Otay Mesa Central Village Specific Plan

Transportation Facilities Trigger Analysis

Final Report | ~~January~~ K_paf 2017

Prepared For:

CENTRAL VILLAGE

444West Beech Street, Suite 300
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Prepared By:

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Transportation Facilities Trigger Analysis

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Final Report

Prepared for:

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San Diego, CA 92101

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~~January 13~~March 8, 2017

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March 3, 2017

Ms. Rita Mahoney, AICP
ColRich
444 West Beech Street, Suite 300
San Diego, CA 92101

Re: Otay Mesa Central Village Specific Plan – Transportation Facilities Trigger Analysis

Dear Rita,

This letter presents the revised Central Village Specific Plan (CVSP) Land Use Plan. Specifically, the following revisions to the CVSP Land Use Plan occurred: Planning Areas 2, 3, and 4 were combined; Planning Areas 8 and 9 were combined; Planning Areas 10 and 11 were combined; and the Planning Areas throughout the Land Use Plan were re-numbered to reflect the Planning Area combinations. The revised CVSP Land Use Plan is attached to this Update Letter (revised Figure 3-1 in the TFTA). **Table 1**, *Central Village Specific Plan Revised Planning Area Numbering*, contains a reference key showing the revised Planning Area numbering as compared to the Planning Areas as numbered within the Transportation Facilities Trigger Analysis.

The revisions to the CVSP Land Use Plan were minor in nature, and consisted only of the consolidation of planning areas without any changes to allowable uses, requiring the renumbering of planning areas. The Land Use Plan revisions do not affect the analysis or recommendations of the Transportation Facilities Trigger Analysis. Therefore, a revised report is not necessary because the recommendations and conclusions contained in the Transportation Facilities Trigger Analysis remain accurate.

Please contact me if you have any questions.

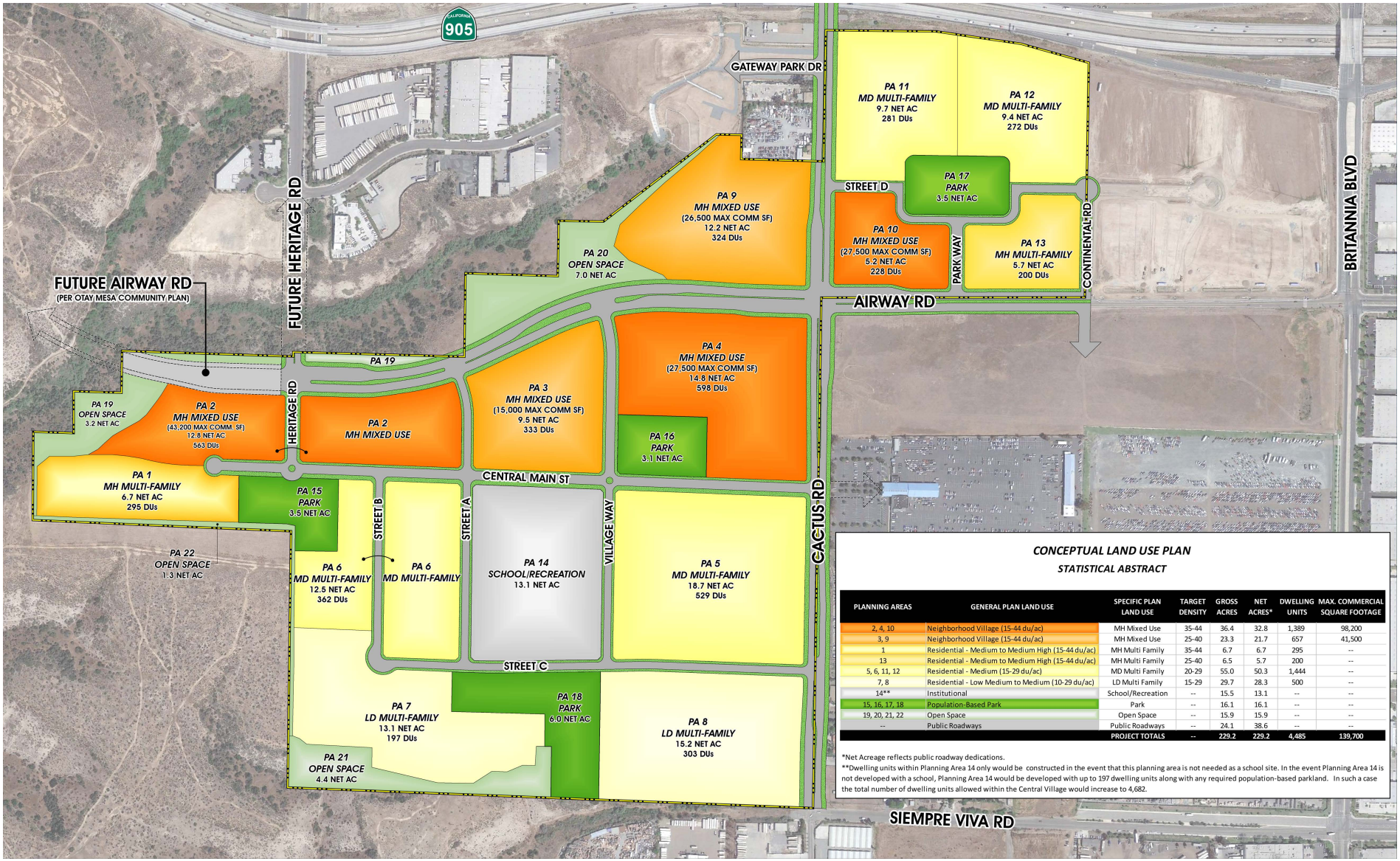
Sincerely,

Monique Chen, PE
Principal

CHEN RYAN

Table 1, Central Village Specific Plan Revised Planning Area Numbering

Transportation Facilities Trigger Analysis Planning Area Number	Revised Land Use Plan Planning Area Number
1	1
2	2
3	
4	
5	3
6	4
7	5
8	6
9	
10	7
11	
12	8
13	9
14	10
15	11
16	12
17	13
18	14
19	15
20	16
21	17
22	18
23	19
24	20
25	21
26	22



CONCEPTUAL LAND USE PLAN

STATISTICAL ABSTRACT

PLANNING AREAS	GENERAL PLAN LAND USE	SPECIFIC PLAN LAND USE	TARGET DENSITY	GROSS ACRES	NET ACRES*	DWELLING UNITS	MAX. COMMERCIAL SQUARE FOOTAGE
2, 4, 10	Neighborhood Village (15-44 du/ac)	MH Mixed Use	35-44	36.4	32.8	1,389	98,200
3, 9	Neighborhood Village (15-44 du/ac)	MH Mixed Use	25-40	23.3	21.7	657	41,500
1	Residential - Medium to Medium High (15-44 du/ac)	MH Multi Family	35-44	6.7	6.7	295	--
13	Residential - Medium to Medium High (15-44 du/ac)	MH Multi Family	25-40	6.5	5.7	200	--
5, 6, 11, 12	Residential - Medium (15-29 du/ac)	MD Multi Family	20-29	55.0	50.3	1,444	--
7, 8	Residential - Low Medium to Medium (10-29 du/ac)	LD Multi Family	15-29	29.7	28.3	500	--
14**	Institutional	School/Recreation	--	15.5	13.1	--	--
15, 16, 17, 18	Population-Based Park	Park	--	16.1	16.1	--	--
19, 20, 21, 22	Open Space	Open Space	--	15.9	15.9	--	--
--	Public Roadways	Public Roadways	--	24.1	38.6	--	--
		PROJECT TOTALS	--	229.2	229.2	4,485	139,700

*Net Acreage reflects public roadway dedications.

**Dwelling units within Planning Area 14 only would be constructed in the event that this planning area is not needed as a school site. In the event Planning Area 14 is not developed with a school, Planning Area 14 would be developed with up to 197 dwelling units along with any required population-based parkland. In such a case the total number of dwelling units allowed within the Central Village would increase to 4,682.

Figure 3-1
Project Site Plan

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EXECUTIVE SUMMARY

ES.1 Study Purpose and Project Description

The purpose of this Transportation Facilities Trigger Analysis (TFTA) is to identify transportation facility improvements warranted with buildout of the Central Village Specific Plan (the "Project"), and to determine whether the Central Village Specific Plan impacts to traffic/circulation and recommended improvements are consistent with the findings and conclusions of the Otay Mesa Community Plan Update (OMCPU) EIR.

The Project site contains the entire Otay Mesa Central Village Specific Plan Area, located within the City of San Diego Otay Mesa Community Planning Area (CPA). The recently adopted Otay Mesa Community Plan (March 2014) assumes the following land uses within Otay Mesa Central Village Specific Plan Area:

- ~~5,246~~ 4,768 multi-family dwelling units (<20 ac/du)
- 32.7 ksf of community commercial
- ~~32.3~~ 18.16 acres of active park space
- 1 elementary school

However, the Project is proposing to change the land uses within the Otay Mesa Central Village Specific Plan Area to the following:

- 425 multi-family dwelling units (<20 du/ac)
- 4,060 multi-family dwelling units (>20 du/ac)
- 139.7 ksf of community commercial
- 16.1 acres of active park space
- 1 elementary school (K-8)

Project access is proposed via Heritage Road, Cactus Road, Airway Road, and the future Continental Road.

The following facilities are assumed to be constructed by the Project as a part of project frontage and access improvements. Note that triggers for the improvements described below cannot be determined at this point in time since the phases of construction are unknown, therefore, a trigger analysis for facilities accessing and fronting the project will be conducted at a later time for each project that takes place within the Otay Mesa Central Village.

Roadway Segments

- Airway Road, between Heritage Road (Project Access) and Cactus Road – This segment serves as the project frontage and will be constructed to a 6-lane Prime Arterial, consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).

- Airway Road, between Cactus Road and Continental Road – This segment serves as the project frontage and the north side of the roadway (westbound direction) will be improved to a 4-lane street (1 eastbound lane and 3 westbound lanes). This roadway is classified as a 6-lane Major Arterial in the currently adopted Otay Mesa Community Plan, which is consistent with the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).
- Cactus Road, between SR-905 and Street "D" - This segment serves as the project frontage and the east side of the roadway (northbound direction) will be improved to a 3-lane street (2 northbound lanes and 1 southbound lane). This roadway is classified as a 4-lane Major Arterial in the currently adopted Otay Mesa Community Plan, which is consistent with the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).
- Cactus Road, between Street "D" and Airway Road - This segment serves as the project frontage and will be improved to a 4-lane Major Arterial, consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).
- Cactus Road, between Airway Road and Siempre Viva Road - This segment serves as the project frontage and the west side of the roadway (southbound direction) will be improved to a 3-lane street (1 northbound lane and 2 southbound lanes). This roadway is classified as a 4-lane Major Arterial in the currently adopted Otay Mesa Community Plan, which is consistent with the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).

Although the Otay Mesa Community Plan also identifies future improvements to mobility element roadways such as Airway Road, west of Heritage, La Media Road, and Heritage Road north of Airway Road, it is expected that these facilities would not be in place prior to development within the Central Village. Accordingly, the analysis herein assumes that none of these facilities is in place under near-term conditions in order to identify near-term roadway improvements required of future implementing developments within the Central Village.

<u>Intersections</u>

12. Heritage Road / Airway Road – Construction of an L-shaped intersection providing movements between the project site and Airway Road, east of the Heritage Road project access.
14. Cactus Road / Airway Road – Construction of the west leg to form a four-legged intersection, and expanding the intersection lane configurations to match up with the roadway cross-sections. This intersection is proposed to be signalized.
33. Street "A" / Airway Road – Construction of a signalized T-intersection.
34. Village Way / Airway Road – Construction of a signalized T-intersection.
35. Cactus Road / Street "D" – Construction of a signalized four-legged intersection.
36. Cactus Road / Central Main Street – Construction of a signalized T-intersection.
37. Cactus Road / Street "C" – Construction of a signalized T-intersection.

38. Park Way / Airway Road – Construction of a side-street stop controlled right-turn in/out only T-intersection.

39. Continental Road / Airway Road – construction of a signalized T-intersection at Airway Road (east and west legs) and Continental Road (north leg).

ES.2 Project Trip Generation and Distribution

Project trip generation estimates were derived utilizing the trip generation rates outlined in *Table 1* of the *City of San Diego Land Development Code – Trip Generation Manual, May 2003*. The Project is anticipated to generate a **total** of 40,126 daily vehicular trips. Based on the SANDAG Select Zone Analysis, the Project is estimated to have an internal capture rate of 9.4%, *i.e.*, 3,772 trips will have both an origin and destination within the project site, and not utilize external roadway facilities. As a result, the Project is anticipated to add 36,354 new daily trips (under project buildout) to the external roadway network, including 2,808 AM peak hour trips (876-in, 1,931-out) and 3,545 PM peak hour trips (2,201-in, 1,345-out).

