Appendix F

Traffic Study

VETERANS AFFAIRS COMMUNITY-BASED OUTPATIENT CLINIC (VA CBOC) PROJECT

Draft Traffic and Circulation Study

City of Ventura, CA

July 22, 2020

P.N. 2064591000

Prepared By:

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INTRODUCTION

Stantec has prepared the following draft traffic and circulation study for the Veterans Affairs Community-Based Outpatient Clinic (VA CBOC) Project. The traffic and circulation study provides an assessment of the existing and future traffic conditions within the study area, determines the trip generation and trip distribution for the proposed development, evaluates the potential traffic impacts to the vicinity intersections and provides feasible mitigations where applicable. The Vehicle Miles Traveled (VMT) analysis developed for the environmental documents prepared for the project is also included.

PROJECT DESCRIPTION

The project consists of an approximately 51,000 square feet (SF) clinic building on the 8-acre site on the southwest corner of the Ralston St/Saratoga Ave intersection. Exhibit 1 shows the location of the project site in the City of Ventura and Exhibit 2 illustrates the project site plan.

The site is currently occupied by a 40,110 square feet vacant light industrial building. Subject project is Traffic Analysis Zone (TAZ) 87 in the Ventura Traffic Analysis Model (VTAM). The existing use is 40,110 SF and is coded as warehouse/manufacturing. Access is proposed via one driveway on Ralston Street and two driveways on Walker Street.

STUDY METHODOLOGY

Traffic Analysis Scenarios

Pursuant to City traffic impact study requirements, The traffic analysis includes the following traffic scenarios:

- Existing Conditions
- Existing plus Project Conditions
- General Plan Buildout Conditions
- General Plan Buildout + Project Conditions

Level of Service Criteria

The traffic analysis focuses on key intersections within the study area during the AM and PM commute periods, when peak traffic volumes typically occur. A level of service (LOS) ranking scale is used to identify the operating condition at the intersections. This scale compares traffic volumes to intersection capacity and assigns a letter value to this relationship. The letter scale ranges from A to F with LOS A representing free flow conditions and LOS F representing congested conditions. The level of service criteria are summarized in Table 1.

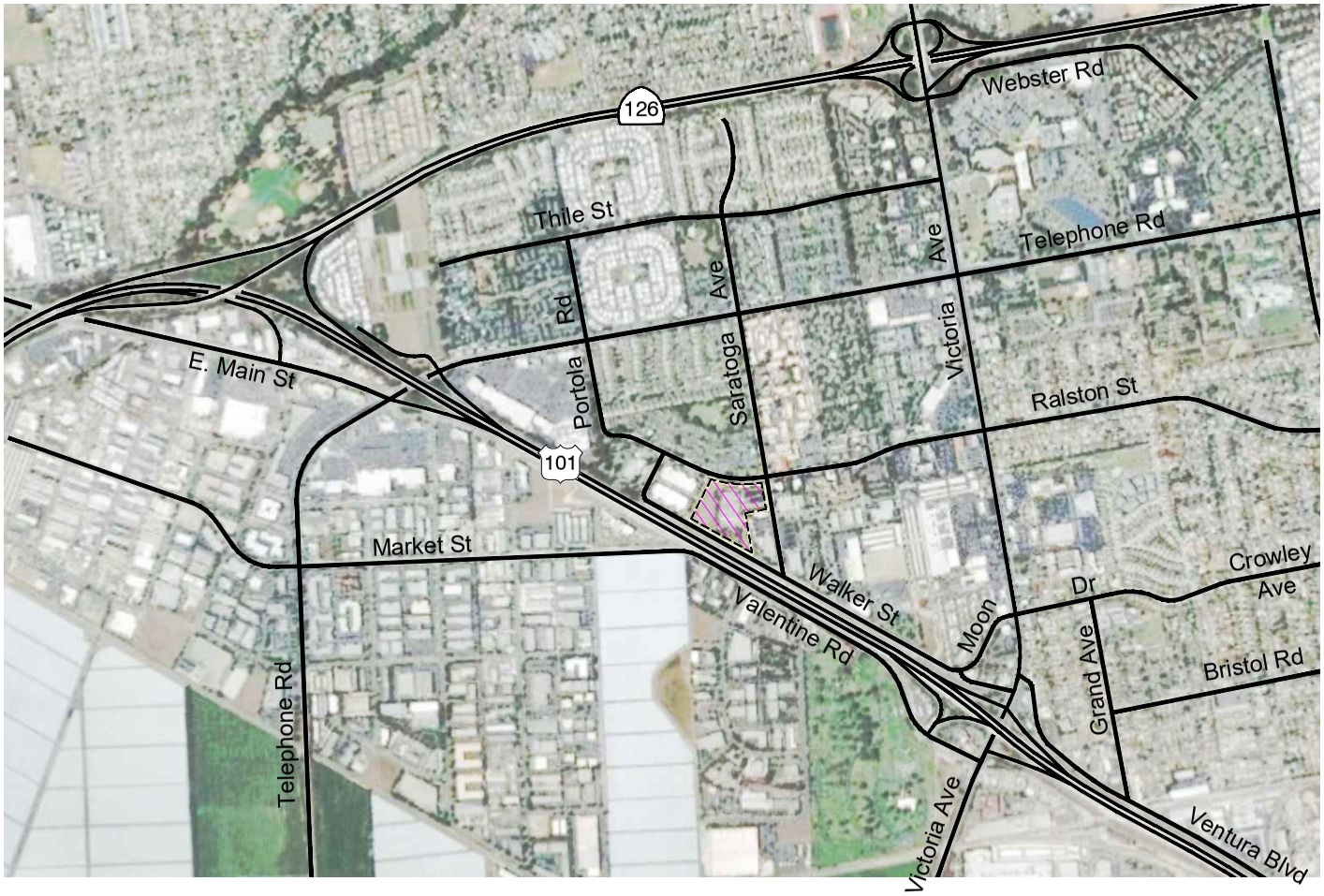

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EXHIBIT 1

EXISTING ROADWAY NETWORK AND PROJECT LOCATION

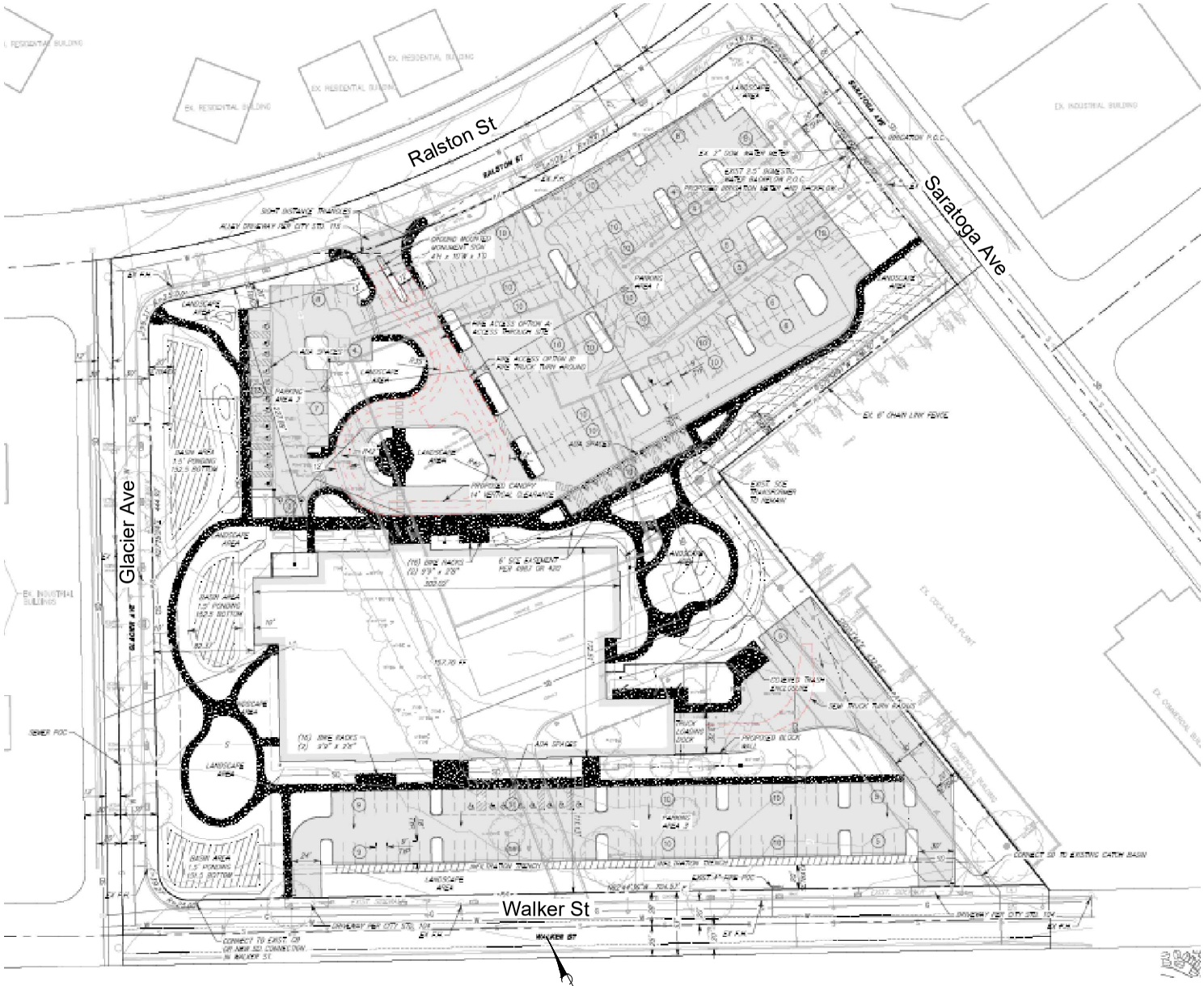

EXHIBIT 2

PROJECT SITE PLAN

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Table1
Intersection Level of Service Criteria

LOS	Intersections (V/C Ratio)	Intersections (Sec. of Delay)	Definition
A	< 0.60	≤ 10	Conditions of free unobstructed flow, no delays and all signal phases sufficient in duration to clear all approaching vehicles.
B	0.61 – 0.70	> 10 and ≤ 20	Conditions of stable flow, very little delay, a few phases are unable to handle all approaching vehicles.
C	0.71- 0.80	> 20 and ≤ 35	Conditions of stable flow, delays are low to moderate, full use of peak direction signal phases is experienced.
D	0.81 – 0.90	> 35 and ≤ 55	Conditions approaching unstable flow, delays are moderate to heavy, significant signal time deficiencies are experienced for short durations during the peak traffic period.
E	0.91 – 1.00	> 55 and ≤ 80	Conditions of unstable flow, delays are significant, signal phase timing is generally insufficient, congestion exists for extended duration throughout the peak period.
F	> 1.00	> 80	Conditions of forced flow, travel speeds are low and volumes are well above capacity. This condition is often caused when vehicles released by an upstream signal are unable to proceed because of back-ups from a downstream signal

Source: Highway Capacity Manual, 6th Edition.

The City considers LOS E acceptable at freeway ramp intersections, and LOS D is acceptable at the Principal Intersections within the City. Principal Intersections are intersections that are regularly monitored by the City as a gauge of the operation of the City's circulation system. The City does not have a level of service standard for Non-Principal Intersections, except for those that are located on the CMP[1] network, at which the CMP level of service standard of LOS E is applicable.

Level of Service Calculation Methodology

The Intersection Capacity Utilization (ICU) Methodology is used to determine levels of service for signalized intersections, and the results are shown as a volume-to-capacity (V/C) ratio. This method is consistent with the methodology parameters outlined in the City's *2005 Ventura General Plan EIR*[2]. The City does not have thresholds to evaluate unsignalized intersections based on delay. Per City direction, levels of service for unsignalized intersections are also determined using the ICU Methodology.

EXISTING CONDITIONS

Roadway Network

The roadway system in the study area is comprised of a network of freeways, arterials and collectors. The study area roadway network is shown in Exhibit 3 and a brief description of the major components is provided below.

[1] 2009 Ventura County Congestion Management Program, Ventura County Transportation Commission, Adopted July 2009.
[2] City of Ventura 2005 General Plan, Final Environmental Impact Report, City of Ventura, August 2005.

U.S. Highway 101 (U.S. 101) extends along the Pacific Coast between Los Angeles and San Francisco. Within the City of Oxnard, the six to eight-lane freeway is the principal route between Oxnard and the cities of Ventura and Santa Barbara to the north, and the cities of Camarillo, Thousand Oaks and Los Angeles to the south. Regional access from U.S. Highway 101 to the project site is provided via the interchanges with Victoria Avenue and Telegraph Road.

State Route 126 is a four-lane east-west freeway from U.S. Highway 101 to Santa Paula and a conventional highway from Santa Paula extends to Interstate 5 in Santa Clarita (Los Angeles County). State Route 126 provides regional access to the project site via the State Route 126/Victoria Ave Interchange.

Victoria Avenue is a north-south Primary Arterial that extends from Foothill Road in Ventura to Oxnard and Port Hueneme. Within the study area, the roadway contains four to eight lanes. All Principal and Non-Principal intersections in the study area are controlled by traffic signals.

Telephone Road is a four- to six-lane Primary Arterial that extends north from Olivas Park Drive to U.S. 101, from where it extends easterly to Wells Road/SR 118. Telephone Road provides a connection between the project site and the commercial and residential areas to the east and south. All Principal and Non-Principal intersections in the study area are controlled by traffic signals.

Alternative Transportation

Public Transit. Gold Coast Transit District (GCTD) provides fixed-route bus and senior/ADA paratransit service in the City of Ventura and adjacent cities. Bus Routes 6, 10 and 21 provide access from the Ventura Transit Center, Saticoy and Oxnard to the project site with stops on Telephone Rd and Victoria Avenue.

The Ventura Intercity Transit Authority (Vista) operates six commuter routes with service from Ventura to Santa Barbara and UCSB to the north, and service along SR 34, SR 126 and U.S. Highway 101 to all cities in Ventura County and the San Fernando Valley. Route 50 (U.S. 101), Route 60 (SR 126) and Route 80 (Coastal Express) provide regional connections between the project site and destinations in Ventura and Santa Barbara counties..

Bicycle Network. The bicycle network connecting the project site with the adjacent residential and commercial areas consists of Class II bicycle lanes on Telephone Road, Portola Road, Ralston Street and Walker Street. In addition, a Class I bike path extends from Telephone Road opposite Cypress point Lane and connects to a bike path extending parallel to SR 126.

