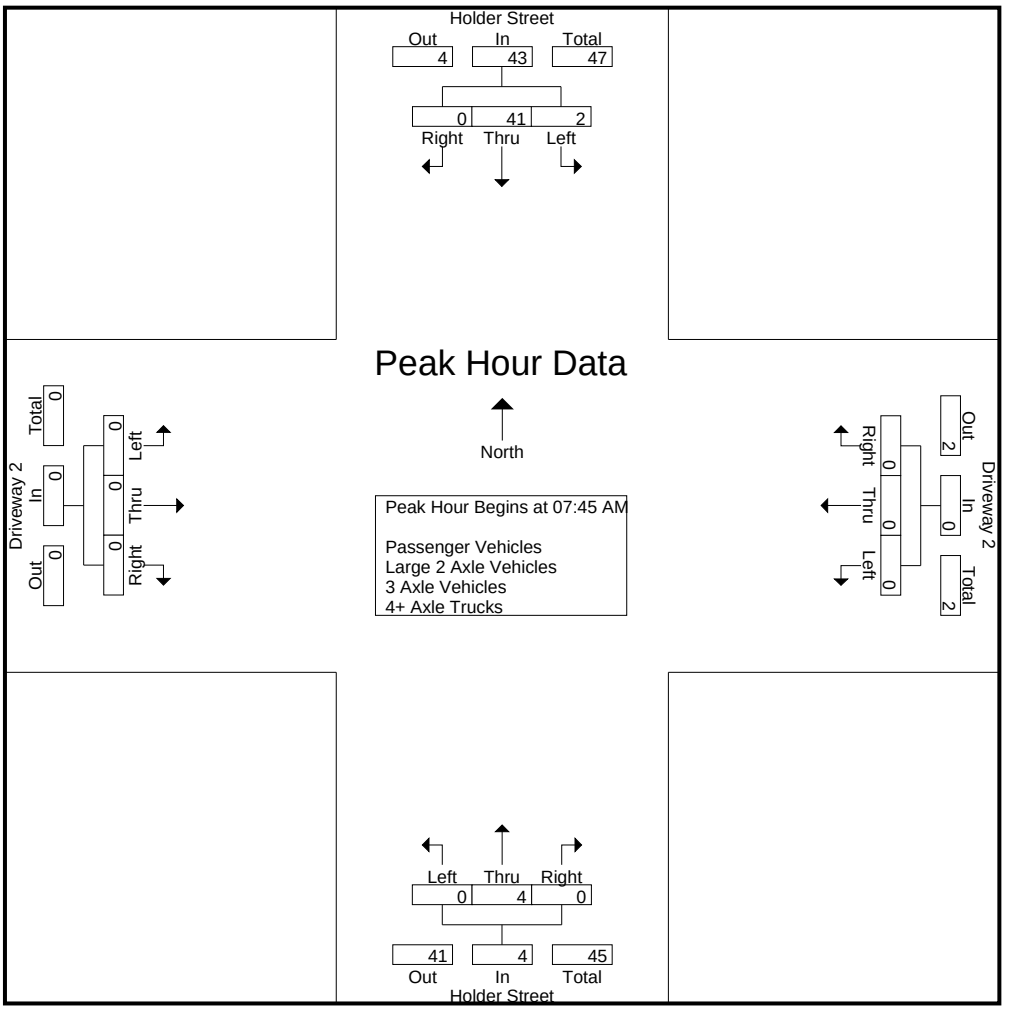
City of Cypress
N/S: Holder Street
E/W: Driveway 2
Weather: Clear

File Name : 12_CYP_Holder_Dwy 2_AM
Site Code : 05120183
Start Date : 3/12/2020
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:

	07:45 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	**2**	**14**	0	**16**	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	9	0	9	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	11	0	11	0	0	0	0	0	**2**	0	**2**	0	0	0	0
Total Volume	2	41	0	43	0	0	0	0	0	4	0	4	0	0	0	0
% App. Total	4.7	95.3	0		0	0	0		0	100	0		0	0	0	
PHF	.250	.732	.000	.672	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 2
Weather: Clear

File Name : 12_CYP_Holder_Dwy 2_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	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	0	0
08:00 AM	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
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Grand Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
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	

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	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
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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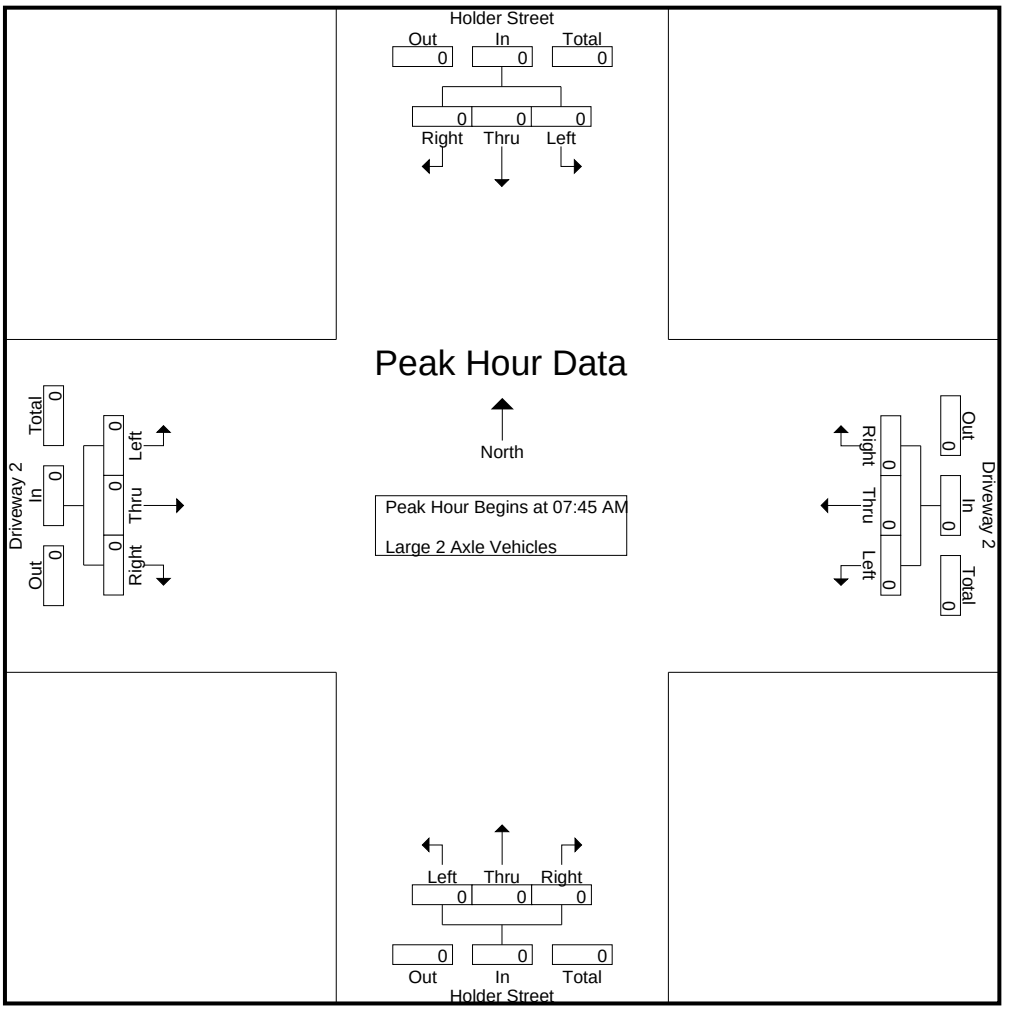
City of Cypress
N/S: Holder Street
E/W: Driveway 2
Weather: Clear

File Name : 12_CYP_Holder_Dwy 2_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 2
Weather: Clear

File Name : 12_CYP_Holder_Dwy 2_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- 3 Axle Vehicles

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	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	0	0
08:00 AM	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
08:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Apprch %	0	100	0		0	0	0		0	0	0		0	0	0		
Total %	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	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
08:30 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

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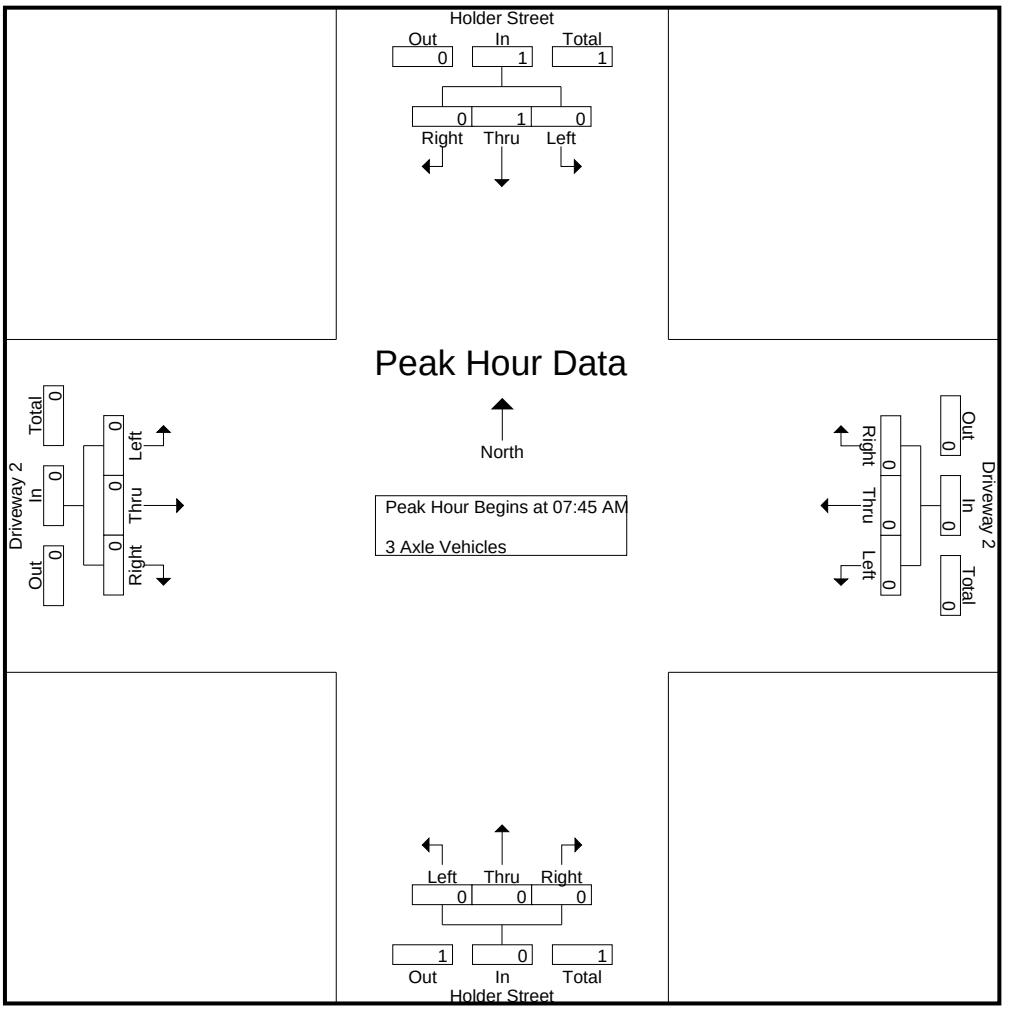
951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 2
Weather: Clear

File Name : 12_CYP_Holder_Dwy 2_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+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	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
PO Box 1178
Corona, CA 92878
951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 2
Weather: Clear

File Name : 12_CYP_Holder_Dwy 2_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- 4+ Axle Trucks

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	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	0	0
08:00 AM	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
08:30 AM	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	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	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
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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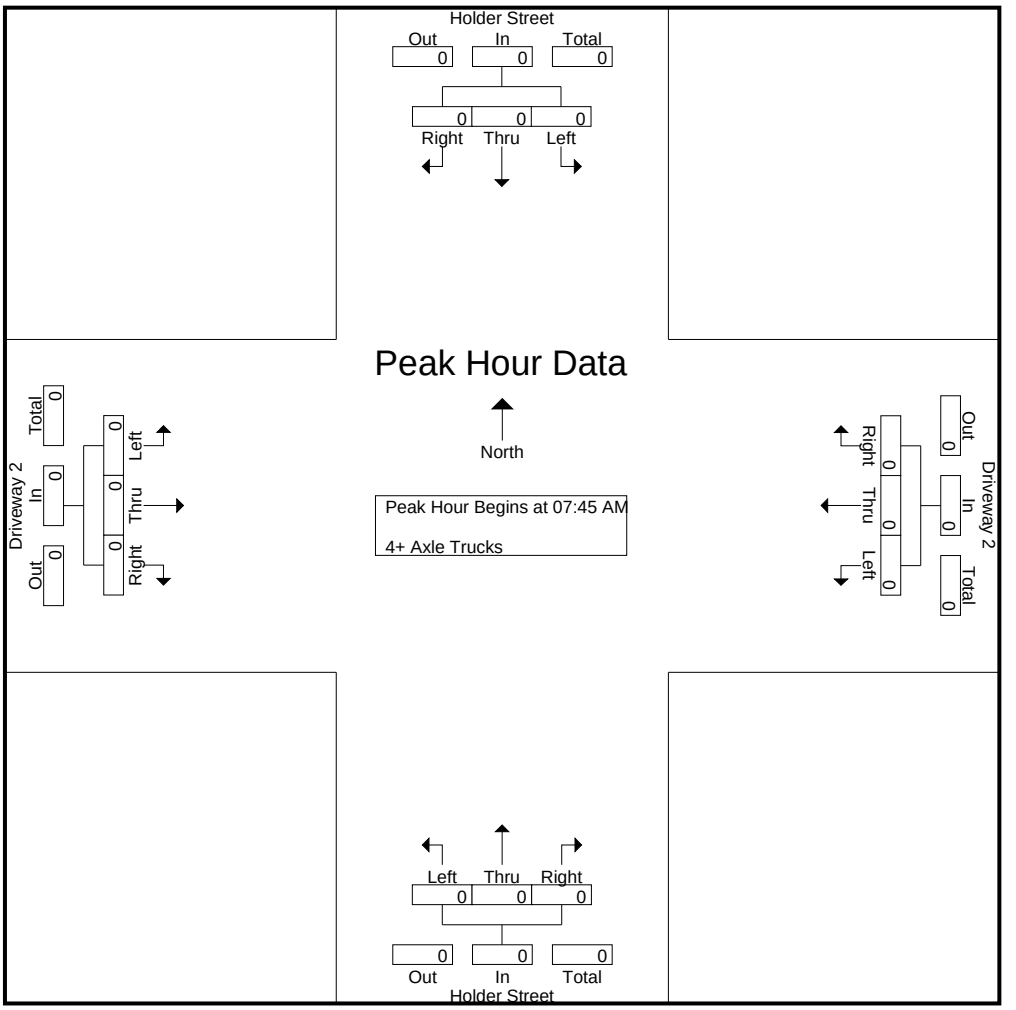
City of Cypress
N/S: Holder Street
E/W: Driveway 2
Weather: Clear

File Name : 12_CYP_Holder_Dwy 2_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 2
Weather: Clear

File Name : 12_CYP_Holder_Dwy 2_PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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
04:00 PM	0	2	0	2	0	0	0	0	0	5	0	5	0	0	0	0	7
04:15 PM	0	1	0	1	0	0	0	0	0	6	0	6	0	0	0	0	7
04:30 PM	1	3	0	4	0	0	1	1	0	11	0	11	0	0	0	0	16
04:45 PM	0	2	0	2	0	0	2	2	0	3	0	3	0	0	0	0	7
Total	1	8	0	9	0	0	3	3	0	25	0	25	0	0	0	0	37
05:00 PM	0	2	0	2	0	0	3	3	0	17	0	17	0	0	0	0	22
05:15 PM	0	1	0	1	0	0	2	2	0	12	0	12	0	0	0	0	15
05:30 PM	0	4	0	4	0	0	1	1	0	6	0	6	0	0	0	0	11
05:45 PM	0	1	0	1	0	0	2	2	0	6	0	6	0	0	0	0	9
Total	0	8	0	8	0	0	8	8	0	41	0	41	0	0	0	0	57
Grand Total	1	16	0	17	0	0	11	11	0	66	0	66	0	0	0	0	94
Apprch %	5.9	94.1	0		0	0	100		0	100	0		0	0	0		
Total %	1.1	17	0	18.1	0	0	11.7	11.7	0	70.2	0	70.2	0	0	0	0	
Passenger Vehicles	1	15	0	16	0	0	11	11	0	66	0	66	0	0	0	0	93
% Passenger Vehicles	100	93.8	0	94.1	0	0	100	100	0	100	0	100	0	0	0	0	98.9
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% 4+ Axle Trucks	0	6.2	0	5.9	0	0	0	0	0	0	0	0	0	0	0	0	1.1

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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	**1**	**3**	0	**4**	0	0	1	1	0	11	0	11	0	0	0	0	16
04:45 PM	0	2	0	2	0	0	2	2	0	3	0	3	0	0	0	0	7
05:00 PM	0	2	0	2	0	0	**3**	**3**	0	**17**	0	**17**	0	0	0	0	**22**
05:15 PM	0	1	0	1	0	0	2	2	0	12	0	12	0	0	0	0	15
Total Volume	1	8	0	9	0	0	8	8	0	43	0	43	0	0	0	0	60
% App. Total	11.1	88.9	0		0	0	100		0	100	0		0	0	0		
PHF	.250	.667	.000	.563	.000	.000	.667	.667	.000	.632	.000	.632	.000	.000	.000	.000	.682

Counts Unlimited
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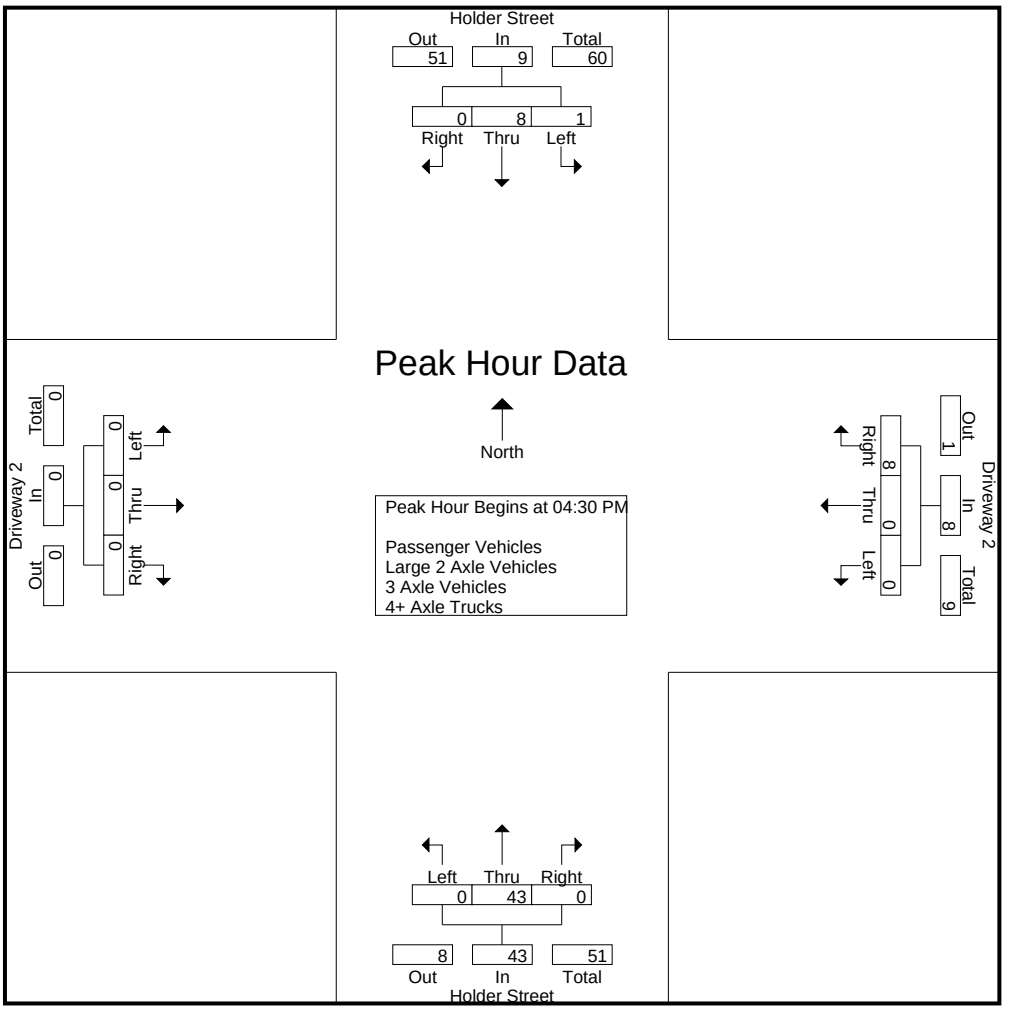
City of Cypress
N/S: Holder Street
E/W: Driveway 2
Weather: Clear

File Name : 12_CYP_Holder_Dwy 2_PM
Site Code : 05120183
Start Date : 3/12/2020
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				04:30 PM				04:00 PM			
+0 mins.	0	2	0	2	0	0	1	1	0	11	0	11	0	0	0	0
+15 mins.	0	1	0	1	0	0	2	2	0	3	0	3	0	0	0	0
+30 mins.	**1**	**3**	0	**4**	0	0	**3**	**3**	0	**17**	0	**17**	0	0	0	0
+45 mins.	0	2	0	2	0	0	2	2	0	12	0	12	0	0	0	0
Total Volume	1	8	0	9	0	0	8	8	0	43	0	43	0	0	0	0
% App. Total	11.1	88.9	0		0	0	100		0	100	0		0	0	0	
PHF	.250	.667	.000	.563	.000	.000	.667	.667	.000	.632	.000	.632	.000	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 2
Weather: Clear