By comparison, the land use assumptions utilized in the OMCPU EIR resulted in a **total** of ~~47,654~~ 43,123 daily vehicular trips for the Central Village area, of which ~~45,429~~ 41,109 were external trips to Central Village including ~~3,876~~ 3,558 AM peak hour trips (~~1,038~~967-in, ~~2,838~~2,591-out) and ~~4,287~~ 3,905 PM peak hour trips (~~2,831~~ 2,574-in, ~~1,456~~ 1,331-out). Thus, external to Central Village daily traffic under the proposed Project would be reduced by approximately ~~20~~ 7% as compared to what was disclosed in the OMCPU EIR, while peak hour traffic would be reduced by approximately ~~28~~ 21% and ~~17~~ 9%, respectively, in the AM and PM peak hours. **Table 4.1** in Page 30 of this report contains detailed trip generation information for the OMCPU EIR land use assumptions.

In order to determine the project trip assignment, a select zone analysis was conducted for the proposed Project land use. The select zone analysis consists of two individual TAZs (4623 & 4683). TAZ 4623 contains project's land uses south of Airway Road, whereas TAZ 4683 contains project's land uses located north of Airway Road.

Project trip distribution was determined by combining the project trip assignment from TAZ 4623 and TAZ 4683 and dividing by the total external trips. The select zone analysis results and trip distribution calculation details are provided in Appendix B.

ES.3 Timing of Required Improvements

Based on the significance criteria contained in the City of San Diego Significance Thresholds and the City of Chula Vista Guidelines for Traffic Impact Studies for each respective jurisdiction, the timing of required improvements associated with the development of the Otay Mesa Central Village Specific Plan were analyzed under the following two (2) scenarios:

- Existing Plus Project Conditions
- Year 2025 Cumulative (Existing Plus Cumulative Projects) Plus Project Conditions

The Cumulative model forecast was based on the recent City of Chula Vista and County of San Diego approved model (developed for the Otay Ranch Resort Village 13 project). Note that some of the cumulative projects have been constructed and occupied when traffic counts were collected (October 2015) for this Project, however, based on further review together with City staff, it was determined that the Cumulative model forecast used for the analyses of this Project represents a more conservative assessment and the worst-case scenario.

Since this is a program level analysis and the proposed Project would generate less traffic (both daily and peak hours) than what was adopted in the Otay Mesa Community Plan, long term horizon year impact analysis was not necessary. In fact, as the analysis in Section 4.0 demonstrates, the proposed Project would result in 36,354 **external trips** per day out of the 40,126 **total** project trips, including 2,808 external trips in the AM peak hour (876-in, 1,931-out) and 3,545 external trips in the PM peak hour (2,201-in, 1,345-out), as compared to the ~~45,429~~ 41,109 **external trips** per day out of the ~~47,654~~ 43,123 **total** project trips assumed in the OMCPU EIR, which included ~~3,876~~ 3,558 external trips in the AM peak hour (~~1,038~~ 967-in, ~~2,838~~ 2,591-out) and ~~4,287~~ 3,905 external trips in the PM peak hour (~~2,831~~ 2,574-in, ~~1,456~~ 1,331-out). Accordingly, all potential impacts associated with buildout of the Otay Mesa Community Plan were disclosed in the OMCPU EIR (State Clearinghouse No. 2004651076). Therefore, this analysis focuses on the timing of improvements identified by the OMCPU EIR required with buildout of the Central Village Specific Plan.

Existing Plus Project Conditions

The following roadway segment improvement triggers are based on the proposed project's total trip generation, which includes internal capture trips as well as external trips.

Roadway Segment Improvements

- *Britannia Boulevard, between SR-905 Eastbound Ramps and Airway Road* – The Project shall widen this roadway from a 5-lane roadway (2 NB & 3 SB) to a 6-lane Prime Arterial prior to the project's **total trip generation** of 37,678 ADT. This cross-section along Britannia Boulevard is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this roadway segment would operate at LOS F with buildout of the OMCPU. As shown in Table 6.6, this segment would operate at LOS C with the recommended improvements under Existing Plus Project conditions. It is important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.

- Airway Road, between Cactus Road and Continental Road – The Project shall widen this roadway segment from a 4-lane roadway (1 EB & 3 WB) to a 6-lane Major Arterial prior to the project's **total trip generation** of 36,926 ADT. This cross-section is consistent with

the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this roadway segment would operate at LOS D with buildout of the OMCPU. As shown in Table 6.6, this segment would operate at LOS C with the recommended improvements under Existing Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.

- Airway Road, between Continental Road and Britannia Boulevard – The Project shall widen this roadway segment from a 2-lane roadway to a 6-lane Major Arterial prior to the project's **total trip generation** of 5,543 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this roadway segment would operate at LOS D with buildout of the OMCPU. As shown in Table 6.6, this segment would operate at LOS C with the recommended improvements under Existing Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.

- Airway Road, between Britannia Boulevard and La Media Road - The Project shall widen this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 39,437 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the

required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this roadway segment would operate at LOS D with buildout of the OMCPU. As shown in Table 6.6, this segment would operate at LOS A with the recommended improvements under Existing Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.

- *Airway Road, between La Media Road and Avenida Costa Azul* – The Project shall widen this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 5,886 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this roadway segment would operate at LOS D with buildout of the OMCPU. As shown in Table 6.6, this segment would operate at LOS A with the recommended improvements under Existing Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.

- *Siempre Viva Road, between Cactus Road and Britannia Boulevard* – The Project shall widen this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 37,001 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this roadway segment would operate at LOS C with buildout of the OMCPU. As shown in Table 6.6, this segment would operate at LOS A with the

recommended improvements under Existing Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis

Intersection Improvements

16. *Britannia Boulevard / Otay Mesa Road* – The Project shall restripe an additional exclusive left-turn lane at the westbound approach of the intersection of Britannia Boulevard / Otay Mesa Road prior to the project's **total trip generation** of 24,512 ADT. This recommended additional westbound left-turn lane is within the intersection geometrics assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS E in the AM peak hour and LOS D in the PM peak hour with buildout of the OMCPU. As shown in Table 6.7, this intersection would operate at LOS D during both peak hours with the recommended improvements under Existing Plus Project conditions. It is important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.

19. *Britannia Boulevard / Airway Road* – The Project shall widen the eastbound approach (Airway Road) of this intersection to accommodate dual left-turn lanes, two through lanes, and a through-right-turn shared lane, widen the westbound approach (Airway Road) to accommodate an exclusive left-turn lane, two through lanes, and construct an exclusive right-turn lane with right-turn overlap phasing, and widen the southbound approach (Britannia Boulevard) to accommodate an exclusive left-turn lane, two through lanes, and two exclusive right-turn lanes with right-turn overlap phasing, prior to the project's **total trip generation** of 16,187 ADT. These recommended improvements are within the intersection geometrics assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 6.7, this intersection would operate at LOS D during both peak hours with the recommended improvements under Existing Plus Project conditions. It is important to note that interim improvement with fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this

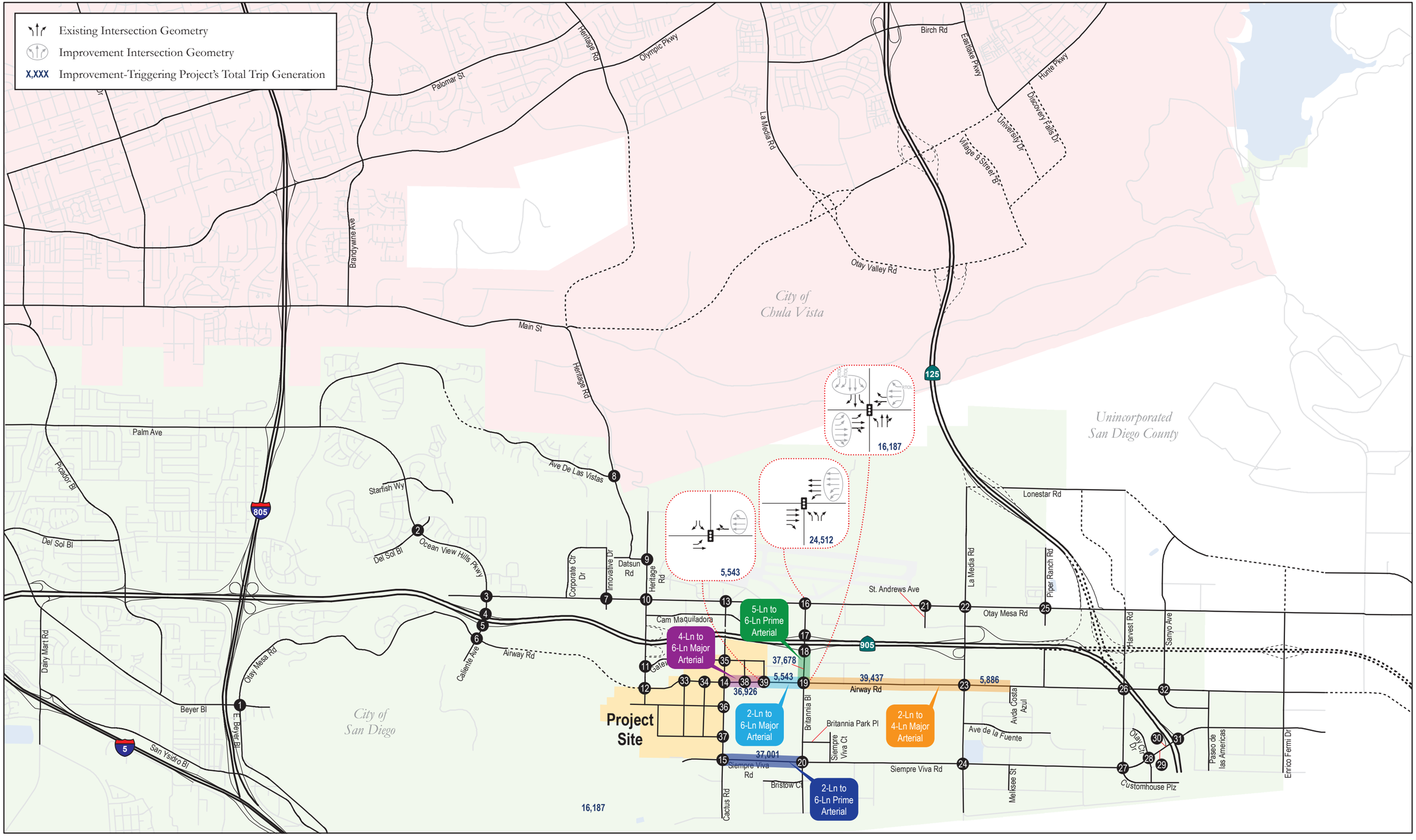
improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.

39. *Continental Road / Airway Road* – As described earlier in this section under "Roadway Segments", Airway Road between Continental Road and Britannia Boulevard shall be widened from a 2-lane roadway to a 6-lane Major Arterial prior to the project's **total trip generation** of 5,543 ADT by the project applicant. This improvement will improve traffic operations at this intersection. As shown in Table 6.7, this intersection would operate at LOS D during the AM peak hour and LOS B during the PM peak hour with the recommended improvements under Existing Plus Project conditions. It is important to note that this improvement and identified trigger have been identified at the program level, only. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.

Freeway Segment Improvements

No freeway facilities would be significantly impacted with the addition of project traffic within the project study area, therefore, no freeway improvements are recommended under Existing Plus Project conditions.

Figure ES-1 displays the recommended improvements under Existing Plus Project Conditions.



Otay Mesa Central Village Specific Plan

CHEN RYAN

Figure ES-1
Geometrics with Recommended Improvements - Existing Plus Project Conditions

Year 2025 Cumulative Traffic Plus Project Conditions

Roadway Segment Improvements

- *Heritage Road*, between Avenida De Las Vistas and Datsun Street – The Project shall pay a 13% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 1,003 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS F with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS C with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Heritage Road, between Datsun Street and Otay Mesa Road* – The Project shall pay a 12% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 1,380 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS C with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS C with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that

are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Cactus Road, between Otay Mesa Road and SR-905* – The Project shall pay a 23% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 6,623 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS D with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS A with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Britannia Boulevard, between SR-905 EB Ramps and Airway Road* - The Project shall pay a 92% fair share contribution towards the widening of this roadway from a 5-lane roadway (2 NB & 3 SB) to a 6-lane Prime Arterial prior to the project's **total trip generation** of 34,183 ADT. This cross-section along Britannia Boulevard is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this roadway segment would operate at LOS F with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS C with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. However, this improvement was also identified under the Existing Plus Project scenario and the project will be expected to construct this improvement. It is important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *La Media Road, between northern terminus and Otay Mesa Road* – The Project shall pay a 4% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 4,415 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS C with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at an acceptable LOS C with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *La Media Road, between Avenida De La Fuente and Siempre Viva Road* – The Project shall pay a 4% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 5-lane Major Arterial prior to the project's **total trip generation** of 3,679 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS C with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at an acceptable LOS B with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Airway Road, between Cactus Road and Continental Road* – The Project shall pay an 83% fair share contribution towards the widening of this roadway segment from a 4-lane roadway (1 EB & 3 WB) to a 6-lane Major Arterial prior to the project's **total trip generation** of 444 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS F with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS C with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. However, this improvement was also identified under the Existing Plus Project scenario and the project will be expected to construct this improvement. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Airway Road, between Continental Road and Britannia Boulevard* – The Project shall pay an 83% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 6-lane Major Arterial prior to the project's **total trip generation** of 106 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS F with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS C with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. However, this improvement was also identified under the Existing Plus Project scenario and the project will be expected to construct this improvement. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by

the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Airway Road, between Britannia Boulevard and La Media Road* – The Project shall pay a 24% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 883 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS D with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS B with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. However, this improvement was also identified under the Existing Plus Project scenario and the project will be expected to construct this improvement. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Airway Road, between La Media Road and Avenida Costa Azul* – The Project shall pay a 24% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 2,944 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS D with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS A with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. However, this improvement was also identified under the Existing Plus Project scenario and the project will be expected to construct this improvement. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also

important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Airway Road, between Piper Ranch Road and Harvest Road* – The Project shall pay a 7% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 8,278 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS D with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS B with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Airway Road, between Harvest Road and Sanyo Avenue* – The Project shall pay a 4% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 33,113 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS C with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS A with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share

contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Siempre Viva Road, between Cactus Road and Britannia Boulevard* – The Project shall pay a 53% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 849 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS C with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS A with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. However, this improvement was also identified under the Existing Plus Project scenario and the project will be expected to construct this improvement. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Siempre Viva Road, between Britannia Boulevard and La Media Road* – The Project shall pay a 26% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 679 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS C with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS A with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable

LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

Intersection Improvements

6. *Caliente Avenue / Airway Road* – The Project shall pay a 17% fair share contribution towards the installation of the traffic signal at this intersection prior to the project's **total trip generation** of 2,600 ADT. The recommended traffic signal is consistent with the assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS C during both peak hours with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. Signal warrant analysis worksheets are provided in Appendix K. It is important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

8 *Heritage Road / Avenida De Las Vistas* – The Project shall pay a 12% fair share contribution towards the installation of the traffic signal at this intersection prior the project's **total trip generation** of 3,134 ADT. The recommended traffic signal is consistent with the assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS B during both peak hours with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. Signal warrant analysis worksheets are provided in Appendix K. It is important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

9 *Heritage Road / Datsun Street* - The Project shall pay a 20% fair share contribution towards the installation of the traffic signal at this intersection prior to the project's **total trip generation** of 1,003 ADT. The recommended traffic signal is consistent with the assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS B in the AM peak hour and LOS C during the PM peak hour with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. Signal warrant analysis worksheets are provided in Appendix K. It is important to note that this

improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

10 *Heritage Road / Otay Mesa Road* – The project shall pay a 20% fair share contribution towards the widening of Otay Mesa Road to construct an additional exclusive right-turn lane at the westbound approach of the intersection of Heritage Road / Otay Mesa Road prior to the project's **total trip generation** of 11,019 ADT. This recommended improvement is within the intersection geometrics assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS C during the AM peak hour and LOS D during the PM peak hour with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

16. *Britannia Boulevard / Otay Mesa Road* – The Project shall pay a 100% contribution towards the restriping of Otay Mesa Road to add an additional exclusive left-turn lane at the westbound approach and the extension of Heritage Road southerly to connect to Airway Road (Intersection #12) and widen Heritage Road between Otay Mesa Road and Airway Road, from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 12,276 ADT. This recommended improvement is within the intersection geometrics assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. Furthermore, the construction of the Heritage Road connection alleviate congestion at Britannia Boulevard / Otay Mesa Road intersection due to the rerouting of approximately 1/3 (33%) of the project trips. This recommended improvement is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS E in the AM peak hour and LOS D in the PM peak hour with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS B during the AM peak hour and LOS C during the PM peak hour with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction

with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

18. *Britannia Boulevard / SR-905 EB Ramps* - The Project shall pay a 100% contribution towards the extension of Heritage Road southerly to connect to Airway Road (Intersection #12) and widen Heritage Road between Otay Mesa Road and Airway Road, from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 27,225 ADT. The construction of this roadway connection would alleviate congestion at Britannia Boulevard / SR-905 EB Ramps intersection due to the rerouting of approximately 1/3 (33%) of the project trips. The recommended improvements are consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F in the AM peak hour and LOS E in the PM peak hour with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS C during the AM peak hour and LOS D in the PM peak hour with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

19. *Britannia Boulevard / Airway Road* - The Project shall pay a 69% fair share contribution towards the widening of the eastbound approach (Airway Road) of this intersection to accommodate dual left-turn lanes, three through lanes, and an exclusive right-turn lane with right-turn overlap phasing, widen the westbound approach (Airway Road) to accommodate exclusive dual left-turn lanes, two through lanes, and exclusive dual right-turn lane with right-turn overlap phasing, widen the southbound approach (Britannia Boulevard) to accommodate exclusive dual left-turn lanes, three through lanes, and two exclusive right-turn lanes with right-turn overlap phasing, and widen the northbound approach to accommodate dual left-turn lanes, three through lanes, and an exclusive right-turn lane with right-turn overlap phasing, prior to the project's **total trip generation**

of 111 ADT. These recommended improvements are consistent with the intersection geometrics assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 6.7, this intersection would operate at LOS D during both peak hours with the recommended improvements under Year 2025 Cumulative Plus Project conditions. It is important to note that interim improvement with fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

20. *Britannia Boulevard / Siempre Viva Road* - The Project shall pay a 43% fair share contribution towards the widening of the westbound approach (Siempre Viva Road) to accommodate two through lanes and an exclusive left-turn lane, and widen the eastbound approach to accommodate two through lanes and an exclusive left-turn-lane, prior to the project's **total trip generation** of 70 ADT. The recommended improvements are within the intersection geometrics assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS C during the AM peak hour and LOS D during the PM peak hour with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that interim improvement with fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

22. *La Media Road / Otay Mesa Road* – The Project shall pay a 7% fair share contribution towards the widening of the northbound approach (La Media Road) to accommodate two through lanes and an exclusive left turn lane, and widen the southbound approach (La Media Road) to accommodate an additional through lane, prior the project's **total trip generation** of 5,471 ADT. The recommended improvements are within the intersection geometrics assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS D during both peak hours with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that interim

improvement with fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

30. *SR-905 SB Off-Ramp / Siempre Viva Road* – The Project shall pay a 6% fair share contribution towards the installation of the traffic signal at this intersection prior to the project's **total trip generation** of 12,037 ADT. The recommended traffic signal is consistent with the assumption of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this intersection would operate at LOS F during the AM peak hour with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS B during both peak hours with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. Signal warrant analysis worksheets are provided in Appendix K. It is important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

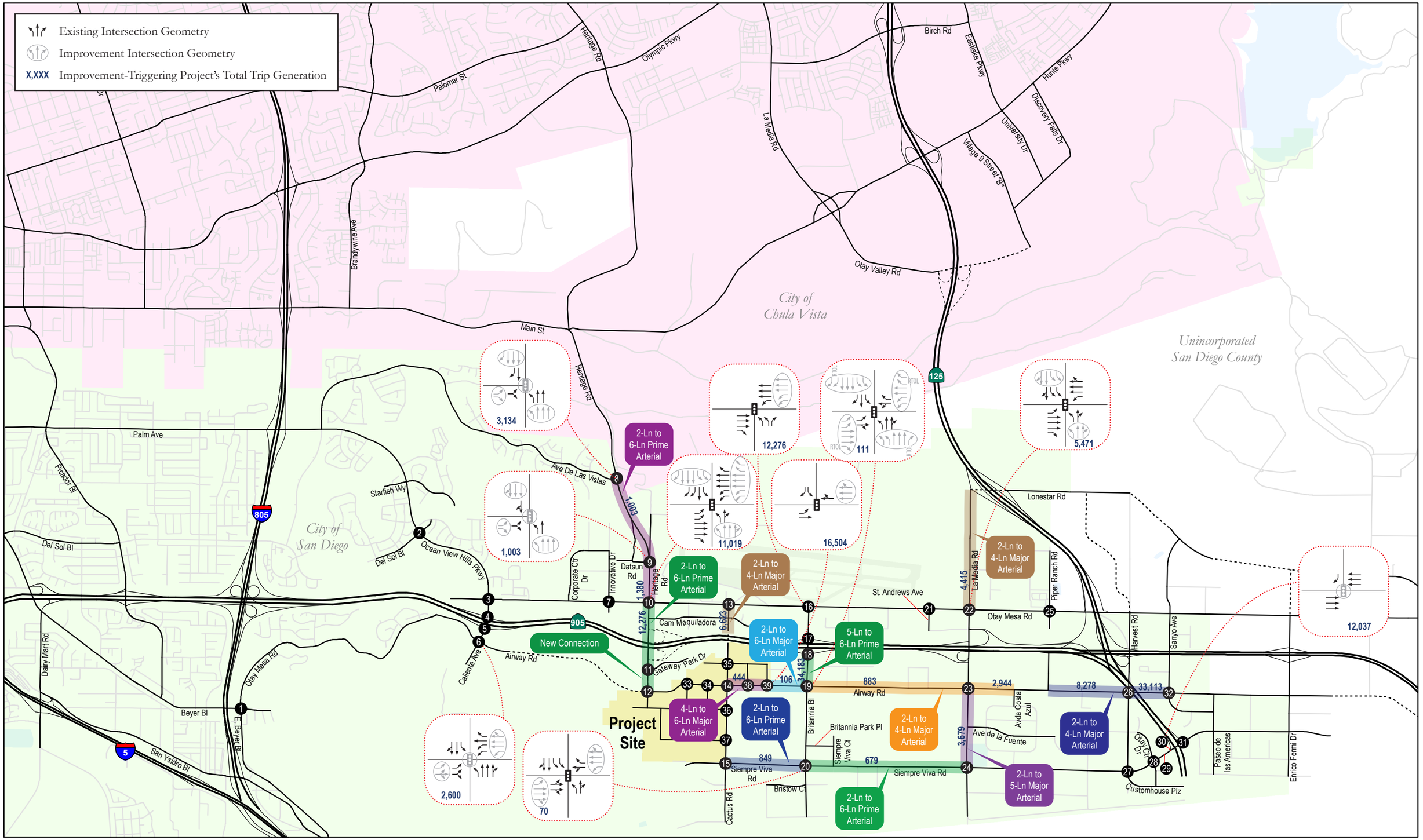
39. *Continental Road / Airway Road* – As described earlier in this section under "Roadway Segments", Airway Road between Continental Road and Britannia Boulevard shall be widened from a 2-lane roadway to a 6-lane Major Arterial prior to the project's **total trip generation** of 106 ADT by the project applicant. This improvement will improve traffic operations at this intersection. As shown in Table 8.7, this intersection would operate at LOS D during the AM peak hour and LOS B during the PM peak hour with the recommended improvements under Year 2025 Cumulative Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

Freeway Segment Improvements

- *SR-905, between I-805 and Caliente Avenue – LOS F in the WB direction.*

Neither Caltrans nor SANDAG have plans to construct additional lanes on State Route 905, nor is there a plan or program in place into which the project applicant could pay its fair-share towards the cost of such improvements. Therefore, improvement is considered infeasible and the impacts along SR-905 would remain significant and unavoidable. This finding is consistent with the findings identified in the OMCPU EIR.

Figure ES-2 displays the recommended improvements under Year 2025 Cumulative Plus Project Conditions.



Otay Mesa Central Village Specific Plan

CHEN RYAN

Figure ES-2

Geometrics with Recommended Improvements - Year 2025 Cumulative Plus Project Conditions

1.0 Introduction

1.1 Purpose of the Report

The purpose of this Transportation Facilities Trigger Analysis (TFTA) is to identify transportation facility improvements warranted with buildout of the Central Village Specific Plan (the "Project"), and to determine whether the Central Village Specific Plan impacts to traffic/circulation and recommended improvements are consistent with the findings and conclusions of the Otay Mesa Community Plan Update (OMCPU) EIR.