Existing Intersection Operations

A total of 13 intersections were selected for analysis in consultation with City of Ventura Public Works staff. Because current AM and PM commute traffic is affected by both temporary workforce changes and increase in telecommuting, new traffic counts at these intersections would not be considered to be representative of traffic flow occurring under normal conditions. To generate 2020 intersection volumes, Stantec reviewed historical count data and developed a growth factor to be applied from 2004, as contained in the Ventura Traffic Model, to 2020 to represent existing conditions.

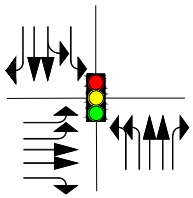
A count summary file is included in the Technical Appendix that summarizes the available counts that were used to develop traffic growth factors for estimating existing 2020 conditions. The spreadsheet includes 2004 and 2007 average daily (ADT) traffic counts from the available citywide count databases, and 2004 and 2018 peak hour intersection counts using three 2018 turning movement counts available. As shown, the ADT counts show a modest 0.1% growth per year whereas the peak hour intersection counts show a more substantial decrease in volumes over time.

Based on the information above, Stantec applied a conservative 0.1% growth per year for both ADT volumes and peak hour volumes. This growth rate was applied to the 2007 ADT counts from the City's ADT count program and to the 2004 peak hour intersection counts that were applied in the development of the City's traffic model.

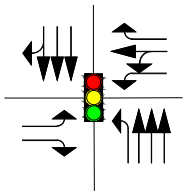
The existing lane geometry and control for the intersections within the study area are shown in Exhibit 3 and the AM and PM peak hour volumes are illustrated in Exhibit 4. Levels of service were calculated for the study-area intersections based on the level of service methodology outlined previously. Technical level of service worksheets are included in the Technical Appendix. The existing intersection levels of service are summarized in Table 2.

As shown, all study-area intersections currently operate at LOS C or better during both peak hours, which is considered acceptable based on City level of service standards.

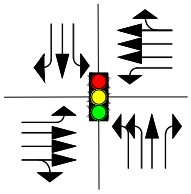
1. Telephone & Main/US 101 SB



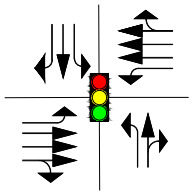
2. Telephone & US 101 NB

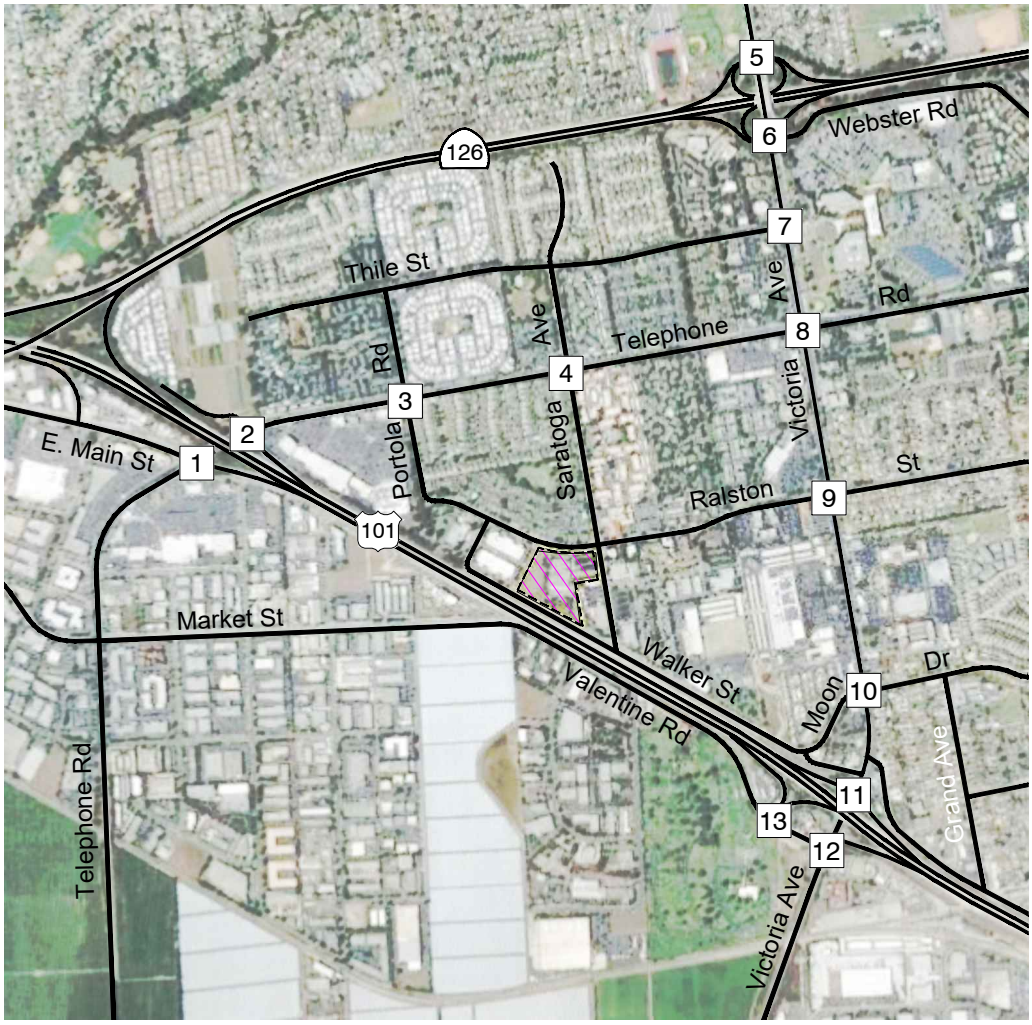


3. Telephone & Portola

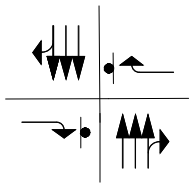


4. Telephone & Saratoga

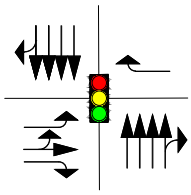




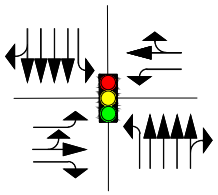
5. Victoria & SR 126 WB



6. Victoria & SR 126 EB



7. Victoria & Thile



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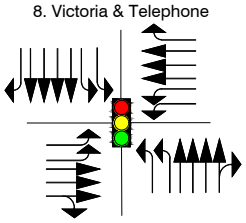
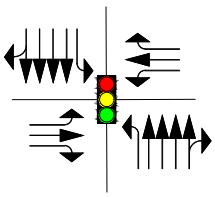
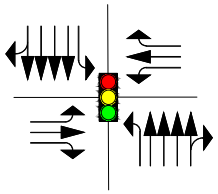


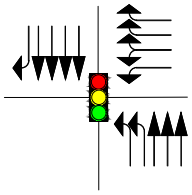
9. Victoria & Ralston



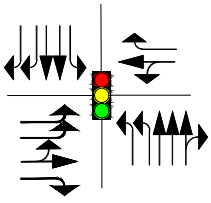
10. Victoria & Moon



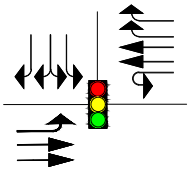
11. Victoria & US 101 NB



12. Victoria & Valentine



13. Valentine & US 101 SB



LEGEND

- Traffic Signal
- Stop Sign
- Approach Lane Assignment

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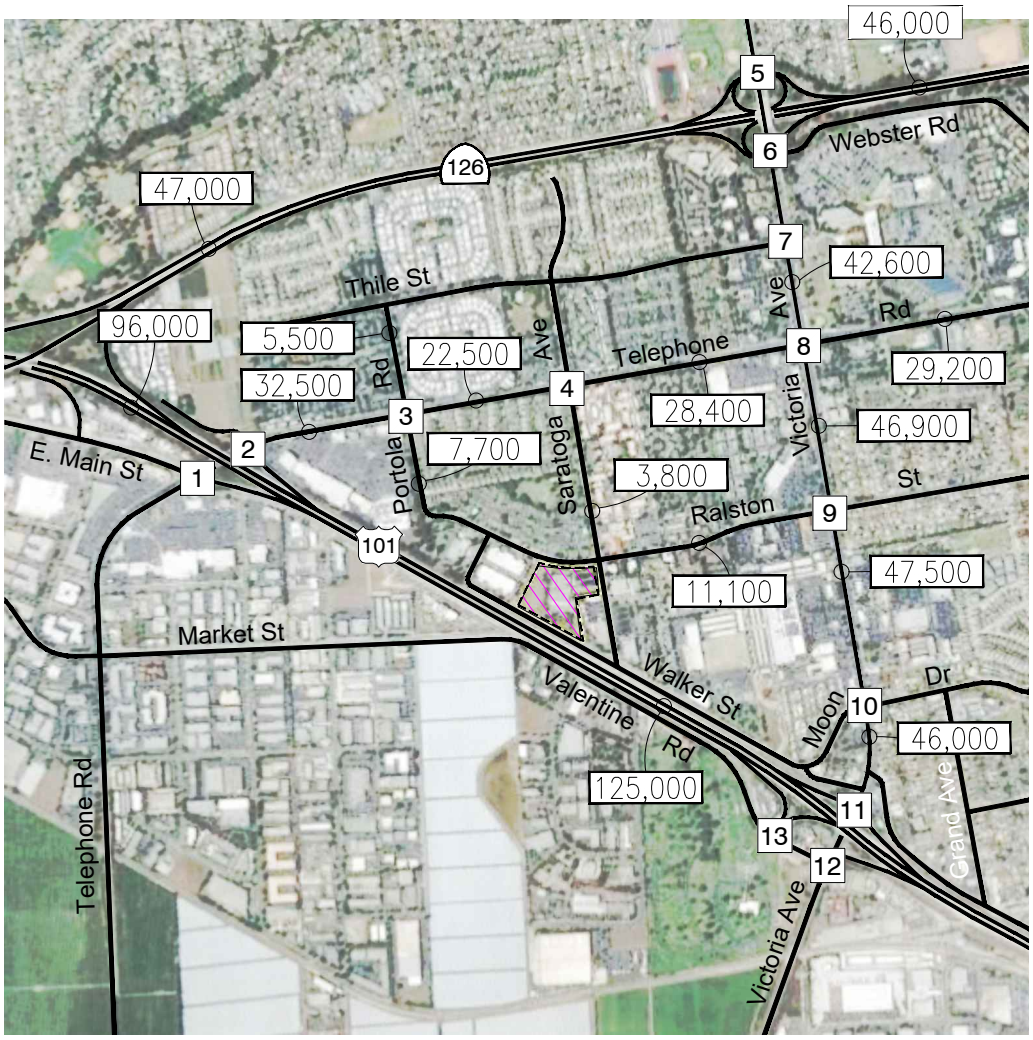
EXHIBIT 3

EXISTING CONDITIONS INTERSECTION GEOMETRIES



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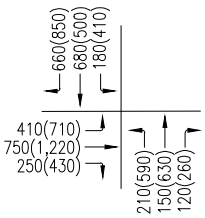
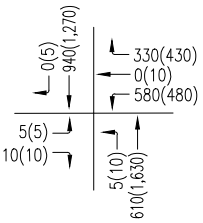
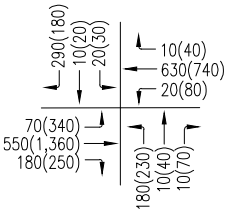


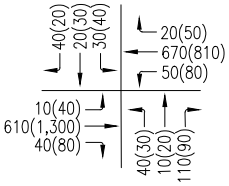
2. Telephone & US 101 NB



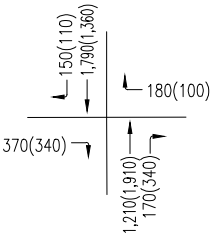
3. Telephone & Portola



4. Telephone & Saratoga



5. Victoria & SR 126 WB



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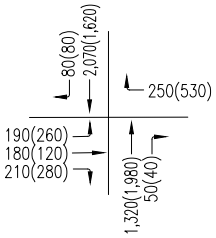

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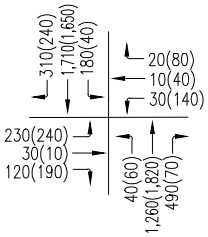

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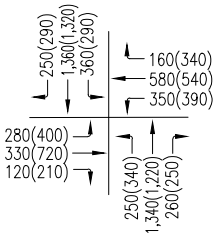

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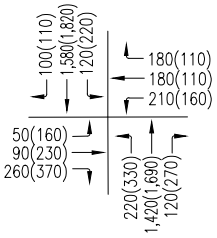

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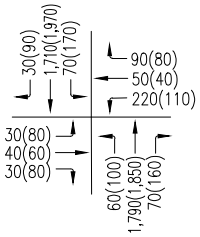

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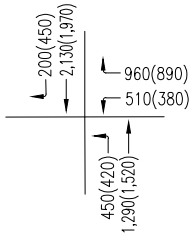

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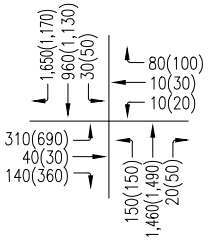

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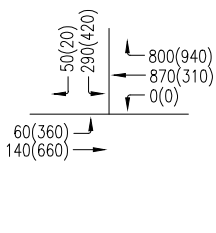

LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Movement

XX - Average Weekday Daily Traffic

N

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EXHIBIT 4
EXISTING CONDITIONS TRAFFIC VOLUMES

Table 2
Existing Intersection Peak Hour Levels of Service

Intersection	Control	AM Peak Hour V/C Ratio	PM Peak Hour V/C Ratio
1. Telephone Rd/U.S. 101 SB	Signal	0.45/LOS A	0.64/LOS B
2. Telephone Rd/U.S. 101 NB	Signal	0.39/LOS A	0.61/LOS B
3. Telephone Rd/Portola Rd	Signal	0.38/LOS A	0.47/LOS A
4. Telephone Rd/Saratoga Ave	Signal	0.27/LOS A	0.44/LOS A
5. Victoria Ave/SR 126 WB	TWSC	0.66/LOS B	0.62/LOS B
6. Victoria Ave/SR 126 EB	Signal	0.53/LOS A	0.79/LOS C
7. Victoria Ave/Thile St	Signal	0.50/LOS A	0.52/LOS A
8. Victoria Ave/Telephone Rd	Signal	0.57/LOS A	0.63/LOS B
9. Victoria Ave/Ralston St	Signal	0.59/LOS A	0.75/LOS C
10. Victoria Ave/Moon Dr	Signal	0.50/LOS A	0.53/LOS A
11. Victoria Ave/U.S. 101 NB	Signal	0.66/LOS B	0.62/LOS B
12. Victoria Ave/Valentine Rd	Signal	0.61/LOS B	0.62/LOS B
13. Valentine Rd/U.S. 101 SB	Signal	0.40/LOS A	0.55/LOS A

Bolded values exceed LOS Standard.
ICU = Intersection Capacity Utilization.
V/C = Volume-to-capacity ratio.
TWSC: two-way stop control.
Unsignalized intersection analyzed using HCM methodology, LOS determined by vehicle delay in seconds.