File Name : 12_CYP_Holder_Dwy 2_PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0
04:45 PM	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	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	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
05:45 PM	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	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
PO Box 1178
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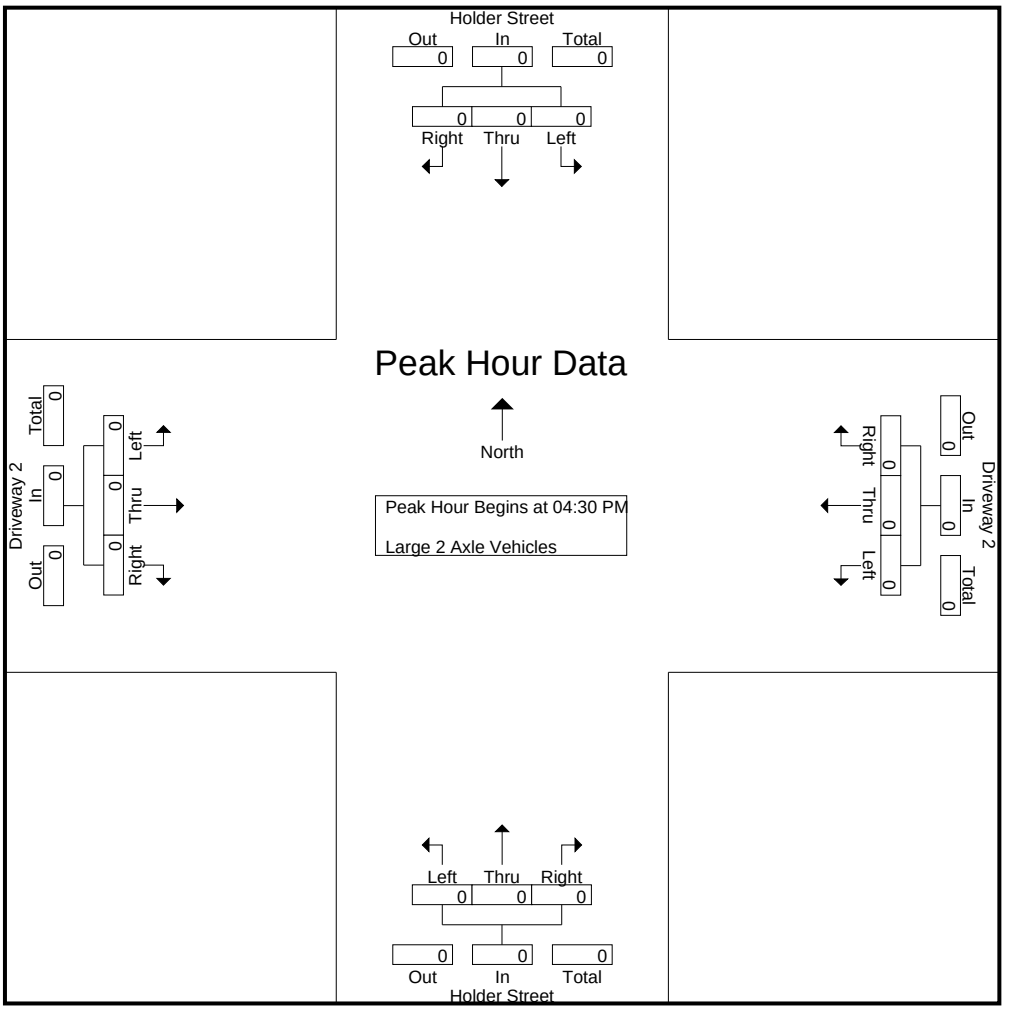
951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 2
Weather: Clear

File Name : 12_CYP_Holder_Dwy 2_PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 2
Weather: Clear

File Name : 12_CYP_Holder_Dwy 2_PM
Site Code : 05120183
Start Date : 3/12/2020
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Groups Printed- 3 Axle Vehicles

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0
04:45 PM	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	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	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
05:45 PM	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	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 2
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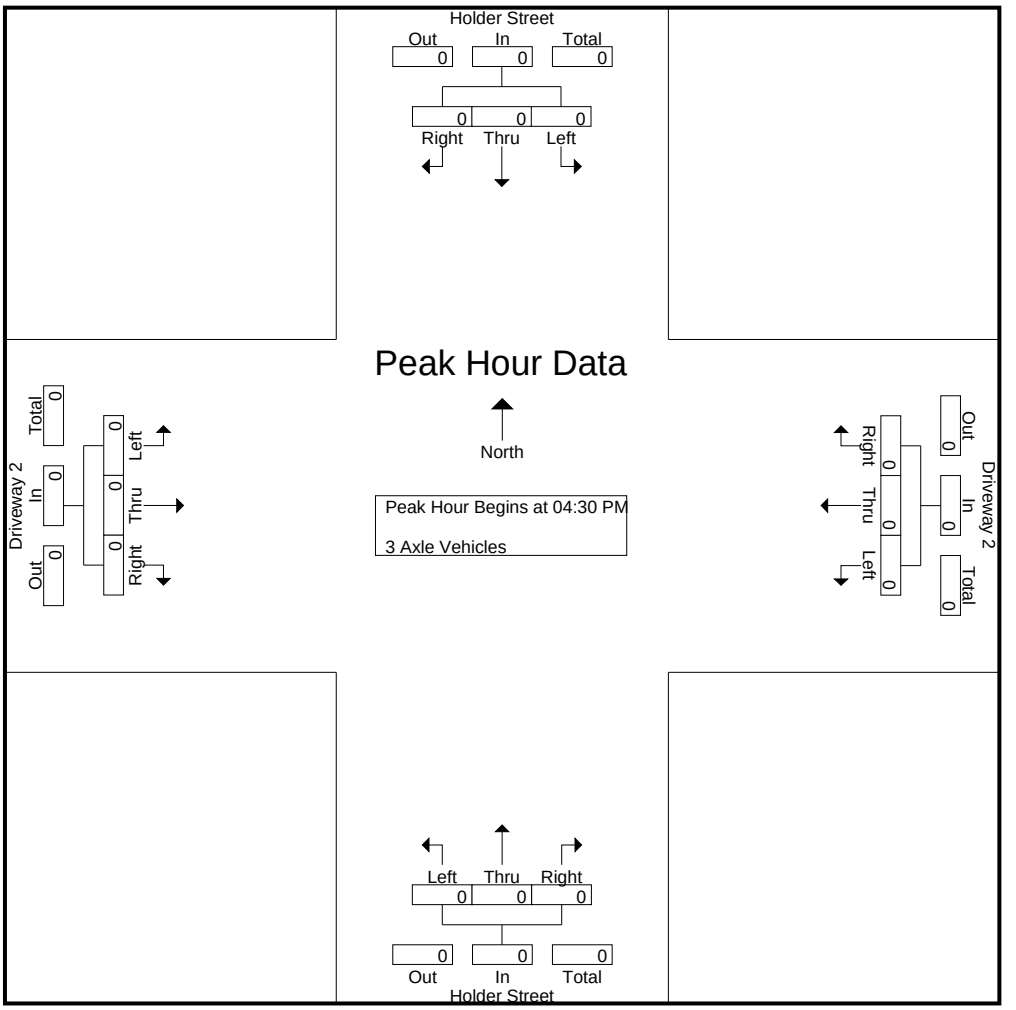
File Name : 12_CYP_Holder_Dwy 2_PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 2
Weather: Clear

File Name : 12_CYP_Holder_Dwy 2_PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- 4+ Axle Trucks

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	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
05:45 PM	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	0	0
Grand Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Apprch %	0	100	0		0	0	0		0	0	0		0	0	0		
Total %	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	

	Holder Street Southbound				Driveway 2 Westbound				Holder Street Northbound				Driveway 2 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	**1**
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

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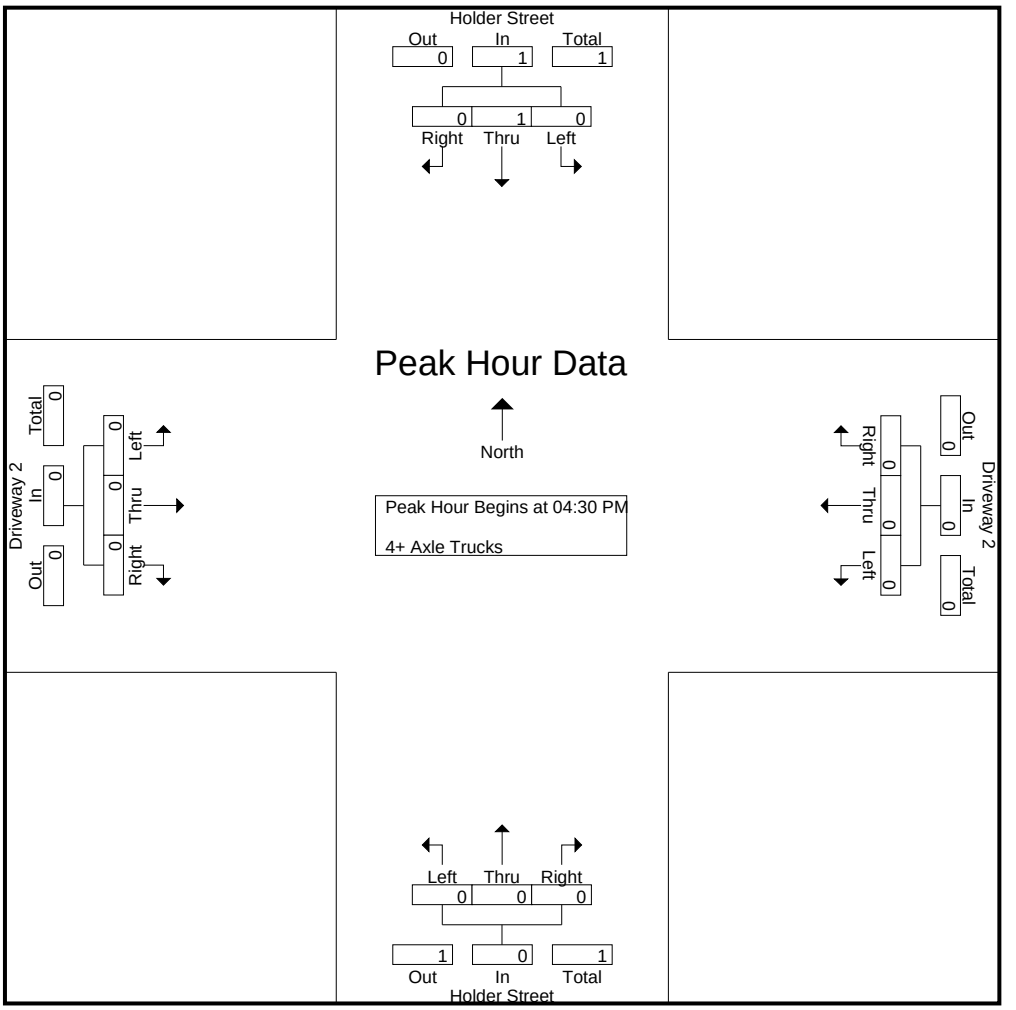
City of Cypress
N/S: Holder Street
E/W: Driveway 2
Weather: Clear

File Name : 12_CYP_Holder_Dwy 2_PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Cypress
N/S: Holder Street
E/W: Driveway 2

Date: 3/12/2020
Day: Thursday

PEDESTRIANS

	North Leg Holder Street	East Leg Driveway 2	South Leg Holder Street	West Leg Driveway 2	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
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 Holder Street	East Leg Driveway 2	South Leg Holder Street	West Leg Driveway 2	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
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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951-268-6268

Location: Cypress
N/S: Holder Street
E/W: Driveway 2

Date: 3/12/2020
Day: Thursday

BICYCLES

	Southbound Holder Street			Westbound Driveway 2			Northbound Holder Street			Eastbound Driveway 2			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Holder Street			Westbound Driveway 2			Northbound Holder Street			Eastbound Driveway 2			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

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951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 3
Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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
07:00 AM	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
07:15 AM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:30 AM	7	1	0	8	0	0	0	0	0	1	0	1	0	0	0	0	9
07:45 AM	8	6	0	14	0	0	1	1	0	1	0	1	0	0	0	0	16
Total	23	7	0	30	0	0	1	1	0	2	0	2	0	0	0	0	33
08:00 AM	5	2	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
08:15 AM	6	2	0	8	0	0	0	0	0	0	0	0	0	0	0	0	8
08:30 AM	6	5	0	11	0	0	1	1	0	1	0	1	0	0	0	0	13
08:45 AM	6	8	0	14	0	0	1	1	0	1	0	1	0	0	0	0	16
Total	23	17	0	40	0	0	2	2	0	2	0	2	0	0	0	0	44
Grand Total	46	24	0	70	0	0	3	3	0	4	0	4	0	0	0	0	77
Apprch %	65.7	34.3	0		0	0	100		0	100	0		0	0	0		
Total %	59.7	31.2	0	90.9	0	0	3.9	3.9	0	5.2	0	5.2	0	0	0	0	
Passenger Vehicles	45	23	0	68	0	0	2	2	0	3	0	3	0	0	0	0	73
% Passenger Vehicles	97.8	95.8	0	97.1	0	0	66.7	66.7	0	75	0	75	0	0	0	0	94.8
Large 2 Axle Vehicles	1	1	0	2	0	0	1	1	0	1	0	1	0	0	0	0	4
% Large 2 Axle Vehicles	2.2	4.2	0	2.9	0	0	33.3	33.3	0	25	0	25	0	0	0	0	5.2
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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	**8**	**6**	0	**14**	0	0	**1**	**1**	0	**1**	0	**1**	0	0	0	0	**16**
08:00 AM	5	2	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
08:15 AM	6	2	0	8	0	0	0	0	0	0	0	0	0	0	0	0	8
08:30 AM	6	5	0	11	0	0	1	1	0	1	0	1	0	0	0	0	13
Total Volume	25	15	0	40	0	0	2	2	0	2	0	2	0	0	0	0	44
% App. Total	62.5	37.5	0		0	0	100		0	100	0		0	0	0		
PHF	.781	.625	.000	.714	.000	.000	.500	.500	.000	.500	.000	.500	.000	.000	.000	.000	.688

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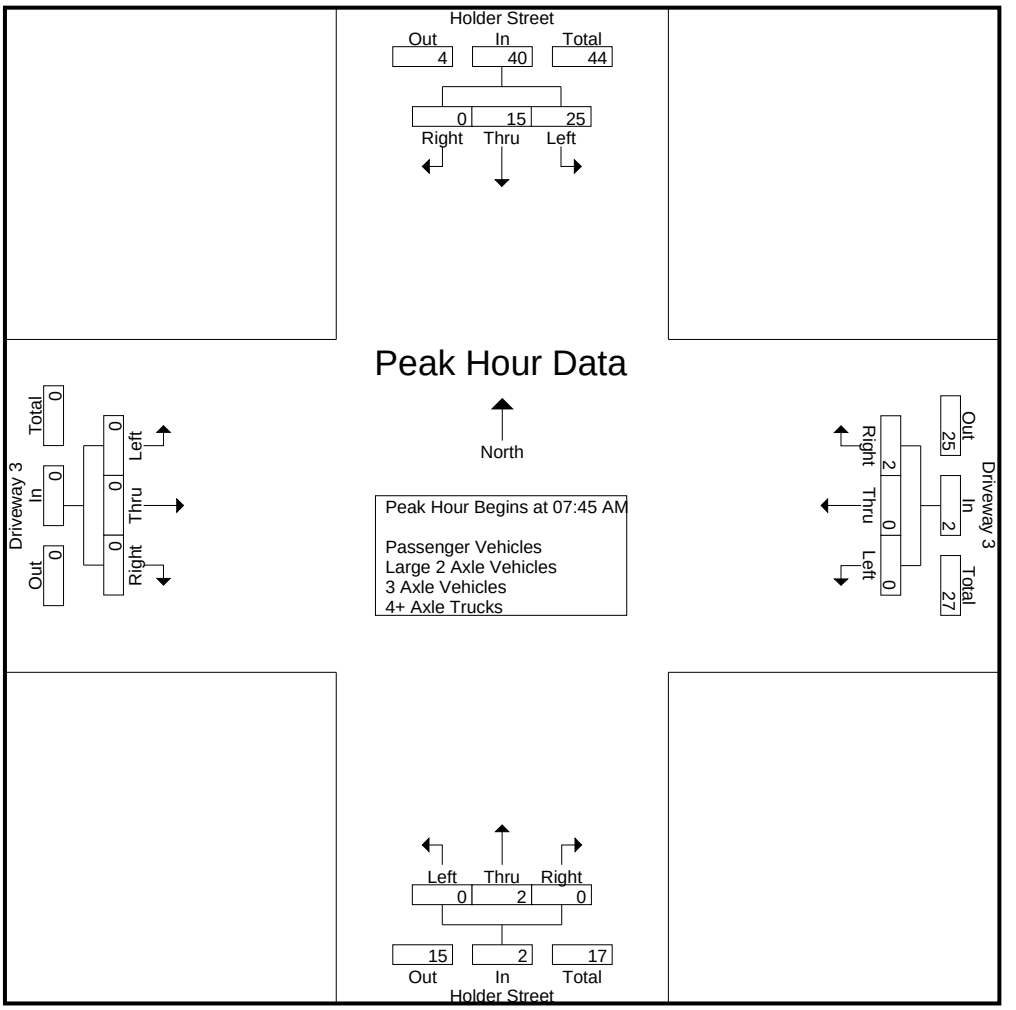
City of Cypress
N/S: Holder Street
E/W: Driveway 3
Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_AM
Site Code : 05120183
Start Date : 3/12/2020



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

	07:45 AM				07:45 AM				07:00 AM				07:00 AM			
+0 mins.	**8**	**6**	0	**14**	0	0	**1**	**1**	0	0	0	0	0	0	0	0
+15 mins.	5	2	0	7	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	6	2	0	8	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+45 mins.	6	5	0	11	0	0	1	1	0	1	0	1	0	0	0	0
Total Volume	25	15	0	40	0	0	2	2	0	2	0	2	0	0	0	0
% App. Total	62.5	37.5	0		0	0	100		0	100	0		0	0	0	
PHF	.781	.625	.000	.714	.000	.000	.500	.500	.000	.500	.000	.500	.000	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 3
Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	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	0	0
08:00 AM	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
08:30 AM	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
08:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	1	1	0	2	0	0	1	1	0	1	0	1	0	0	0	0	4
Grand Total	1	1	0	2	0	0	1	1	0	1	0	1	0	0	0	0	4
Apprch %	50	50	0		0	0	100		0	100	0		0	0	0		
Total %	25	25	0	50	0	0	25	25	0	25	0	25	0	0	0	0	

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	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
08:30 AM	**1**	0	0	**1**	0	0	**1**	**1**	0	0	0	0	0	0	0	0	**2**
Total Volume	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
% App. Total	100	0	0		0	0	100		0	0	0		0	0	0		
PHF	.250	.000	.000	.250	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

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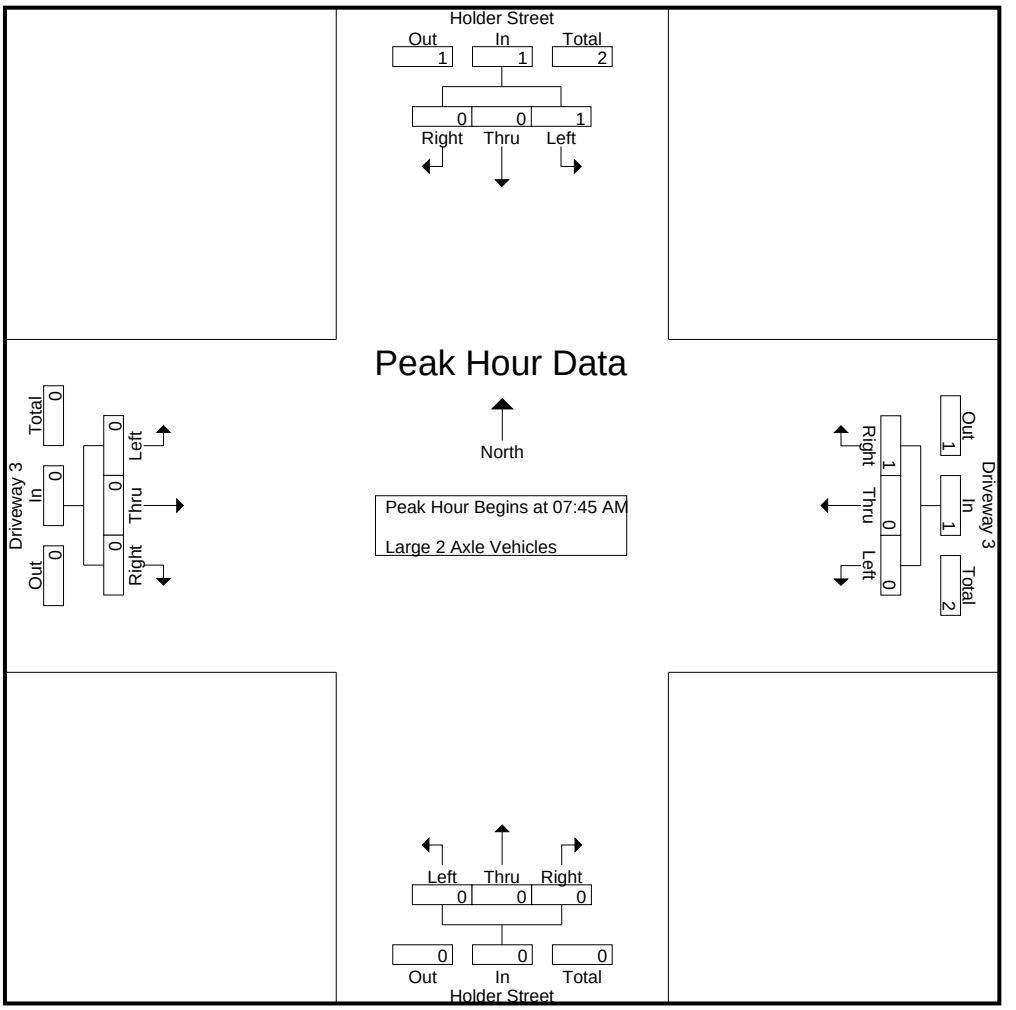
City of Cypress
N/S: Holder Street
E/W: Driveway 3
Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+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.	**1**	0	0	**1**	0	0	**1**	**1**	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0
% App. Total	100	0	0		0	0	100		0	0	0		0	0	0	
PHF	.250	.000	.000	.250	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 3
Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- 3 Axle Vehicles