1.2 Study Area and Project Background

The Project site contains the entire Otay Mesa Central Village Specific Plan Area, located within the City of San Diego Otay Mesa Community Planning Area (CPA), as displayed in **Figure 1-1**. The recently adopted Otay Mesa Community Plan (March 2014) assumes the following land uses within Otay Mesa Central Village Specific Plan Area:

- ~~5,246~~ 4,768 multi-family dwelling units (<20 ac/du)
- 32.7 ksf of community commercial
- ~~32.3~~ 18.16 acres of active park space
- 1 elementary school

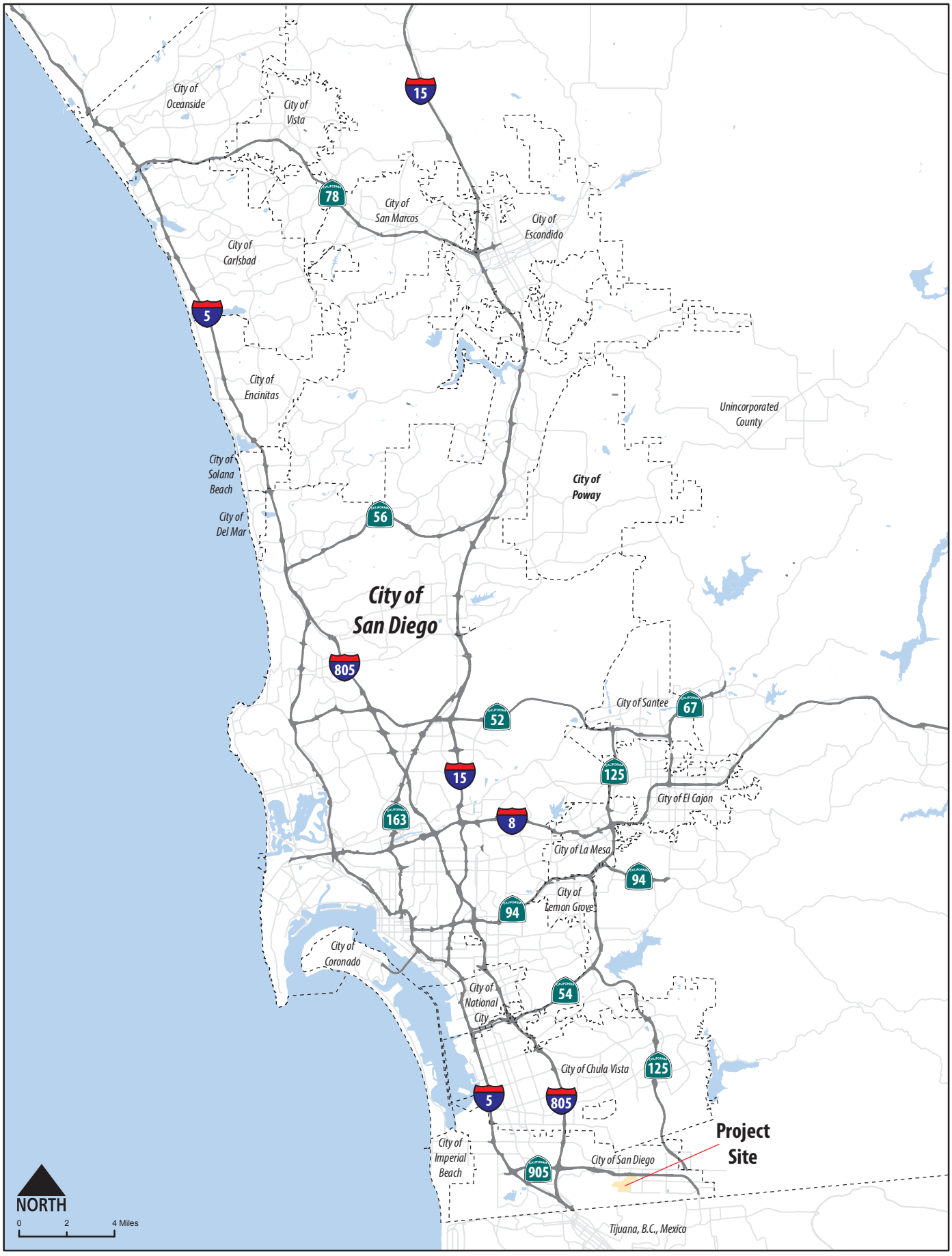
However, the Project is proposing to change the land uses within the Otay Mesa Central Village Specific Plan Area to the following:

- 425 multi-family dwelling units (<20 du/ac)
- 4,060 multi-family dwelling units (>20 du/ac)
- 139.7 ksf of community commercial
- 16.1 acres of active park space
- 1 elementary school (K-8)

Project access is proposed via Heritage Road, Cactus Road, Airway Road, and the future Continental Road. **Figure 1-2** displays the Project study area.

Five (5) scenarios were analyzed in this study, including:

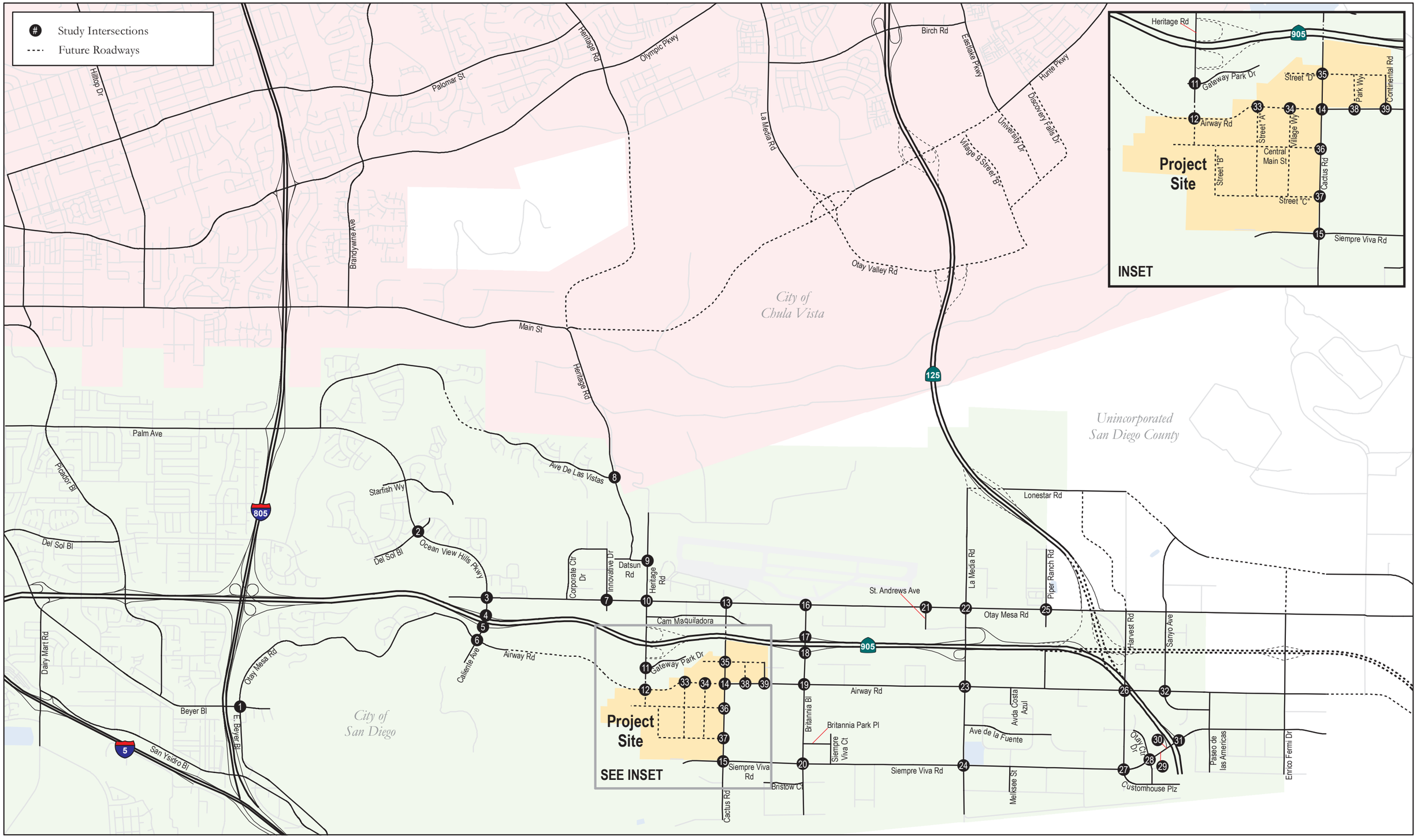
- Existing Conditions – utilized to establish the existing baseline traffic operations within the study area.
- Existing Plus Project Conditions – represents existing traffic conditions with the addition of traffic from the proposed Otay Mesa Central Village Specific Plan project.



Otay Mesa Central Village Specific Plan

Figure 1-1
Project Regional Location

CHEN RYAN



Otay Mesa Central Village Specific Plan

CHEN RYAN

Figure 1-2
Project Study Area

- Year 2025 Cumulative (Existing Plus Cumulative Projects) Conditions – represents cumulative traffic conditions including traffic from anticipated land development projects.

- Year 2025 Cumulative (Existing Plus Cumulative Projects) Plus Project Conditions – represents cumulative traffic conditions including traffic from anticipated land development projects with the addition of traffic from buildout of the proposed project.

- Plan-to-Plan Analysis (Horizon Year Community Plan Compliance) – provides a trip generation comparison between the buildout land use assumed in the Otay Mesa Community Plan and the proposed project to determine whether the proposed project would cause additional cumulative impacts, outside of those already identified in the Community Plan. Since this is a program level analysis and the proposed project would generate less traffic than what was adopted in the Otay Mesa Community Plan, long term horizon year impact analysis was not conducted. All potential impacts associated with this project in the future were disclosed and addressed in the Otay Mesa Community Plan EIR.

This traffic analysis was performed in accordance with *City of San Diego (City) Traffic Impact Study Manual, July 199*8 (TIS Manual). The Project study area includes all freeway segments, roadway segments, and intersections where the proposed project would add 50 or more peak hour trips in either direction within the study area defined for the Otay Mesa Community Plan Update EIR.

Improvement recommendations and required site access improvements to maintain acceptable transportation operations were also documented as part of this analysis. The roadway segment analyses included herein are based upon the Level of Service (LOS) criteria outlined in the City's TIS Manual. The City's LOS standards are included in Chapter 2.

1.3 Report Organization

Following this Introduction chapter, this report is organized into the following chapters:

2.0 Analysis Methodology – This chapter describes the methodologies and standards utilized to analyze roadway and intersection traffic conditions.

3.0 Project Description – This chapter describes the proposed Otay Mesa Central Village Specific Plan including project traffic generation, trip distribution patterns, and project trip assignments.

4.0 Plan-to-Plan Analysis (Horizon Year Community Plan Compliance) – This chapter provides a trip generation comparison between the buildout land use assumed in the Otay Mesa Community Plan and the proposed project to determine whether the proposed project would cause additional cumulative impacts, outside of those already identified in the Community Plan. Since this is a program level analysis and the proposed Project would generate less traffic than what was adopted in the Otay Mesa Community Plan, long term horizon year impact analysis was not conducted. Any potential impacts

associated with this project in the future should have been disclosed and addressed in the Otay Mesa Community Plan.

5.0 Existing Conditions – This chapter describes the existing transportation network within the study area and provides analysis results for the existing traffic conditions.

6.0 Existing Plus Project Conditions – This chapter describes the existing traffic network with the addition of the proposed project. Improvements, if necessary, related to the proposed Project are also identified.

7.0 Year 2025 Cumulative Traffic Conditions – This chapter describes near-term developments anticipated to generate additional traffic to the project study area. Analysis results are provided for the Year 2025 Existing Plus Cumulative conditions, along with recommended improvements (if necessary).

8.0 Year 2025 Cumulative Plus Project Traffic Conditions – This chapter describes near-term developments anticipated to generate additional traffic to the project study area plus the addition of the proposed project. Analysis results are provided for the Year 2025 Existing Plus Cumulative Plus Project conditions, along with recommended improvements (if necessary).

9.0 Alternative Transportation and Transportation Demand Management – This chapter focuses on alternative modes of travel (walking, bicycling and transit) to/from and within the project site. It also outlines a proposed Transportation Demand Management (TDM) Plan to help reduce vehicular traffic and parking demand associated with the proposed project.

10.0 On-site Circulation and Parking – This chapter discusses access to the project site and recommends functional classifications for internal roadways to the Project. This section also discusses the required and provided parking within the project site.

11.0 Findings and Recommendations – Outlines overall study findings, identifies recommended project-related improvements.

2.0 Analysis Methodology

This TIS was performed in accordance with the requirements of the *City of San Diego Traffic Impact Study Manual, July 1998*, the *City of San Diego Significance Determination Thresholds, January 2011*, and the enhanced California Environmental Quality Act (CEQA) project review process. Detailed information on roadway segment and intersection analysis methodologies, standards, and thresholds are discussed in the following sections.

2.1 Level of Service Definition

Level of Service (LOS) is a quantitative measure describing operational conditions within a traffic stream, and the motorist's and/or passengers' perception of operations. A LOS definition generally describes these conditions in terms of such factors as delay, speed, travel time, freedom to maneuver, interruptions in traffic flow, queuing, comfort, and convenience. **Table 2.1** describes generalized definitions of the various LOS categories (A through F) as applied to roadway operations.

TABLE 2.1
LEVEL OF SERVICE DEFINITIONS

LOS Category	Definition of Operation
A	This LOS represents a completely free-flow condition, where the operation of vehicles is virtually unaffected by the presence of other vehicles and only constrained by the geometric features of the highway and by driver preferences.
B	This LOS represents a relatively free-flow condition, although the presence of other vehicles becomes noticeable. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.
C	At this LOS the influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream is clearly affected by other vehicles.
D	At this LOS, the ability to maneuver is notably restricted due to traffic congestion, and only minor disruptions can be absorbed without extensive queues forming and the service deteriorating.
E	This LOS represents operations at or near capacity. LOS E is an unstable level, with vehicles operating with minimum spacing for maintaining uniform flow. At LOS E, disruptions cannot be dissipated readily thus causing deterioration down to LOS F.
F	At this LOS, forced or breakdown of traffic flow occurs, although operations appear to be at capacity, queues form behind these breakdowns. Operations within queues are highly unstable, with vehicles experiencing brief periods of movement followed by stoppages.

Source: Highway Capacity Manual 2000

2.2 Roadway Segment Level of Service Standards and Thresholds

Roadway segment LOS standards and thresholds provide the basis for analysis of arterial roadway segment performance. The analysis of roadway segment LOS is based on the functional classification of the roadway, the maximum capacity, roadway geometrics, and existing or forecast Average Daily Traffic (ADT) volumes. **Table 2.2** and **Table 2.3** present the roadway

segment capacity and LOS standards for the City of San Diego and the City of Chula Vista, respectively. These standards were utilized to analyze roadways evaluated in this report.