PROJECT SPECIFIC CONDITIONS

Traffic Impact Thresholds

The City's traffic impact thresholds were used to assess the significance of the traffic impacts generated by the VA CBOC Project. These thresholds are outlined below.

Performance Standard: Level of service E (peak hour ICU less than or equal to 1.00) for freeway ramp intersections and non-Principal Intersections that are located in the CMP network. Level of service D (peak hour ICU less than or equal to 0.90) for all other Principal Intersections.

Threshold of Significance: For an intersection that is forecast to operate worse than its performance standard, the impact of a project is considered to be significant if the project increases the ICU by more than 0.01.

If the above guidelines are exceeded, the project developer may be required to construct improvements or implement other methods to reduce the level of impact to insignificance. The thresholds of significance identified above assume full contribution to the Traffic Mitigation Fee Fund.

Project Trip Generation

The site is currently occupied by a 40,110 square feet vacant light industrial building. The light industrial building is coded in Traffic Analysis Zone (TAZ) 87 in the VTAM as Warehouse/Manufacturing. Given that the site was operational when counts were collected (see Existing Intersection Operations section), traffic generated by the existing use is credited under both project-specific and buildout conditions analyses.

Stantec reviewed applicable land uses contained in the Institute of Transportation Engineers *Trip Generation Manual*[3] to determine the appropriate project trip generation. *ITE Land Use 630 – Clinic* and *Land Use 720 – Medical-Dental Office* would conform to the project description. Trip generation rates for Clinic are based on up to 5 studies (site counts) and none of the buildings that were counted exceeded 32,000 square feet. Rates for Medical-Dental Office are based on up to 65 studies and the project size would fit within the data range. Based on this data, *Land Use 720 – Medical-Dental Office* was selected to calculate trips generated by the project. Table 3 summarizes the trip generation estimates for the project.

Table 3
Project Trip Generation Rates

Land Use	ITE Land Use Code	Units	Trip Rate				
				AM		PM	
			ADT	In	Out	In	Out
Warehouse/Manufacturing	n/a[1]	KSF	4.96	0.37	0.08	0.12	0.39
Medical Office	720[2]	KSF	34.80	2.17	0.61	0.97	2.19

[1] Source: Ventura Traffic Analysis Model (VTAM).
[2] Source: ITE Trip Generation Manual, 10th Edition.

Table 4
Project Trip Generation

Land Use	Size	ADT	AM			PM		
			In	Out	Total	In	Out	Total
Existing Land Use (GP Land Use)								
Warehouse/Manufacturing	40.11 KSF	199	15	3	18	5	16	21
Proposed Land Use								
Medical Office	51 KSF	1,775	111	31	142	49	112	161
Net New Trips		**1,576**	**96**	**28**	**124**	**44**	**96**	**140**

Table 4 indicates that the project is expected to generate 1,576 net new ADT, with 124 trips occurring in the AM peak hour and 140 trips occurring in the PM peak hour.

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

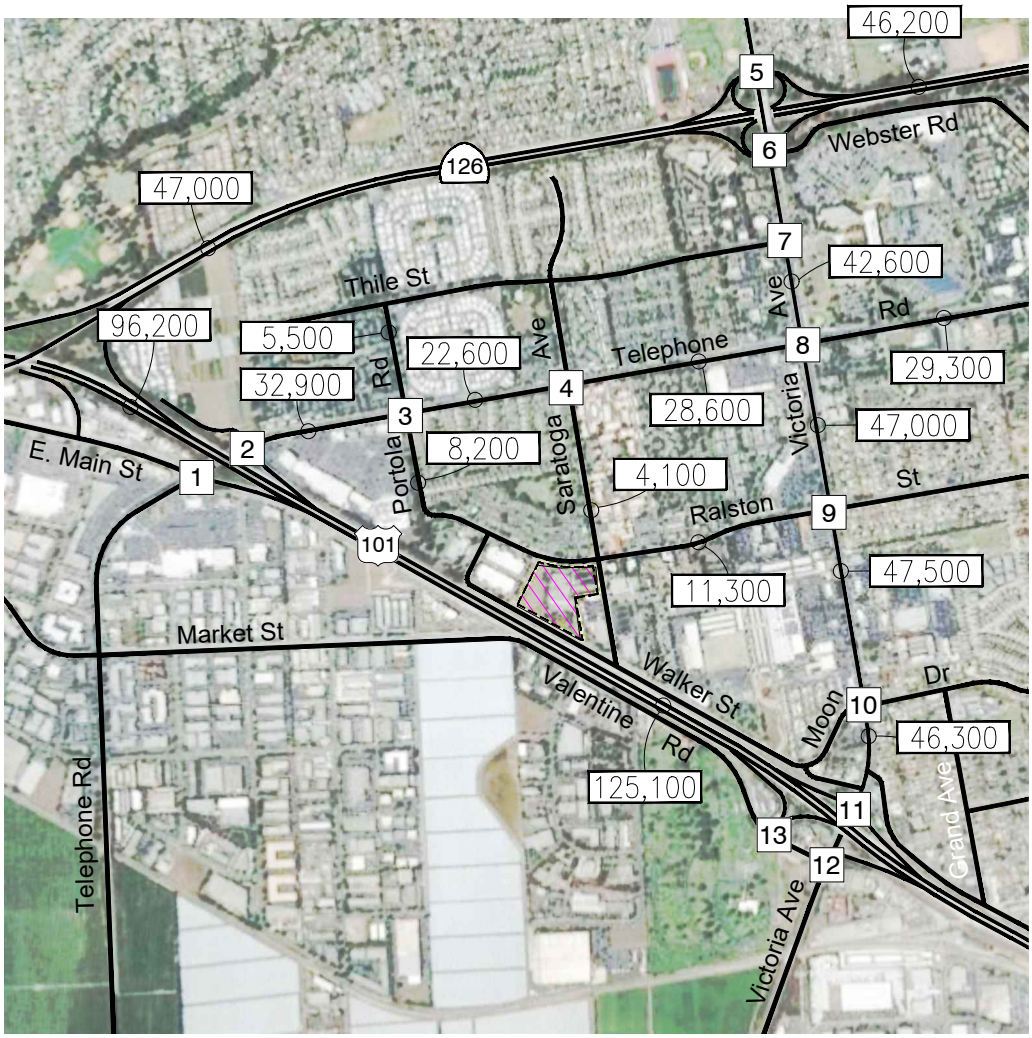
Existing plus Project Intersection Operations

Project trips were distributed onto the study-area roadway network using the Ventura Traffic Model. The model removes trip generated by the existing warehouse/manufacturing use based on its employee trip distribution pattern and adds trips generated by the proposed project based on its employee/patient trip distribution pattern. The resulting existing plus project traffic volumes are illustrated in Exhibit 5. Levels of service were recalculated for the study-area intersections and the existing plus project intersection levels of service are summarized in Tables 5 and 6.

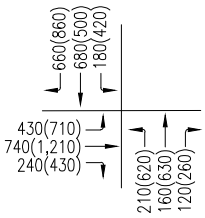
As shown, all study-area intersections are expected to continue to operate at LOS C or better during both peak hours, which is considered acceptable based on City level of service standards. The project would not generate any project-specific impacts.

Table 5
AM Peak hour
Existing plus Project Intersection Levels of Service

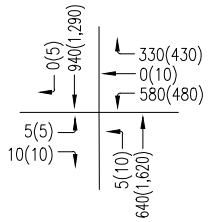
Intersection	AM Peak Hour			
	Existing ICU/LOS	Existing + Project ICU/LOS	V/C Increase	Impact?
1. Telephone Rd/U.S. 101 SB	0.45/LOS A	0.44/LOS A	0.00	No
2. Telephone Rd/U.S. 101 NB	0.39/LOS A	0.39/LOS A	0.00	No
3. Telephone Rd/Portola Rd	0.38/LOS A	0.39/LOS A	0.01	No
4. Telephone Rd/Saratoga Ave	0.27/LOS A	0.27/LOS A	0.00	No
5. Victoria Ave/SR 126 WB	0.66/LOS B	0.67/LOS B	0.01	No
6. Victoria Ave/SR 126 EB	0.53/LOS A	0.53/LOS A	0.00	No
7. Victoria Ave/Thile St	0.50/LOS A	0.50/LOS A	0.00	No
8. Victoria Ave/Telephone Rd	0.57/LOS A	0.58/LOS A	0.01	No
9. Victoria Ave/Ralston St	0.59/LOS A	0.59/LOS A	0.00	No
10. Victoria Ave/Moon Dr	0.50/LOS A	0.50/LOS A	0.00	No
11. Victoria Ave/U.S. 101 NB	0.66/LOS B	0.66/LOS B	0.00	No
12. Victoria Ave/Valentine Rd	0.61/LOS B	0.61/LOS B	0.00	No
13. Valentine Rd/U.S. 101 SB	0.40/LOS A	0.40/LOS A	0.00	No



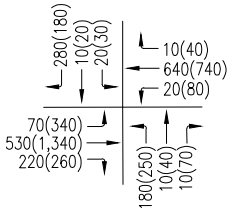
1. Telephone & Main/US 101 SB



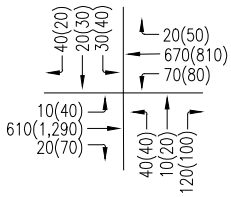
2. Telephone & US 101 NB



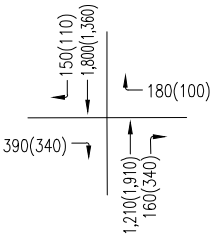
3. Telephone & Portola



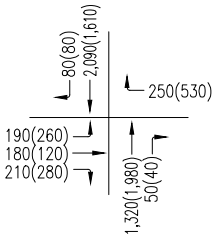
4. Telephone & Saratoga



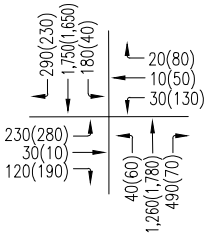
5. Victoria & SR 126 WB



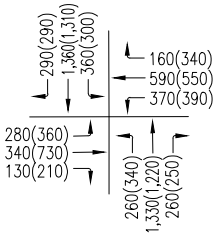
6. Victoria & SR 126 EB



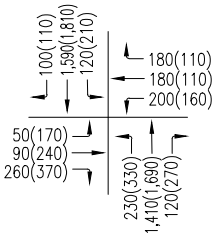
7. Victoria & Thile



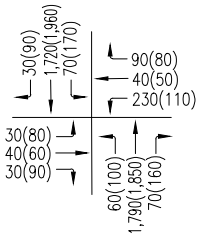
8. Victoria & Telephone



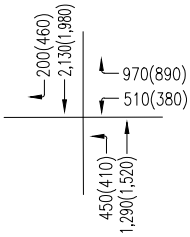
9. Victoria & Ralston



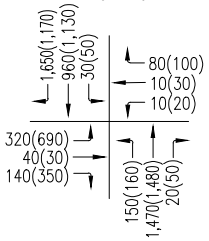
10. Victoria & Moon



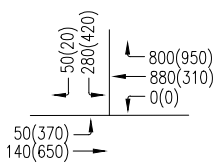
11. Victoria & US 101 NB



12. Victoria & Valentine



13. Valentine & US 101 SB



LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Movement

XX - Average Weekday Daily Traffic

EXHIBIT 5

EXISTING + PROJECT CONDITIONS TRAFFIC VOLUMES

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Table 6
PM Peak hour
Existing plus Project Intersection Levels of Service

Intersection	PM Peak Hour		V/C Increase	Impact?
	Existing ICU/LOS	Existing + Project ICU/LOS		
1. Telephone Rd/U.S. 101 SB	0.64/LOS B	0.64/LOS B	0.00	No
2. Telephone Rd/U.S. 101 NB	0.61/LOS B	0.61/LOS B	0.00	No
3. Telephone Rd/Portola Rd	0.47/LOS A	0.47/LOS A	0.01	No
4. Telephone Rd/Saratoga Ave	0.44/LOS A	0.44/LOS A	0.00	No
5. Victoria Ave/SR 126 WB	0.62/LOS B	0.62/LOS B	0.00	No
6. Victoria Ave/SR 126 EB	0.79/LOS C	0.78/LOS C	0.00	No
7. Victoria Ave/Thile St	0.52/LOS A	0.50/LOS A	0.00	No
8. Victoria Ave/Telephone Rd	0.63/LOS B	0.64/LOS B	0.01	No
9. Victoria Ave/Ralston St	0.75/LOS C	0.76/LOS C	0.01	No
10. Victoria Ave/Moon Dr	0.53/LOS A	0.53/LOS A	0.00	No
11. Victoria Ave/U.S. 101 NB	0.62/LOS B	0.62/LOS B	0.00	No
12. Victoria Ave/Valentine Rd	0.62/LOS B	0.61/LOS B	0.00	No
13. Valentine Rd/U.S. 101 SB	0.55/LOS A	0.56/LOS A	0.01	No

BUILDOUT CONDITIONS

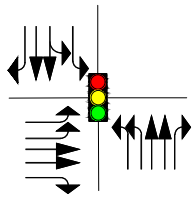
Buildout Traffic Volumes

Traffic volumes for City of Ventura General Plan buildout conditions were derived from the Ventura Traffic Analysis Model (VTAM). The traffic model incorporates a citywide set of year 2025 land use assumptions that were developed for the City's General Plan update (2005), with future land use density assumptions for each of the 331 TAZ's. A VTAM zone map is included in the Technical Appendix. The General Plan Buildout intersection geometries are shown in exhibit 6 and the General Plan Buildout traffic volumes without and with the VA CBOC project are illustrated in Exhibits 7 and 8, respectively.

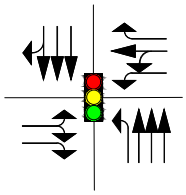
Buildout plus Project Intersection Operations

Intersection levels of service were recalculated assuming buildout and buildout plus project conditions.