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	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	0	0
08:00 AM	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
08:30 AM	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	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	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
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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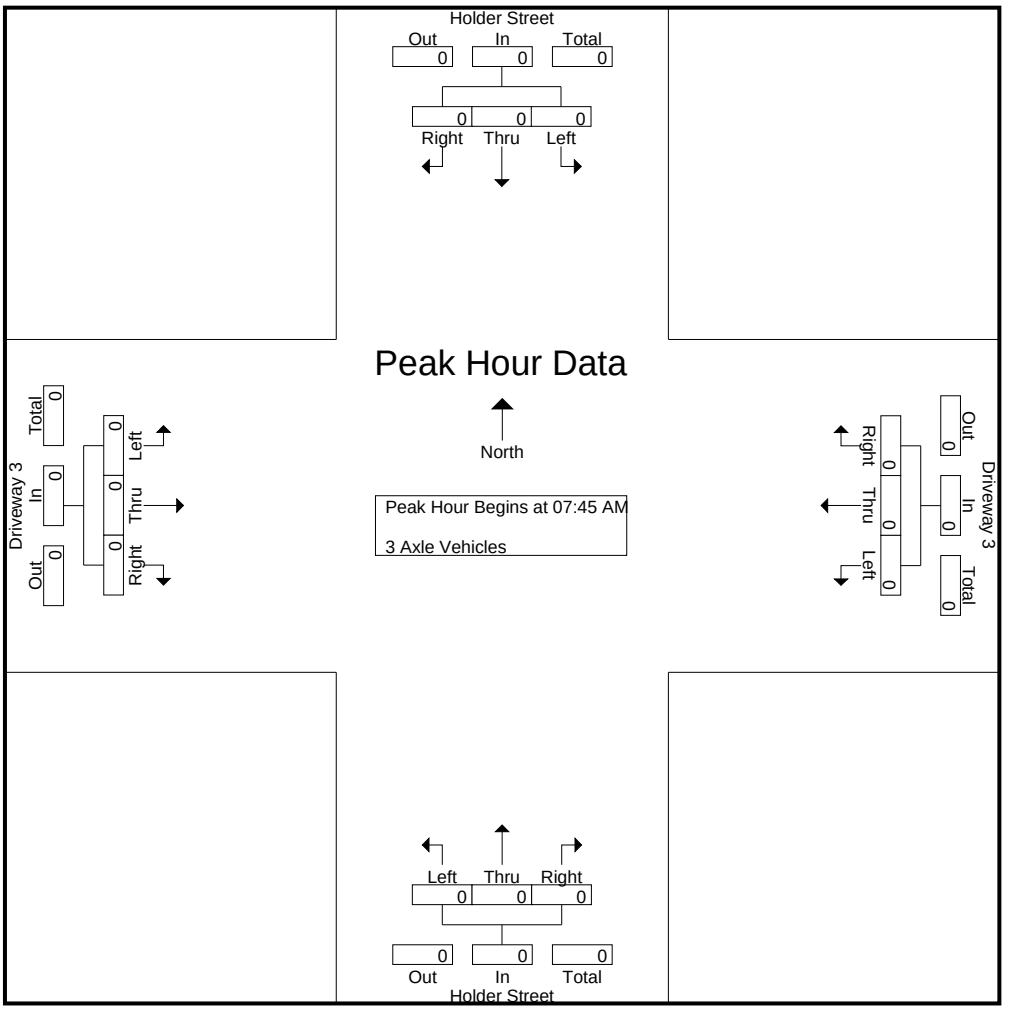
951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 3
Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 3
Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- 4+ Axle Trucks

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	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	0	0
08:00 AM	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
08:30 AM	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	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	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
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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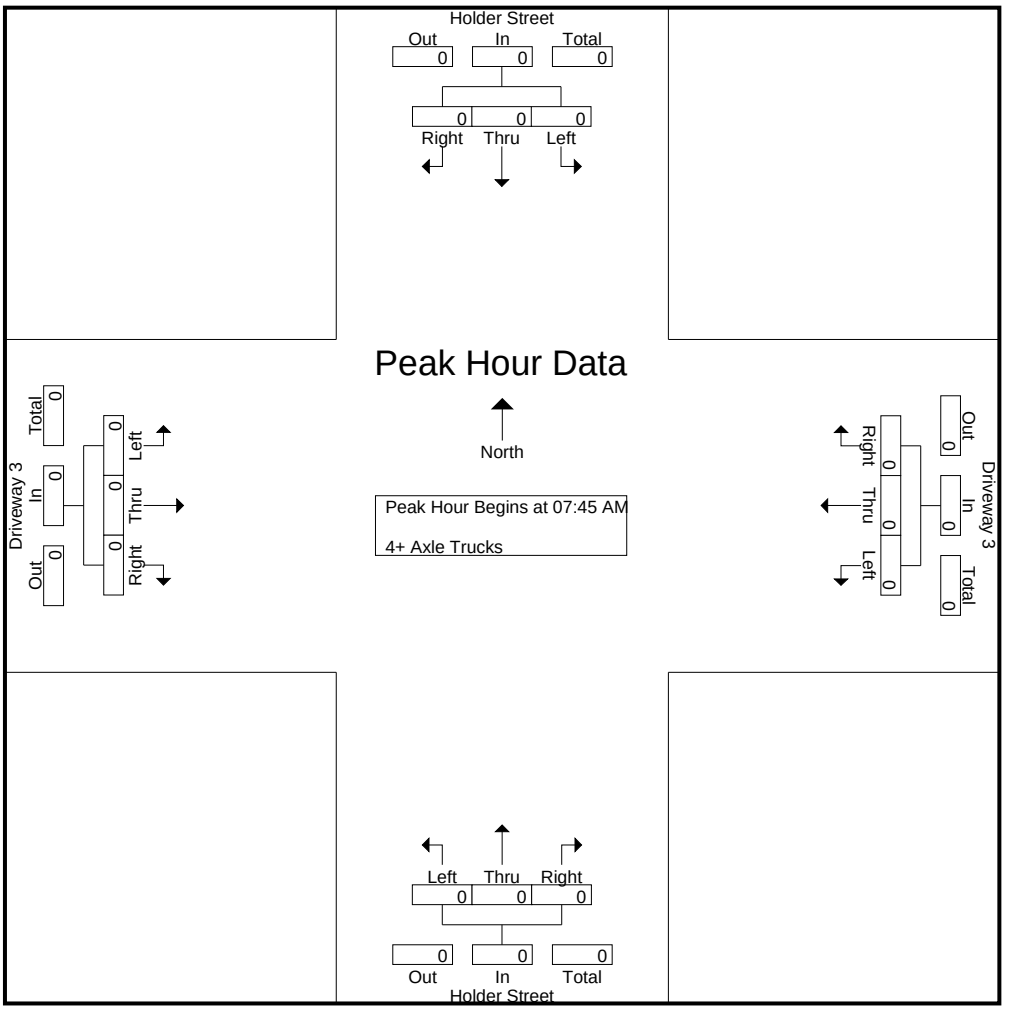
City of Cypress
N/S: Holder Street
E/W: Driveway 3
Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 3
Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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
04:00 PM	1	2	0	3	0	0	2	2	0	2	0	2	0	0	0	0	7
04:15 PM	0	1	0	1	0	0	4	4	0	2	0	2	0	0	0	0	7
04:30 PM	1	1	0	2	0	0	7	7	0	4	0	4	0	0	0	0	13
04:45 PM	2	0	0	2	0	0	1	1	0	2	0	2	0	0	0	0	5
Total	4	4	0	8	0	0	14	14	0	10	0	10	0	0	0	0	32
05:00 PM	1	1	0	2	0	0	13	13	0	4	0	4	0	0	0	0	19
05:15 PM	1	0	0	1	0	0	5	5	0	7	0	7	0	0	0	0	13
05:30 PM	3	1	0	4	0	0	4	4	0	2	0	2	0	0	0	0	10
05:45 PM	1	0	0	1	0	0	5	5	0	1	0	1	0	0	0	0	7
Total	6	2	0	8	0	0	27	27	0	14	0	14	0	0	0	0	49
Grand Total	10	6	0	16	0	0	41	41	0	24	0	24	0	0	0	0	81
Apprch %	62.5	37.5	0		0	0	100		0	100	0		0	0	0		
Total %	12.3	7.4	0	19.8	0	0	50.6	50.6	0	29.6	0	29.6	0	0	0	0	
Passenger Vehicles	10	6	0	16	0	0	41	41	0	24	0	24	0	0	0	0	81
% Passenger Vehicles	100	100	0	100	0	0	100	100	0	100	0	100	0	0	0	0	100
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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	1	**1**	0	**2**	0	0	7	7	0	4	0	4	0	0	0	0	13
04:45 PM	**2**	0	0	2	0	0	1	1	0	2	0	2	0	0	0	0	5
05:00 PM	1	1	0	2	0	0	**13**	**13**	0	4	0	4	0	0	0	0	**19**
05:15 PM	1	0	0	1	0	0	5	5	0	**7**	0	**7**	0	0	0	0	13
Total Volume	5	2	0	7	0	0	26	26	0	17	0	17	0	0	0	0	50
% App. Total	71.4	28.6	0		0	0	100		0	100	0		0	0	0		
PHF	.625	.500	.000	.875	.000	.000	.500	.500	.000	.607	.000	.607	.000	.000	.000	.000	.658

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City of Cypress
N/S: Holder Street
E/W: Driveway 3
Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_PM
Site Code : 05120183
Start Date : 3/12/2020
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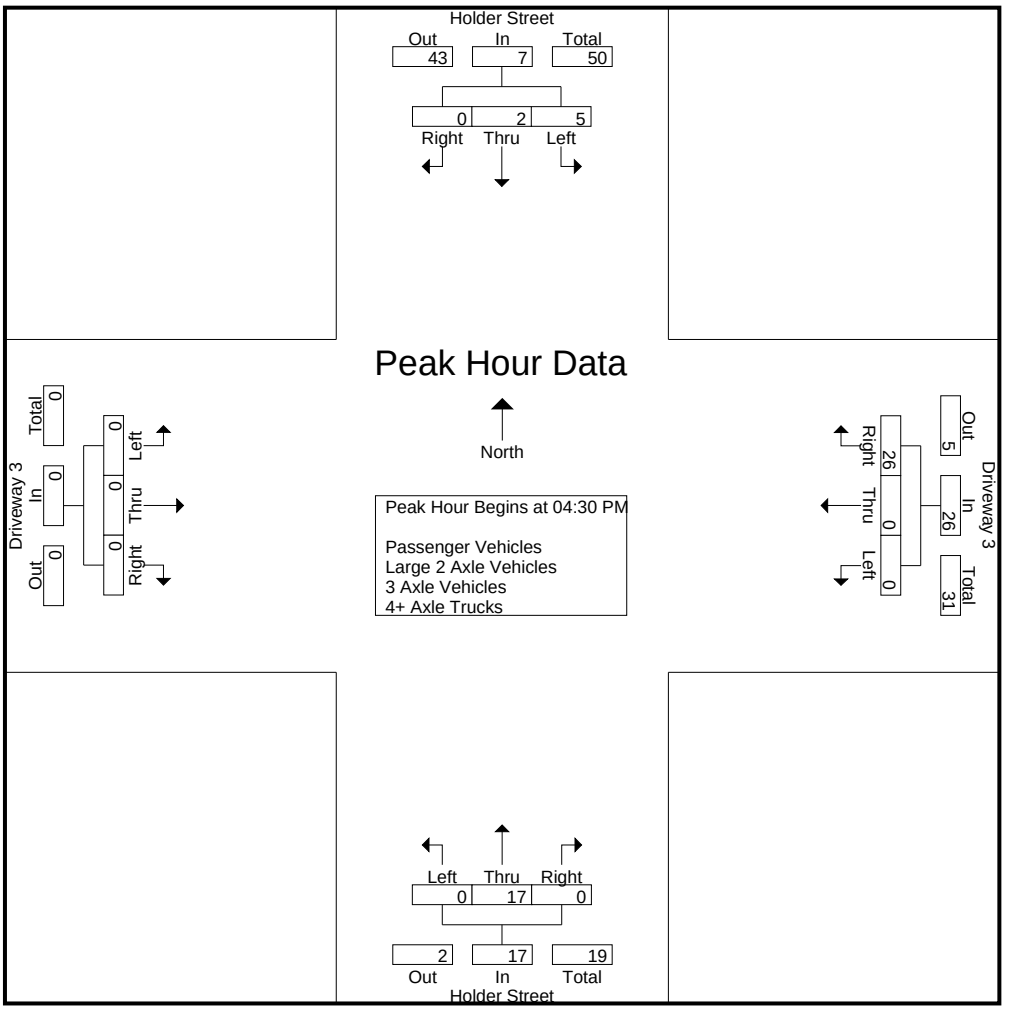

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				05:00 PM				04:30 PM				04:00 PM			
+0 mins.	2	0	0	2	0	0	**13**	**13**	0	4	0	4	0	0	0	0
+15 mins.	1	**1**	0	2	0	0	5	5	0	2	0	2	0	0	0	0
+30 mins.	1	0	0	1	0	0	4	4	0	4	0	4	0	0	0	0
+45 mins.	**3**	1	0	**4**	0	0	5	5	0	**7**	0	**7**	0	0	0	0
Total Volume	7	2	0	9	0	0	27	27	0	17	0	17	0	0	0	0
% App. Total	77.8	22.2	0		0	0	100		0	100	0		0	0	0	
PHF	.583	.500	.000	.563	.000	.000	.519	.519	.000	.607	.000	.607	.000	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 3
Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_PM
Site Code : 05120183
Start Date : 3/12/2020
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Groups Printed- Large 2 Axle Vehicles

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0
04:45 PM	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	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	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
05:45 PM	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	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 3
Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_PM
Site Code : 05120183
Start Date : 3/12/2020
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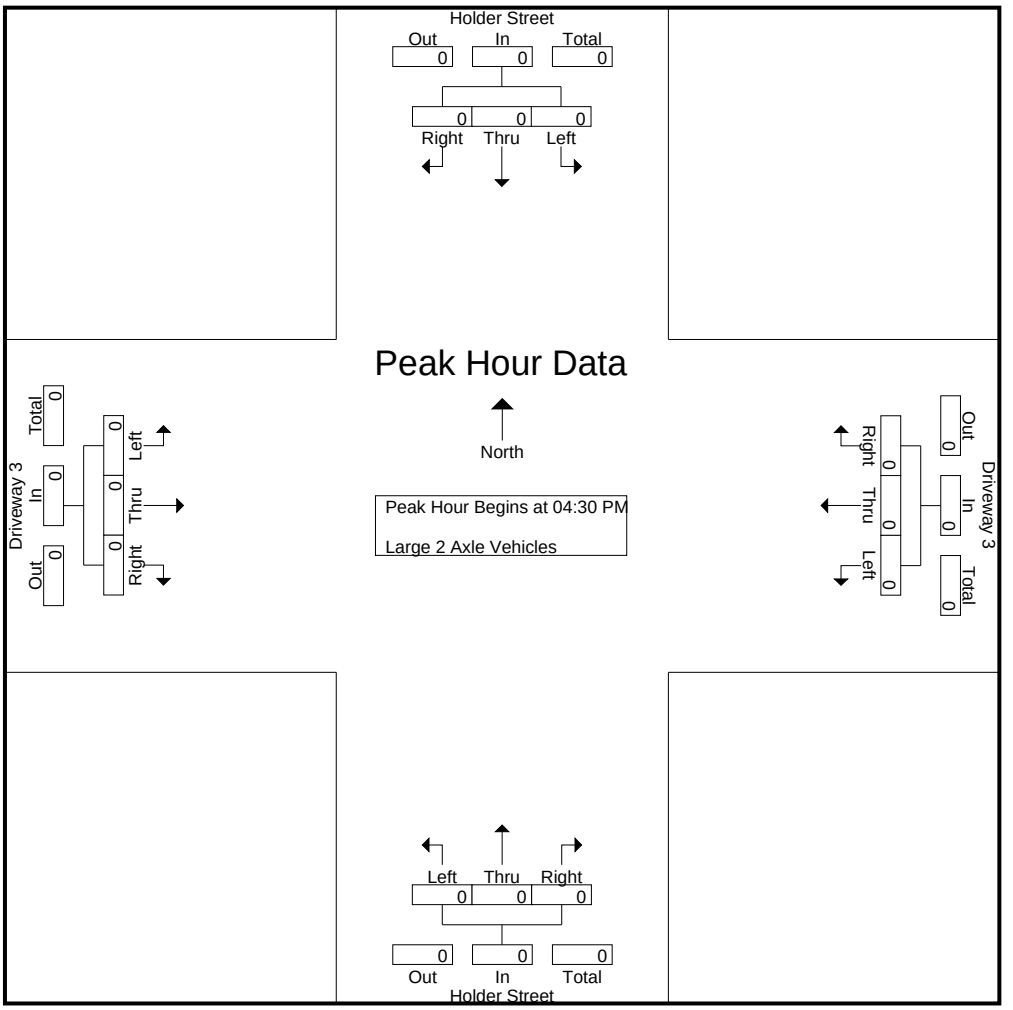

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Cypress
N/S: Holder Street
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Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- 3 Axle Vehicles

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0
04:45 PM	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	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	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
05:45 PM	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	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 3
Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_PM
Site Code : 05120183
Start Date : 3/12/2020
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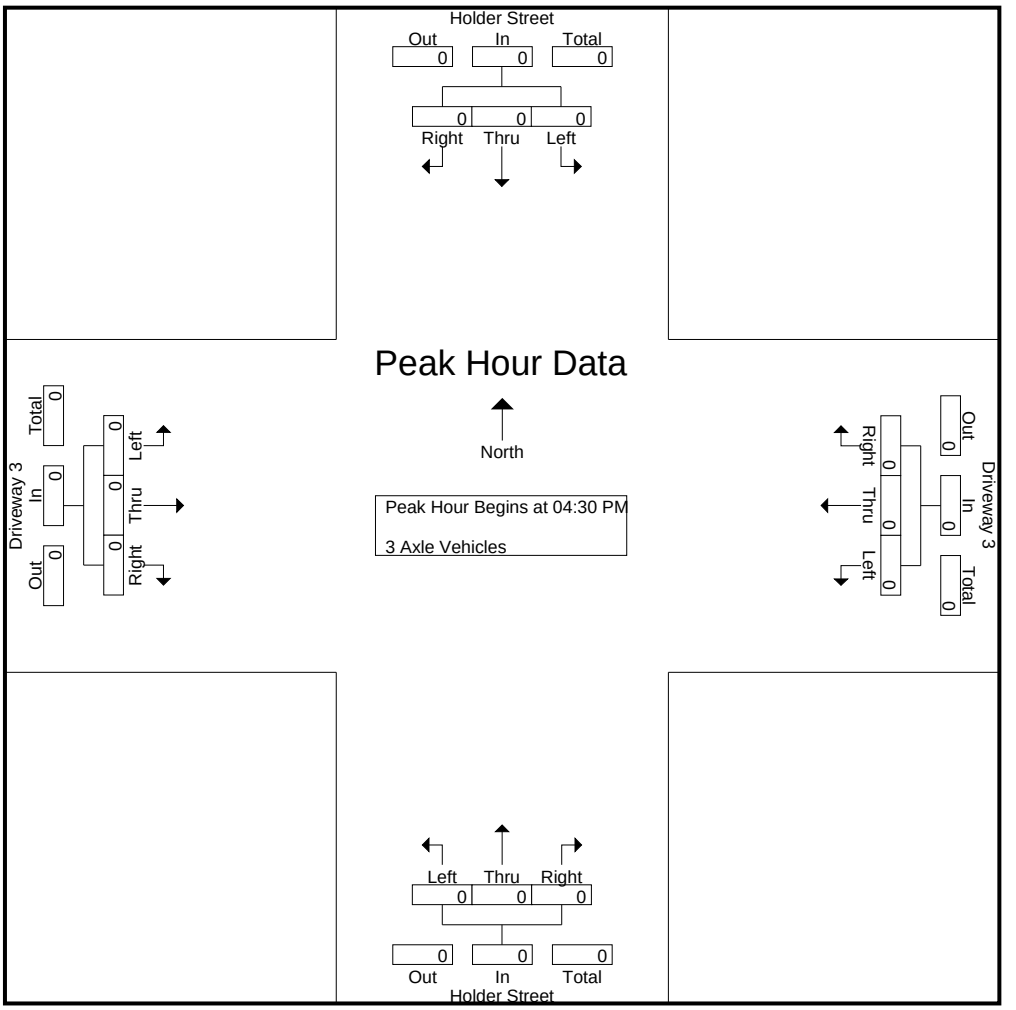

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 3
Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- 4+ Axle Trucks