TABLE 2.2
CITY OF SAN DIEGO
ROADWAY CLASSIFICATIONS AND LOS STANDARDS

Roadway Classification	LOS A	LOS B	LOS C	LOS D	LOS E
Expressway (6-lane)	< 30,000	< 42,000	< 60,000	< 70,000	< 80,000
Prime Arterial (6-lane)	< 25,000	< 35,000	< 50,000	< 55,000	< 60,000
Major Arterial (6-lane, divided)	< 20,000	< 28,000	< 40,000	< 45,000	< 50,000
Major Arterial (4-lane, divided)	< 15,000	< 21,000	< 30,000	< 35,000	< 40,000
Collector (4-lane w/ center lane)	< 10,000	< 14,000	< 20,000	< 25,000	< 30,000
Collector (4-lane w/o center lane)	< 5,000	< 7,000	< 10,000	< 13,000	< 15,000
Collector (2-lane w/continuous left-turn lane)	< 5,000	< 7,000	< 10,000	< 13,000	< 15,000
Collector (2-lane no fronting property)	< 4,000	< 5,500	< 7,500	< 9,000	< 10,000
Collector (2-lane w/commercial fronting)	< 2,500	< 3,500	< 5,000	< 6,500	< 8,000
Collector (2-lane multi-family)	< 2,500	< 3,500	< 5,000	< 6,500	< 8,000
Sub-Collector (2-lane single-family)	-	-	< 2,200	-	-

Source: City of San Diego Traffic Impact Study Manual (1998)

These standards are generally used as long-range planning guidelines to determine the functional classification of roadways. The actual capacity of a roadway facility varies according to its physical attributes. Typically, the performance and LOS of a roadway segment is heavily influenced by the ability of its intersections to accommodate peak hour traffic volumes. For the purposes of this traffic analysis, LOS D is considered acceptable for circulation element roadway segments within the City of San Diego.

TABLE 2.3
CITY OF CHULA VISTA
ROADWAY CLASSIFICATION AND LOS STANDARDS

Roadway Classification	LOS A	LOS B	LOS C	LOS D	LOS E
Expressway (7 or 8-lane)	52,500	61,300	**70,000**	78,800	87,500
Gateway Street (6-lane)	40,800	47,600	54,400	**61,200**	68,000
Prime Arterial (6-lane)	37,500	43,800	**50,000**	56,300	62,500
Major Street (6-lane)	30,000	35,000	**40,000**	45,000	50,000
Major Street (4-lane)	22,500	26,300	**30,000**	33,800	37,500
Town Center Arterial (6-lane)	37,500	43,800	**50,000**	56,300	62,500
Town Center Arterial (4-lane)	22,500	26,300	**30,000**	33,800	37,500
Class I Collector (4-lane)	16,500	19,300	**22,000**	24,800	27,500
Class II Collector (3-lane)	9,000	10,500	**12,000**	13,500	15,000
Class III Collector (2-lane)	5,600	6,600	**7,500**	8,400	9,400

Source: City of Chula Vista

Note:
Bold numbers indicate the ADT thresholds for acceptable LOS.

LOS C is considered acceptable for Circulation Element roadway segments within the City of Chula Vista. Per the Otay SRP (Page 104), LOS D is permitted within the Otay Ranch Villages.

2.3 Peak Hour Intersection Level of Service Standards and Thresholds

This section presents the methodologies used to perform peak hour intersection capacity analysis, including both signalized and unsignalized intersections. The following assumptions were utilized in conducting all intersection level of service analyses:

- *Pedestrian Calls per Hour:* 10 calls per hour for each pedestrian movement was assumed.
- *Heavy Vehicle Factor:* Heavy vehicle factors utilized for the analyses for this report are consistent with those utilized in the Otay Mesa Community Plan Update Traffic Impact Study.
- *Signal Timing:* Based on existing signal timing plans (as of November 2015), provided in **Appendix A.**
- *Peak Hour Factor*: Based on existing peak hour count data for existing conditions.

Signalized Intersection Analysis

The analysis of signalized intersections utilized the operational analysis procedures as outlined in the *2000 Highway Capacity Manual (HCM), Transportation Research Board Special Report 209*. This method defines LOS in terms of delay, or more specifically, average stopped delay per vehicle. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption and lost travel time. This technique uses 1,900 vehicles per hour per lane (VPHPL) as the maximum saturation volume of an intersection. This saturation volume is adjusted to account for lane width, on-street parking, pedestrians, traffic composition (i.e., percentage trucks) and shared lane movements (i.e. through and right-turn movements originating from the same lane). The LOS criteria used for this technique are described in **Table 2.4**. The computerized analysis of intersection operations was performed utilizing the *SYNCHRO 8.0* traffic analysis software.

TABLE 2.4
SIGNALIZED INTERSECTION LEVEL OF SERVICE CRITERIA

Average Stopped Delay Per Vehicle (seconds)	Level of Service (LOS) Characteristics
<10.0	*LOS A* describes operations with very low delay. This occurs when progression is extremely favorable, and most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
10.1 – 20.0	*LOS B* describes operations with generally good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
20.1 – 35.0	*LOS C* describes operations with higher delays, which may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
35.1 – 55.0	*LOS D* describes operations with high delay, resulting from some combination of unfavorable progression, long cycle lengths, or high volumes. The influence of congestion becomes more noticeable, and individual cycle failures are noticeable.
55.1 – 80.0	*LOS E* is considered the limit of acceptable delay. Individual cycle failures are frequent occurrences.
>80.0	*LOS F* describes a condition of excessively high delay, considered unacceptable to most drivers. This condition often occurs when arrival flow rates exceed the LOS D capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay.

Source: Highway Capacity Manual 2000, TRB Special Report 209

Unsignalized Intersection Analysis

Unsignalized intersections, including two-way and all-way stop controlled intersections, were analyzed using the 2000 Highway Capacity Manual (Section 10) unsignalized intersection analysis methodology. The SYNCHRO 8.0 Traffic Analysis software supports this methodology and was utilized to produce LOS results. The LOS for a two-way stop controlled (TWSC) intersection is determined by the computed control delay and is defined for each minor movement. **Table 2.5** summarizes the LOS criteria for unsignalized intersections. The City of San Diego considers LOS D or better during the AM and PM peak hours to be acceptable for intersection LOS.

TABLE 2.5
UNSIGNALIZED INTERSECTION LEVEL OF SERVICE CRITERIA

Average Control Delay (sec/veh)	Level of Service (LOS)
≤10	A
>10 and ≤15	B
>15 and ≤25	C
>25 and ≤35	D
>35 and ≤50	E
>50	F

Source: Highway Capacity Manual 2000, TRB Special Report 209

2.4 Ramp Intersection Capacity Analysis

Consistent with Caltrans requirements, all signalized intersections at freeway ramps were analyzed using Intersecting Lane Volume (ILV) procedures as described in Topic 406 of the Caltrans *Highway Design Manual* (HDM). This methodology is based upon an assessment of each intersection as an isolated unit, without consideration of the effects from adjacent intersections. For this reason, the ILV analysis is utilized as an additional validation of signalized ramp intersection operations derived from the 2000 Highway Capacity Manual methodology. **Table 2.6** provides values of ILV/hr associated with various traffic flow thresholds. Neither Caltrans nor the City uses ILV results in determining significance of project impacts, but the analyses are included for informational purposes.

TABLE 2.6
TRAFFIC FLOW CONDITIONS AT RAMP INTERSECTIONS
AT VARIOUS LEVELS OF OPERATION

ILV/hr	**Description**
<1200: (Under Capacity)	Stable flow with slight, but acceptable delay. Occasional signal loading may develop. Free midblock operations.
1200-1500: (At Capacity)	Unstable flow with considerable delays possible. Some vehicles occasionally wait two or more cycles to pass through the intersection. Continuous backup occurs on some approaches.
>1500: (Over Capacity)	Stop-and-go operation with severe delay and heavy congestion(1). Traffic volume is limited by maximum discharges rates of each phase. Continuous backup in varying degrees occurs on all approaches. Where downstream capacity is restrictive, mainline congestion can impede orderly discharge through the intersection.

Source: Caltrans Highway Design Manual, Topic 406

Note:
(1)The amount of congestion depends on how much the ILV/hr value exceeds 1500. Observed flow rates will normally not exceed 1500ILV/hr, and the excess will be delayed in a queue.

2.5 Ramp Metering Analysis

Ramp metering is a means of controlling the volume of traffic entering the freeway with the goal of improving the traffic operations and flow on the freeway main lanes. Freeway ramp meter analysis estimates the peak hour queues and delays at freeway ramps by comparing existing volumes to the meter rate at the given location. However, since no ramp meters exist within the project study area, ramp metering analysis is not required and, therefore, not included in this study.

2.6 Freeway Level of Service Standards and Thresholds

Freeway level of service analysis is based upon procedures developed by Caltrans District 11. The procedure for calculating freeway level of service involves estimating a peak hour volume to capacity (V/C) ratio. Peak hour volumes are estimated from the application of design hour ("K"), directional ("D") and truck ("T") factors to Average Daily Traffic (ADT) volumes. The base capacities were assumed to be 2,350 passenger-car per hour per main lane (pc/h/ln) and 1,410 pc/h/ln for auxiliary lane, respectively. A 0.95 peak-hour factor (PHF) is utilized for this analysis.

The resulting V/C ratio is then compared to acceptable ranges of V/C values corresponding to the various levels of service for each facility classification, as shown in **Table 2.7**. The corresponding level of service represents an approximation of existing or anticipated future freeway operating conditions in the peak direction of travel during the peak hour.

LOS D or better is used in this study as the threshold for acceptable freeway operations based upon Caltrans and the SANDAG Regional Growth Management Strategy (RGMS) requirements.

TABLE 2.7
CALTRANS DISTRICT 11
FREEWAY SEGMENT LEVEL OF SERVICE DEFINITIONS

LOS	V/C	Congestion/Delay	Traffic Description
Used for freeways, expressways and conventional highways			
"A"	<0.41	None	Free flow.
"B"	0.42-0.62	None	Free to stable flow, light to moderate volumes.
"C"	0.63-0.79	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted.
"D"	0.80-0.92	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
"E"	0.93-1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
Used for conventional highways			
"F"	>1.00	Considerable	Forced or breakdown flow. Delay measured in average travel speed (MPH). Signalized segments experience delays >60.0 seconds/vehicle.
Used for freeways and expressways			
"F0"	1.01–1.25	Considerable (0-1 hour delay)	Forced flow, heavy congestion, long queues form behind breakdown points, stop and go.
"F1"	1.26-1.35	Severe (1-2 hour delay)	Very heavy congestion, very long queues.
"F2"	1.36-1.45	Very severe (2-3 hour delay)	Extremely heavy congestion, longer queues, more numerous breakdown points, longer stop periods.
"F3"	>1.46	Extremely severe (3+ hours of delay)	Gridlock.

Source: SANTEC/ITE Guidelines for TIS in the San Diego Region

2.7 Determination of Significant Impacts

City of San Diego

The *City of San Diego Significance Determination Thresholds* defines project impact thresholds by facility type. These thresholds are generally based upon an acceptable increase in the Volume / Capacity (V/C) ratio for roadway and freeway segments, and upon increases in vehicle delays for intersections and ramps.

In the City of San Diego, LOS D is considered acceptable for roadway and intersection operations. A project is considered to have a significant impact if it degrades the operations of a roadway or intersection from an acceptable LOS (D or better) to an unacceptable LOS (E or F), or if it adds additional delay to a facility already operating an unacceptable level. **Table 2.8** summarizes the impact significant thresholds as identified by the City of San Diego beyond which mitigation measures are required.

TABLE 2.8
MEASURE OF SIGNIFICANT PROJECT TRAFFIC IMPACTS

Level of Service (LOS) with Project*	Allowable Change Due to Impact**					
	Freeways		Roadway Segments		Intersections	Ramp Metering
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec)	Delay (min.)
LOS E (or ramp meter delays > 15 min.)	0.010	1.0	0.02	1.0	2.0	2.0
LOS F (or ramp meter delays > 15 min.)	0.005	0.5	0.01	0.5	1.0	1.0

Source: City of San Diego, Significance Determination Thresholds (January 2011)

* All level of service (LOS) measurements are based upon HCM procedures for peak-hour conditions. However, vehicle to capacity (V/C) ratios for roadway segments may be estimated on an ADT/24-hour traffic volume basis (using Table 2.1 or a similar LOS chart for each jurisdiction). The acceptable LOS for freeways, roadways, and intersections is generally "D" ("C" for undeveloped or not densely developed locations per jurisdiction definitions). For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

** If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are determined to be significant. These impact changes may be measured from appropriate computer programs or expanded manual spreadsheets. The project applicant shall then identify feasible mitigation (within the Traffic Impact Study report) that will maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see above * note), or if the project adds a significant amount of peak-hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating significant impact changes.