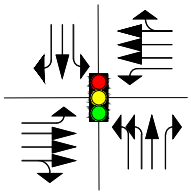
1. Telephone & Main/US 101 SB



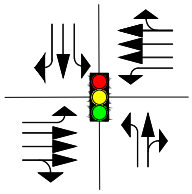
2. Telephone & US 101 NB

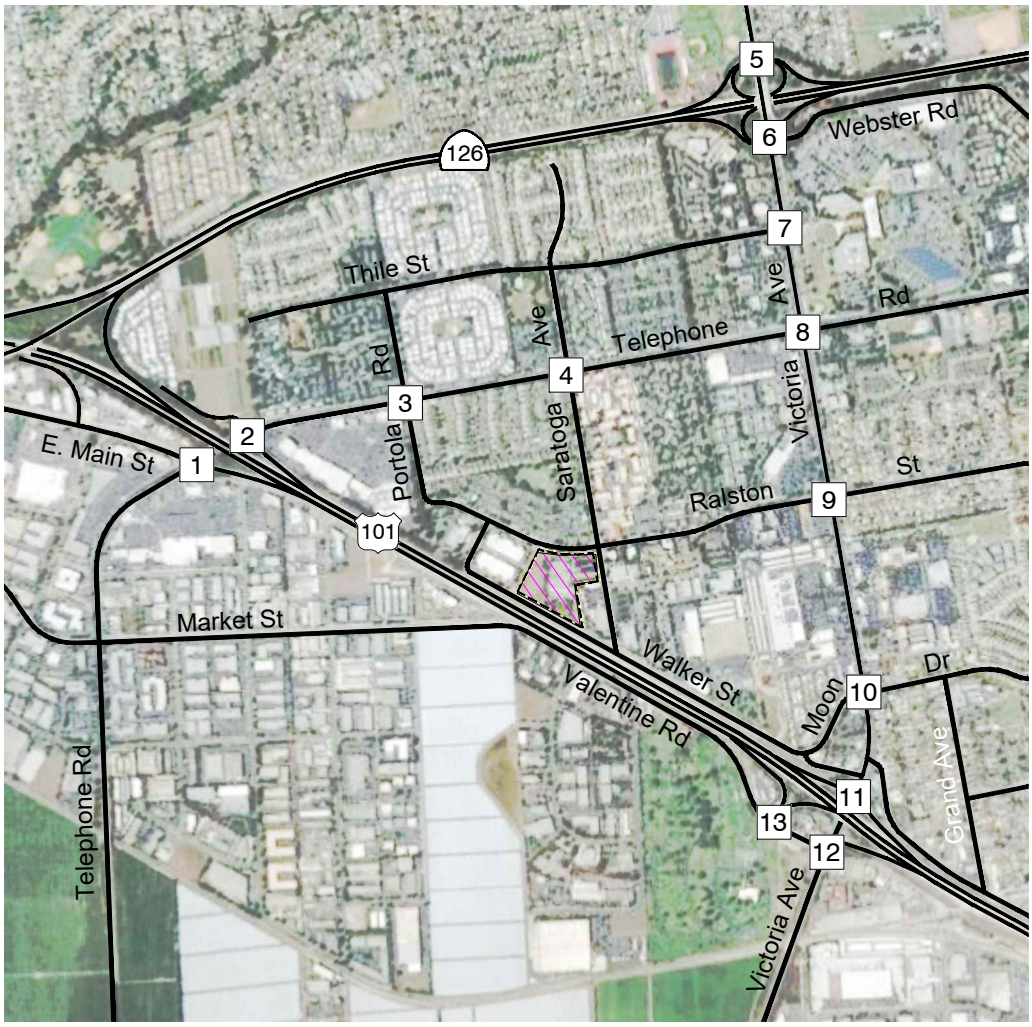


3. Telephone & Portola

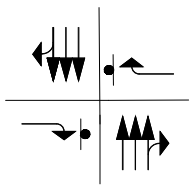


4. Telephone & Saratoga

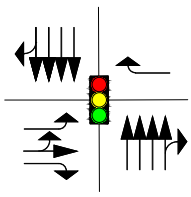




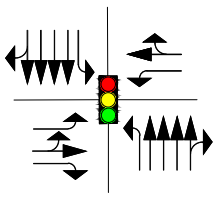
5. Victoria & SR 126 WB



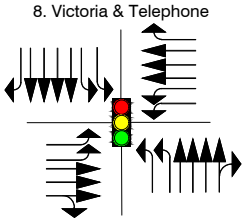
6. Victoria & SR 126 EB



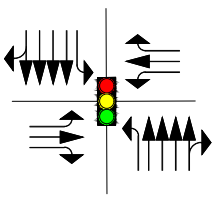
7. Victoria & Thile



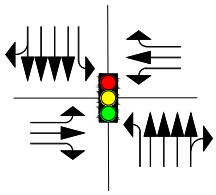
8. Victoria & Telephone



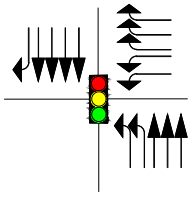
9. Victoria & Ralston



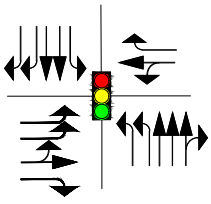
10. Victoria & Moon



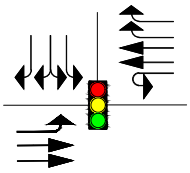
11. Victoria & US 101 NB



12. Victoria & Valentine



13. Valentine & US 101 SB



LEGEND

- Traffic Signal
- Stop Sign
- Approach Lane Assignment

N

N.T.S.

Stantec

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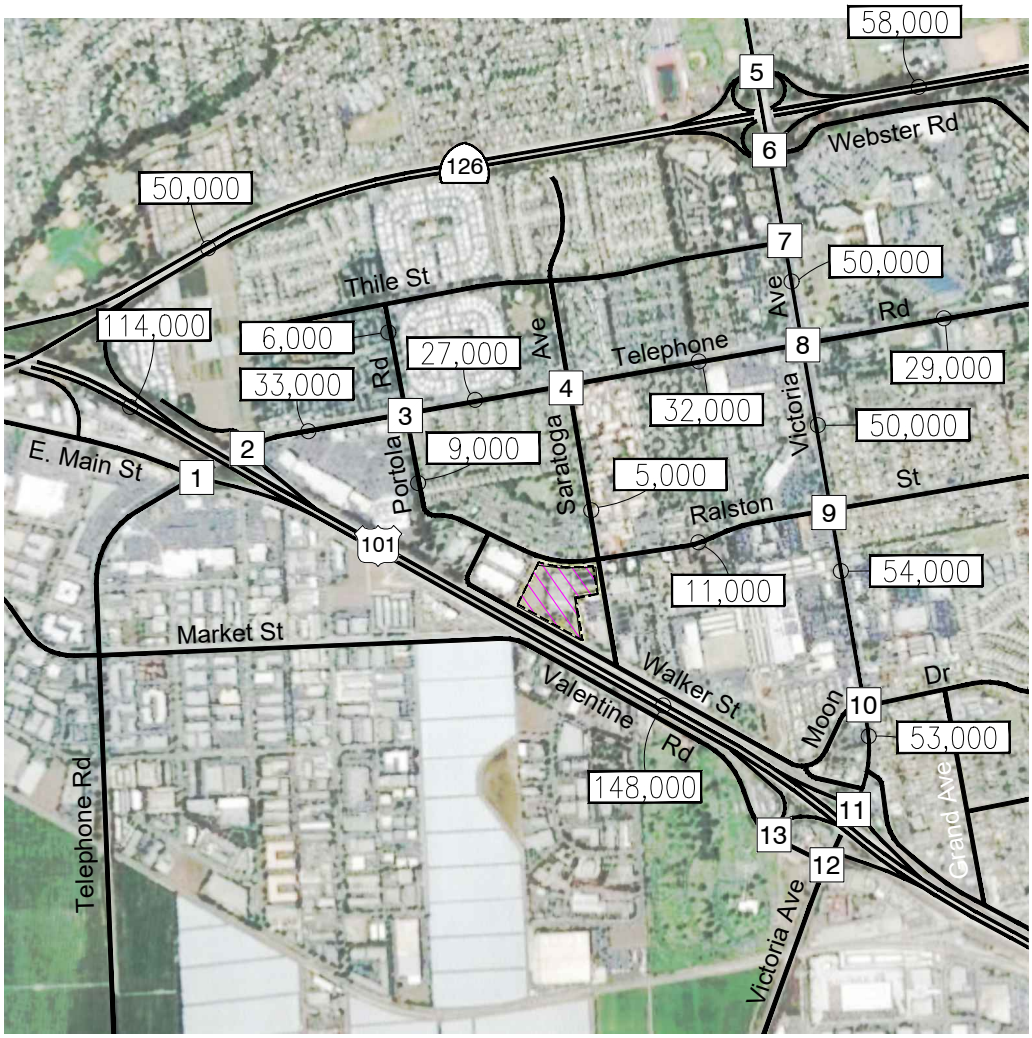
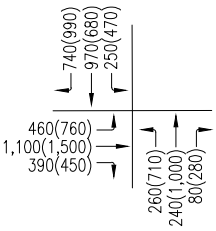
EXHIBIT 6

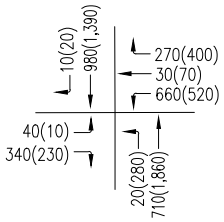
GENERAL PLAN BUILDOUT CONDITIONS
INTERSECTION GEOMETRIES



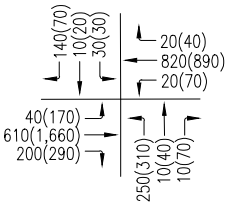
1. Telephone & Main/US 101 SB



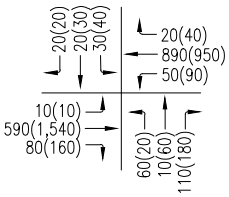
2. Telephone & US 101 NB



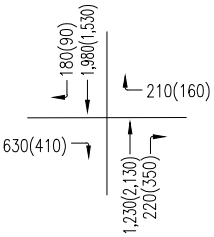
3. Telephone & Portola



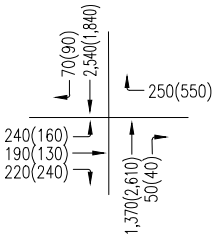
4. Telephone & Saratoga



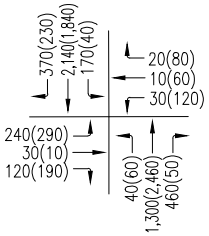
5. Victoria & SR 126 WB



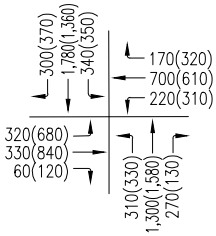
6. Victoria & SR 126 EB



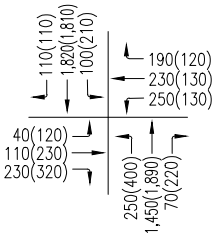
7. Victoria & Thile



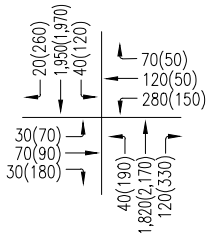
8. Victoria & Telephone



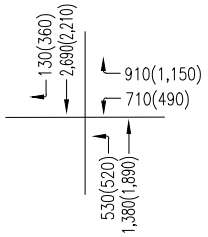
9. Victoria & Ralston



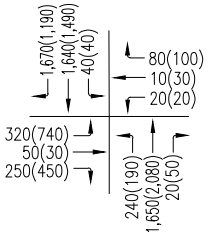
10. Victoria & Moon



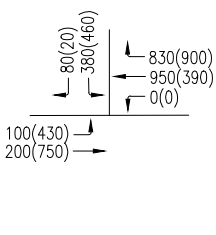
11. Victoria & US 101 NB



12. Victoria & Valentine



13. Valentine & US 101 SB



LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Movement

XX - Average Weekday Daily Traffic

EXHIBIT 7

GENERAL PLAN BUILDOUT CONDITIONS TRAFFIC VOLUMES

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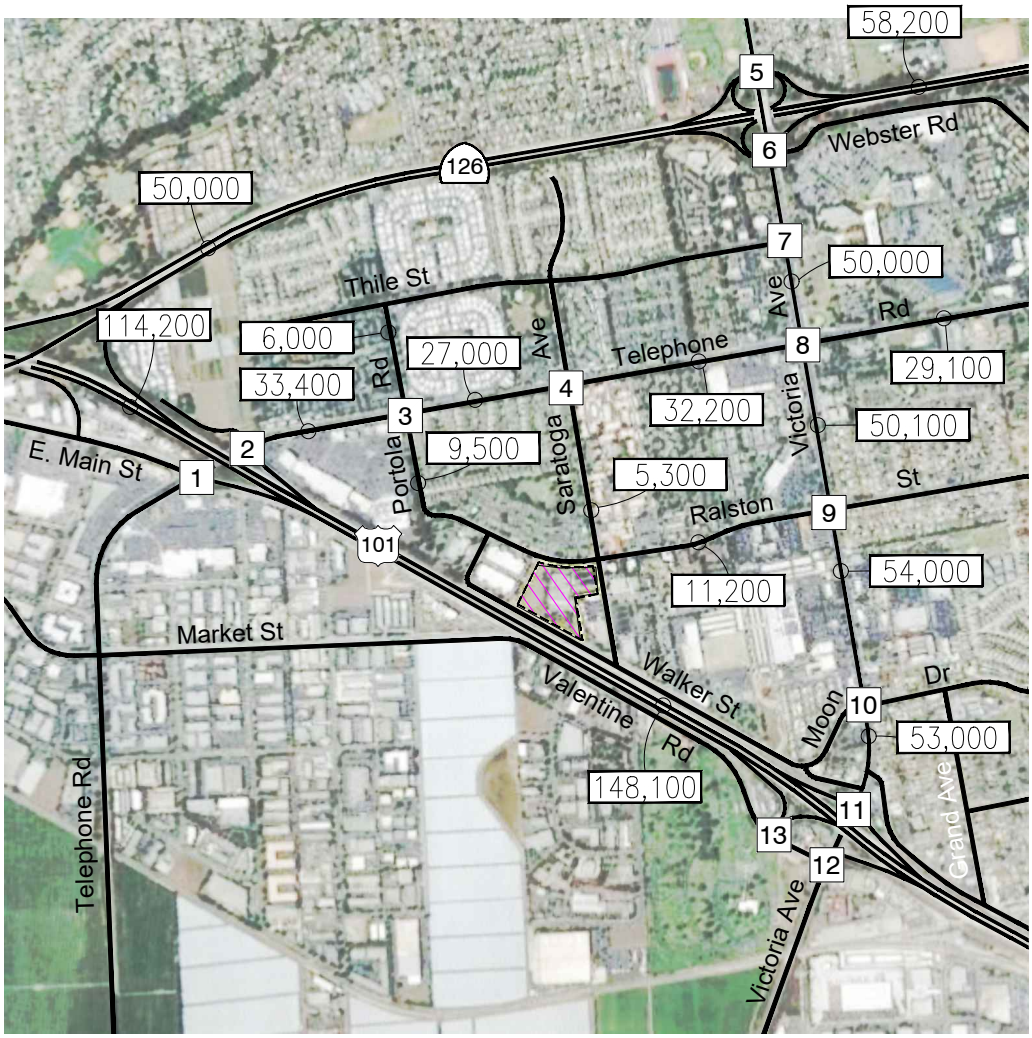
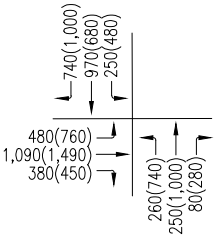
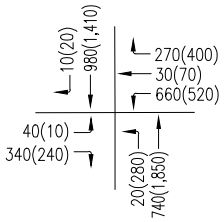