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0
04:45 PM	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	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	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
05:45 PM	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	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Holder Street Southbound				Driveway 3 Westbound				Holder Street Northbound				Driveway 3 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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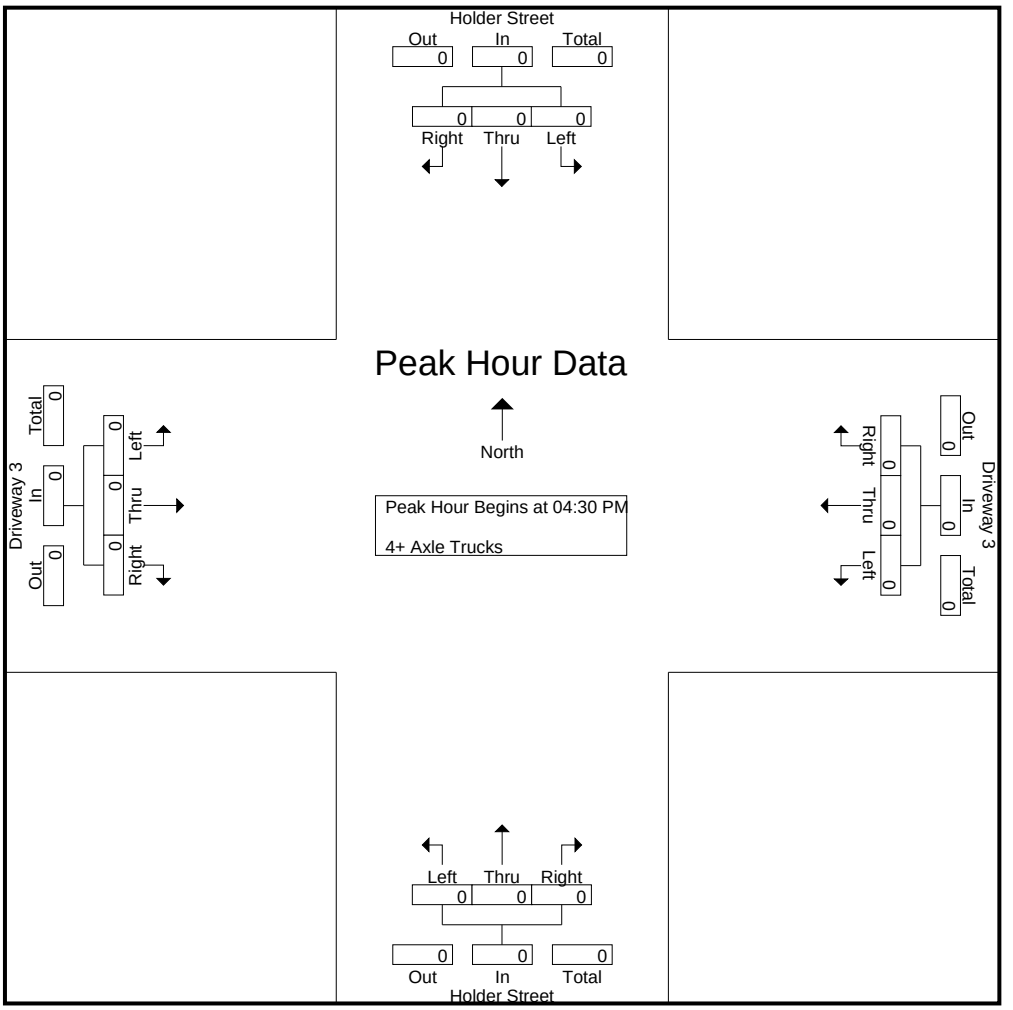
City of Cypress
N/S: Holder Street
E/W: Driveway 3
Weather: Clear

File Name : 13_CYP_Holder_Dwy 3_PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Cypress
N/S: Holder Street
E/W: Driveway 3

Date: 3/12/2020
Day: Thursday

PEDESTRIANS

	North Leg Holder Street	East Leg Driveway 3	South Leg Holder Street	West Leg Driveway 3	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
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 Holder Street	East Leg Driveway 3	South Leg Holder Street	West Leg Driveway 3	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
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, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Cypress
N/S: Holder Street
E/W: Driveway 3

Date: 3/12/2020
Day: Thursday

BICYCLES

	Southbound Holder Street			Westbound Driveway 3			Northbound Holder Street			Eastbound Driveway 3			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Holder Street			Westbound Driveway 3			Northbound Holder Street			Eastbound Driveway 3			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited
PO Box 1178
Corona, CA 92878
951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_AM
Site Code : 05120183
Start Date : 3/12/2020

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	1	0	1	1	0	0	0	2
07:45 AM	6	0	6	0	1	1	0	0	0	7
Total	7	0	7	0	2	2	0	0	0	9
08:00 AM	2	0	2	0	0	0	0	0	0	2
08:15 AM	2	0	2	0	0	0	0	0	0	2
08:30 AM	3	0	3	0	1	1	0	0	0	4
08:45 AM	7	0	7	0	1	1	0	0	0	8
Total	14	0	14	0	2	2	0	0	0	16
Grand Total	21	0	21	0	4	4	0	0	0	25
Apprch %	100	0		0	100		0	0		
Total %	84	0	84	0	16	16	0	0	0	
Passenger Vehicles	20	0	20	0	3	3	0	0	0	23
% Passenger Vehicles	95.2	0	95.2	0	75	75	0	0	0	92
Large 2 Axle Vehicles	1	0	1	0	1	1	0	0	0	2
% Large 2 Axle Vehicles										
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	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	2	0	2	0	0	0	0	0	0	2
08:15 AM	2	0	2	0	0	0	0	0	0	2
08:30 AM	3	0	3	0	**1**	**1**	0	0	0	4
08:45 AM	**7**	0	**7**	0	1	1	0	0	0	**8**
Total Volume	14	0	14	0	2	2	0	0	0	16
% App. Total	100	0		0	100		0	0		
PHF	.500	.000	.500	.000	.500	.500	.000	.000	.000	.500

Counts Unlimited
PO Box 1178
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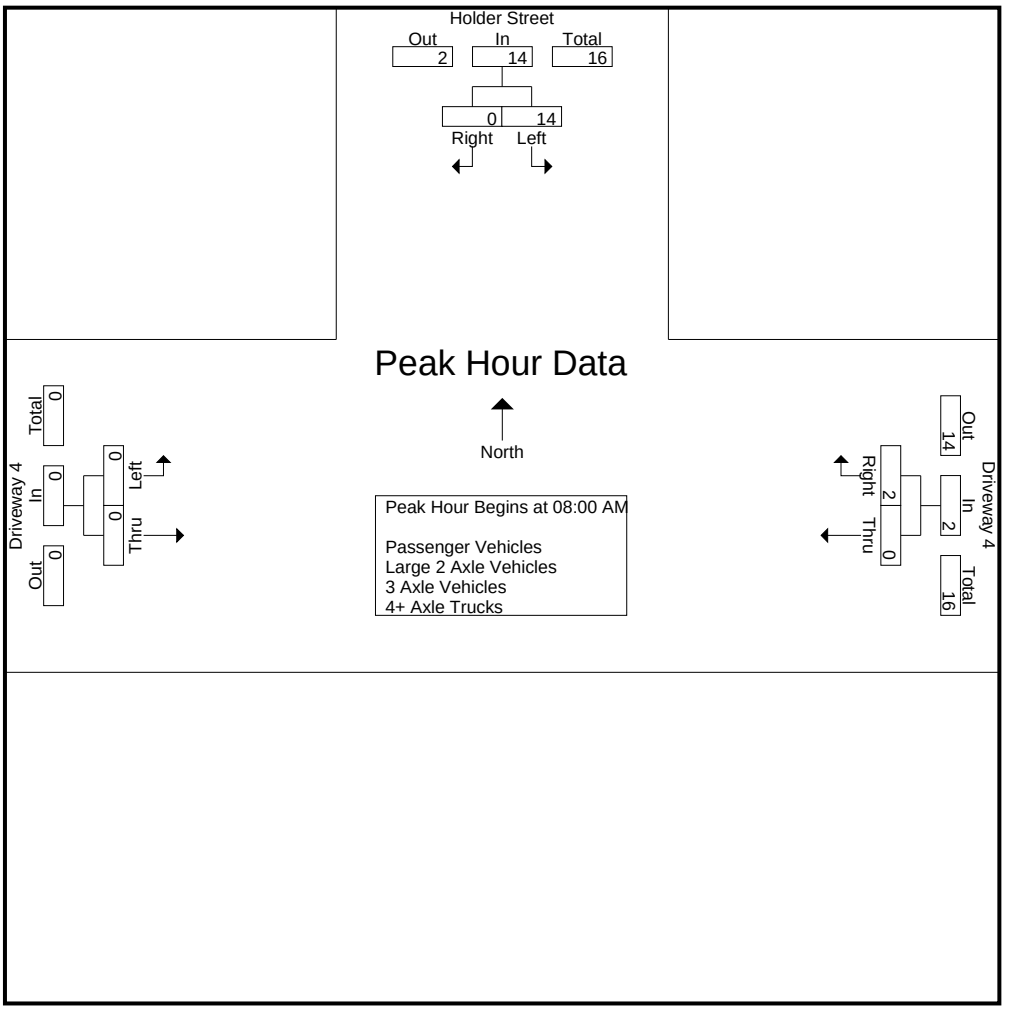
City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_AM
Site Code : 05120183
Start Date : 3/12/2020
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.	2	0	2	0	0	0	0	0	0
+15 mins.	2	0	2	0	0	0	0	0	0
+30 mins.	3	0	3	0	**1**	**1**	0	0	0
+45 mins.	**7**	0	**7**	0	1	1	0	0	0
Total Volume	14	0	14	0	2	2	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.500	.000	.500	.000	.500	.500	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	1	0	1	0	1	1	0	0	0	2
Total	1	0	1	0	1	1	0	0	0	2
Grand Total	1	0	1	0	1	1	0	0	0	2
Apprch %	100	0		0	100		0	0		
Total %	50	0	50	0	50	50	0	0	0	

	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 08:00 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	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	**1**	0	**1**	0	**1**	**1**	0	0	0	**2**
Total Volume	1	0	1	0	1	1	0	0	0	2
% App. Total	100	0		0	100		0	0		
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000	.250

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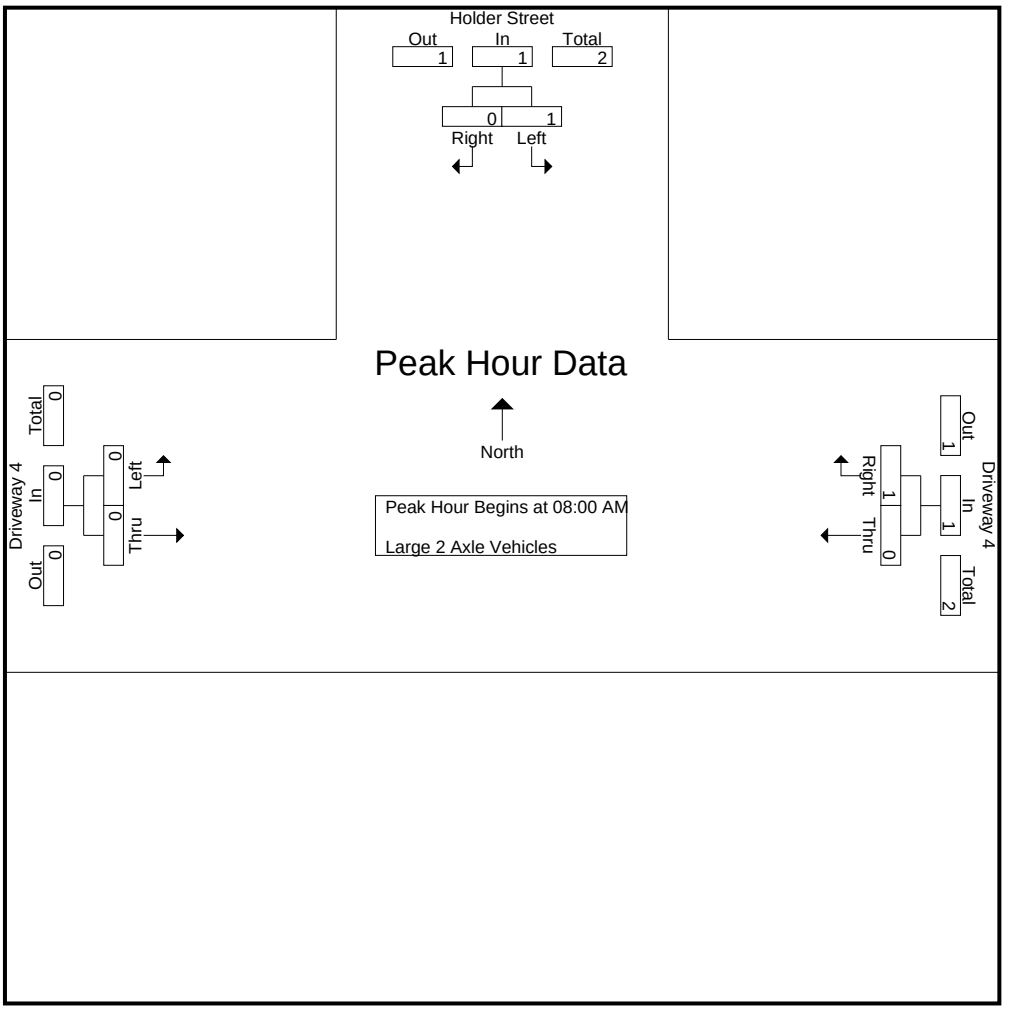
City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



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

	08:00 AM			08:00 AM			08:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	**1**	0	**1**	0	**1**	**1**	0	0	0
Total Volume	1	0	1	0	1	1	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- 3 Axle Vehicles

	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 08:00 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	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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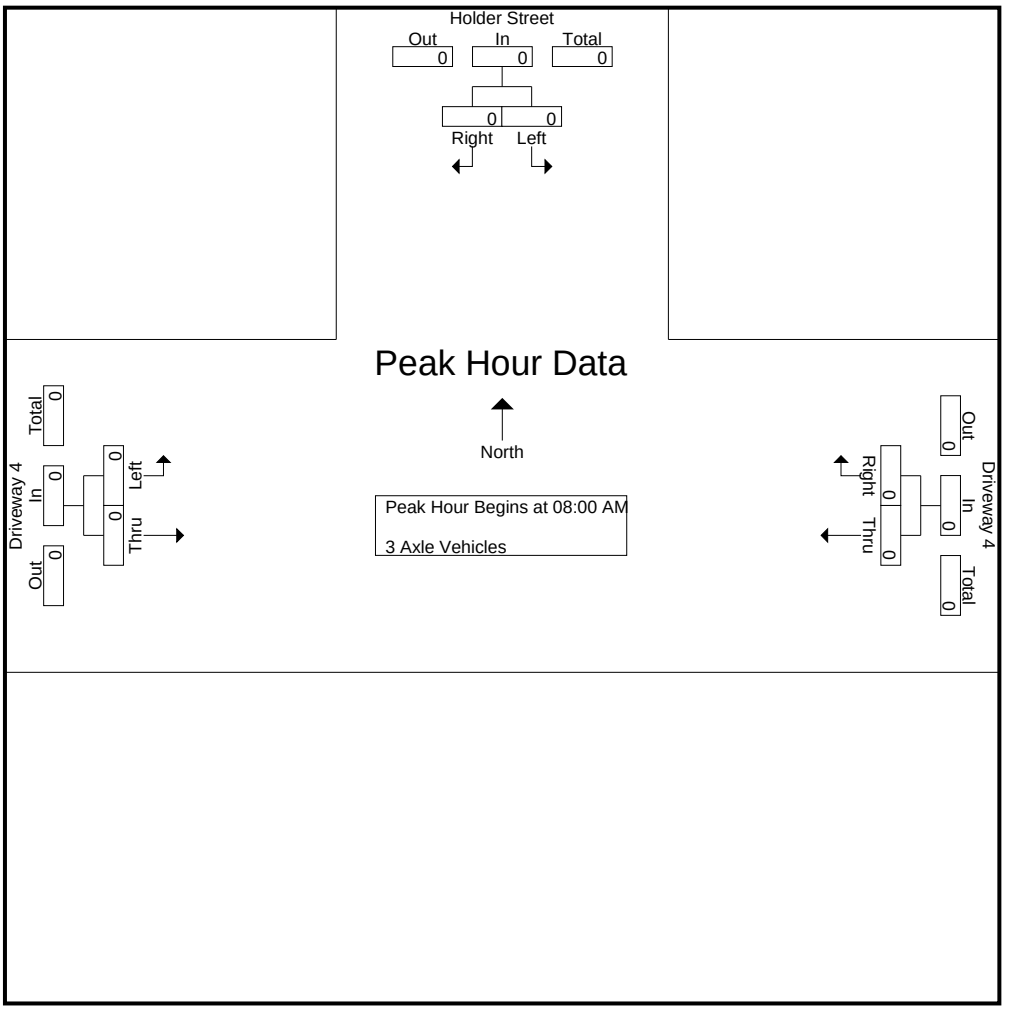
City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



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

	08:00 AM			08:00 AM			08:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- 4+ Axle Trucks

	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 08:00 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	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
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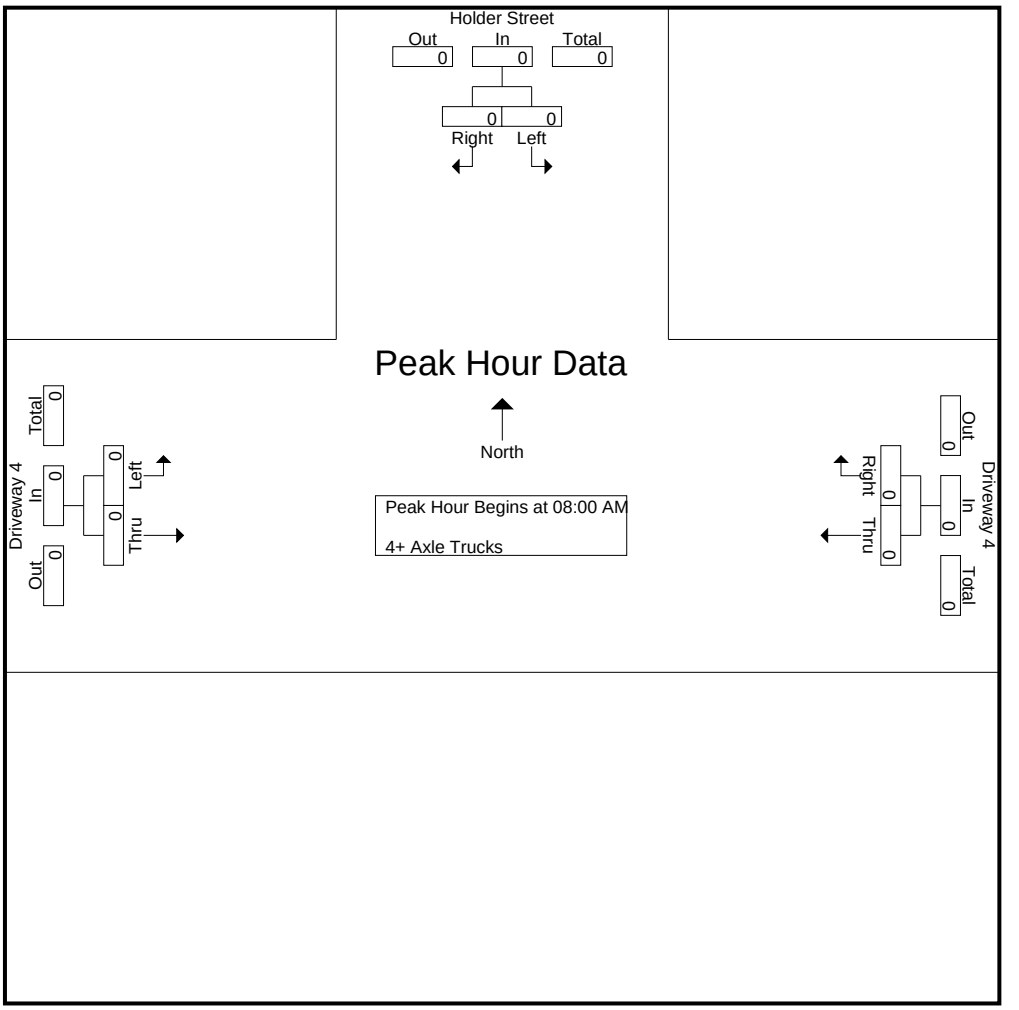
951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_AM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



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

	08:00 AM			08:00 AM			08:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
PO Box 1178
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951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_PM
Site Code : 05120183
Start Date : 3/12/2020

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	1	0	1	0	2	2	0	0	0	3
04:15 PM	1	0	1	0	2	2	0	0	0	3
04:30 PM	1	0	1	0	4	4	0	0	0	5
04:45 PM	0	0	0	0	1	1	0	0	0	1
Total	3	0	3	0	9	9	0	0	0	12
05:00 PM	1	0	1	0	4	4	0	0	0	5
05:15 PM	0	0	0	0	5	5	0	0	0	5
05:30 PM	0	0	0	0	1	1	0	0	0	1
05:45 PM	0	0	0	0	1	1	0	0	0	1
Total	1	0	1	0	11	11	0	0	0	12
Grand Total	4	0	4	0	20	20	0	0	0	24
Apprch %	100	0		0	100		0	0		
Total %	16.7	0	16.7	0	83.3	83.3	0	0	0	
Passenger Vehicles	4	0	4	0	20	20	0	0	0	24
% Passenger Vehicles	100	0	100	0	100	100	0	0	0	100
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% Large 2 Axle Vehicles										
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	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	**1**	0	**1**	0	4	4	0	0	0	**5**
04:45 PM	0	0	0	0	1	1	0	0	0	1
05:00 PM	1	0	1	0	4	4	0	0	0	5
05:15 PM	0	0	0	0	**5**	**5**	0	0	0	5
Total Volume	2	0	2	0	14	14	0	0	0	16
% App. Total	100	0		0	100		0	0		
PHF	.500	.000	.500	.000	.700	.700	.000	.000	.000	.800