Because this is a programmatic-level analysis, the LOS thresholds identified in Table 2.8 are used herein to determine the timing and scope of improvements that will be needed to roadways and intersections within the City of San Diego to maintain acceptable LOS. Because impacts to transportation/traffic associated with buildout of the Central Village Specific Plan (the "Project") were previously evaluated in the OMCPU EIR, for purposes of this analysis, a "new or more severe" impact to the environment would occur if the Project's traffic would result in the need

for roadway and intersection improvements beyond those that are already planned for by the OMCPU and/or beyond those that were identified as needed in the OMCPU EIR.

City of Chula Vista

Within the City of Chula Vista, traffic impacts are defined as either *project-specific impacts* or *cumulative impacts. Project-specific impacts* are those impacts for which the addition of project trips results in an identifiable degradation in Level of Service on freeway segments, roadway segments, or at intersections, triggering the need for specific project-related improvement strategies. *Cumulative impacts* are those in which the project trips incrementally contribute to a poor Level of Service in conjunction with other projects and existing traffic.

The following discussion outlines City of Chula Vista criteria for determining whether a project results in either project-specific or cumulative impacts on roadway segments. The City of Chula Vista maintains different significance standards for short-term and long-term conditions.

Short-Term (Study Horizon Year 0 To 4)

Roadway Segments

If the roadway segment volume to capacity (v/c) ratio indicates LOS C or better, there would be no project-specific or cumulative impact in the short-term. If the roadway segment volume to capacity ratio indicates LOS D, E or F, and the Growth Management Oversight Commission method is utilized, the following significance criteria apply:

- Direct Project specific impacts would occur to roadway segments under short-term conditions in the City of Chula Vista if all of the following conditions were found:
  - The roadway segment is projected to operate at LOS D for more than 2 hours or LOS E/F for 1 hour;
  - The project trips comprise 5% or more of the roadway segment volume; and
  - The project adds more than 800 ADT to the roadway segment.

Cumulative impacts would occur to a roadway segment under short-term conditions only if the roadway segment is projected to operate at LOS D for more than 2 hours or LOS E/F for 1 hour.

Long-Term (Study Horizon Year 5 and Later)

Roadway Segments

Direct Project-specific impacts would occur to roadway segments under long-term conditions in the City of Chula Vista if all of the following conditions are found:

- The roadway is projected to operate at LOS D, LOS E, or LOS F;
- The project trips comprise 5% or more of total segment volume; and
- The project adds more than 800 ADT to the roadway segment.

Cumulative impacts would occur to a roadway segment under long-term conditions if they are projected to operate at LOS D, E or F. However, in cases where roadway segments are projected to operate at LOS D or E under long-term conditions and all intersections along this segment are projected to operate at LOS D or better, the roadway segment impact (project-specific or cumulative) would *not* be significant since intersection analysis is more indicative of actual roadway system operations. However, if a roadway segment is projected to operate at LOS F under long-term conditions, the impact (direct project-specific or cumulative) would be significant regardless of intersection LOS.

Because this is a programmatic-level analysis, the above-described LOS thresholds are used herein to determine the timing and scope of improvements that will be needed to the roadway segment studied within the City of Chula Vista to maintain acceptable LOS. Because impacts to transportation/traffic associated with buildout of the Central Village Specific Plan (the "Project") were previously evaluated in the OMCPU EIR, for purposes of this analysis, a "new or more severe" impact to the environment would occur if the Project's traffic would result in the need for roadway and intersection improvements beyond those that are already planned for by the OMCPU and/or beyond those that were identified as needed in the OMCPU EIR.

3.0 Proposed Project

This section describes the proposed project, including land uses and estimated trip generation, trip distribution, and trip assignment.

3.1 Project Description

The Project site contains the entire Otay Mesa Central Village Specific Plan Area, located within the City of San Diego Otay Mesa Community Planning Area (CPA), as displayed in Figure 1-1. The recently adopted Otay Mesa Community Plan (March 2014) assumes the following land uses within Otay Mesa Central Village Specific Plan Area:

- ~~5,246~~ 4,768 multi-family dwelling units (<20 ac/du)
- 32.7 ksf of community commercial
- ~~32.3~~ 18.16 acres of active park space
- 1 elementary school

However, the Project is proposing to change the land uses within the Otay Mesa Central Village Specific Plan Area to the following:

- 425 multi-family dwelling units (<20 du/ac)
- 4,060 multi-family dwelling units (>20 du/ac)
- 139.7 ksf of community commercial
- 16.1 acres of active park space
- 1 elementary school (K-8)

Project access is proposed via Heritage Road, Cactus Road, Airway Road, and the future Continental Road. **Figure 3-1** displays the site plan for the proposed project.

The following facilities are assumed to be constructed by the Project as a part of project frontage and access improvements. Note that triggers for the improvements described below cannot be determined at this point in time since the phases of construction are unknown, therefore, a trigger analysis for facilities accessing and fronting the project will be conducted at a later time for each project that takes place within the Otay Mesa Central Village.

Roadway Segments

- Airway Road, between Heritage Road (Project Access) and Cactus Road – This segment serves as the project frontage and will be constructed to a 6-lane Prime Arterial, consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).

CONCEPTUAL LAND USE PLAN

STATISTICAL ABSTRACT

PLANNING AREAS	GENERAL PLAN LAND USE	SPECIFIC PLAN LAND USE	TARGET DENSITY	GROSS ACRES	NET ACRES*	DWELLING UNITS	MAX. COMMERCIAL SQUARE FOOTAGE
2, 3, 4, 6, 14	Neighborhood Village (15-44 du/ac)	MH Mixed Use	35-44	40.8	37.1	1,334	98,200
5, 13	Neighborhood Village (15-44 du/ac)	MH Mixed Use	25-40	18.9	17.4	712	41,500
1	Residential - Medium to Medium High (15-44 du/ac)	MH Multi Family	35-44	6.7	6.7	295	--
17	Residential - Medium to Medium High (15-44 du/ac)	MH Multi Family	25-40	6.5	5.7	200	--
7, 8, 9, 15, 16	Residential - Medium (15-29 du/ac)	MD Multi Family	20-29	55.0	50.3	1,444	--
10, 11, 12	Residential - Low Medium to Medium (10-29 du/ac)	LD Multi Family	15-29	29.7	28.3	500	--
18**	Institutional	School/Recreation	--	15.5	13.1	--	--
19, 20, 21, 22	Population-Based Park	Park	--	16.1	16.1	--	--
23, 24, 25, 26	Open Space	Open Space	--	15.9	15.9	--	--
--	Public Roadways	Public Roadways	--	24.1	38.6	--	--
		PROJECT TOTALS	--	229.2	229.2	4,485	139,700

*Net Acreage reflects public roadway dedications.

**Dwelling units within Planning Area 18 only would be constructed in the event that this planning area is not needed as a school site. In the event Planning Area 18 is not developed with a school, Planning Area 18 would be developed with up to 197 dwelling units along with any required population-based parkland. In such a case the total number of dwelling units allowed within the Central Village would increase to 4,682.

Figure 3-1
Project Site Plan

- Airway Road, between Cactus Road and Continental Road – This segment serves as the project frontage and the north side of the roadway (westbound direction) will be improved to 4 lanes (1 eastbound lane and 3 westbound lanes). This roadway is classified as a 6-lane Major Arterial in the currently adopted Otay Mesa Community Plan, which is consistent with the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).
- Cactus Road, between SR-905 and Street "D" - This segment serves as the project frontage and the east side of the roadway (northbound direction) will be improved to 3 lanes (2 northbound lanes and 1 southbound lane). This roadway is classified as a 4-lane Major Arterial in the currently adopted Otay Mesa Community Plan, which is consistent with the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).
- Cactus Road, between Street "D" and Airway Road - This segment serves as the project frontage and will be improved to a 4-lane Major Arterial, consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).
- Cactus Road, between Airway Road and Siempre Viva Road - This segment serves as the project frontage and the west side of the roadway (southbound direction) will be improved to 3 lanes (1 northbound lane and 2 southbound lanes). This roadway is classified as a 4-lane Major Arterial in the currently adopted Otay Mesa Community Plan, which is consistent with the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).

<u>Intersections</u>

12. Heritage Road / Airway Road – Construction of an L-shaped intersection providing movements between the project site and Airway Road, east of the Heritage Road project access.
14. Cactus Road / Airway Road – Construction of the west leg to form a four-legged intersection, and expanding the intersection lane configurations to match up with the roadway cross-sections. This intersection is proposed to be signalized.
33. Street "A" / Airway Road – Construction of a signalized T-intersection.
34. Village Way / Airway Road – Construction of a signalized T-intersection.
35. Cactus Road / Street "D" – Construction of a signalized four-legged intersection.
36. Cactus Road / Central Main Street – Construction of a signalized T-intersection.
37. Cactus Road / Street "C" – Construction of a signalized T-intersection.
38. Park Way / Airway Road – Construction of a side-street stop controlled right-turn in/out only T-intersection.
39. Continental Road / Airway Road – construction of a signalized T-intersection at Airway Road (east and west legs) and Continental Road (north leg).

3.2 Project Trip Generation, Distribution, and Assignment

Internal Capture Trip Generation Reduction

In order to determine the internal trip capture percentage, trip generation reduction analysis was conducted using the methodology recommended in the City of San Diego Traffic Impact Study Manual (TISM), as well as the SANDAG Select Zone Assignment.

The City of San Diego Traffic Impact Study Manual (TISM)

Table 3.1 displays the proposed project trip generation with the transit and mixed-use trip generation reduction as recommended in Table 3 and Table 4 of the City of San Diego TISM.

TABLE 3.1
OTAY MESA CENTRAL VILLAGE SPECIFIC PLAN
PROPOSED PROJECT TRIP GENERATION – CITY OF SD TISM

Land Use	Units	Trip Rate	ADT	AM Peak Hour					PM Peak Hour				
				%	Trips	Split	In	Out	%	Trips	Split	In	Out
Multi-Family (Under 20 DU/acre)	425 DU	8	3,400	8%	272	2:8	54	218	9%	340	7:3	238	102
Multi-Family (Over 20 DU/acre)	4,060 DU	6	24,360	8%	1949	2:8	390	1559	10%	2192	7:3	1535	657
Community Commercial	139.7 KSF	70	9,779	4%	293	6:4	176	117	11%	978	5:5	489	489
Park (Developed)	16.1 Acres	50	805	4%	64	5:5	13	51	8%	81	5:5	56	25
Elementary School	13.1 Acres	136	1,782	31%	552	6:4	331	221	19%	339	4:6	135	204
Total			**40,126**		**3,131**		**964**	**2,167**		**3,929**		**2,453**	**1,476**
Transit Reduction[1]			-1,041		-150		-30	-120		-114		-80	-34
Mixed-Use Reduction[2]			-2,776		-178		-36	-142		-253		-177	-76
Total Transit & Mixed-Use Reduction			-3,817		-328		-66	-262		-367		-257	-110
Total Transit & Mixed-Use Reduction Percentage per TISM			**-9.5%**		**-10.5%**		**-6.8%**	**-12.1%**		**-9.3%**		**-10.5%**	**-7.5%**
External Trips			**36,309**		**2,803**		**898**	**1,905**		**3,562**		**2,196**	**1,366**

Source: Colrich, October 2015; City of San Diego Land Use Code – Trip Generation Manual, May 2003

Notes:

[1] Based on the SANDAG Regional Transportation Plan (RTP) 2050 and the Otay Mesa CPU a bus rapid service would traverse along the project's frontage, with transit station at the intersections of Airway Road / Village Way & Airway Road / Continental Road. Approximately 75% of the proposed project's residential land use would be within 1,500 feet of these transit stations. Therefore, per Table 3 of the TISM a 5% daily (9% AM peak, 6% PM peak) trips reduction was assumed for these residential land use.

[2] Based on Table 4 of the TISM, a 10% daily (8% AM peak, 10% PM peak) trip reduction was assumed for this mixed-use development which includes commercial retail.

As shown in the table, the proposed project would have an internal capture rate of 9.5% of the average daily traffic, when analyze using the recommendation provided in the City of San Diego TISM.

SANDAG Select Zone Assignment

A SANDAG Select Zone Assignment was also conducted. The Select Zone Assignment aggregates all project land uses into two Traffic Analysis Zones (TAZ), and assigns the trips to the transportation network. The model estimates the percent of trips that will be internally captured. The Select Zone Assignment for the proposed project estimated that 9.4% of daily trips would be internally captured within the proposed project, resulting in 90.6% of the project traffic leaving the project site for distribution onto the external (i.e., off-site) roads. Select Zone Assignment results are provided in Appendix B.

As documented above, the City of San Diego TISM yield a 9.5% of internal trip reduction, and the SANDAG Select Zone Assignment indicated a 9.4% internal capture rate. For a more conservative analysis, 9.4% internal capture rate was utilized for this study.

Project Trip Generation

Project trip generation estimates were derived utilizing the trip generation rates outlined in *Table 1* of the *City of San Diego Land Development Code – Trip Generation Manual, May 2003*. **Table 3.2** displays the projected daily, as well as AM and PM peak hour, project trip generation for the proposed land uses.