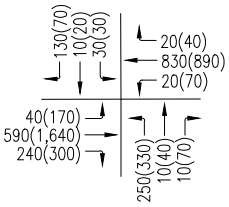
1. Telephone & Main/US 101 SB



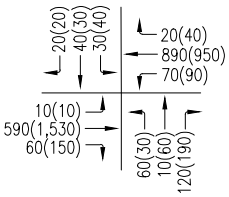
2. Telephone & US 101 NB



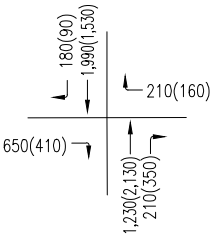
3. Telephone & Portola



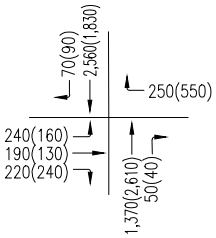
4. Telephone & Saratoga



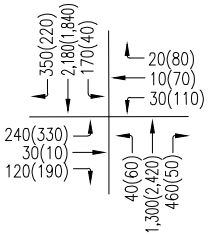
5. Victoria & SR 126 WB



6. Victoria & SR 126 EB



7. Victoria & Thile



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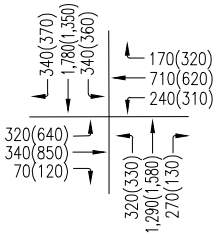

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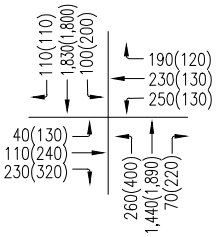

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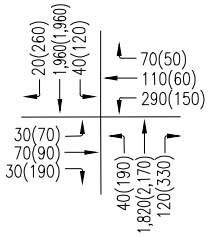

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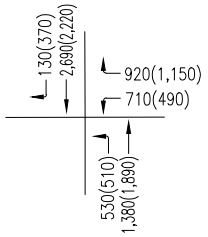

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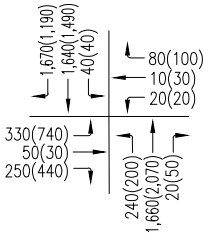
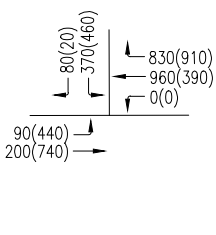


13. Valentine & US 101 SB



LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Movement

XX - Average Weekday Daily Traffic

N

N.T.S.

Stantec

111 East Victoria Street, Santa Barbara, CA 93101
Phone: (805) 963-9532 Fax: (805) 966-9801

EXHIBIT 8

GENERAL PLAN BUILDOUT + PROJECT CONDITIONS TRAFFIC VOLUMES

Tables 7 and 8 summarize the buildout and buildout plus project level of service calculations. As shown, all study-area intersections are expected to operate at LOS D or better under buildout and buildout plus project conditions, which is considered acceptable based on the City's level of service criteria. The project would generate any impacts under buildout conditions.

Table 7
AM Peak hour
Buildout plus Project Intersection Levels of Service

Intersection	AM Peak Hour		V/C Increase	Impact?
	Existing ICU/LOS	Existing + Project ICU/LOS		
1. Telephone Rd/U.S. 101 SB	0.61/LOS B	0.61/LOS A	0.00	No
2. Telephone Rd/U.S. 101 NB	0.56/LOS A	0.56/LOS A	0.00	No
3. Telephone Rd/Portola Rd	0.36/LOS A	0.35/LOS A	0.00	No
4. Telephone Rd/Saratoga Ave	0.30/LOS A	0.30/LOS A	0.00	No
5. Victoria Ave/SR 126 WB	0.86/LOS D	0.88/LOS D	0.02	No
6. Victoria Ave/SR 126 EB	0.57/LOS A	0.57/LOS A	0.00	No
7. Victoria Ave/Thile St	0.52/LOS A	0.53/LOS A	0.01	No
8. Victoria Ave/Telephone Rd	0.63/LOS B	0.64/LOS B	0.01	No
9. Victoria Ave/Ralston St	0.69/LOS B	0.68/LOS B	0.00	No
10. Victoria Ave/Moon Dr	0.56/LOS A	0.56/LOS A	0.00	No
11. Victoria Ave/U.S. 101 NB	0.81/LOS D	0.81/LOS D	0.00	No
12. Victoria Ave/Valentine Rd	0.69/LOS B	0.69/LOS B	0.00	No
13. Valentine Rd/U.S. 101 SB	0.48/LOS A	0.48/LOS A	0.00	No

Table 8
PM Peak hour
Buildout plus Project Intersection Levels of Service

Intersection	PM Peak Hour			
	Existing ICU/LOS	Existing + Project ICU/LOS	V/C Increase	Impact?
1. Telephone Rd/U.S. 101 SB	0.86/LOS D	0.86/LOS D	0.00	No
2. Telephone Rd/U.S. 101 NB	0.67/LOS B	0.67/LOS B	0.00	No
3. Telephone Rd/Portola Rd	0.56/LOS A	0.55/LOS A	0.00	No
4. Telephone Rd/Saratoga Ave	0.59/LOS A	0.60/LOS A	0.01	No
5. Victoria Ave/SR 126 WB	0.74/LOS C	0.74/LOS C	0.00	No
6. Victoria Ave/SR 126 EB	0.84/LOS D	0.84/LOS D	0.00	No
7. Victoria Ave/Thile St	0.60/LOS A	0.62/LOS B	0.02	No
8. Victoria Ave/Telephone Rd	0.72/LOS C	0.71/LOS C	0.00	No
9. Victoria Ave/Ralston St	0.77/LOS C	0.78/LOS C	0.01	No
10. Victoria Ave/Moon Dr	0.62/LOS B	0.62/LOS B	0.00	No
11. Victoria Ave/U.S. 101 NB	0.66/LOS B	0.66/LOS B	0.00	No
12. Victoria Ave/Valentine Rd	0.79/LOS C	0.78/LOS C	0.00	No
13. Valentine Rd/U.S. 101 SB	0.58/LOS A	0.59/LOS A	0.01	No

PROJECT SITE ACCESS

The site plan illustrated in Exhibit 2 shows that access to the VA CBOC is proposed via one driveway on Ralston Street and two driveways on Walker Street. These driveways provide access to the three on-site parking areas. The existing driveway on Saratoga Avenue will be eliminated. As outlined in this traffic study, the project would generate 96 inbound and 28 outbound trips during the AM peak hour, and 44 inbound and 96 outbound trips during the PM peak hour. The proposed driveway configuration is expected to accommodate the forecast traffic generated by the project. Sight distance requirements from the driveways will have to be verified as part of development plan submittal.

MITIGATION MEASURES

Project-Specific Mitigations

The project-specific analysis found that the project would not generate any project-specific impacts at the study-area intersections based on City of Ventura impact thresholds. No mitigations are required.

Buildout Mitigations

The buildout analysis indicated that the project would not generate any buildout impacts at the study-area intersections based on City of Ventura impact thresholds. No buildout mitigations are required.

CONGESTION MANAGEMENT PROGRAM (CMP) ANALYSIS

For the purposes of Congestion Management Program (CMP) traffic impact analysis, LOS E is considered to be acceptable, and a significant impact occurs if the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C > 0.02), causing or worsening LOS F (V/C > 1.00).

Roadways. U.S. 101, SR 126, Victoria Avenue and Telephone Road are included in the CMP network. According to the 2009 CMP[4], these facilities operate at LOS D or better during the AM and PM peak hour periods, except Northbound U.S. 101, which operates in the LOS F range during the PM peak hour. The project would add 10 net new PM peak hour trips to Northbound U.S. 101, which would increase the directional peak hour volume by less than 0.5%. This increase would not result in a CMP impact based on the impact criteria of an increase in traffic demand on a CMP facility by 2% of capacity.

Intersections. Within the study-area, the interchanges of U.S. 101 with Telephone Road and Victoria Avenue, the SR 126/Victoria Avenue interchange and the intersection of Victoria Avenue with Telephone Road are included in the CMP network. The traffic analysis indicated that these intersections operate at LOS D or better. Based on the CMP criteria outlined above, the project would not generate an impact at any of the CMP intersections.

VEHICLE MILES TRAVELED (VMT) ANALYSIS

State Senate Bill 743 (2013), which was codified in Public Resources Code section 21099, required changes to the guidelines implementing CEQA (CEQA Guidelines) (Cal. Code Regs., Title 14, Div. 6, Ch. 3, § 15000 et seq.) regarding the analysis of transportation impacts. Pursuant to Section 21099, the criteria for determining the significance of transportation impacts must "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." (*Id.*, subd. (b)(1); see generally, adopted CEQA Guidelines, §15064.3, subd. (b) [Criteria for Analyzing Transportation Impacts].) To that end, in developing the criteria, Office of Planning and Research (OPR) has proposed, and the California Natural Resources Agency (Agency) has certified and adopted, changes to the CEQA Guidelines that identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts.

A project would have a significant effect on the environment if it would cause substantial additional VMT. The OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) recommends screening criteria to identify types, characteristics, or locations of projects that would not result in significant impacts to VMT. If a project meets screening criteria, then it is presumed that VMT impacts would be less than significant for the project and a detailed VMT analysis is not required.

[4] 2009 Ventura County Congestion Management Program, VCTC, Adopted July 10, 2009.

Of land use projects, residential, office, and retail projects tend to have the greatest influence on VMT. For that reason, OPR recommends quantified thresholds for these land uses for purposes of analysis and mitigation. Lead agencies, using more location-specific information, may develop their own more specific thresholds, which may include other land use types. in general, the recommended "Threshold of Significance" is if a proposed project exceeds a level of 15 percent below existing regional VMT for that type of project, a significant transportation impact may be generated. However, for other uses (i.e. retail projects), a net increase in total VMT may indicate a significant transportation impact.

The following VMT assessment was prepared in support of the Project's environmental documentation and complies with the updated California Environmental Quality Act (CEQA) guidelines that incorporates the requirements of Senate Bill 743 (SB 743). The City of Ventura is yet to adopt VMT guidelines. Therefore, the final Technical Advisory released by OPR in December 2018[5] is used to provide guidance for evaluating transportation impacts and is the basis for this assessment.

Project Screening

Prior to undertaking a detailed VMT analysis, the Technical Advisory advises that lead agencies conduct a screening process "to quickly identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study." The Technical Advisory suggests that lead agencies may screen out VMT impacts using project size, maps depicting areas of low VMT, transit availability and provision of affordable housing. For this analysis the Project has been evaluated using the four screening criteria summarized in Table 9.

Table 9
Project Screening Criteria and Threshold

Category	Criteria/Screening	Threshold
Trip generation screening	Small Projects can be screened out from completing a full VMT analysis.	If the Project generates less than 110 trips per day, the Project is assumed to have a less than significant impact.
Map-based screening	Projects that are located in areas with low VMT can be screened out from completing a full VMT analysis.	If the Project is in a low VMT area, the Project is assumed to have a less than significant impact.
Proximity to transit	Projects within ½ mile of a major transit stop or a stop located along a high-quality transit corridor reduce VMT and therefore can be screened out from completing a full VMT analysis.	If the Project is within ½ mile of a major or high-quality transit stop/corridor, the Project is assumed to have a less than significant impact.
Affordable Residential development	Affordable housing in infill locations can be screened out from completing a full VMT analysis.	If the Project is comprised 100% of affordable units and is located in an infill location, then the Project is assumed to have a less than significant impact.

[5] Technical Advisory on Evaluating Transportation Impacts in CEQA, Governor's Office of Planning and Research, State of California, December 2018.

The project is estimated to generate approximately 1,340 net daily trips; therefore, the small project screening criteria does not apply. At this time, City of Ventura does not have a map-based resource for identifying areas in the City with low VMT per capita. Therefore, map-based screening cannot be utilized to determine if the Project is in a low VMT generating area. The Project is currently not within a ½ mile proximity of a major transit stop; therefore, the Project cannot be screened out based on its proximity to transit. The project is not an affordable residential development; therefore, the affordable residential development screening does not apply.

VMT Analysis Performance Criteria

The Technical Advisory recommends significance thresholds that may constitute a significant transportation impact. The recommended significance thresholds are summarized in Table 10

Table 10
SB 743 Recommended Significance Thresholds

Land Use Type	Metric	Threshold of Significance
Residential development	Household VMT per capita	15% less than existing city household VMT per capita or regional household VMT per capita
Office development	VMT per employee	15% less than existing regional VMT per employee
Retail development	Total VMT	If project causes a net increase in total VMT
Other project types	To be determined by lead agency through consideration of the purposes of the legislation (i.e., reductions to GHG, VMT per capita, and automobile trip generation)	
Source: Technical Advisory on Evaluating Transportation Impacts in CEQA, Governor's Office of Planning and Research, December 2018.		

If a significant impact is identified utilizing the significance thresholds, mitigation to reduce VMT would be necessary. Under OPR's recommendations, lead agencies have the discretion to set or apply their own thresholds of significance or rely on thresholds recommended by other agencies. Since the Project is located within the City of Ventura, significance thresholds set by the City would be appropriate for the Project. However, at this time the City of Ventura has not adopted a formal methodology or significance criteria for VMT analysis. Ventura County is another resource that could set regional VMT thresholds appropriate for the Project to utilize. However, at this time the County is yet to adopt any policies or directives regarding VMT analysis. Therefore, due to the lack of City or County criteria, this analysis utilizes the recommended criteria from the Technical Advisory as shown in Table 10 above. Specifically, the employment generated by the project is evaluated based on a threshold of significance of 15 percent lower than the regional average VMT per employee.