Counts Unlimited
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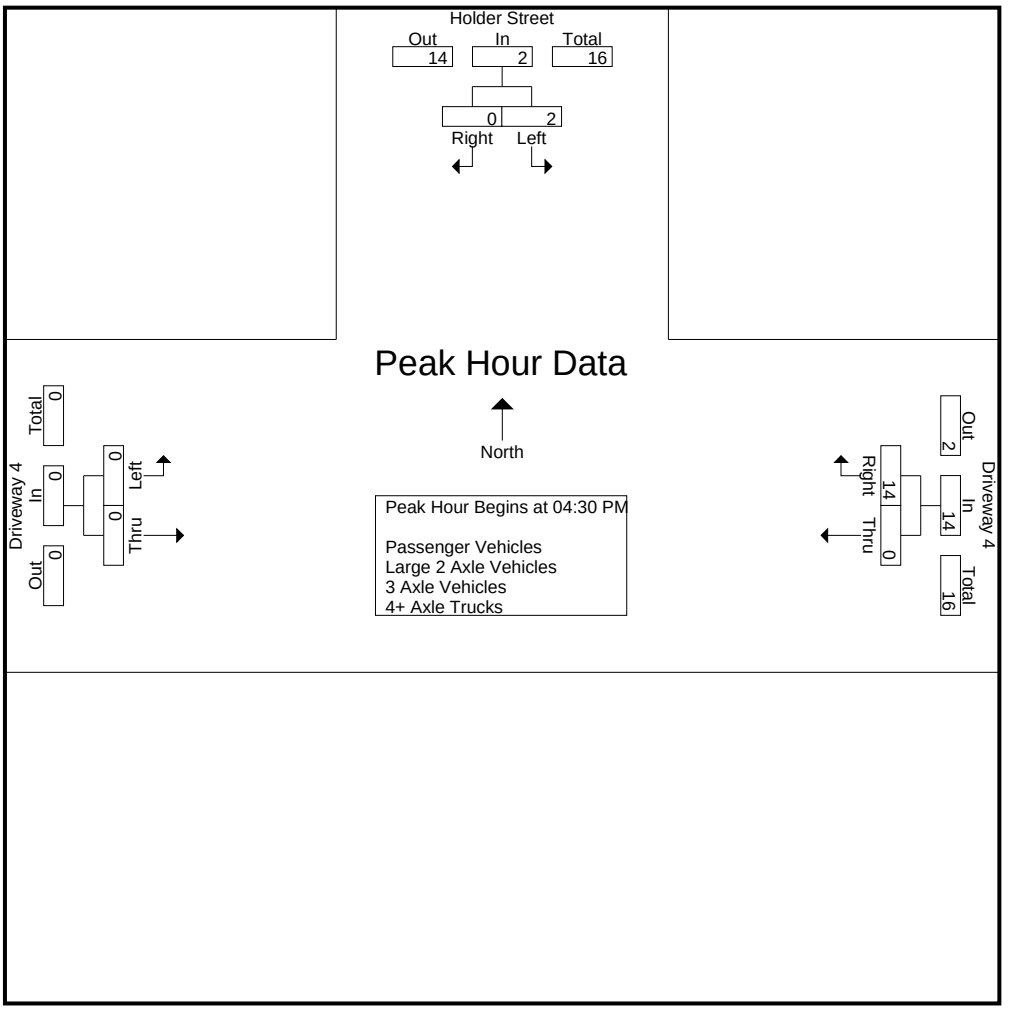
City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_PM
Site Code : 05120183
Start Date : 3/12/2020



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**	0	**1**	0	4	4	0	0	0
+15 mins.	1	0	1	0	1	1	0	0	0
+30 mins.	1	0	1	0	4	4	0	0	0
+45 mins.	0	0	0	0	**5**	**5**	0	0	0
Total Volume	3	0	3	0	14	14	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.750	.000	.750	.000	.700	.700	.000	.000	.000

Counts Unlimited
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951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- Large 2 Axle Vehicles

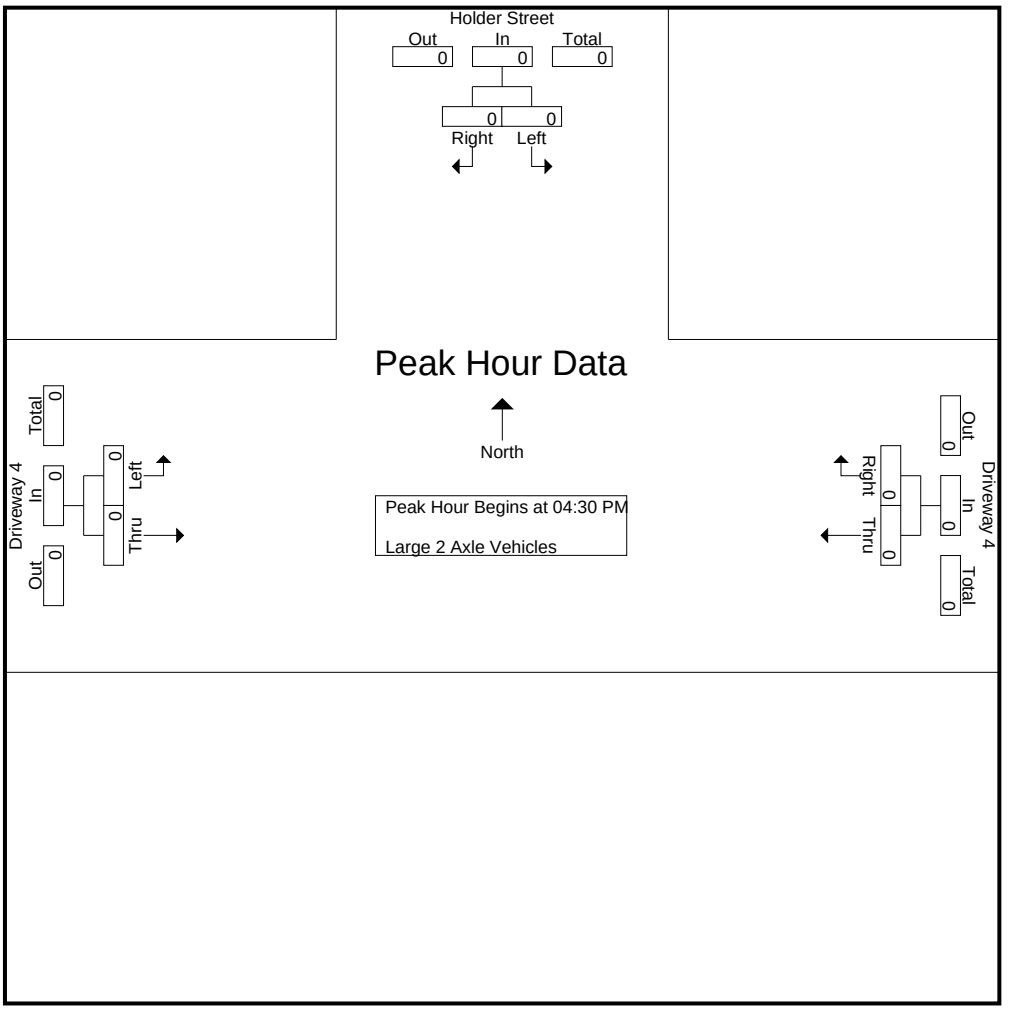
	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
PO Box 1178
Corona, CA 92878
951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_PM
Site Code : 05120183
Start Date : 3/12/2020



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
PO Box 1178
Corona, CA 92878
951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- 3 Axle Vehicles

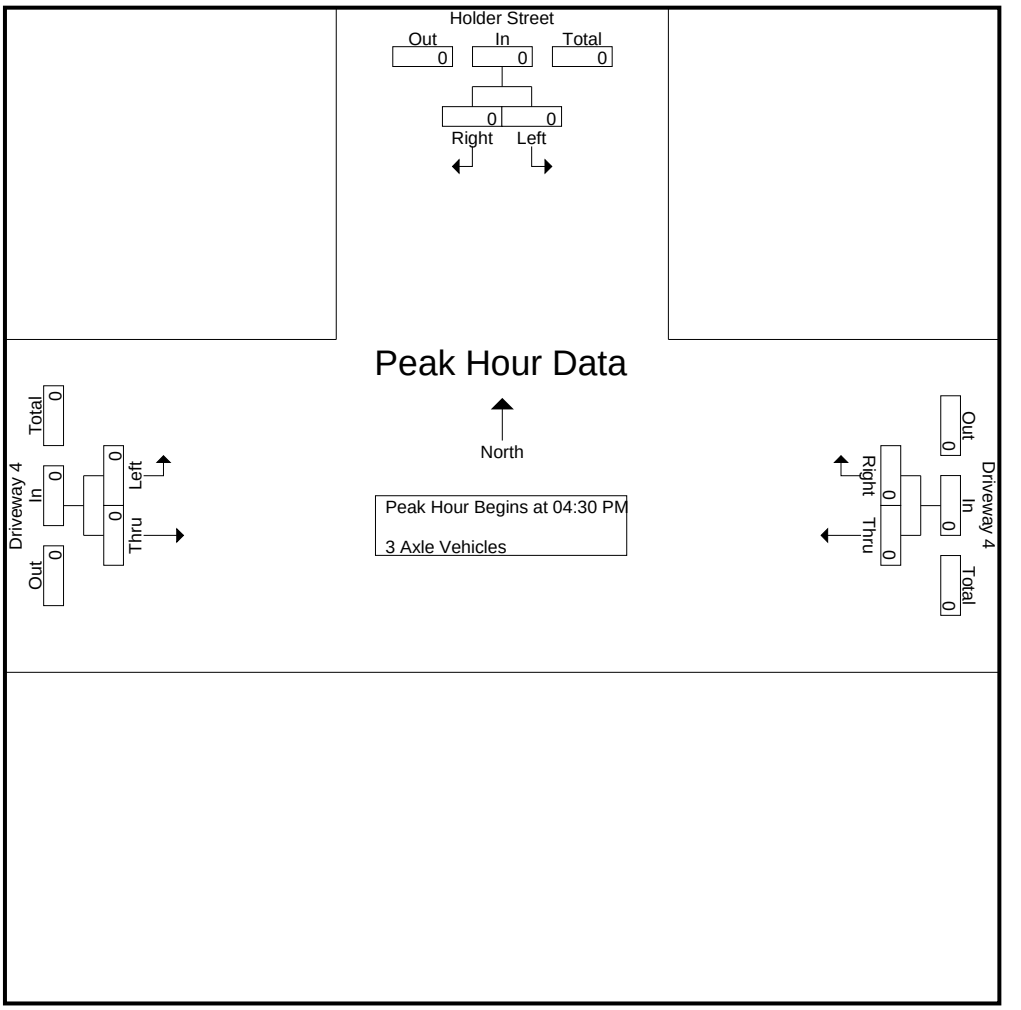
	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
PO Box 1178
Corona, CA 92878
951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_PM
Site Code : 05120183
Start Date : 3/12/2020



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
PO Box 1178
Corona, CA 92878
951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 1

Groups Printed- 4+ Axle Trucks

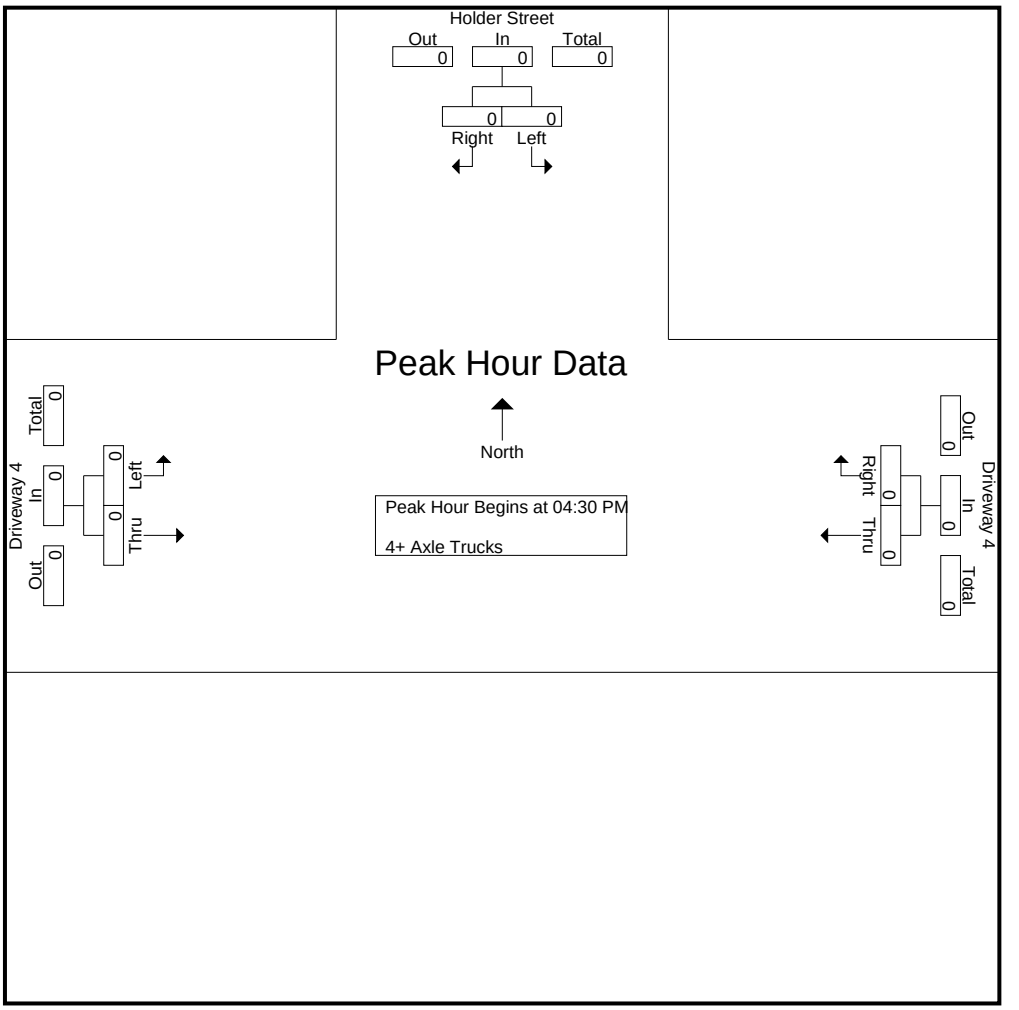
	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Holder Street Southbound			Driveway 4 Westbound			Driveway 4 Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
PO Box 1178
Corona, CA 92878
951-268-6268

City of Cypress
N/S: Holder Street
E/W: Driveway 4
Weather: Clear

File Name : 14_CYP_Holder_Dwy 4_PM
Site Code : 05120183
Start Date : 3/12/2020
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Cypress
N/S: Holder Street
E/W: Driveway 4

Date: 3/12/2020
Day: Thursday

PEDESTRIANS

	North Leg Holder Street	East Leg Driveway 4	South Leg Holder Street	West Leg Driveway 4	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
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 Holder Street	East Leg Driveway 4	South Leg Holder Street	West Leg Driveway 4	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
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, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Cypress
N/S: Holder Street
E/W: Driveway 4

Date: 3/12/2020
Day: Thursday

BICYCLES

	Southbound Holder Street			Westbound Driveway 4			Northbound Holder Street			Eastbound Driveway 4			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Holder Street			Westbound Driveway 4			Northbound Holder Street			Eastbound Driveway 4			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

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APPENDIX 3.2:

EXISTING (2020) CONDITIONS INTERSECTION OPERATIONS ANALYSIS

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Katella Avenue High Cube Warehouse (JN 13106)
Existing (2020)
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Holder St. & Katella Av.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.589
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	3	0 1	1 0	3	0 1
Volume Module:												
Base Vol:	10	2	12	200	42	183	35	1085	154	104	1607	146
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	2	12	200	42	183	35	1085	154	104	1607	146
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	2	12	200	42	183	35	1085	154	104	1607	146
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	2	12	200	42	183	35	1085	154	104	1607	146
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	2	12	200	42	183	35	1085	154	104	1607	146
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.01	0.13	0.03	0.11	0.02	0.23	0.10	0.07	0.33	0.09
Crit Moves:			****	****			****				****	

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	5	0	0	0	0	0	0	19	0	9	225	66
Future Vol, veh/h	5	0	0	0	0	0	0	19	0	9	225	66
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	0	0	0	0	0	0	29	0	14	346	102

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	454	454	397	454	505	29	448	0	0	29	0	0
Stage 1	425	425	-	29	29	-	-	-	-	-	-	-
Stage 2	29	29	-	425	476	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	520	505	657	520	473	1052	1123	-	-	1597	-	-
Stage 1	611	590	-	993	875	-	-	-	-	-	-	-
Stage 2	993	875	-	611	560	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	516	500	657	516	469	1052	1123	-	-	1597	-	-
Mov Cap-2 Maneuver	516	500	-	516	469	-	-	-	-	-	-	-
Stage 1	611	585	-	993	875	-	-	-	-	-	-	-
Stage 2	993	875	-	606	555	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	0	0	0.2
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1123	-	-	516	-	1597	-	-
HCM Lane V/C Ratio	-	-	-	0.015	-	0.009	-	-
HCM Control Delay (s)	0	-	-	12.1	0	7.3	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	0	0	0	12	0	4	0	125	68	32
Future Vol, veh/h	4	0	0	0	0	12	0	4	0	125	68	32
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	25	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	0	0	0	0	17	0	6	0	181	99	46

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	499	490	122	490	513	6	145	0	0	6	0	0
Stage 1	484	484	-	6	6	-	-	-	-	-	-	-
Stage 2	15	6	-	484	507	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	485	482	935	492	468	1083	1450	-	-	1628	-	-
Stage 1	568	555	-	1021	895	-	-	-	-	-	-	-
Stage 2	1010	895	-	568	543	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	437	428	935	450	416	1083	1450	-	-	1628	-	-
Mov Cap-2 Maneuver	437	428	-	450	416	-	-	-	-	-	-	-
Stage 1	568	493	-	1021	895	-	-	-	-	-	-	-
Stage 2	994	895	-	505	483	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.3	8.4	0	4.2
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1450	-	-	437	1083	1628	-	-
HCM Lane V/C Ratio	-	-	-	0.013	0.016	0.111	-	-
HCM Control Delay (s)	0	-	-	13.3	8.4	7.5	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0.4	-	-

Katella Avenue High Cube Warehouse (JN 13106)
Existing (2020)
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Holder St. & Katella Av.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.634
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	3	0 1	1 0	3	0 1
Volume Module:												
Base Vol:	110	45	103	211	2	114	135	1581	11	14	1051	209
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	110	45	103	211	2	114	135	1581	11	14	1051	209
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	110	45	103	211	2	114	135	1581	11	14	1051	209
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	45	103	211	2	114	135	1581	11	14	1051	209
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	110	45	103	211	2	114	135	1581	11	14	1051	209
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.03	0.06	0.13	0.00	0.07	0.08	0.33	0.01	0.01	0.22	0.13
Crit Moves:			****	****				****		****		

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	57	0	0	0	0	29	0	173	0	2	21	4
Future Vol, veh/h	57	0	0	0	0	29	0	173	0	2	21	4
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	84	0	0	0	0	43	0	254	0	3	31	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	316	294	34	294	297	254	37	0	0	254	0	0
Stage 1	40	40	-	254	254	-	-	-	-	-	-	-
Stage 2	276	254	-	40	43	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	641	620	1045	662	618	790	1587	-	-	1323	-	-
Stage 1	980	866	-	755	701	-	-	-	-	-	-	-
Stage 2	735	701	-	980	863	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	605	619	1045	661	617	790	1587	-	-	1323	-	-
Mov Cap-2 Maneuver	605	619	-	661	617	-	-	-	-	-	-	-
Stage 1	980	864	-	755	701	-	-	-	-	-	-	-
Stage 2	695	701	-	978	861	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	9.8	0	0.6
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1587	-	-	605	790	1323	-	-
HCM Lane V/C Ratio	-	-	-	0.139	0.054	0.002	-	-
HCM Control Delay (s)	0	-	-	11.9	9.8	7.7	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0	-	-

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	0	0	0	0	90	0	53	0	13	3	5
Future Vol, veh/h	30	0	0	0	0	90	0	53	0	13	3	5
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	45	0	0	0	0	136	0	80	0	20	5	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	197	129	9	129	133	80	13	0	0	80	0	0
Stage 1	49	49	-	80	80	-	-	-	-	-	-	-
Stage 2	148	80	-	49	53	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	766	765	1079	849	761	986	1619	-	-	1531	-	-
Stage 1	969	858	-	934	832	-	-	-	-	-	-	-
Stage 2	859	832	-	969	855	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	653	755	1079	841	751	986	1619	-	-	1531	-	-
Mov Cap-2 Maneuver	653	755	-	841	751	-	-	-	-	-	-	-
Stage 1	969	847	-	934	832	-	-	-	-	-	-	-
Stage 2	740	832	-	956	844	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	9.2	0	4.6
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1619	-	-	653	986	1531	-	-
HCM Lane V/C Ratio	-	-	-	0.07	0.138	0.013	-	-
HCM Control Delay (s)	0	-	-	10.9	9.2	7.4	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.5	0	-	-

APPENDIX 3.3:

EXISTING (2020) TRAFFIC SIGNAL WARRANT ANALYSIS

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Figure 4C-101 (CA). Traffic Signal Warrants Worksheet

WARRANT 3 - Peak Hour **SATISFIED = NO**
(Part A or Part B must be satisfied)

PART A **SATISFIED = NO**
(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced for traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	**NO**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	**NO**
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	**NO**

PART B **SATISFIED = NO**

APPROACH LANES	Number of Lanes	Peak Hour Volume
Both Approaches - Major Street	1	200
Highest Approach - Minor Street	1	57

The plotted points fall above the curve in Figure 4C-3. (URBAN AREAS)	**NO**
OR, The plotted point falls above the curves in Figure 4C-4. (RURAL AREAS)	**N/A**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