TABLE 3.2
OTAY MESA CENTRAL VILLAGE SPECIFIC PLAN
TRIP GENERATION

Land Use	Units	Trip Rate	ADT	AM Peak Hour					PM Peak Hour				
				%	Trips	Split	In	Out	%	Trips	Split	In	Out
Multi-Family (Under 20 DU/acre)	425 DU	8	3,400	8%	272	2:8	54	218	10%	340	7:3	238	102
Multi-Family (Over 20 DU/acre)	4,060 DU	6	24,360	8%	1,949	2:8	390	1,559	9%	2,192	7:3	1,535	657
Community Commercial	139.7 KSF	70[a]	9,779	3%	293	6:4	176	117	10%	978	5:5	489	489
Park (Developed)	16.1 Acres	50	805	4%	32	5:5	16	16	8%	64	5:5	32	32
Elementary School	13.1 Acres	136	1,782	31%	552	6:4	331	221	19%	339	4:6	135	204
Total			**40,126**	-	**3,099**	-	**967**	**2,132**	-	**3,913**	-	**2,429**	**1,484**
Internal Trips Capture (9.4%)[b]			**3,772**	**-**	**291**	**-**	**91**	**200**	**-**	**368**	**-**	**228**	**140**
External Trips			**36,354**	**-**	**2,808**	**-**	**876**	**1,931**	**-**	**3,545**	**-**	**2,201**	**1,345**

Source: Colrich, October 2015; City of San Diego Land Development Code – Trip Generation Manual, May 2003

Notes:
a – Trip generation rate used is consistent with the Otay Mesa CPU.
b - Internal Capture derived from SANDAG Select Zone B output.

As shown, the proposed project is anticipated to generate a total of 36,354 external daily trips, including 2, 808 (876-in / 1,931-out) AM peak hour trips and 3,545 (2,201-in / 1,345-out) PM peak hour trips.

In deriving the Project's trip generation, it is necessary to consider that the proposed project includes residential, commercial, school, and recreational uses and, as a result, not all trips generated by the Project would leave the project site given the nature of the project land uses. For example, certain shopping trips would be satisfied by the commercial uses that would be located within the project site, as would many school and recreational trips. Project trips were disaggregated into those that would remain within the project site (internally captured), and those that would leave the project site (external trips). Only external trips were distributed and assigned to the study area roadways.

Project Trip Distribution

The distribution of the external project trips was based upon the computer generated SANDAG Select Zone Assignment as described in the previous section. **Figure 3-2** displays the external project trip distribution patterns associated with the proposed project.

XX% Project Trip Distribution

Future Roadways

INSET

Project Site

SEE INSET

City of Chula Vista

Unincorporated San Diego County

City of San Diego

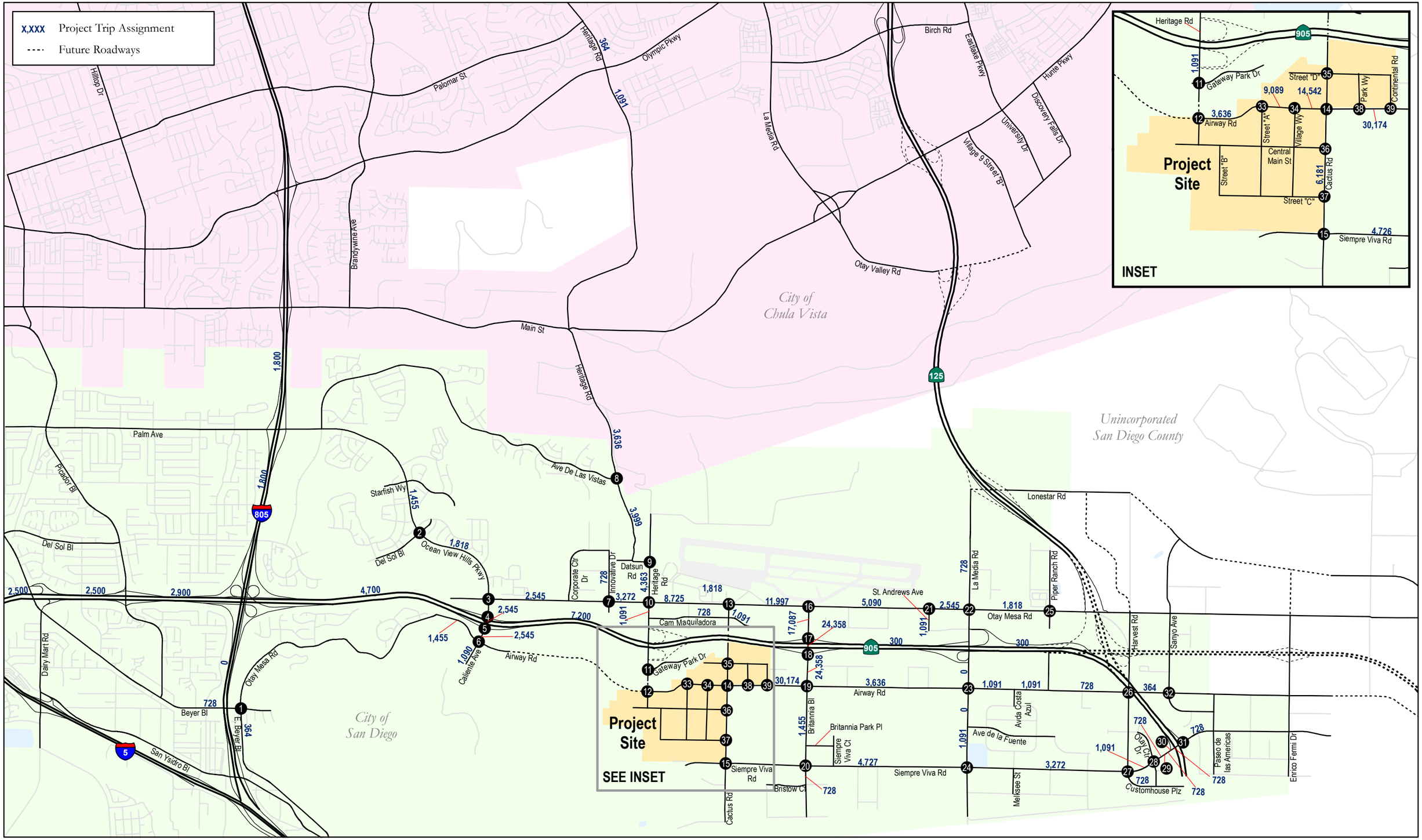
Otay Mesa Central Village Specific Plan

CHEN RYAN

Figure 3-2
Project Trip Distribution

Project Trip Assignment

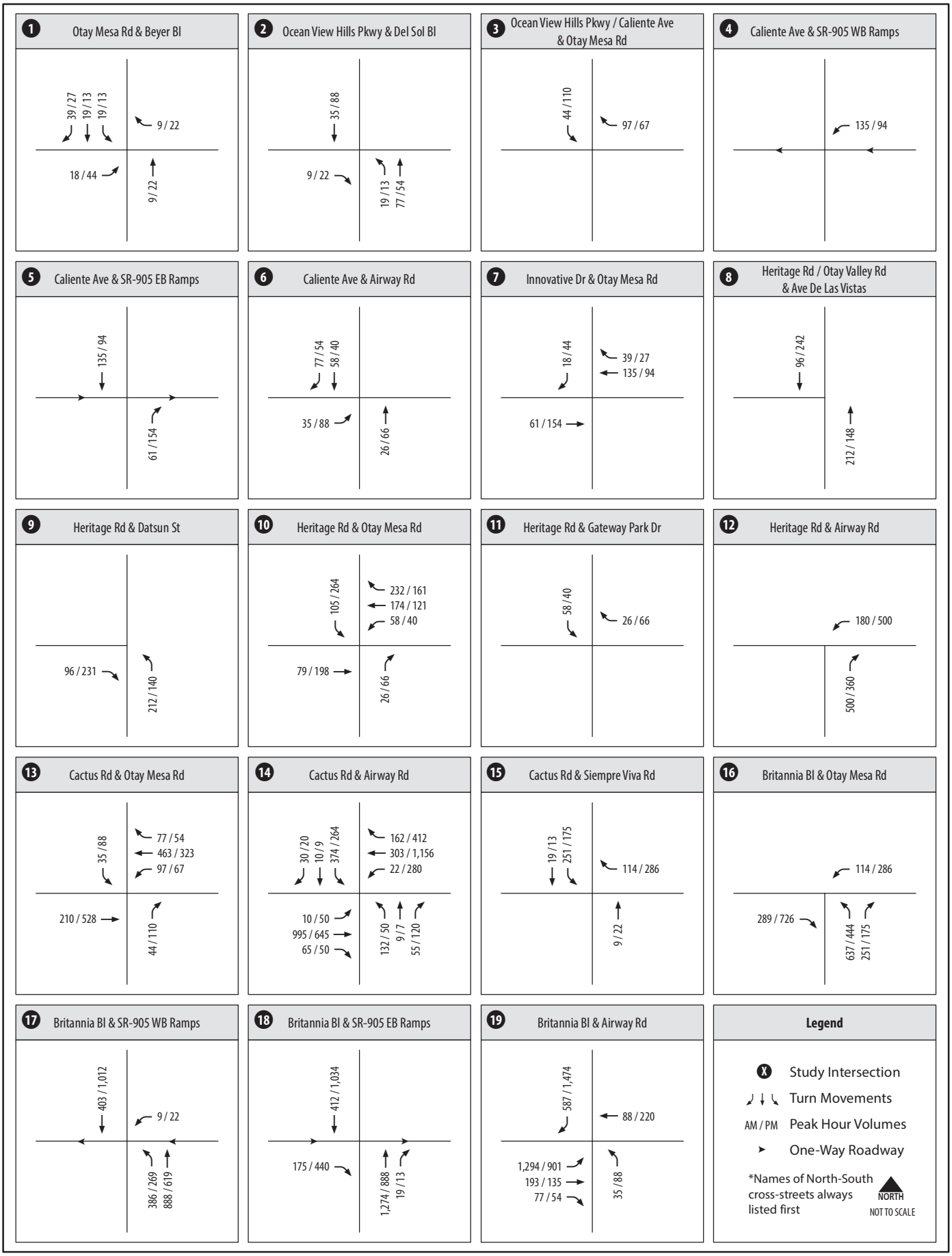
Based upon the project trip distribution patterns, the external daily and AM/PM peak hour project trips were assigned to the study area roadway networks. **Figures 3-3** and **3-4** display the assignment of project trips to the roadway network and key study area intersections, respectively.



Otay Mesa Central Village Specific Plan

CHEN RYAN

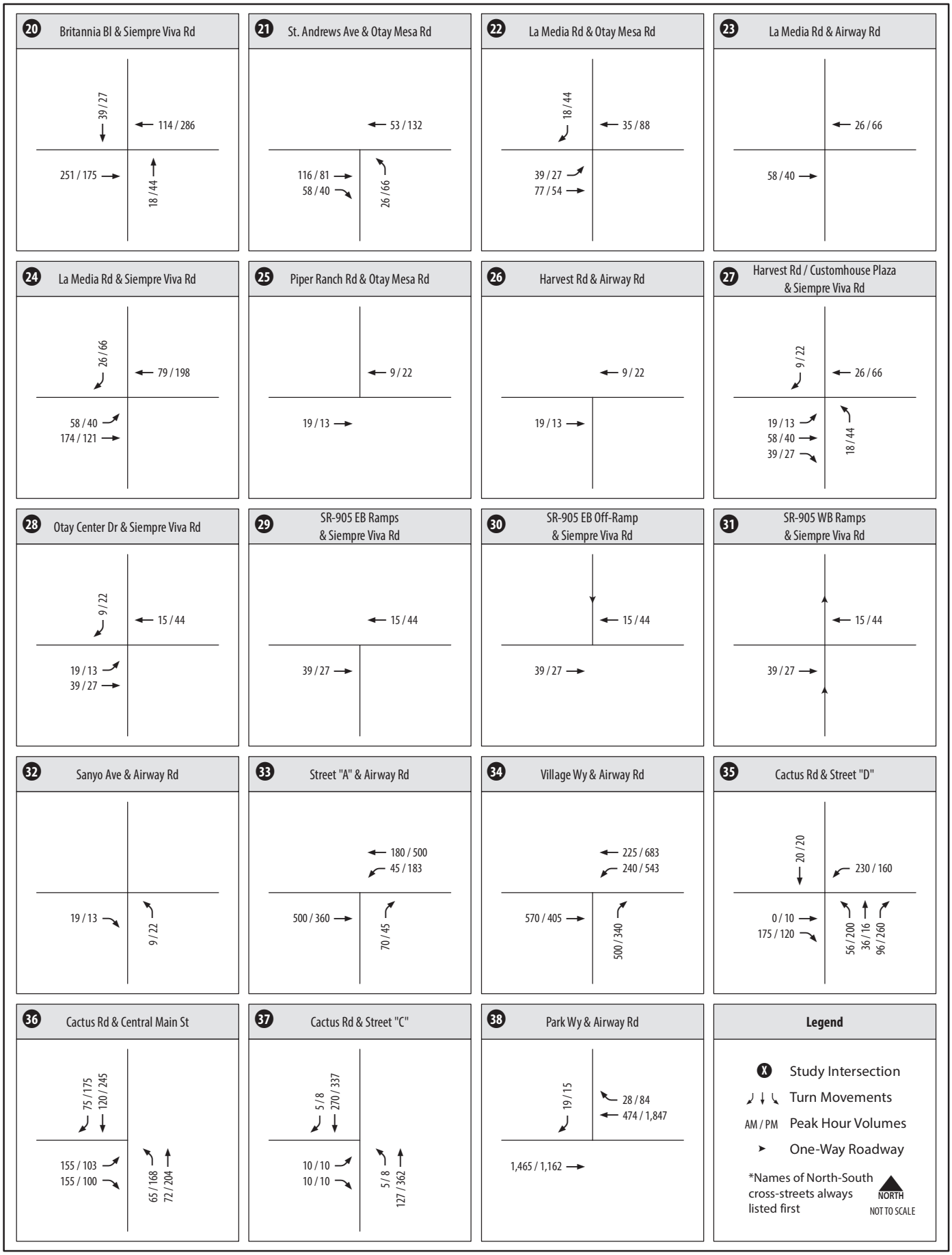
Figure 3-3
Project Trip Assignment - Roadway Network