VMT Analysis

The Technical Advisory does not specifically address specialty uses such as the proposed Project (Clinic use). Therefore, for this analysis the Project has been evaluated as an employment generator consistent with the guidelines for office development since the Project would

generate employment-related trips, together with an assessment of the Project's public (e.g., patients) use.

Analysis of Employee VMT

OPR's guidelines state that an agency may elect to utilize the California State Transportation Demand Model (CSTDM) for VMT analyses. Therefore, since the City and the County are yet to adopt a methodology for VMT analysis, the CSTDM was utilized for this study to establish a regional threshold and VMT data for the Project.

The Project is located in CSTDM traffic analysis zone (TAZ) 3441 (Exhibit 11). For this analysis, the Home-based Work (HBW) VMT per employee for TAZ 3441 is compared against the regional average HBW VMT per employee. The results are summarized in Table 3.

Table 11
VMT Analysis Summary

Description	HBW VMT per Employee
Project	
CSTDM TAZ 3441	11.5
Regional Threshold	
CSTDM Ventura County Existing	12.1
CSTDM Ventura County Existing with 15% reduction	10.3
Difference (Project minus Regional Threshold)	1.2
Is Project above or below Regional Threshold with 15% reduction?	Above
Significant Transportation Impact	Yes

As shown in Table 11, for this analysis the regional area is defined as the entirety of Ventura County. The average regional HBW VMT per employee for Ventura County is 12.1 VMT per employee based on the CSTDM data. Consistent with the Technical Advisory, a 15% reduction is applied to existing conditions, resulting in a regional threshold of 10.3 VMT per employee.

The existing HBW VMT per employee for employment generating uses in TAZ 3441 is 11.5 VMT per employee and the Project is expected to exhibit similar characteristics in regard to employee commuting patterns. Since 11.5 VMT per employee is greater than the regional threshold with 15% reduction (10.3 VMT per employee), the Project would be considered to have a significant VMT impact requiring mitigation. Mitigation addressing the above impact is addressed in the section below.

Analysis of Customer VMT

The Project will be providing community-based outpatient clinical care for veterans. Currently, similar veteran's facilities are located approximately 13 miles to the south in the City of Oxnard and approximately 33 miles to the north in the City of Santa Barbara. The Project's location will greatly reduce the amount of travel required for veterans living in Ventura area and will result in a net reduction in VMT associated with this type of use. Therefore, the project will have a less-than-significant impact regarding customer use.

Mitigation

To determine mitigation measures that will reduce the Project's VMT, the California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures document is utilized. VMT reduction strategies are first be evaluated in the Project's design features. In this case, the Project is located in an area with high accessibility to destinations (CAPCOA LUT-4), is located near bike lanes (LUT-8), and the Project will provide pedestrian network improvements (SDT-1).

Increase Destination Accessibility (LUT-4):

According to CAPCOA, "destination accessibility is measured in terms of the number of jobs or other attractions reachable within a given travel time, which tends to be highest at central locations and lowest at peripheral ones. The location of the project also increases the potential for pedestrians to walk and bike to these destinations and therefore reduces the VMT." [6] This measure is appropriate for uses, such as the Project (residential, retail, office, industrial and mixed-use projects).

The distance from the Project site to Downtown Ventura is approximately 5 miles. Other job centers are located within a shorter distance to the Project site, however, the distance to Downtown Ventura provides a conservative scenario.

The following uses the quantification methodology from CAPCOA's Measure LUT-4 Increase Destination Accessibility:

Increase Destination Accessibility LUT-4: % VMT Reduction = Center Distance * B [not to exceed 30%] Center Distance = Percentage decrease in distance to downtown or major job center versus typical ITE suburban development = (distance to downtown/job center for typical ITE development – distance to downtown/job center for project) / (distance to downtown/job center for typical ITE development) B = 0.20 (Elasticity of VMT with respect to distance to downtown or major job center)[7]
Project Calculation: A = (12 – 5 miles)/12 x .20 = 11.7% The increase in destination accessibility will result in a 11.7% reduction in VMT.

Increase Destination Accessibility (LUT-8):

CAPCOA describes that "a Project that is designed around an existing or planned bicycle facility encourages alternative mode use." The project will be located within 1/2 mile of an existing Class I path or Class II bike lane. This measure is most effective when applied in combination to LUT-4.

[6] Page 168 California Air Pollution Control Officers Association Quantifying Greenhouse Gas Mitigation Measures, August 2010.
[7] Ibid.

There are existing Class II bike lanes on Ralston Street that connect to the City's bicycle network. Therefore, since the Project increases destination accessibility and is located near bike lanes, the Project would have a 0.6% reduction in VMT per CAPCOA.

Provide Pedestrian Network Improvements (SDT-1):

SDT-1 in CAPCOA explains that "Providing a pedestrian access network to link areas of the Project site encourages people to walk instead of drive. This mode shift results in people driving less and thus a reduction in VMT."

As part of the site design, the Project will provide pedestrian access that links the on-site pedestrian network to the City's off-site pedestrian network (i.e., sidewalks). Since the Project will provide pedestrian accommodations within the project site and connecting off-site, the improvements will reduce VMT by 2%.[8]

Mitigation Summary:

The combination of VMT reducing project features (high accessibility to destinations, located near bike lanes, provide pedestrian network improvements) results in a net total VMT reduction of 13.7%. Note that the VMT reductions associated with the three mitigation measures (11.7%, 0.6%, and 2.0%) are applied incrementally, resulting in a lower net reduction in comparison to the sum of the three numbers.

Table 12
Project VMT with Mitigation

Description	HBW VMT PER EMPLOYEE
Project	11.5
Mitigation Reduction	13.7%
Project with Mitigation	9.9
Countywide Threshold	10.3
Above or Below Countywide Threshold	Below
Significant Impact?	No

The 13.7% percent reduction in VMT is applied to the Project's HBW VMT per employee and results in 9.9 HBW VMT, which is below the Countywide threshold of 10.3. Therefore, the Project will have less-than-significant impact on VMT

Conclusion

Using guidance outlined in the Technical Advisory and data from the CSTDM, a VMT analysis of the proposed Project indicates that the VMT per employee would result in a significant impact. The identified mitigation measures reduce the Project's VMT and the Project has a less than significant impact on VMT.

■ ■ ■

[8] Page 187 California Air Pollution Control Officers Association Quantifying Greenhouse Gas Mitigation Measures, August 2010.

TECHNICAL APPENDIX

TABLE OF CONTENTS

Appendix 1

Traffic Growth Factor - Traffic Volume Count Summary

ADT COUNTS			
Location	**2004**	**2007**	**2018**
Portola n/o Telephone	4,000	5,400	--
Portola s/o Telephone	8,000	7,600	--
Ralston w/o Victoria	11,000	10,900	--
Saratoga s/o Telephone	4,000	3,700	--
Telephone e/o US101	30,000	32,100	--
Telephone w/o Saratoga	23,000	22,200	--
Telephone w/o Victoria	28,000	28,000	--
Telephone e/o Victoria	26,000	28,800	--
Victoria n/o Telephone	42,000	42,000	--
Victoria s/o Telephone	47,000	46,300	--
Victoria s/o Ralston	49,000	46,800	--
Victoria n/o US101	46,000	45,400	--
Walker w/o Victoria	4,000	3,700	--
Total	322,000	322,900	--
Annual Growth Rate		**0.1%**	

INTERSECTION COUNTS (AM PEAK HOUR PLUS PM PEAK HOUR)			
Intersection	**2004**	**2007**	**2018**
Victoria & US101 NB Ramps	10,970	--	10,160
Victoria & Valentine	9,970	--	9,170
Victoria & Olivas Park	8,810	--	8,080
Total	29,750	--	27,410
Annual Growth Rate			**-0.6%**

Proposed Approach for Estimating 2020 Existing Counts
ADT COUNTS
Apply a growth factor of 1.4% (0.1% per year) to the 2007 counts.
PEAK HOUR INTERSECTION COUNTS
Apply a growth factor of 1.7% (0.1% per year) to the 2004 counts.

Appendix 2

Intersection Capacity Utilization (ICU) Methodology

INTERSECTION CAPACITY UTILIZATION (ICU) METHODOLOGY

The ICU calculation procedure is based on a critical movement methodology that shows the amount of capacity utilized by each critical movement at an intersection. A capacity of 1,600 VPH per lane is assumed with no clearance interval. A "de-facto" right-turn lane is used in the ICU calculation for cases where a curb lane is wide enough to separately serve both through and right-turn traffic (typically with a width of 19 feet from curb to outside of through-lane with parking prohibited during peak periods). Such lanes are treated the same as striped right-turn lanes during the ICU calculations, but they are denoted on the ICU calculation worksheets using the letter "d" in place of a numerical entry for right-turn lanes.

The methodology also incorporates a check for right-turn capacity utilization. Both right-turn-on-green (RTOG) and right-turn-on-red (RTOR) capacity availability are calculated and checked against the total right-turn capacity need. If insufficient capacity is available, then an adjustment is made to the total capacity utilization value. The following example shows how this adjustment is made.

Example for Northbound Right

1. Right-Turn-On-Green (RTOG)

If NBT is critical move, then:

RTOG = V/C (NBT)

Otherwise,

RTOG = V/C (NBL) + V/C (SBT) - V/C (SBL)

2. Right-Turn-On-Red (RTOR)

If WBL is critical move, then:

RTOR = V/C (WBL)

Otherwise,

RTOR = V/C (EBL) + V/C (WBT) - V/C (EBT)

3. Right-Turn Overlap Adjustment

If the northbound right is assumed to overlap with the adjacent westbound left, adjustments to the RTOG and RTOR values are made as follows:

RTOG = RTOG + V/C (WBL)

RTOR = RTOR - V/C (WBL)

4. Total Right-Turn Capacity (RTC) Availability For NBR

RTC = RTOG + factor x RTOR
Where factor = RTOR saturation flow factor (75%)

Right-turn adjustment is then as follows: Additional ICU = V/C (NBR) – RTC

A zero or negative value indicates that adequate capacity is available and no adjustment is necessary. A positive value indicates that the available RTOR and RTOG capacity does not adequately accommodate the right-turn V/C, therefore the right-turn is essentially considered to be a critical movement. In such cases, the right-turn adjustment is noted on the ICU worksheet and it is included in the total capacity utilization value. When it is determined that a right-turn adjustment is required for more than one right-turn movement, the word "multi" is printed on the worksheet instead of an actual right-turn movement reference, and the right-turn adjustments are cumulatively added to the total capacity utilization value. In such cases, further operational evaluation is typically carried out to determine if under actual operational conditions, the critical right-turns would operate simultaneously, and therefore a right-turn adjustment credit should be applied.

Shared Lane V/C Methodology

For intersection approaches where shared usage of a lane is permitted by more than one turn movement (e.g., left/through, through/right, left/through/right), the individual turn volumes are evaluated to determine whether dedication of the shared lane is warranted to any one given turn movement. The following example demonstrates how this evaluation is carried out:

Example for Shared Left/Through Lane

1. Average Lane Volume (ALV)

$$ALV = \frac{\text{Left-Turn Volume + Through Volume}}{\text{Total Left + Through Approach Lanes (including shared lane)}}$$

2. ALV for Each Approach

$$ALV\ (Left) = \frac{\text{Left-Turn Volume}}{\text{Left Approach Lanes (including shared lane)}}$$

$$ALV\ (Through) = \frac{\text{Through Volume}}{\text{Through Approach Lanes (including shared lane)}}$$

3. Lane Dedication is Warranted

If ALV (Left) is greater than ALV then full dedication of the shared lane to the left-turn approach is warranted. Left-turn and through V/C ratios for this case are calculated as follows:

$$V/C\ (Left) = \frac{\text{Left-Turn Volume}}{\text{Left Approach Capacity (including shared lane)}}$$

$$V/C\ (Through) = \frac{\text{Through Volume}}{\text{Through Approach Capacity (excluding shared lane)}}$$

Similarly, if ALV (Through) is greater than ALV then full dedication to the through approach is warranted, and left-turn and through V/C ratios are calculated as follows:

$$V/C\ (Left) = \frac{\text{Left-Turn Volume}}{\text{Left Approach Capacity (excluding shared lane)}}$$

$$V/C\ (Through) = \frac{\text{Through Volume}}{\text{Through Approach Capacity (including shared lane)}}$$

4. Lane Dedication is not Warranted

If ALV (Left) and ALV (Through) are both less than ALV, the left/through lane is assumed to be truly shared and each left, left/through or through approach lane carries an evenly distributed volume of traffic equal to ALV. A combined left/through V/C ratio is calculated as follows:

$$V/C\ (Left/Through) = \frac{\text{Left-Turn Volume + Through Volume}}{\text{Total Left + Through Approach Capacity (including shared lane)}}$$

This V/C (Left/Through) ratio is assigned as the V/C (Through) ratio for the critical movement analysis and ICU summary listing.

If split phasing has not been designated for this approach, the relative proportion of V/C (Through) that is attributed to the left-turn volume is estimated as follows:

If approach has more than one left-turn (including shared lane, then:

V/C (Left) = V/C (Through)

If approach has only one left-turn lane (shared lane), then:

$$V/C\ (Left) = \frac{\text{Left-Turn Volume}}{\text{Single Approach Lane Capacity}}$$

If this left-turn movement is determined to be a critical movement, the V/C (Left) value is posted in brackets on the ICU summary printout.

These same steps are carried out for shared through/right lanes. If full dedication of a shared through/right lane to the right-turn movement is warranted, the right-turn V/C value calculated in step three is checked against the RTOR and RTOG capacity. When an approach contains more than one shared lane (e.g., left/through and through/right), steps one and two listed above are

carried out for the three turn movements combined. Step four is carried out if dedication is not warranted for either of the shared lanes. If dedication of one of the shared lanes is warranted to one movement or another, step three is carried out for the two movements involved, and then steps one through four are repeated for the two movements involved in the other shared lane.