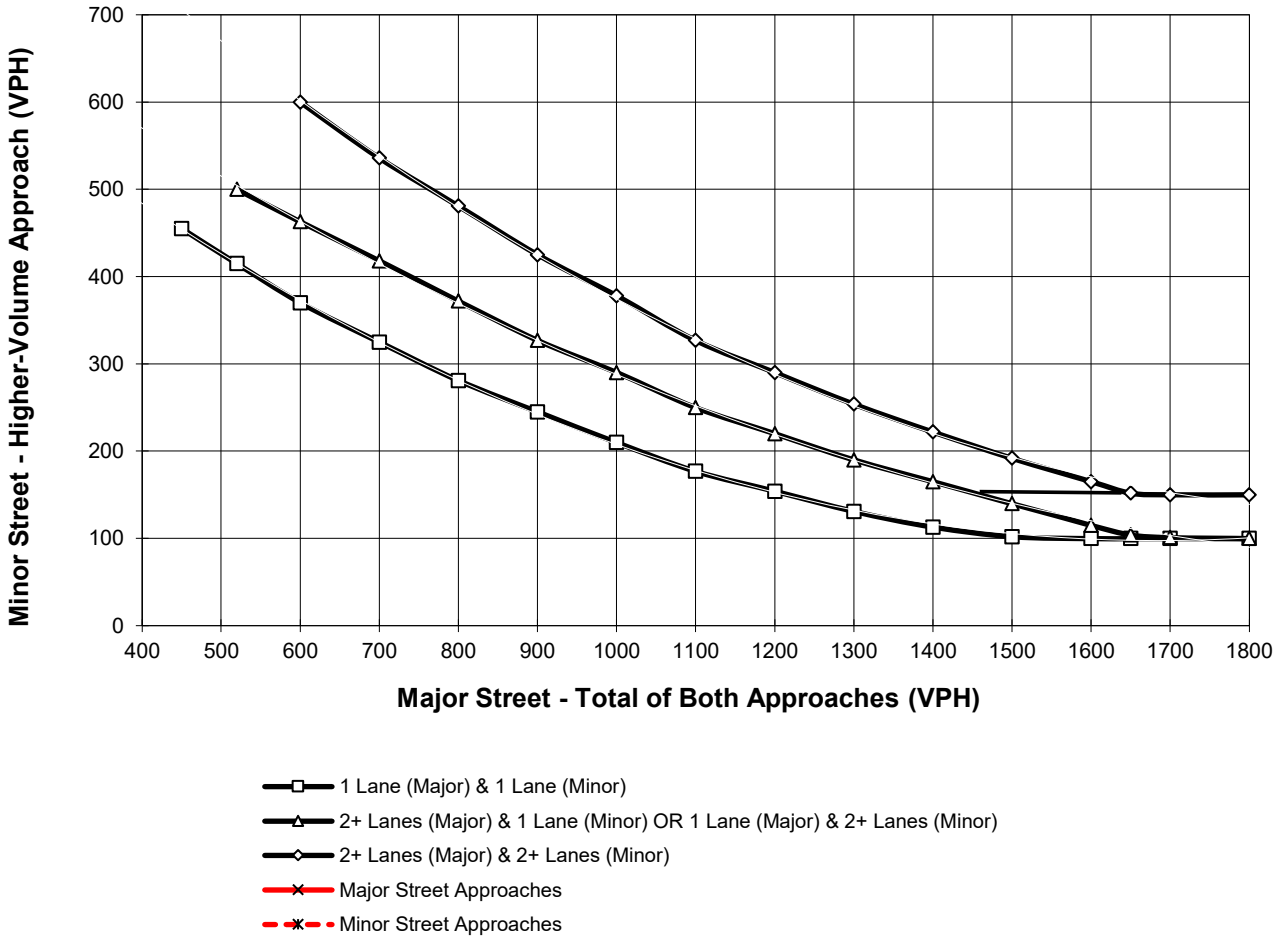
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2020) Conditions - Weekday PM Peak Hour**

Major Street Name = **Holder St.**
Total of Both Approaches (VPH) = **200**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 2**
High Volume Approach (VPH) = **57**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet

WARRANT 3 - Peak Hour **SATISFIED = NO**
(Part A or Part B must be satisfied)

PART A **SATISFIED = NO**
(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced for traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	**NO**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	**NO**
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	**NO**

PART B **SATISFIED = NO**

APPROACH LANES	Number of Lanes	Peak Hour Volume
Both Approaches - Major Street	1	74
Highest Approach - Minor Street	1	90

The plotted points fall above the curve in Figure 4C-3. (URBAN AREAS)	**NO**
OR, The plotted point falls above the curves in Figure 4C-4. (RURAL AREAS)	**N/A**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

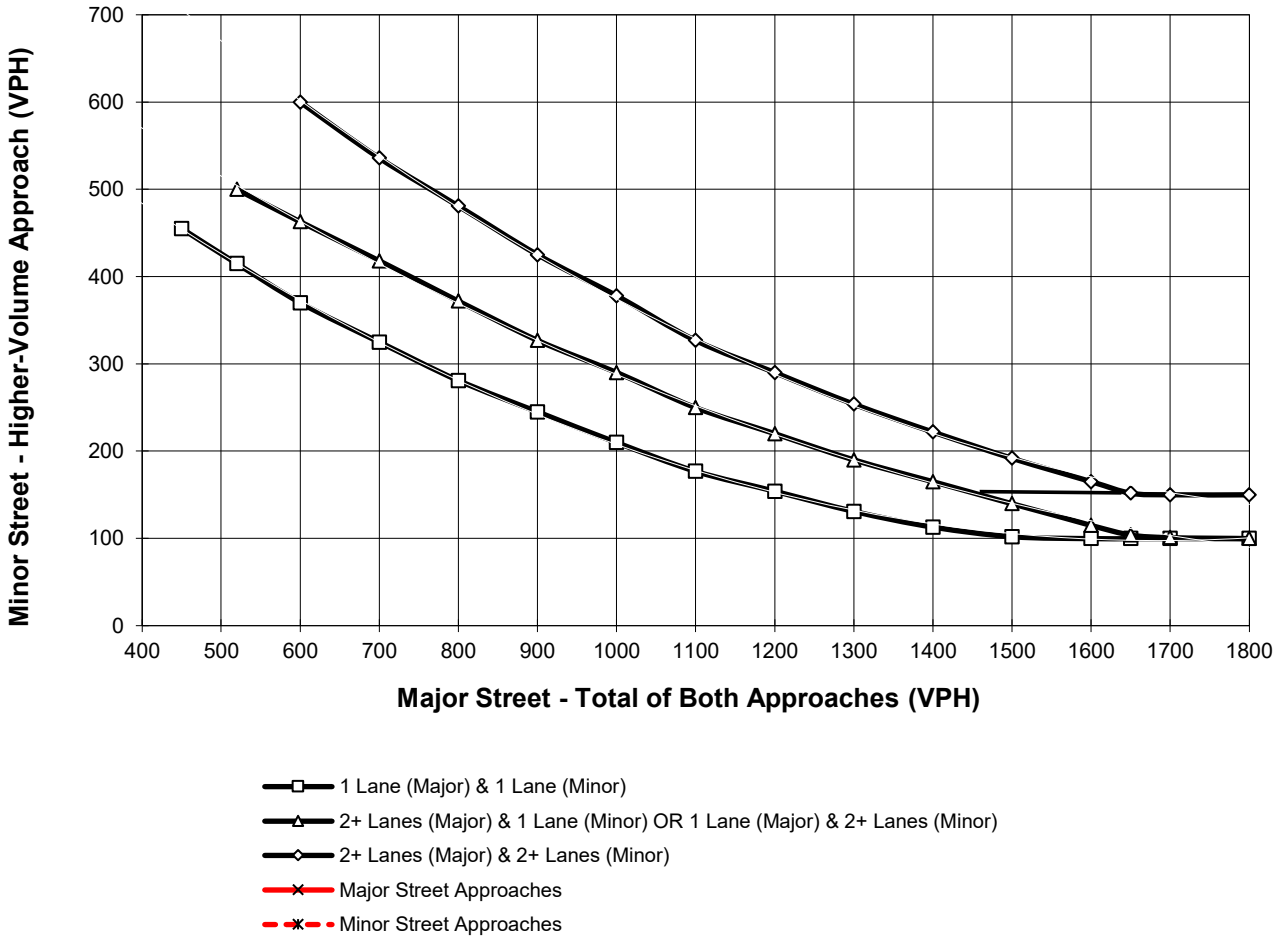
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2020) Conditions - Weekday PM Peak Hour**

Major Street Name = **Holder St.**
Total of Both Approaches (VPH) = **74**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 3**
High Volume Approach (VPH) = **90**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 5.1:

E+P CONDITIONS INTERSECTION OPERATIONS ANALYSIS

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Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1252	11	0	1808	0	3
Future Vol, veh/h	1252	11	0	1808	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	0	0	0	0	0	0
Mvmt Flow	1361	12	0	1965	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	687
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	338
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	338
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	15.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	338	-	-	-
HCM Lane V/C Ratio	0.01	-	-	-
HCM Control Delay (s)	15.8	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Katella Avenue High Cube Warehouse (JN 13106)
E+P
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Holder St. & Katella Av.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.602
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	3	0 1	1 0	3	0 1
Volume Module:												
Base Vol:	16	3	18	200	40	183	37	1087	133	97	1607	146
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	3	18	200	40	183	37	1087	133	97	1607	146
Added Vol:	11	1	10	0	3	0	2	2	28	37	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	4	28	200	43	183	39	1089	161	134	1607	146
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	27	4	28	200	43	183	39	1089	161	134	1607	146
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	4	28	200	43	183	39	1089	161	134	1607	146
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	27	4	28	200	43	183	39	1089	161	134	1607	146
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.02	0.13	0.03	0.11	0.02	0.23	0.10	0.08	0.33	0.09
Crit Moves:			****	****			****				****	

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	4	0	0	0	0	0	0	32	0	9	247	14
Future Vol, veh/h	4	0	0	0	0	0	0	32	0	9	247	14
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	0	0	0	0	0	0	49	0	14	380	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	468	468	391	468	479	49	402	0	0	49	0	0
Stage 1	419	419	-	49	49	-	-	-	-	-	-	-
Stage 2	49	49	-	419	430	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	509	496	662	509	489	1025	1168	-	-	1571	-	-
Stage 1	616	593	-	969	858	-	-	-	-	-	-	-
Stage 2	969	858	-	616	587	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	505	492	662	505	485	1025	1168	-	-	1571	-	-
Mov Cap-2 Maneuver	505	492	-	505	485	-	-	-	-	-	-	-
Stage 1	616	588	-	969	858	-	-	-	-	-	-	-
Stage 2	969	858	-	611	582	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	0	0	0.2
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1168	-	-	505	-	1571	-	-
HCM Lane V/C Ratio	-	-	-	0.012	-	0.009	-	-
HCM Control Delay (s)	0	-	-	12.2	0	7.3	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	0	0	0	0	12	0	7	0	125	76	45
Future Vol, veh/h	15	0	0	0	0	12	0	7	0	125	76	45
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	25	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	0	0	0	0	17	0	10	0	181	110	65

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	524	515	143	515	547	10	175	0	0	10	0	0
Stage 1	505	505	-	10	10	-	-	-	-	-	-	-
Stage 2	19	10	-	505	537	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	467	466	910	474	447	1077	1414	-	-	1623	-	-
Stage 1	553	544	-	1016	891	-	-	-	-	-	-	-
Stage 2	1005	891	-	553	526	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	420	414	910	434	397	1077	1414	-	-	1623	-	-
Mov Cap-2 Maneuver	420	414	-	434	397	-	-	-	-	-	-	-
Stage 1	553	483	-	1016	891	-	-	-	-	-	-	-
Stage 2	989	891	-	491	467	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14	8.4	0	3.8
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1414	-	-	420	1077	1623	-	-
HCM Lane V/C Ratio	-	-	-	0.052	0.016	0.112	-	-
HCM Control Delay (s)	0	-	-	14	8.4	7.5	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0.4	-	-

Intersection	
Int Delay, s/veh	8.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	0	0	4	68	8
Future Vol, veh/h	3	0	0	4	68	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	50	50	50	50	50	50
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	0	0	8	136	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	8	0	-	0	16	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	12	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1625	-	-	-	1008	1085
Stage 1	-	-	-	-	1024	-
Stage 2	-	-	-	-	1016	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1625	-	-	-	1004	1085
Mov Cap-2 Maneuver	-	-	-	-	1004	-
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1016	-

Approach	EB	WB	SB
HCM Control Delay, s	7.2	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1625	-	-	-	1012
HCM Lane V/C Ratio	0.004	-	-	-	0.15
HCM Control Delay (s)	7.2	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1734	4	0	1273	0	12
Future Vol, veh/h	1734	4	0	1273	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	0	0	0	0	0	0
Mvmt Flow	1885	4	0	1384	0	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	945
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	229
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	229
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	21.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	229	-	-	-
HCM Lane V/C Ratio	0.057	-	-	-
HCM Control Delay (s)	21.7	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Katella Avenue High Cube Warehouse (JN 13106)
E+P
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Holder St. & Katella Av.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.671
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	3	0 1	1 0	3	0 1
Volume Module:												
Base Vol:	103	44	98	211	3	114	141	1587	18	25	1051	209
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	103	44	98	211	3	114	141	1587	18	25	1051	209
Added Vol:	37	3	34	0	1	0	6	6	12	15	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	140	47	132	211	4	114	147	1593	30	40	1051	209
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	140	47	132	211	4	114	147	1593	30	40	1051	209
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	140	47	132	211	4	114	147	1593	30	40	1051	209
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	140	47	132	211	4	114	147	1593	30	40	1051	209
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.03	0.08	0.13	0.00	0.07	0.09	0.33	0.02	0.03	0.22	0.13
Crit Moves:			****	****				****		****		

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	0	0	0	0	29	0	202	0	2	39	6
Future Vol, veh/h	15	0	0	0	0	29	0	202	0	2	39	6
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	0	0	0	0	43	0	297	0	3	57	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	387	365	62	365	369	297	66	0	0	297	0	0
Stage 1	68	68	-	297	297	-	-	-	-	-	-	-
Stage 2	319	297	-	68	72	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	575	566	1009	595	563	747	1549	-	-	1276	-	-
Stage 1	947	842	-	716	671	-	-	-	-	-	-	-
Stage 2	697	671	-	947	839	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	541	565	1009	594	562	747	1549	-	-	1276	-	-
Mov Cap-2 Maneuver	541	565	-	594	562	-	-	-	-	-	-	-
Stage 1	947	840	-	716	671	-	-	-	-	-	-	-
Stage 2	657	671	-	945	837	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	10.1	0	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1549	-	-	541	747	1276	-	-
HCM Lane V/C Ratio	-	-	-	0.041	0.057	0.002	-	-
HCM Control Delay (s)	0	-	-	11.9	10.1	7.8	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	50	0	0	0	0	90	0	62	0	13	6	20
Future Vol, veh/h	50	0	0	0	0	90	0	62	0	13	6	20
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	76	0	0	0	0	136	0	94	0	20	9	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	226	158	24	158	173	94	39	0	0	94	0	0
Stage 1	64	64	-	94	94	-	-	-	-	-	-	-
Stage 2	162	94	-	64	79	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	734	738	1058	813	724	968	1584	-	-	1513	-	-
Stage 1	952	846	-	918	821	-	-	-	-	-	-	-
Stage 2	845	821	-	952	833	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	624	728	1058	805	715	968	1584	-	-	1513	-	-
Mov Cap-2 Maneuver	624	728	-	805	715	-	-	-	-	-	-	-
Stage 1	952	835	-	918	821	-	-	-	-	-	-	-
Stage 2	726	821	-	939	822	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	9.3	0	2.5
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1584	-	-	624	968	1513	-	-
HCM Lane V/C Ratio	-	-	-	0.121	0.141	0.013	-	-
HCM Control Delay (s)	0	-	-	11.6	9.3	7.4	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.5	0	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	0	0	53	3	3
Future Vol, veh/h	9	0	0	53	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	0	0	66	4	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	66	0	-	0	55	33
Stage 1	-	-	-	-	33	-
Stage 2	-	-	-	-	22	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1549	-	-	-	958	1046
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	1006	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1549	-	-	-	951	1046
Mov Cap-2 Maneuver	-	-	-	-	951	-
Stage 1	-	-	-	-	988	-
Stage 2	-	-	-	-	1006	-

Approach	EB	WB	SB
HCM Control Delay, s	7.3	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1549	-	-	-	996
HCM Lane V/C Ratio	0.007	-	-	-	0.008
HCM Control Delay (s)	7.3	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

APPENDIX 5.2:

E+P CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS

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Figure 4C-101 (CA). Traffic Signal Warrants Worksheet

WARRANT 3 - Peak Hour **SATISFIED = NO**
(Part A or Part B must be satisfied)

PART A **SATISFIED = NO**
(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced for traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	**NO**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	**NO**
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	**NO**

PART B **SATISFIED = NO**

APPROACH LANES	Number of Lanes	Peak Hour Volume
Both Approaches - Major Street	1	249
Highest Approach - Minor Street	1	57

The plotted points fall above the curve in Figure 4C-3. (URBAN AREAS)	**NO**
OR, The plotted point falls above the curves in Figure 4C-4. (RURAL AREAS)	**N/A**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

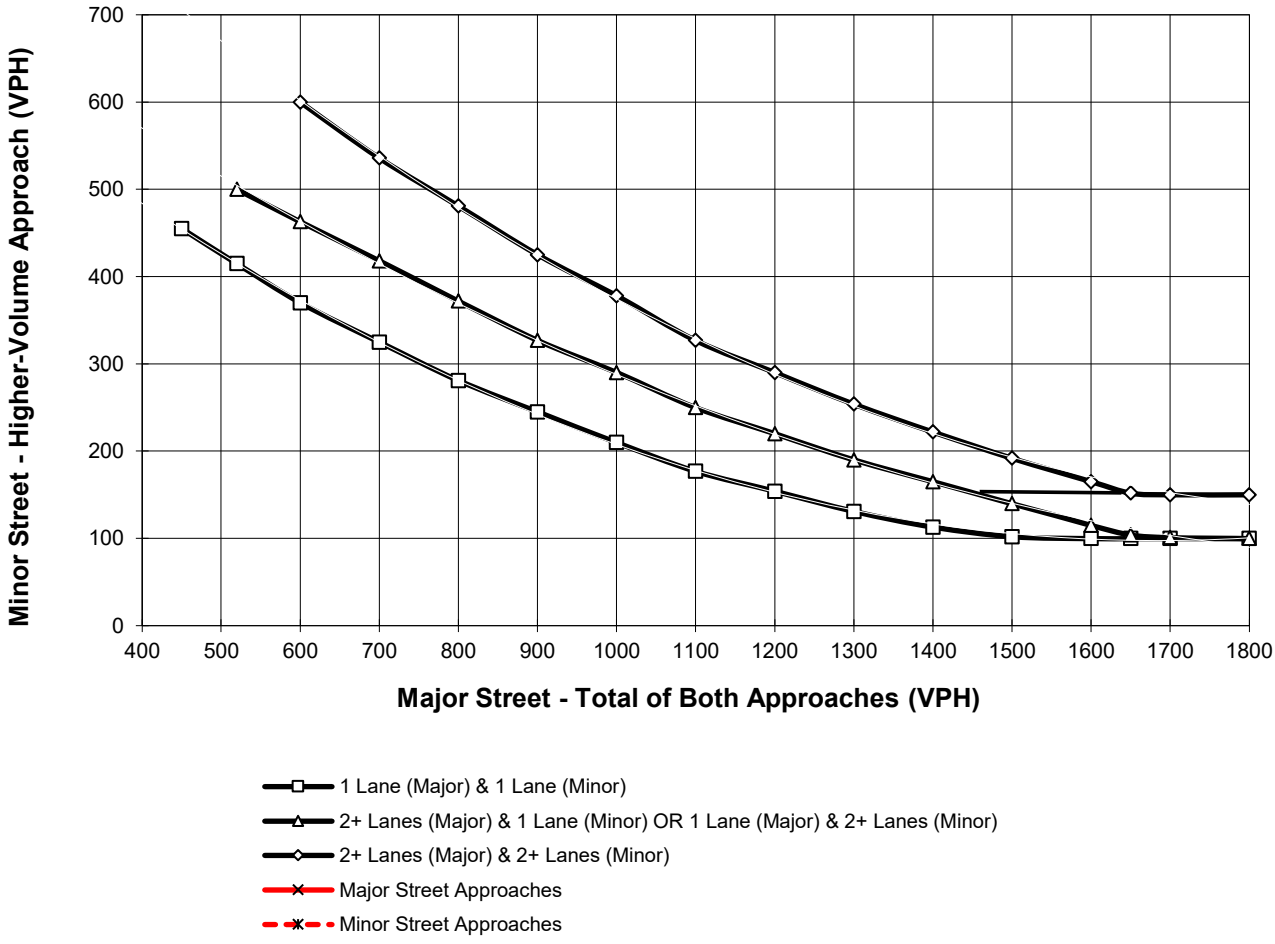
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P Conditions - Weekday PM Peak Hour**

Major Street Name = **Holder St.**
Total of Both Approaches (VPH) = **249**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 2**
High Volume Approach (VPH) = **57**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet

WARRANT 3 - Peak Hour **SATISFIED = NO**
(Part A or Part B must be satisfied)

PART A **SATISFIED = NO**
(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced for traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	**NO**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	**NO**
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	**NO**

PART B **SATISFIED = NO**

APPROACH LANES	Number of Lanes	Peak Hour Volume
Both Approaches - Major Street	1	101
Highest Approach - Minor Street	1	90

The plotted points fall above the curve in Figure 4C-3. (URBAN AREAS)	**NO**
OR, The plotted point falls above the curves in Figure 4C-4. (RURAL AREAS)	**N/A**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

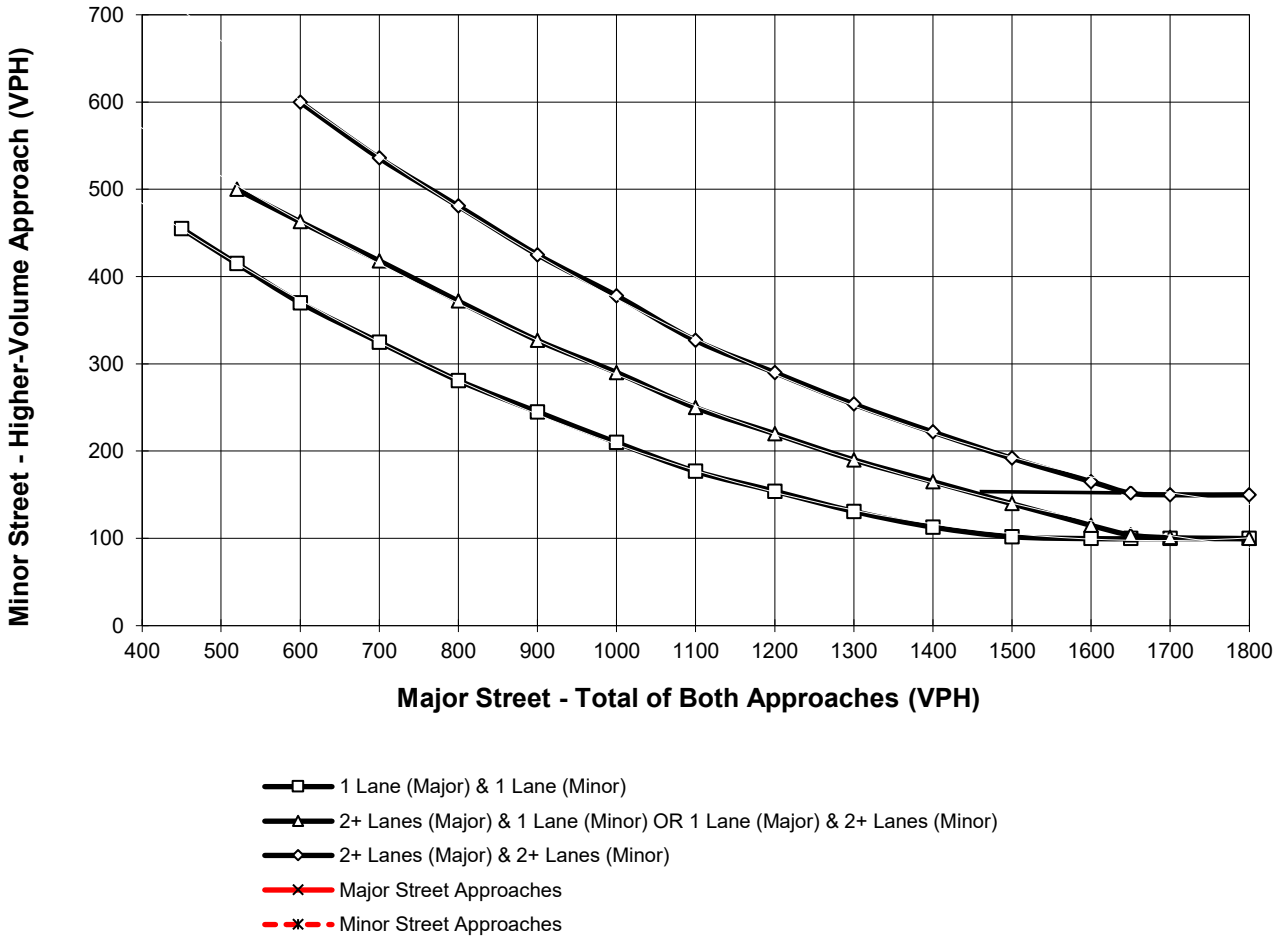
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P Conditions - Weekday PM Peak Hour**

Major Street Name = **Holder St.**
Total of Both Approaches (VPH) = **101**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 3**
High Volume Approach (VPH) = **90**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 6.1:

OPENING YEAR CUMULATIVE (2021) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS

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Katella Avenue High Cube Warehouse (JN 13106)
Opening Year Cumulative (2021) Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Holder St. & Katella Av.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.606
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	3	0 1	1 0	3	0 1
Volume Module:												
Base Vol:	10	2	12	205	43	187	35	1144	157	106	1673	149
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	2	12	205	43	187	35	1144	157	106	1673	149
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	2	12	205	43	187	35	1144	157	106	1673	149
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	2	12	205	43	187	35	1144	157	106	1673	149
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	2	12	205	43	187	35	1144	157	106	1673	149
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.01	0.13	0.03	0.12	0.02	0.24	0.10	0.07	0.35	0.09
Crit Moves:			****	****			****				****	

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	5	0	0	0	0	0	0	20	0	9	229	67
Future Vol, veh/h	5	0	0	0	0	0	0	20	0	9	229	67
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	0	0	0	0	0	0	31	0	14	352	103

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	463	463	404	463	514	31	455	0	0	31	0	0
Stage 1	432	432	-	31	31	-	-	-	-	-	-	-
Stage 2	31	31	-	432	483	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	513	499	651	513	467	1049	1116	-	-	1595	-	-
Stage 1	606	586	-	991	873	-	-	-	-	-	-	-
Stage 2	991	873	-	606	556	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	509	495	651	509	463	1049	1116	-	-	1595	-	-
Mov Cap-2 Maneuver	509	495	-	509	463	-	-	-	-	-	-	-
Stage 1	606	581	-	991	873	-	-	-	-	-	-	-
Stage 2	991	873	-	601	551	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	0	0	0.2
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1116	-	-	509	-	1595	-	-
HCM Lane V/C Ratio	-	-	-	0.015	-	0.009	-	-
HCM Control Delay (s)	0	-	-	12.2	0	7.3	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	0	0	0	12	0	4	0	127	69	33
Future Vol, veh/h	4	0	0	0	0	12	0	4	0	127	69	33
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	25	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	0	0	0	0	17	0	6	0	184	100	48

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	507	498	124	498	522	6	148	0	0	6	0	0
Stage 1	492	492	-	6	6	-	-	-	-	-	-	-
Stage 2	15	6	-	492	516	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	479	477	932	486	462	1083	1446	-	-	1628	-	-
Stage 1	562	551	-	1021	895	-	-	-	-	-	-	-
Stage 2	1010	895	-	562	538	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	431	423	932	444	410	1083	1446	-	-	1628	-	-
Mov Cap-2 Maneuver	431	423	-	444	410	-	-	-	-	-	-	-
Stage 1	562	489	-	1021	895	-	-	-	-	-	-	-
Stage 2	994	895	-	498	477	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.5	8.4	0	4.2
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1446	-	-	431	1083	1628	-	-
HCM Lane V/C Ratio	-	-	-	0.013	0.016	0.113	-	-
HCM Control Delay (s)	0	-	-	13.5	8.4	7.5	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0.4	-	-

Katella Avenue High Cube Warehouse (JN 13106)
Opening Year Cumulative (2021) Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Holder St. & Katella Av.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.654
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0 1		1 0	1 0 1		1 0	1 0 3		0 1	1 0 3		0 1
Volume Module:												
Base Vol:	112	46	105	216	2	116	138	1656	11	14	1122	214
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	112	46	105	216	2	116	138	1656	11	14	1122	214
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	112	46	105	216	2	116	138	1656	11	14	1122	214
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	46	105	216	2	116	138	1656	11	14	1122	214
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	112	46	105	216	2	116	138	1656	11	14	1122	214
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.03	0.07	0.14	0.00	0.07	0.09	0.34	0.01	0.01	0.23	0.13
Crit Moves:			****	****				****		****		

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	58	0	0	0	0	29	0	176	0	2	21	4
Future Vol, veh/h	58	0	0	0	0	29	0	176	0	2	21	4
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	85	0	0	0	0	43	0	259	0	3	31	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	321	299	34	299	302	259	37	0	0	259	0	0
Stage 1	40	40	-	259	259	-	-	-	-	-	-	-
Stage 2	281	259	-	40	43	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	636	616	1045	657	614	785	1587	-	-	1317	-	-
Stage 1	980	866	-	750	697	-	-	-	-	-	-	-
Stage 2	730	697	-	980	863	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	600	615	1045	656	613	785	1587	-	-	1317	-	-
Mov Cap-2 Maneuver	600	615	-	656	613	-	-	-	-	-	-	-
Stage 1	980	864	-	750	697	-	-	-	-	-	-	-
Stage 2	690	697	-	978	861	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	9.8	0	0.6
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1587	-	-	600	785	1317	-	-
HCM Lane V/C Ratio	-	-	-	0.142	0.054	0.002	-	-
HCM Control Delay (s)	0	-	-	12	9.8	7.7	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0	-	-

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↱		↰	↱	
Traffic Vol, veh/h	31	0	0	0	0	91	0	54	0	13	3	5
Future Vol, veh/h	31	0	0	0	0	91	0	54	0	13	3	5
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	47	0	0	0	0	138	0	82	0	20	5	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	200	131	9	131	135	82	13	0	0	82	0	0
Stage 1	49	49	-	82	82	-	-	-	-	-	-	-
Stage 2	151	82	-	49	53	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	763	763	1079	846	760	983	1619	-	-	1528	-	-
Stage 1	969	858	-	931	831	-	-	-	-	-	-	-
Stage 2	856	831	-	969	855	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	649	753	1079	838	750	983	1619	-	-	1528	-	-
Mov Cap-2 Maneuver	649	753	-	838	750	-	-	-	-	-	-	-
Stage 1	969	847	-	931	831	-	-	-	-	-	-	-
Stage 2	736	831	-	956	844	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	9.3	0	4.6
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1619	-	-	649	983	1528	-	-
HCM Lane V/C Ratio	-	-	-	0.072	0.14	0.013	-	-
HCM Control Delay (s)	0	-	-	11	9.3	7.4	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.5	0	-	-

APPENDIX 6.2:

OPENING YEAR CUMULATIVE (2021) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS

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Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1314	11	0	1877	0	3
Future Vol, veh/h	1314	11	0	1877	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	0	0	0	0	0	0
Mvmt Flow	1428	12	0	2040	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	720
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	321
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	321
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	321	-	-	-
HCM Lane V/C Ratio	0.01	-	-	-
HCM Control Delay (s)	16.3	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Katella Avenue High Cube Warehouse (JN 13106)
Opening Year Cumulative (2021) With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Holder St. & Katella Av.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.619
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	3	0 1	1 0	3	0 1
Volume Module:												
Base Vol:	16	3	18	205	41	187	37	1146	135	98	1673	149
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	3	18	205	41	187	37	1146	135	98	1673	149
Added Vol:	11	1	10	0	3	0	2	2	28	37	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	4	28	205	44	187	39	1148	163	135	1673	149
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	27	4	28	205	44	187	39	1148	163	135	1673	149
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	4	28	205	44	187	39	1148	163	135	1673	149
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	27	4	28	205	44	187	39	1148	163	135	1673	149
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.02	0.13	0.03	0.12	0.02	0.24	0.10	0.08	0.35	0.09
Crit Moves:			****	****			****				****	

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	4	0	0	0	0	0	0	33	0	9	251	14
Future Vol, veh/h	4	0	0	0	0	0	0	33	0	9	251	14
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	0	0	0	0	0	0	51	0	14	386	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	476	476	397	476	487	51	408	0	0	51	0	0
Stage 1	425	425	-	51	51	-	-	-	-	-	-	-
Stage 2	51	51	-	425	436	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	503	491	657	503	484	1023	1162	-	-	1568	-	-
Stage 1	611	590	-	967	856	-	-	-	-	-	-	-
Stage 2	967	856	-	611	583	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	499	487	657	499	480	1023	1162	-	-	1568	-	-
Mov Cap-2 Maneuver	499	487	-	499	480	-	-	-	-	-	-	-
Stage 1	611	585	-	967	856	-	-	-	-	-	-	-
Stage 2	967	856	-	606	578	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	0	0	0.2
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1162	-	-	499	-	1568	-	-
HCM Lane V/C Ratio	-	-	-	0.012	-	0.009	-	-
HCM Control Delay (s)	0	-	-	12.3	0	7.3	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	0	0	0	0	12	0	7	0	127	77	45
Future Vol, veh/h	15	0	0	0	0	12	0	7	0	127	77	45
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	25	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	0	0	0	0	17	0	10	0	184	112	65

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	532	523	145	523	555	10	177	0	0	10	0	0
Stage 1	513	513	-	10	10	-	-	-	-	-	-	-
Stage 2	19	10	-	513	545	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	461	462	908	468	443	1077	1411	-	-	1623	-	-
Stage 1	548	539	-	1016	891	-	-	-	-	-	-	-
Stage 2	1005	891	-	548	522	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	414	410	908	427	393	1077	1411	-	-	1623	-	-
Mov Cap-2 Maneuver	414	410	-	427	393	-	-	-	-	-	-	-
Stage 1	548	478	-	1016	891	-	-	-	-	-	-	-
Stage 2	989	891	-	486	463	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	8.4	0	3.8
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1411	-	-	414	1077	1623	-	-
HCM Lane V/C Ratio	-	-	-	0.053	0.016	0.113	-	-
HCM Control Delay (s)	0	-	-	14.2	8.4	7.5	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0.4	-	-

Intersection	
Int Delay, s/veh	8.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	0	0	4	69	8
Future Vol, veh/h	3	0	0	4	69	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	50	50	50	50	50	50
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	0	0	8	138	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	8	0	-	0	16	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	12	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1625	-	-	-	1008	1085
Stage 1	-	-	-	-	1024	-
Stage 2	-	-	-	-	1016	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1625	-	-	-	1004	1085
Mov Cap-2 Maneuver	-	-	-	-	1004	-
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1016	-

Approach	EB	WB	SB
HCM Control Delay, s	7.2	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1625	-	-	-	1012
HCM Lane V/C Ratio	0.004	-	-	-	0.152
HCM Control Delay (s)	7.2	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1811	4	0	1348	0	12
Future Vol, veh/h	1811	4	0	1348	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	0	0	0	0	0	0
Mvmt Flow	1968	4	0	1465	0	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	986
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	215
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	215
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	22.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	215	-	-	-
HCM Lane V/C Ratio	0.061	-	-	-
HCM Control Delay (s)	22.8	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Katella Avenue High Cube Warehouse (JN 13106)
Opening Year Cumulative (2021) With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Holder St. & Katella Av.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.691
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	3	0 1	1 0	3	0 1
Volume Module:												
Base Vol:	105	45	99	216	3	116	144	1662	18	25	1122	214
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	105	45	99	216	3	116	144	1662	18	25	1122	214
Added Vol:	37	3	34	0	1	0	6	6	12	15	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	142	48	133	216	4	116	150	1668	30	40	1122	214
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	142	48	133	216	4	116	150	1668	30	40	1122	214
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	142	48	133	216	4	116	150	1668	30	40	1122	214
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	142	48	133	216	4	116	150	1668	30	40	1122	214
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.03	0.08	0.14	0.00	0.07	0.09	0.35	0.02	0.03	0.23	0.13
Crit Moves:			****	****				****		****		

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	0	0	0	0	29	0	205	0	2	39	6
Future Vol, veh/h	15	0	0	0	0	29	0	205	0	2	39	6
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	0	0	0	0	43	0	301	0	3	57	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	391	369	62	369	373	301	66	0	0	301	0	0
Stage 1	68	68	-	301	301	-	-	-	-	-	-	-
Stage 2	323	301	-	68	72	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	572	563	1009	591	561	743	1549	-	-	1272	-	-
Stage 1	947	842	-	712	669	-	-	-	-	-	-	-
Stage 2	693	669	-	947	839	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	538	562	1009	590	560	743	1549	-	-	1272	-	-
Mov Cap-2 Maneuver	538	562	-	590	560	-	-	-	-	-	-	-
Stage 1	947	840	-	712	669	-	-	-	-	-	-	-
Stage 2	653	669	-	945	837	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	10.1	0	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1549	-	-	538	743	1272	-	-
HCM Lane V/C Ratio	-	-	-	0.041	0.057	0.002	-	-
HCM Control Delay (s)	0	-	-	12	10.1	7.8	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↱		↰	↱	
Traffic Vol, veh/h	50	0	0	0	0	91	0	63	0	13	6	20
Future Vol, veh/h	50	0	0	0	0	91	0	63	0	13	6	20
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	76	0	0	0	0	138	0	95	0	20	9	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	228	159	24	159	174	95	39	0	0	95	0	0
Stage 1	64	64	-	95	95	-	-	-	-	-	-	-
Stage 2	164	95	-	64	79	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	731	737	1058	811	723	967	1584	-	-	1512	-	-
Stage 1	952	846	-	917	820	-	-	-	-	-	-	-
Stage 2	843	820	-	952	833	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	621	727	1058	803	714	967	1584	-	-	1512	-	-
Mov Cap-2 Maneuver	621	727	-	803	714	-	-	-	-	-	-	-
Stage 1	952	835	-	917	820	-	-	-	-	-	-	-
Stage 2	723	820	-	939	822	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	9.3	0	2.5
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1584	-	-	621	967	1512	-	-
HCM Lane V/C Ratio	-	-	-	0.122	0.143	0.013	-	-
HCM Control Delay (s)	0	-	-	11.6	9.3	7.4	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.5	0	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	0	0	54	3	3
Future Vol, veh/h	9	0	0	54	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	0	0	68	4	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	68	0	-	0	56	34
Stage 1	-	-	-	-	34	-
Stage 2	-	-	-	-	22	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1546	-	-	-	957	1045
Stage 1	-	-	-	-	994	-
Stage 2	-	-	-	-	1006	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1546	-	-	-	950	1045
Mov Cap-2 Maneuver	-	-	-	-	950	-
Stage 1	-	-	-	-	987	-
Stage 2	-	-	-	-	1006	-

Approach	EB	WB	SB
HCM Control Delay, s	7.3	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1546	-	-	-	995
HCM Lane V/C Ratio	0.007	-	-	-	0.008
HCM Control Delay (s)	7.3	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

APPENDIX 6.3:

OPENING YEAR CUMULATIVE (2021) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS

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Figure 4C-101 (CA). Traffic Signal Warrants Worksheet

WARRANT 3 - Peak Hour **SATISFIED = NO**
(Part A or Part B must be satisfied)

PART A **SATISFIED = NO**
(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced for traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	**NO**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	**NO**
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	**NO**

PART B **SATISFIED = NO**

APPROACH LANES	Number of Lanes	Peak Hour Volume
Both Approaches - Major Street	1	203
Highest Approach - Minor Street	1	58

The plotted points fall above the curve in Figure 4C-3. (URBAN AREAS)	**NO**
OR, The plotted point falls above the curves in Figure 4C-4. (RURAL AREAS)	**N/A**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

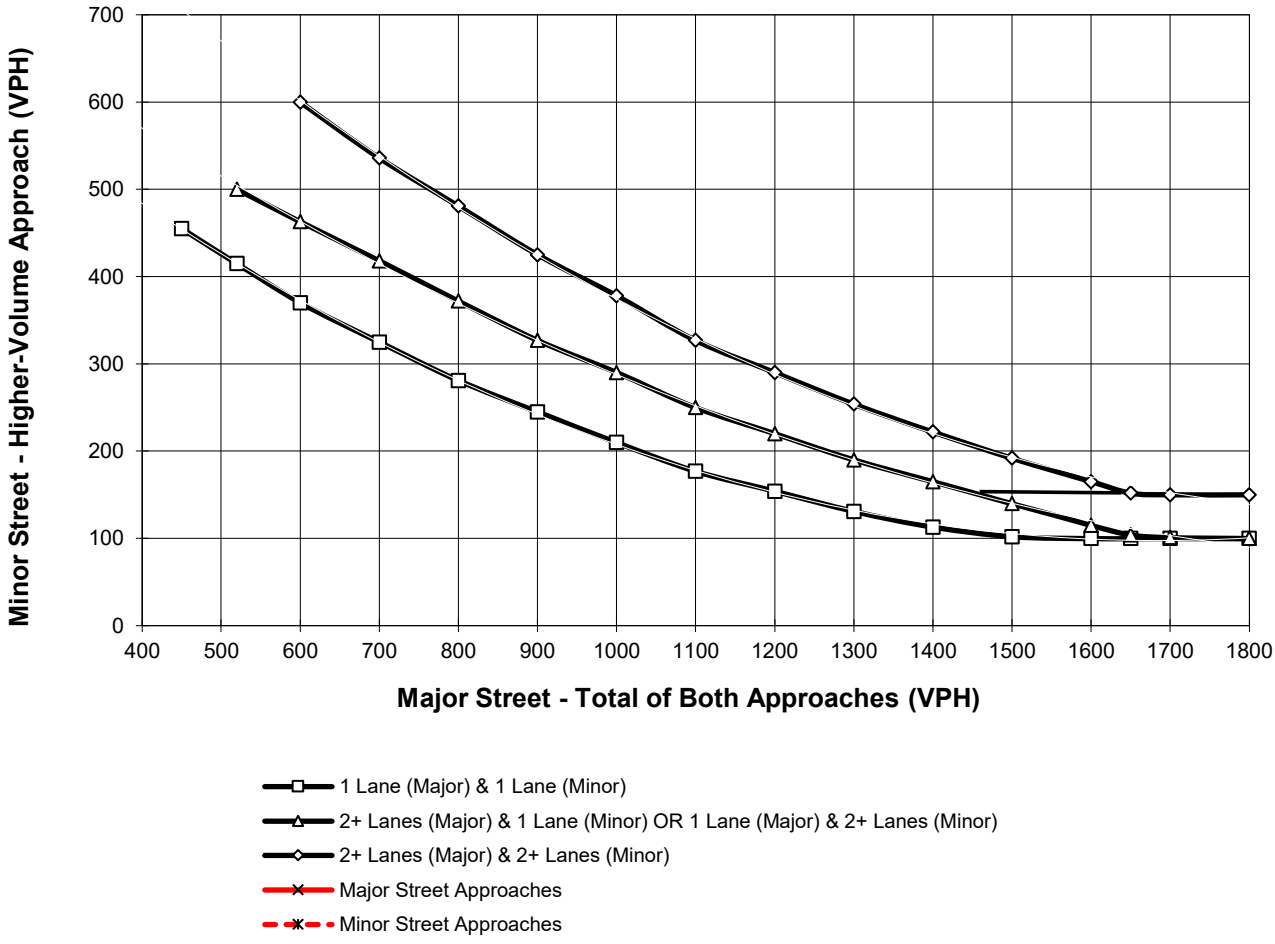
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2021 Without Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Holder St.**
Total of Both Approaches (VPH) = **203**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 2**
High Volume Approach (VPH) = **58**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet

WARRANT 3 - Peak Hour **SATISFIED = NO**
(Part A or Part B must be satisfied)

PART A **SATISFIED = NO**
(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced for traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	**NO**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	**NO**
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	**NO**

PART B **SATISFIED = NO**

APPROACH LANES	Number of Lanes	Peak Hour Volume
Both Approaches - Major Street	1	75
Highest Approach - Minor Street	1	91

The plotted points fall above the curve in Figure 4C-3. (URBAN AREAS)	**NO**
OR, The plotted point falls above the curves in Figure 4C-4. (RURAL AREAS)	**N/A**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