Appendix 3

Intersection Level of Service Calculation Worksheets

TIA Intersection # 01

32. Telephone & Main

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	210	.07*	590	.18
NBT	2	3200	150	.05	630	.20*
NBR	1	1600	120	.08	260	.16
SBL	1.5		180	.11	410	
SBT	1.5	4800	680	.21*	500	.19*
SBR	f		660		850	
EBL	2	3200	410	.13	710	.22
EBT	3	4800	750	.16*	1220	.25*
EBR	f		250		430	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

Right Turn Adjustment NBR .01*
Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.45** **.64**

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	210	.07*	620	.19
NBT	2	3200	160	.05	630	.20*
NBR	1	1600	120	.08	260	.16
SBL	1.5		180	.11	420	
SBT	1.5	4800	680	.21*	500	.19*
SBR	f		660		860	
EBL	2	3200	430	.13	710	.22
EBT	3	4800	740	.15*	1210	.25*
EBR	f		240		430	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

Right Turn Adjustment NBR .01*
Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.44** **.64**

Existing GP 2025

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	260	.08	710	.22
NBT	2	3200	240	.08*	1000	.31*
NBR	1	1600	80	.05	280	.18
SBL	1.5		250	.16	470	
SBT	1.5	4800	970	.30*	680	.24*
SBR	f		740		990	
EBL	2	3200	460	.14	760	.24
EBT	3	4800	1100	.23*	1500	.31*
EBR	f		390		450	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.61** **.86**

Existing GP 2025 Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	260	.08	740	.23
NBT	2	3200	250	.08*	1000	.31*
NBR	1	1600	80	.05	280	.18
SBL	1.5		250	.16	480	
SBT	1.5	4800	970	.30*	680	.24*
SBR	f		740		1000	
EBL	2	3200	480	.15	760	.24
EBT	3	4800	1090	.23*	1490	.31*
EBR	f		380		450	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.61** **.86**

TIA Intersection # 02

33. US 101 NB Ramps & Telephone

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		580		480	
NBT	0.5	3200	0	.18*	10	.15*
NBR	1	1600	330	.21	430	.27
SBL	1	1600	5	.00	5	.00
SBT	0	0	0		0	
SBR	1	1600	10	.01	10	.01
EBL	1	1600	5	.00	10	.01
EBT	3	4800	610	.13	1630	.34*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	4800	940	.20*	1270	.27
WBR	0	0	0		5	
Right Turn Adjustment			SBR	.01*	NBR	.12*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.39** **.61**

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		580		480	
NBT	0.5	3200	0	.18*	10	.15*
NBR	1	1600	330	.21	430	.27
SBL	1	1600	5	.00	5	.00
SBT	0	0	0		0	
SBR	1	1600	10	.01	10	.01
EBL	1	1600	5	.00	10	.01
EBT	3	4800	640	.13	1620	.34*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	4800	940	.20*	1290	.27
WBR	0	0	0		5	
Right Turn Adjustment			SBR	.01*	NBR	.12*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.39** **.61**

Existing GP 2025

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		660		520	
NBT	0.5	3200	30	.22*	70	.18*
NBR	1	1600	270	.17	400	.25
SBL	0.5		40		10	
SBT	0	3200	0	.12*	0	{.01}*
SBR	1.5		340		230	
EBL	1	1600	20	.01*	280	.18*
EBT	3	4800	710	.15	1860	.39
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	4800	980	.21*	1390	.29*
WBR	0	0	10		20	
Right Turn Adjustment					NBR	.01*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.56** **.67**

Existing GP 2025 Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		660		520	
NBT	0.5	3200	30	.22*	70	.18*
NBR	1	1600	270	.17	400	.25
SBL	0.5		40		10	
SBT	0	3200	0	.12*	0	{.01}*
SBR	1.5		340		240	
EBL	1	1600	20	.01*	280	.18*
EBT	3	4800	740	.15	1850	.39
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	4800	980	.21*	1410	.30*
WBR	0	0	10		20	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION **.56** **.67**

TIA Intersection # 03

34. Portola & Telephone

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	180	.06*	230	.07*
NBT	1	1600	10	.01	40	.03
NBR	1	1600	10	.01	70	.04
SBL	1	1600	20	.01	30	.02
SBT	1	1600	10	.01*	20	.01*
SBR	1	1600	290	.18	180	.11
EBL	1	1600	70	.04*	340	.21
EBT	3	4800	550	.15	1360	.34*
EBR	0	0	180		250	
WBL	1	1600	20	.01	80	.05*
WBT	3	4800	630	.13*	740	.16
WBR	0	0	10		40	
Right Turn Adjustment			SBR	.14*		

TOTAL CAPACITY UTILIZATION **.38** **.47**

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	180	.06*	250	.08*
NBT	1	1600	10	.01	40	.03
NBR	1	1600	10	.01	70	.04
SBL	1	1600	20	.01	30	.02
SBT	1	1600	10	.01*	20	.01*
SBR	1	1600	280	.18	180	.11
EBL	1	1600	70	.04*	340	.21
EBT	3	4800	530	.16	1340	.33*
EBR	0	0	220		260	
WBL	1	1600	20	.01	80	.05*
WBT	3	4800	640	.14*	740	.16
WBR	0	0	10		40	
Right Turn Adjustment			SBR	.14*		

TOTAL CAPACITY UTILIZATION **.39** **.47**

Existing GP 2025

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	250	.08*	310	.10*
NBT	1	1600	10	.01	40	.03
NBR	1	1600	10	.01	70	.04
SBL	1	1600	30	.02	30	.02
SBT	1	1600	10	.01*	20	.01*
SBR	1	1600	140	.09	70	.04
EBL	1	1600	40	.03*	170	.11
EBT	3	4800	610	.17	1660	.41*
EBR	0	0	200		290	
WBL	1	1600	20	.01	70	.04*
WBT	3	4800	820	.18*	890	.19
WBR	0	0	20		40	
Right Turn Adjustment			SBR	.06*		

TOTAL CAPACITY UTILIZATION **.36** **.56**

Existing GP 2025 Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	250	.08*	330	.10*
NBT	1	1600	10	.01	40	.03
NBR	1	1600	10	.01	70	.04
SBL	1	1600	30	.02	30	.02
SBT	1	1600	10	.01*	20	.01*
SBR	1	1600	130	.08	70	.04
EBL	1	1600	40	.03*	170	.11
EBT	3	4800	590	.17	1640	.40*
EBR	0	0	240		300	
WBL	1	1600	20	.01	70	.04*
WBT	3	4800	830	.18*	890	.19
WBR	0	0	20		40	
Right Turn Adjustment			SBR	.05*		

TOTAL CAPACITY UTILIZATION **.35** **.55**

TIA Intersection # 04

35. Saratoga & Telephone

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03	30	.02
NBT	1	1600	10	.08*	20	.07*
NBR	0	0	110		90	
SBL	1	1600	30	.02*	40	.03*
SBT	1	1600	20	.01	30	.02
SBR	1	1600	40	.03	20	.01
EBL	1	1600	10	.01	40	.03
EBT	3	4800	610	.14*	1300	.29*
EBR	0	0	40		80	
WBL	1	1600	50	.03*	80	.05*
WBT	3	4800	670	.14	810	.18
WBR	0	0	20		50	

TOTAL CAPACITY UTILIZATION **.27** **.44**

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03	40	.03
NBT	1	1600	10	.08*	20	.08*
NBR	0	0	120		100	
SBL	1	1600	30	.02*	40	.03*
SBT	1	1600	30	.02	30	.02
SBR	1	1600	40	.03	20	.01
EBL	1	1600	10	.01	40	.03
EBT	3	4800	610	.13*	1290	.28*
EBR	0	0	20		70	
WBL	1	1600	70	.04*	80	.05*
WBT	3	4800	670	.14	810	.18
WBR	0	0	20		50	

TOTAL CAPACITY UTILIZATION **.27** **.44**

Existing GP 2025

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	60	.04	20	.01
NBT	1	1600	10	.08*	60	.15*
NBR	0	0	110		180	
SBL	1	1600	30	.02*	40	.03*
SBT	1	1600	30	.02	30	.02
SBR	1	1600	20	.01	20	.01
EBL	1	1600	10	.01*	10	.01
EBT	3	4800	590	.14	1540	.35*
EBR	0	0	80		160	
WBL	1	1600	50	.03	90	.06*
WBT	3	4800	890	.19*	950	.21
WBR	0	0	20		40	

TOTAL CAPACITY UTILIZATION **.30** **.59**

Existing GP 2025 Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	60	.04	30	.02
NBT	1	1600	10	.08*	60	.16*
NBR	0	0	120		190	
SBL	1	1600	30	.02*	40	.03*
SBT	1	1600	40	.03	30	.02
SBR	1	1600	20	.01	20	.01
EBL	1	1600	10	.01*	10	.01
EBT	3	4800	590	.14	1530	.35*
EBR	0	0	60		150	
WBL	1	1600	70	.04	90	.06*
WBT	3	4800	890	.19*	950	.21
WBR	0	0	20		40	

TOTAL CAPACITY UTILIZATION **.30** **.60**

TIA Intersection # 05

173. Victoria & SR 126 WB Ramps

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	1210	.29	1910	.47*
NBR	0	0	170		340	
SBL	0	0	0		0	
SBT	3	4800	1790	.40*	1360	.31
SBR	0	0	150		110	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	1	1600	370	.23	340	.21
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	1	1600	180	.11	100	.06
Right Turn Adjustment			Multi	.26*	Multi	.15*

TOTAL CAPACITY UTILIZATION **.66** **.62**

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	1210	.29	1910	.47*
NBR	0	0	160		340	
SBL	0	0	0		0	
SBT	3	4800	1800	.41*	1360	.31
SBR	0	0	150		110	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	1	1600	390	.24	340	.21
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	1	1600	180	.11	100	.06
Right Turn Adjustment			Multi	.26*	Multi	.15*

TOTAL CAPACITY UTILIZATION **.67** **.62**

Existing GP 2025

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	1230	.30	2130	.52*
NBR	0	0	220		350	
SBL	0	0	0		0	
SBT	3	4800	1980	.45*	1530	.34
SBR	0	0	180		90	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	1	1600	630	.39	410	.26
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	1	1600	210	.13	160	.10
Right Turn Adjustment			Multi	.41*	Multi	.22*

TOTAL CAPACITY UTILIZATION **.86** **.74**

Existing GP 2025 Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	1230	.30	2130	.52*
NBR	0	0	210		350	
SBL	0	0	0		0	
SBT	3	4800	1990	.45*	1530	.34
SBR	0	0	180		90	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	1	1600	650	.41	410	.26
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	1	1600	210	.13	160	.10
Right Turn Adjustment			Multi	.43*	Multi	.22*

TOTAL CAPACITY UTILIZATION **.88** **.74**

TIA Intersection # 06

5. Victoria & SR 126 SB Ramps

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	4	6400	1320	.21	1980	.32*
NBR	0	0	50		40	
SBL	0	0	0		0	
SBT	4	6400	2070	.34*	1620	.27
SBR	0	0	80		80	
EBL	1.5		190	{.12}*	260	{.12}*
EBT	0.5	3200	180	.12	120	.12
EBR	1	1600	210	.13	280	.18
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	1	1600	250	.16	530	.33
Right Turn Adjustment			Multi	.07*	Multi	.35*

TOTAL CAPACITY UTILIZATION **.53** **.79**

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	4	6400	1320	.21	1980	.32*
NBR	0	0	50		40	
SBL	0	0	0		0	
SBT	4	6400	2090	.34*	1610	.26
SBR	0	0	80		80	
EBL	1.5		190	{.12}*	260	{.12}*
EBT	0.5	3200	180	.12	120	.12
EBR	1	1600	210	.13	280	.18
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	1	1600	250	.16	530	.33
Right Turn Adjustment			Multi	.07*	Multi	.34*

TOTAL CAPACITY UTILIZATION **.53** **.78**

Existing GP 2025

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	4	6400	1370	.22	2610	.41*
NBR	0	0	50		40	
SBL	0	0	0		0	
SBT	4	6400	2540	.41*	1840	.30
SBR	0	0	70		90	
EBL	1.5		240		160	
EBT	0.5	3200	190	.13*	130	.09*
EBR	1	1600	220	.14	240	.15
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	1	1600	250	.16	550	.34
Right Turn Adjustment			Multi	.03*	WBR	.34*

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION **.57** **.84**

Existing GP 2025 Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	4	6400	1370	.22	2610	.41*
NBR	0	0	50		40	
SBL	0	0	0		0	
SBT	4	6400	2560	.41*	1830	.30
SBR	0	0	70		90	
EBL	1.5		240		160	
EBT	0.5	3200	190	.13*	130	.09*
EBR	1	1600	220	.14	240	.15
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	1	1600	250	.16	550	.34
Right Turn Adjustment			Multi	.03*	WBR	.34*

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION **.57** **.84**

TIA Intersection # 07

6. Victoria & Thille

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03	60	.04*
NBT	4	6400	1260	.26*	1820	.30
NBR	0	0	490	.31	70	
SBL	1	1600	180	.11*	40	.03
SBT	4	6400	1710	.32	1650	.30*
SBR	0	0	310		240	
EBL	1.5		230	{.08}*	240	
EBT	0.5	3200	30	.08	10	.08*
EBR	1	1600	120	.08	190	.12
WBL	1	1600	30	.02	140	.09*
WBT	1	1600	10	.02*	40	.08
WBR	0	0	20		80	
Right Turn Adjustment			NBR	.03*	EBR	.01*

TOTAL CAPACITY UTILIZATION **.50** **.52**

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03	60	.04*
NBT	4	6400	1260	.26*	1780	.29
NBR	0	0	490	.31	70	
SBL	1	1600	180	.11*	40	.03
SBT	4	6400	1750	.32	1650	.29*
SBR	0	0	290		230	
EBL	1.5		230	{.08}*	280	{.09}*
EBT	0.5	3200	30	.08	10	.09
EBR	1	1600	120	.08	190	.12
WBL	1	1600	30	.02	130	.08
WBT	1	1600	10	.02*	50	.08*
WBR	0	0	20		80	
Right Turn Adjustment			NBR	.03*		

TOTAL CAPACITY UTILIZATION **.50** **.50**

Existing GP 2025

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03*	60	.04
NBT	4	6400	1300	.27	2460	.39*
NBR	0	0	460	.29	50	
SBL	1	1600	170	.11	40	.03*
SBT	4	6400	2140	.39*	1840	.32
SBR	0	0	370		230	
EBL	1.5		240		290	
EBT	0.5	3200	30	.08*	10	.09*
EBR	1	1600	120	.08	190	.12
WBL	1	1600	30	.02	120	.08
WBT	1	1600	10	.02*	60	.09*
WBR	0	0	20		80	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION **.52** **.60**

Existing GP 2025 Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03*	60	.04
NBT	4	6400	1300	.27	2420	.39*
NBR	0	0	460	.29	50	
SBL	1	1600	170	.11	40	.03*
SBT	4	6400	2180	.40*	1840	.32
SBR	0	0	350		220	
EBL	1.5		240		330	
EBT	0.5	3200	30	.08*	10	.11*
EBR	1	1600	120	.08	190	.12
WBL	1	1600	30	.02	110	.07
WBT	1	1600	10	.02*	70	.09*
WBR	0	0	20		80	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION **.53** **.62**

TIA Intersection # 08

7. Victoria & Telephone

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	250	.08	340	.11
NBT	4	6400	1340	.25*	1220	.23*
NBR	0	0	260		250	
SBL	2	3200	360	.11*	290	.09*
SBT	4	6400	1360	.21	1320	.21
SBR	1	1600	250	.16	290	.18
EBL	2	3200	280	.09*	400	.13
EBT	3	4800	330	.09	720	.19*
EBR	0	0	120		210	
WBL	2	3200	350	.11	390	.12*
WBT	3	4800	580	.12*	540	.11
WBR	1	1600	160	.10	340	.21

TOTAL CAPACITY UTILIZATION **.57** **.63**

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	260	.08	340	.11
NBT	4	6400	1330	.25*	1220	.23*
NBR	0	0	260		250	
SBL	2	3200	360	.11*	300	.09*
SBT	4	6400	1360	.21	1310	.20
SBR	1	1600	290	.18	290	.18
EBL	2	3200	280	.09	360	.11
EBT	3	4800	340	.10*	730	.20*
EBR	0	0	130		210	
WBL	2	3200	370	.12*	390	.12*
WBT	3	4800	590	.12	550	.11
WBR	1	1600	160	.10	340	.21

TOTAL CAPACITY UTILIZATION **.58** **.64**

Existing GP 2025

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	310	.10*	330	.10
NBT	4	6400	1300	.25	1580	.27*
NBR	0	0	270		130	
SBL	2	3200	340	.11	350	.11*
SBT	4	6400	1780	.28*	1360	.21
SBR	1	1600	300	.19	370	.23
EBL	2	3200	320	.10*	680	.21*
EBT	3	4800	330	.08	840	.20
EBR	0	0	60		120	
WBL	2	3200	220	.07	310	.10
WBT	3	4800	700	.15*	610	.13*
WBR	1	1600	170	.11	320	.20

TOTAL CAPACITY UTILIZATION **.63** **.72**

Existing GP 2025 Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	320	.10*	330	.10
NBT	4	6400	1290	.24	1580	.27*
NBR	0	0	270		130	
SBL	2	3200	340	.11	360	.11*
SBT	4	6400	1780	.28*	1350	.21
SBR	1	1600	340	.21	370	.23
EBL	2	3200	320	.10*	640	.20*
EBT	3	4800	340	.09	850	.20
EBR	0	0	70		120	
WBL	2	3200	240	.08	310	.10
WBT	3	4800	710	.15*	620	.13*
WBR	1	1600	170	.11	320	.20

TOTAL CAPACITY UTILIZATION **.63** **.71**

TIA Intersection # 09

8. Victoria & Ralston

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	220	.14*	330	.21*
NBT	4	6400	1420	.24	1690	.31
NBR	0	0	120		270	
SBL	1	1600	120	.08	220	.14
SBT	4	6400	1580	.26*	1820	.30*
SBR	0	0	100		110	
EBL	1	1600	50	.03	160	.10
EBT	1	1600	90	.06*	230	.14*
EBR	1	1600	260	.16	370	.23
WBL	1	1600	210	.13*	160	.10*
WBT	1	1600	180	.11	110	.07
WBR	1	1600	180	.11	110	.07

TOTAL CAPACITY UTILIZATION **.59** **.75**

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	230	.14*	330	.21*
NBT	4	6400	1410	.24	1690	.31
NBR	0	0	120		270	
SBL	1	1600	120	.08	210	.13
SBT	4	6400	1590	.26*	1810	.30*
SBR	0	0	100		110	
EBL	1	1600	50	.03	170	.11
EBT	1	1600	90	.06*	240	.15*
EBR	1	1600	260	.16	370	.23
WBL	1	1600	200	.13*	160	.10*
WBT	1	1600	180	.11	110	.07
WBR	1	1600	180	.11	110	.07

TOTAL CAPACITY UTILIZATION **.59** **.76**

Existing GP 2025

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	250	.16*	400	.25*
NBT	4	6400	1450	.24	1890	.33
NBR	0	0	70		220	
SBL	1	1600	100	.06	210	.13
SBT	4	6400	1820	.30*	1810	.30*
SBR	0	0	110		110	
EBL	1	1600	40	.03	120	.08
EBT	1	1600	110	.07*	230	.14*
EBR	1	1600	230	.14	320	.20
WBL	1	1600	250	.16*	130	.08*
WBT	1	1600	230	.14	130	.08
WBR	1	1600	190	.12	120	.08

TOTAL CAPACITY UTILIZATION **.69** **.77**

Existing GP 2025 Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	260	.16*	400	.25*
NBT	4	6400	1440	.24	1890	.33
NBR	0	0	70		220	
SBL	1	1600	100	.06	200	.13
SBT	4	6400	1830	.30*	1800	.30*
SBR	0	0	110		110	
EBL	1	1600	40	.03	130	.08
EBT	1	1600	110	.07*	240	.15*
EBR	1	1600	230	.14	320	.20
WBL	1	1600	240	.15*	130	.08*
WBT	1	1600	230	.14	130	.08
WBR	1	1600	190	.12	120	.08

TOTAL CAPACITY UTILIZATION **.68** **.78**

TIA Intersection # 10

10. Victoria & Moon

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	60	.04	100	.06
NBT	4	6400	1790	.29*	1850	.31*
NBR	0	0	70		160	
SBL	1	1600	70	.04*	170	.11*
SBT	4	6400	1710	.27	1970	.32
SBR	0	0	30		90	
EBL	1	1600	30	.02	80	.05
EBT	1	1600	40	.03*	60	.04*
EBR	1	1600	30	.02	80	.05
WBL	1	1600	220	.14*	110	.07*
WBT	1	1600	50	.03	40	.03
WBR	1	1600	90	.06	80	.05

TOTAL CAPACITY UTILIZATION **.50** **.53**

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	60	.04	100	.06
NBT	4	6400	1790	.29*	1850	.31*
NBR	0	0	70		160	
SBL	1	1600	70	.04*	170	.11*
SBT	4	6400	1720	.27	1960	.32
SBR	0	0	30		90	
EBL	1	1600	30	.02	80	.05
EBT	1	1600	40	.03*	60	.04*
EBR	1	1600	30	.02	90	.06
WBL	1	1600	230	.14*	110	.07*
WBT	1	1600	40	.03	50	.03
WBR	1	1600	90	.06	80	.05

TOTAL CAPACITY UTILIZATION **.50** **.53**

Existing GP 2025

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03*	190	.12
NBT	4	6400	1820	.30	2170	.39*
NBR	0	0	120		330	
SBL	1	1600	40	.03	120	.08*
SBT	4	6400	1950	.31*	1870	.33
SBR	0	0	20		260	
EBL	1	1600	30	.02	70	.04
EBT	1	1600	70	.04*	90	.06*
EBR	1	1600	30	.02	180	.11
WBL	1	1600	280	.18*	150	.09*
WBT	1	1600	120	.08	50	.03
WBR	1	1600	70	.04	50	.03

TOTAL CAPACITY UTILIZATION **.56** **.62**

Existing GP 2025 Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03*	190	.12
NBT	4	6400	1820	.30	2170	.39*
NBR	0	0	120		330	
SBL	1	1600	40	.03	120	.08*
SBT	4	6400	1960	.31*	1860	.33
SBR	0	0	20		260	
EBL	1	1600	30	.02	70	.04
EBT	1	1600	70	.04*	90	.06*
EBR	1	1600	30	.02	190	.12
WBL	1	1600	290	.18*	150	.09*
WBT	1	1600	110	.07	60	.04
WBR	1	1600	70	.04	50	.03

TOTAL CAPACITY UTILIZATION **.56** **.62**

TIA Intersection # 11

160. Victoria & US 101 NB Ramps

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	450	.14*	420	.13*
NBT	3	4800	1290	.27	1520	.32
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	4	6400	2130	.33*	1970	.31*
SBR	1	1600	200	.13	450	.28
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		510		380	
WBT	0	6400	0	{.19}*	0	{.18}*
WBR	2.5		960		890	

TOTAL CAPACITY UTILIZATION **.66** **.62**

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	450	.14*	410	.13*
NBT	3	4800	1290	.27	1520	.32
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	4	6400	2130	.33*	1980	.31*
SBR	1	1600	200	.13	460	.29
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		510		380	
WBT	0	6400	0	{.19}*	0	{.18}*
WBR	2.5		970		890	

TOTAL CAPACITY UTILIZATION **.66** **.62**

Existing GP 2025

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	530	.17*	520	.16*
NBT	3	4800	1380	.29	1890	.39
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	4	6400	2690	.42*	2210	.35*
SBR	1	1600	130	.08	360	.23
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	710	.22*	490	.15*
WBT	0	0	0		0	
WBR	3	4800	910	.19	1150	.24

TOTAL CAPACITY UTILIZATION **.81** **.66**

Existing GP 2025 Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	530	.17*	510	.16*
NBT	3	4800	1380	.29	1890	.39
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	4	6400	2690	.42*	2220	.35*
SBR	1	1600	130	.08	370	.23
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	710	.22*	490	.15*
WBT	0	0	0		0	
WBR	3	4800	920	.19	1150	.24

TOTAL CAPACITY UTILIZATION **.81** **.66**

TIA Intersection # 12

161. Victoria & Valentine

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	150	.05*	150	.05*
NBT	3	4800	1460	.31	1490	.32
NBR	0	0	20		50	
SBL	1	1600	30	.02	50	.03
SBT	2	3200	960	.30*	1130	.35*
SBR	2	3200	1650	.52	1170	.37
EBL	2.5		310		690	
EBT	0.5	4800	40	.07*	30	.15*
EBR	1	1600	140	.09	360	.23
WBL	0	0	10		20	
WBT	1	1600	10	.01*	30	.03*
WBR	1	1600	80	.05	100	.06
Right Turn Adjustment			Multi	.18*	EBR	.04*

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION **.61** **.62**

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	150	.05*	160	.05*
NBT	3	4800	1470	.31	1480	.32
NBR	0	0	20		50	
SBL	1	1600	30	.02	50	.03
SBT	2	3200	960	.30*	1130	.35*
SBR	2	3200	1650	.52	1170	.37
EBL	2.5		320		690	
EBT	0.5	4800	40	.08*	30	.15*
EBR	1	1600	140	.09	350	.22
WBL	0	0	10		20	
WBT	1	1600	10	.01*	30	.03*
WBR	1	1600	80	.05	100	.06
Right Turn Adjustment			Multi	.17*	EBR	.03*

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION **.61** **.61**

Existing GP 2025

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	240	.08*	190	.06*
NBT	3	4800	1650	.35	2080	.44
NBR	0	0	20		50	
SBL	1	1600	40	.03	40	.03
SBT	2	3200	1640	.51*	1490	.47*
SBR	2	3200	1670	.52	1190	.37
EBL	2.5		320		740	
EBT	0.5	4800	50	.08*	30	.16*
EBR	1	1600	250	.16	450	.28
WBL	0	0	20		20	
WBT	1	1600	10	.02*	30	.03*
WBR	1	1600	80	.05	100	.06
Right Turn Adjustment					EBR	.06*

Note: Assumes E/W Split Phasing
Note: Assumes Right-Turn Overlap for WBR EBR

TOTAL CAPACITY UTILIZATION **.69** **.78**

Existing GP 2025 Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	240	.08*	200	.06*
NBT	3	4800	1660	.35	2070	.44
NBR	0	0	20		50	
SBL	1	1600	40	.03	40	.03
SBT	2	3200	1640	.51*	1490	.47*
SBR	2	3200	1670	.52	1190	.37
EBL	2.5		330		740	
EBT	0.5	4800	50	.08*	30	.16*
EBR	1	1600	250	.16	440	.28
WBL	0	0	20		20	
WBT	1	1600	10	.02*	30	.03*
WBR	1	1600	80	.05	100	.06
Right Turn Adjustment					EBR	.06*

Note: Assumes E/W Split Phasing
Note: Assumes Right-Turn Overlap for WBR EBR

TOTAL CAPACITY UTILIZATION **.69** **.78**

TIA Intersection # 13

136. US 101 SB Ramps & Valentine

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		290	.09*	420	.13*
SBT	0	4800	0		0	
SBR	1.5		50		20	
EBL	1	1600	60	.04*	360	.23*
EBT	2	3200	140	.04	660	.21
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	870	.27*	310	.10*
WBR	2	3200	800	.25	940	.29
Right Turn Adjustment					WBR	.09*

TOTAL CAPACITY UTILIZATION **.40** **.55**

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		280	.09*	420	.13*
SBT	0	4800	0		0	
SBR	1.5		50	.03	20	
EBL	1	1600	50	.03*	370	.23*
EBT	2	3200	140	.04	650	.20
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	880	.28*	310	.10*
WBR	2	3200	800	.25	950	.30
Right Turn Adjustment					WBR	.10*

TOTAL CAPACITY UTILIZATION **.40** **.56**

Existing GP 2025

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		380	.12*	460	.14*
SBT	0	4800	0		0	
SBR	1.5		80	.05	20	
EBL	1	1600	100	.06*	430	.27*
EBT	2	3200	200	.06	750	.23
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	950	.30*	390	.12*
WBR	2	3200	830	.26	900	.28
Right Turn Adjustment					WBR	.05*

TOTAL CAPACITY UTILIZATION **.48** **.58**

Existing GP 2025 Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1.5		370	.12*	460	.14*
SBT	0	4800	0		0	
SBR	1.5		80	.05	20	
EBL	1	1600	90	.06*	440	.28*
EBT	2	3200	200	.06	740	.23
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	960	.30*	390	.12*
WBR	2	3200	830	.26	910	.28
Right Turn Adjustment					WBR	.05*

TOTAL CAPACITY UTILIZATION **.48** **.59**

Appendix 4

Ventura Traffic Analysis Model (VTAM) TAZ Map

Ventura Traffic Analysis Model (VTAM)
City of Ventura Traffic Analysis Zones
June 15, 2005