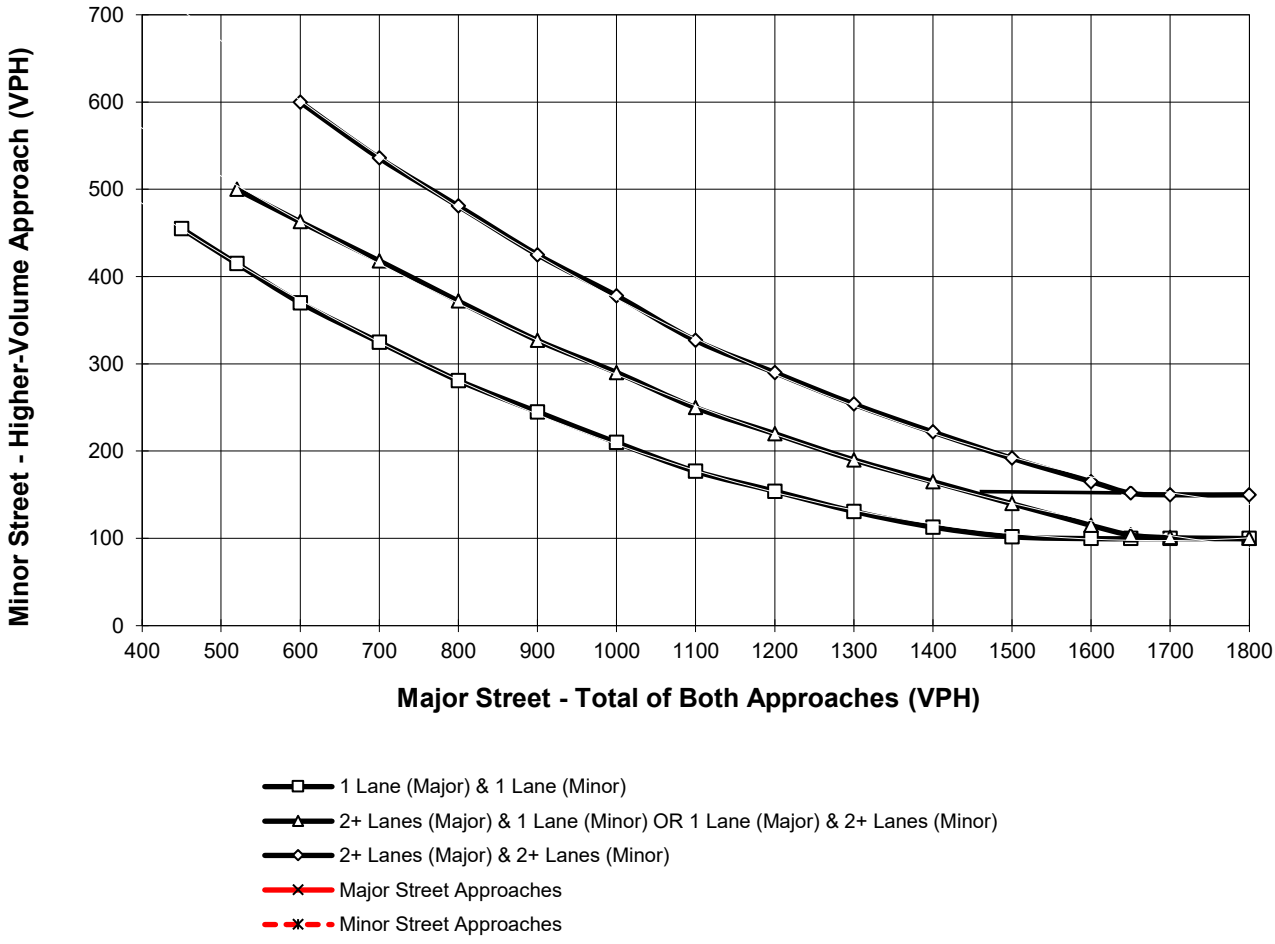
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2021 Without Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Holder St.**
Total of Both Approaches (VPH) = **75**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 3**
High Volume Approach (VPH) = **91**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 6.4:

OPENING YEAR CUMULATIVE (2021) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS

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Figure 4C-101 (CA). Traffic Signal Warrants Worksheet

WARRANT 3 - Peak Hour **SATISFIED = NO**
(Part A or Part B must be satisfied)

PART A **SATISFIED = NO**
(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced for traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	**NO**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	**NO**
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	**NO**

PART B **SATISFIED = NO**

APPROACH LANES	Number of Lanes	Peak Hour Volume
Both Approaches - Major Street	1	252
Highest Approach - Minor Street	1	29

The plotted points fall above the curve in Figure 4C-3. (URBAN AREAS)	**NO**
OR, The plotted point falls above the curves in Figure 4C-4. (RURAL AREAS)	**N/A**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

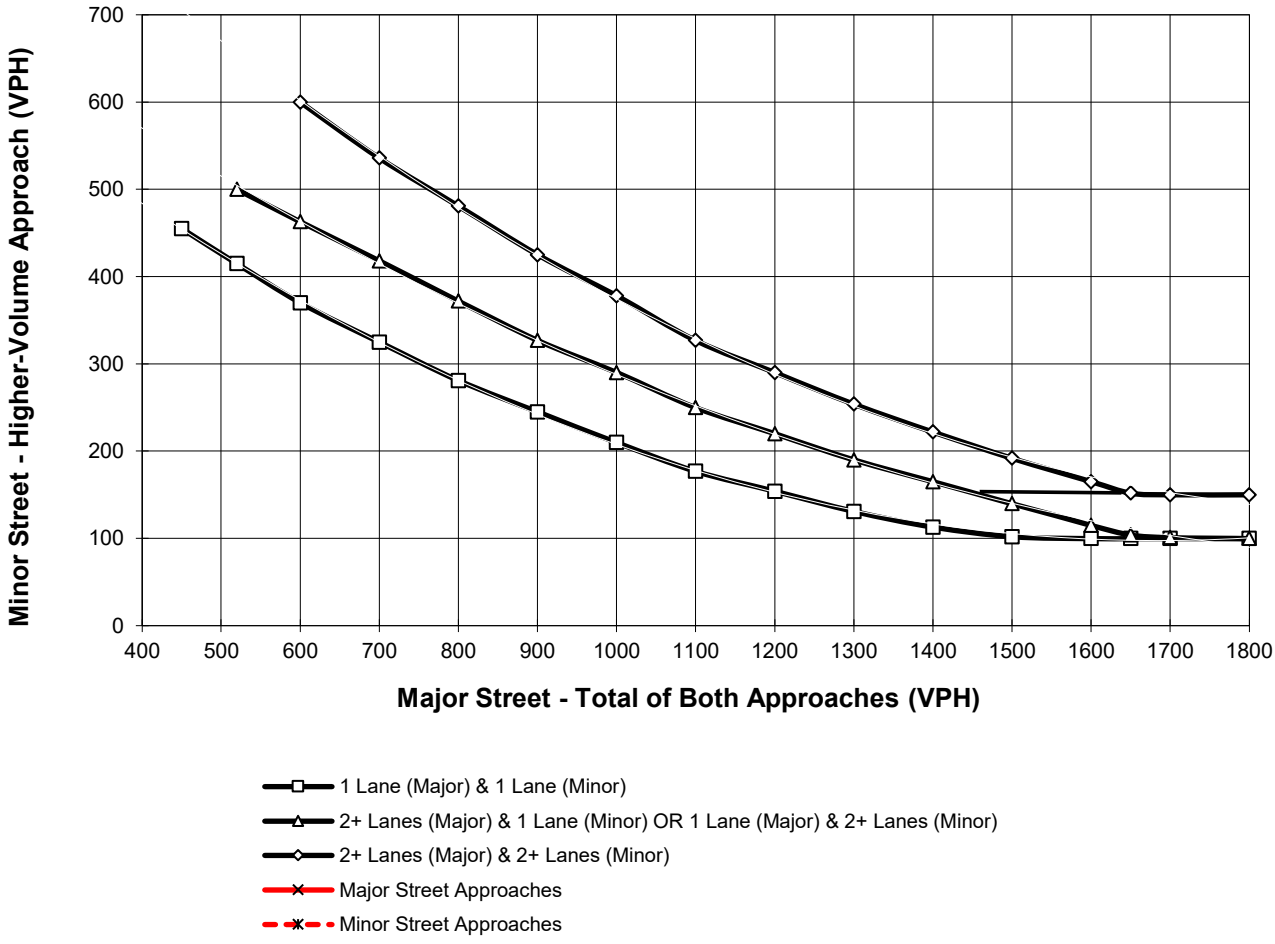
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2021 With Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Holder St.**
Total of Both Approaches (VPH) = **252**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 2**
High Volume Approach (VPH) = **29**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet

WARRANT 3 - Peak Hour **SATISFIED = NO**
(Part A or Part B must be satisfied)

PART A **SATISFIED = NO**
(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced for traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	**NO**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	**NO**
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	**NO**

PART B **SATISFIED = NO**

APPROACH LANES	Number of Lanes	Peak Hour Volume
Both Approaches - Major Street	1	102
Highest Approach - Minor Street	1	91

The plotted points fall above the curve in Figure 4C-3. (URBAN AREAS)	**NO**
OR, The plotted point falls above the curves in Figure 4C-4. (RURAL AREAS)	**N/A**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

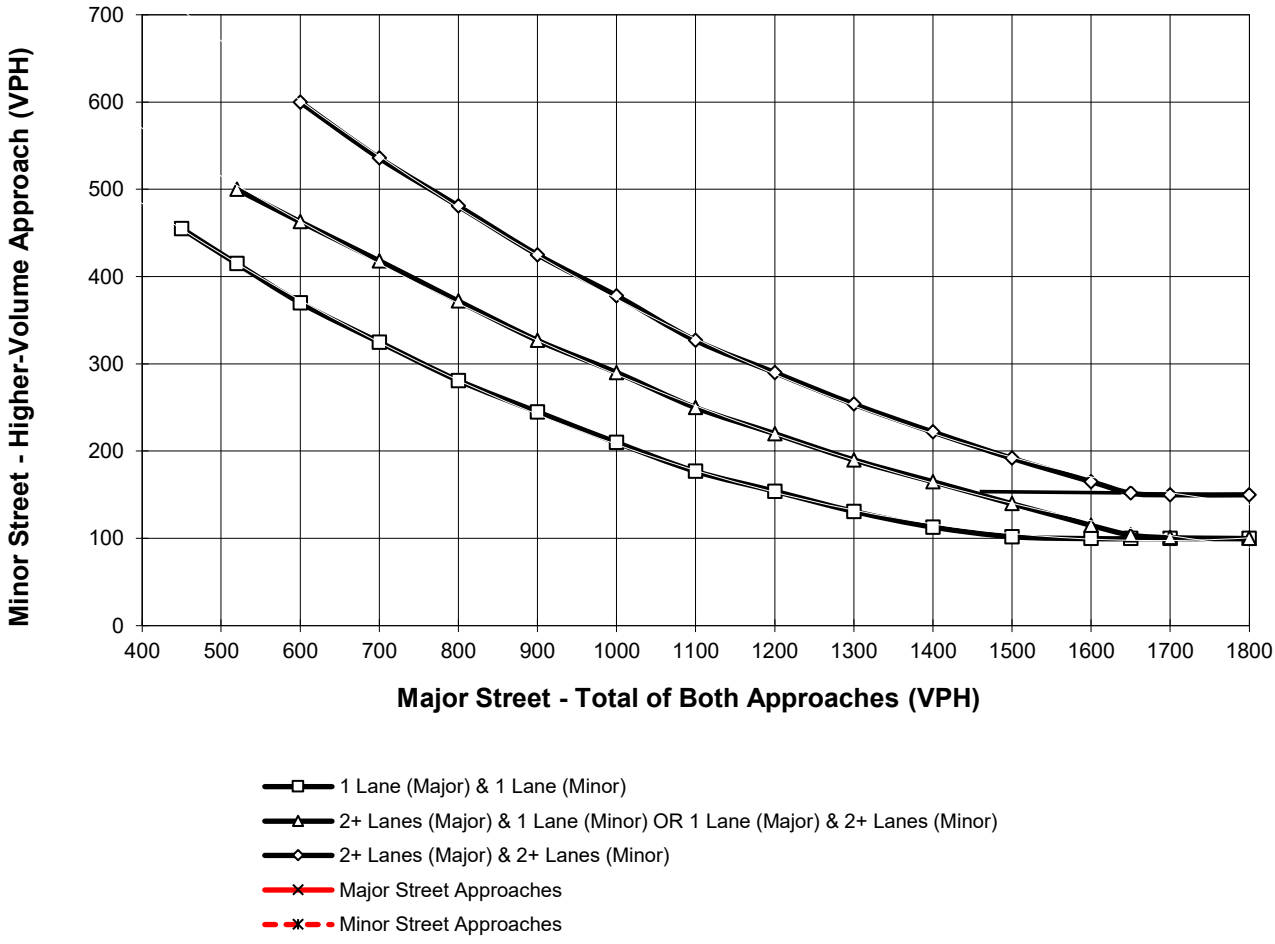
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2021 With Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Holder St.**
Total of Both Approaches (VPH) = **102**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 3**
High Volume Approach (VPH) = **91**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

URBAN CROSSROADS

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June 12, 2020

Mr. Adam Schmid
Duke Realty
200 Spectrum Center Drive, Suite 1600
Irvine, CA 92618

SUBJECT: KATELLA AVENUE HIGH-CUBE WAREHOUSE VEHICLE MILES TRAVELLED ASSESSMENT

Dear Mr. Adam Schmid:

The following Vehicle Miles Travelled (**VMT**) Assessment has been prepared for the Katella Avenue High-Cube Warehouse (**Project**), which is located at 6400 Katella Avenue in the City of Cypress.

PROJECT OVERVIEW

The site is currently occupied by the former Mitsubishi Motors Corporation, which includes 150,000 sf of warehousing use and a 250,000-sf corporate headquarters office building. These uses will be demolished and replaced by the proposed Project. Since there are existing buildings (Mitsubishi Motors Corporation) that were previously occupied, credit has been taken for the previous uses. However, field observations indicate the existing uses were not fully occupied. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in detail in *Project Trip Generation* of this report.

The preliminary site plan for the proposed Project is shown on Exhibit 1. The Project is to consist of up to 486,088 sf of warehousing use within two buildings (northern building is 263,274 sf and southern building is 222,814 sf). The Project is anticipated to be constructed in one phase by the year 2021.

BACKGROUND

Changes to California Environmental Quality Act (**CEQA**) Guidelines were adopted in December 2018, which requires all lead agencies to adopt VMT as a replacement for automobile delay-based level of service (**LOS**) as the new measure for identifying transportation impacts for land use projects. This statewide mandate takes effect July 1, 2020. The City has not established guidelines for conducting VMT analysis in compliance with the upcoming new requirements. However, the Office of Planning and Research (**OPR**) published a Technical Advisory on Evaluating Transportation Impacts in CEQA in December 2018 (**Technical Advisory**), which provides non-binding guidance in evaluating transportation impacts based on VMT. In the absence of direction from the City, the guidance OPR provided in the Technical Advisory was used.

PROJECT SCREENING

The Technical Advisory provides recommendations on appropriate "screening thresholds" that can be used to identify when a proposed land use project is anticipated to result in a less-than-significant impact without conducting a more detailed analysis. Screening criteria are broken into the following three types:

- Daily Trip Screening Threshold
- Map-Based Screening for Residential and Office Projects
- Projects within a Transit Priority Area

DAILY TRIP SCREENING THRESHOLD

As noted in OPR's Technical Advisory… *"absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact."*[1] The City of Anaheim's Draft TIA Guidelines (April 2020), pg. 8, note [5] interprets the OPR's Technical Advisory 110 trip threshold as an 'addition of 110 or fewer trips'. As such, this VMT assessment will utilize the Daily Trip Screening Threshold of 110 or fewer additional trips as a screening criteria.

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.

The Institute of Transportation Engineers (ITE) Trip Generation Manual is a nationally recognized source for estimating site-specific trip generation. The trip generation rates used for the Project are based upon data collected by ITE in their Trip Generation Manual, 10th Edition, 2017. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in detail in Section 4.1 *Project Trip Generation* of the Katella Avenue High Cube Warehouse Traffic Impact Analysis (Urban Crossroads, Inc., 2020). Tables 4-1, 4-2, and 4-3 of the aforementioned report include a detailed summary of the existing and proposed Project trip generation.

The site is currently occupied by existing office and warehouse buildings. Since there are existing buildings (Mitsubishi Motors Corporation) that were previously occupied, credit has been taken for the previous uses. However, field observations indicate the existing uses were not fully occupied. As such, pursuant to discussions with City staff, the trip generation for purposes of this analysis has applied a 50 percent credit to account for existing uses on the site that would be replaced by the proposed Project.

[1] Technical Advisory on Evaluating Transportation Impacts in CEQA. Office of Planning and Research (OPR), December 2018.

As previously noted, the site is currently occupied by existing office and warehouse buildings. As shown on Table 1, the existing use currently generates a total of 1,128 daily trips.

The proposed Project is anticipated to generate a total of 850 daily trips (see Table 1) resulting in a net decrease of 278 trips per day as compared to the existing use.

TABLE 1: PROJECT TRIP GENERATION SUMMARY

Project[1]	Quantity	Units[2]	Daily
Existing Use (150,000 sf of Warehouse and (250,000 sf of Corporate Headquarters)	400.000	TSF	1,128
Proposed Project (486,088 sf of Warehouse)	486.088	TSF	850
		Project Net Trips:	-278

[1] Source: Katella Avenue High Cube Warehouse (Urban Crossroads, Inc., 2020)
[2] TSF = Thousand Square Feet

As the proposed Project is anticipated to result in a decrease (-278 daily trips) in daily trip generation as compared to the existing use, the net change in trip generation falls below the screening threshold of 110 additional daily trips.

CONCLUSION

In summary, the Project's net change in daily trips (-278 daily trips) falls below the screening threshold of 110 additional daily vehicle trips or less recommended in the Technical Advisory and would therefore be presumed to result in a less-than-significant impact. Since the Project's impact is presumed to be less-than-significant, no further VMT analysis is required for the proposed Project.

If you have any questions, please contact me directly at (949) 336-5978.

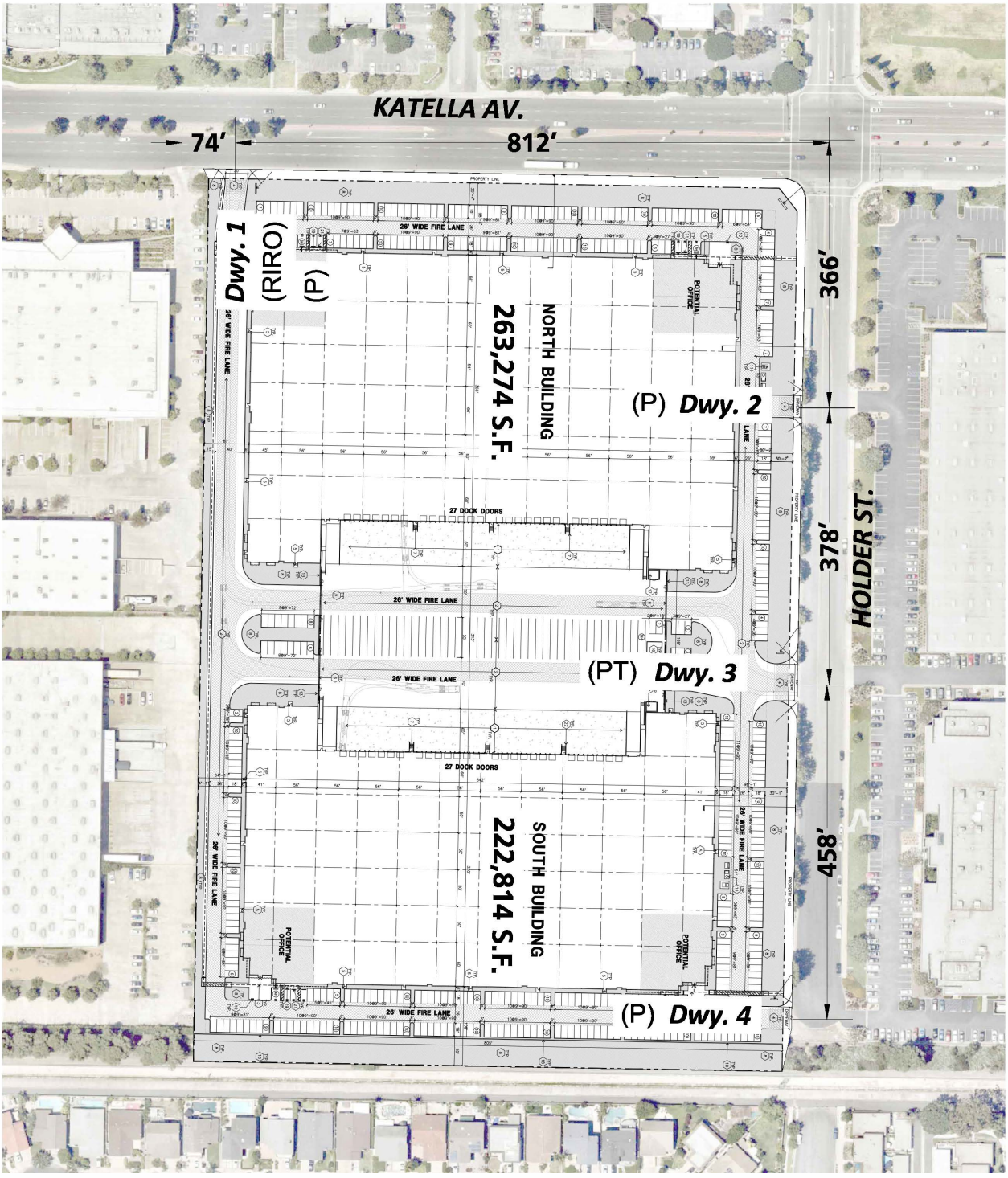
Respectfully submitted,

URBAN CROSSROADS, INC.

Aric Evatt, PTP
President

Robert Vu, PE
Transportation Engineer

EXHIBIT 1: PRELIMINARY SITE PLAN



LEGEND:

RIRO = RIGHT-IN/RIGHT-OUT ONLY ACCESS
P = PASSENGER CARS ONLY
PT = PASSENGER CARS AND TRUCKS

N

13106 - siteplan.dwg

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