Otay Mesa Central Village Specific Plan

CHEN RYAN

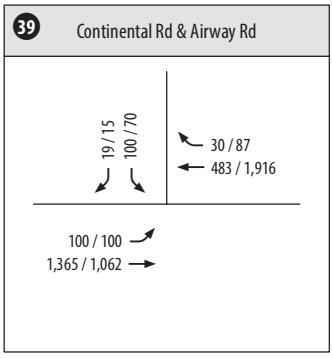
Figure 3-4
Project Trip Assignment - Intersections (Intersections 1-19)



Otay Mesa Central Village Specific Plan

CHEN RYAN

Figure 3-4
Project Trip Assignment - Intersections
(Intersections 20-38)



Legend

- X — Study Intersection
- Turn Movements
- AM / PM — Peak Hour Volumes
- One-Way Roadway

*Names of North-South cross-streets always listed first

NORTH
NOT TO SCALE

Figure 3-4
Project Trip Assignment - Intersections
(Intersection 39)

4.0 Plan-to-Plan (Proposed vs. Adopted) Trip Generation - Buildout

This chapter provides a trip generation comparison between the land use assumed in the Otay Mesa Community Plan and the proposed project to determine whether the proposed project would cause additional cumulative impacts, outside of those already identified in the Community Plan.

The recently adopted Otay Mesa Community Plan Update (March 2014) assumes the following land uses within Otay Mesa Central Village Specific Plan Area:

- ~~5,246~~ 4,768 multi-family dwelling units (<20 ac/du)
- 32.7 ksf of community commercial
- ~~32.3~~ 18.16 acres of active park space
- 1 elementary school

However, the project is proposing to change the land uses within the Otay Mesa Central Village Specific Plan Area to the following:

- 425 multi-family dwelling units (<20 du/ac)
- 4,060 multi-family dwelling units (>20 du/ac)
- 139.7 ksf of community commercial
- 16.1 acres of active park space
- 1 elementary school (K-8)

Trip Generation

As stated earlier in this report, project trip generation estimates were derived utilizing the trip generation rates outlined in *Table 1* of the *City of San Diego Land Development Code – Trip Generation Manual, May 2003*. **Table 4.1** and **Table 4.2** displays the projected daily, as well as AM and PM peak hour, project trip generation for the Adopted land uses and the proposed land uses, respectively.

As shown, the Adopted land uses (Table 4.1) for the Otay Mesa Central Village Specific Plan site is anticipated to generate a total of ~~45,429~~ 41,109 external daily trips, including ~~3,876~~ 3,558 (~~1,038~~ 967-in / ~~2,838~~ 2,591-out) AM peak hour trips and ~~4,287~~ 3,905 (~~2,831~~ 2,574-in / ~~1,456~~ 1,331-out) PM peak hour trips; while the proposed project is anticipated to generate a total of 36,354 external daily trips, including 2,808 (876-in / 1,931-out) AM peak hour trips and 3,545 (2,201-in / 1,345-out) PM peak hour trips. Thus, traffic under the proposed Project would be reduced by approximately ~~20~~ 7% as compared to what was disclosed in the OMCPU EIR.

Since this is a program level analysis and the proposed Project would generate less traffic than what was adopted in the Otay Mesa Community Plan, future year impact analysis was not necessary. All potential impacts associated with buildout of the Otay Mesa Community Plan were disclosed in the OMCPU EIR (State Clearinghouse No. 2004651076). Therefore, this analysis

focuses on the timing of improvements identified by the OMCPU EIR with buildout of the Central Village Specific Plan.

TABLE 4.1
OTAY MESA CENTRAL VILLAGE SPECIFIC PLAN
OTAY MESA CPU TRIP GENERATION

Land Use	Units	Trip Rate	ADT	AM Peak Hour					PM Peak Hour				
				%	Trips	Split	In	Out	%	Trips	Split	In	Out
Multi-Family (Under 20 DU/acre)	~~5,246~~ 4,768 DU	8	~~41,968~~ 38,144	8%	~~3,357~~ 3,052	2:8	~~671~~ 610	~~2,686~~ 2,442	9%	~~3,777~~ 3,433	7:3	~~2,644~~ 2,403	~~1,133~~ 1,030
Community Commercial [a]	32.7 KSF	70	2,289	4%	92	6:4	55	37	11%	252	5:5	126	126
Park (Developed)	~~32.3~~ 18.16 Acres	50	~~1,615~~ 908	4%	~~65~~ 36	5:5	~~32~~ 18	~~33~~ 18	8%	~~129~~ 73	5:5	~~65~~ 36	~~64~~ 36
Elementary School	13.1 Acres	136	1,782	31%	552	6:4	331	221	19%	339	4:6	135	204
Total			~~47,654~~ 43,123		~~4,066~~ 3,732		~~1,089~~ 1,014	~~2,977~~ 2,718		~~4,497~~ 4,096		~~2,970~~ 2,700	~~1,527~~ 1,396
Internal Trips Capture (4.67%)[b]			~~2,225~~ 2,014		~~190~~ 174		~~51~~ 47	~~139~~ 127		~~210~~ 191		~~139~~ 126	~~71~~ 65
External Trips			~~45,429~~ 41,109		~~3,876~~ 3,558		~~1,038~~ 967	~~2,838~~ 2,591		~~4,287~~ 3,905		~~2,831~~ 2,574	~~1,456~~ 1,331

Source: City of San Diego Land Use Code – Trip Generation Manual, May 2003

Notes:
a – consistent with Otay Mesa CPU land use assumption.
b - Internal Capture derived from SANDAG Select Zone A output, included in Appendix B.

TABLE 4.2
OTAY MESA CENTRAL VILLAGE SPECIFIC PLAN
PROPOSED PROJECT TRIP GENERATION – SANDAG MODEL

Land Use	Units	Trip Rate	ADT	AM Peak Hour					PM Peak Hour				
				%	Trips	Split	In	Out	%	Trips	Split	In	Out
Multi-Family (Under 20 DU/acre)	425 DU	8	3,400	8%	272	2:8	54	218	10%	340	7:3	238	102
Multi-Family (Over 20 DU/acre)	4,060 DU	6	24,360	8%	1,949	2:8	390	1,559	9%	2,192	7:3	1,535	657
Community Commercial [a]	139.7 KSF	70	9,779	3%	293	6:4	176	117	10%	978	5:5	489	489
Park (Developed)	16.1 Acres	50	805	4%	32	5:5	16	16	8%	64	5:5	32	32
Elementary School	13.1 Acres	136	1,782	31%	552	6:4	331	221	19%	339	4:6	135	204
Total			**40,126**		**3,098**		**967**	**2,131**		**3,913**		**2,429**	**1,484**
Internal Trips Capture (9.4%) [b]			**3,772**		**291**		**91**	**200**		**368**		**228**	**139**
External Trips			**36,354**		**2,806**		**876**	**1,931**		**3,545**		**2,201**	**1,345**

Source: Colrich, October 2015; City of San Diego Land Use Code – Trip Generation Manual, May 2003

Notes:
a – consistent with Otay Mesa CPU land use assumption.
b - Internal Capture derived from SANDAG Select Zone B output, included in Appendix B.

5.0 Existing Conditions

This section describes key roadway segments and intersections, existing daily roadway and peak hour intersection traffic volume information and LOS analysis results under existing conditions.

5.1 Existing Roadway Network

Several locally significant roadways traverse the study area. Each of the key roadways, as well as the associated key intersections within the study area are discussed below.

North-South Facilities

East Beyer Boulevard is a 2-lane undivided roadway with a posted speed limit of 30 MPH. Sidewalks are provided on both sides of the roadway but bicycle facilities are not present on either side of the roadway. Parallel parking is permitted on both sides of the roadway. East Beyer Boulevard is classified as a 2-lane Collector in the San Ysidro Community Plan Update.

Ocean View Hills Parkway is a 4-lane roadway with a raised median and posted speed limit of 45 MPH between Starfish Way and Del Sol Boulevard. South of Del Sol Boulevard, Ocean View Hills Parkway transitions from a 4-lane roadway with a raised median into a 6-lane roadway with a raised median but the posted speed limit remains at 45 MPH. Sidewalks and Class II bicycle facilities are present. On-street parking is not permitted. Ocean View Hills Parkway is classified as a 4-lane Major Roadway between Starfish Way and Del Sol Boulevard and as a 6-lane Major Arterial between Del Sol Boulevard and Otay Mesa Road in the Otay Mesa Community Plan Update.

Caliente Avenue is recently (in October 2015) improved to a 5-lane roadway with a striped median between the SR-905 EB Ramps and its terminus, south of Airway Road. A raised median is present south of Airway Road. Sidewalks and Class II bicycle facilities are present along both sides of the roadway. On-street parking is only permitted along the west side of the roadway south of Airway Road. Caliente Avenue is classified as a 6-lane Prime Arterial between the SR-905 EB Ramps and Airway Road and as a 6-lane Major Arterial from Airway Road to Beyer Boulevard in the Otay Mesa Community Plan Update.

Innovative Drive is a 2-lane undivided roadway with no posted speed limit between Progressive Avenue and Otay Mesa Road. Sidewalks are present along the west side of the roadway only. Class II bicycle facilities are not present. Parallel on-street parking is permitted. Innovative Drive is classified as a 4-lane Collector between Progressive Avenue and Otay Mesa Road in the Otay Mesa Community Plan Update.

Heritage Road is a 2-lane roadway with a Continuous-Left-Turn-Lane between Main Street, in the City of Chula Vista, and its southern terminus (just south of Gateway Park Drive), except between Otay Mesa Road and Camino Maquiladora, where Heritage Road becomes a 3-lane undivided roadway. A posted speed of 45 MPH is present south of Main Street, and a 40 MPH speed limit is posted near Avenida De Las Vistas. Class II bicycle facilities are generally not present, except

for between approximately 1,790 feet south of Main Street and Avenida De Las Vistas, where bicycle lanes are intermittently present on the west side of the roadway. Sidewalks are present on the west side of the roadway between Main Street and Avenida De Las Vistas, on the east side of the roadway between Otay Mesa Road and Camino Maquiladora, and are intermittently present on both sides of the roadway south of Camino Maquiladora. Parallel on-street parking is permitted between Datsun Street and Otay Mesa Road, and south of Camino Maquiladora. Heritage Road is classified as a 6-lane Prime Arterial in the Otay Mesa Community Plan Update.

Cactus Road is a discontinuous 2-lane undivided roadway, bisected by SR-905. Sidewalks are present north of SR-905, and are intermittently present along the northbound side of the roadway between Airway Road and Siempre Viva Road. Class II bicycle facilities are not present. On-street parallel parking is generally allowed, except for between SR-905 and Airway Road, where shoulder widths only permit intermittent parallel parking. Cactus Road is classified as a 4-lane Major Arterial between Otay Mesa Road and Siempre Viva Road in the Otay Mesa Community Plan Update.

Britannia Boulevard is a 6-lane roadway with a raised median between Otay Mesa Road and the SR-905 EB Ramps. The configuration of the roadway transitions from a 6-lane roadway with a raised median to a 5-lane roadway with a raised median until reaching Airway Road. South of Airway Road, Britannia Boulevard is a 3-lane roadway with a raised median for approximately 600 feet then transition into a 4-lane roadway with a raised median until reaching Siempre Viva Road. South of Siempre Viva Road, Britannia Boulevard becomes a 2-lane undivided roadway. Sidewalks are present on both sides of the roadway along the entire extent of Britannia Boulevard with the exception of approximately 600 feet on the west side of the roadway, south of Airway Road. Class II bicycle facilities are generally present on both sides of the roadway between Otay Mesa Road and Siempre Viva Road, with the exception of the west side of the roadway between Airway Road and Siempre Viva Road. Parking along Britannia Boulevard is generally prohibited on both sides of the roadway, with the exception of the east side of the roadway between Britannia Park Place and Siempre Viva, where parking is permitted. Britannia Boulevard is classified as a 6-lane Prime Arterial between Otay Mesa Road and Airway Road, as a 6-lane Major Roadway between Airway Road and Siempre Viva Road, and as a 4-lane Collector between Siempre Viva Road and its southern terminus, in the Otay Mesa Community Plan Update.

St. Andrews Avenue/Otay Mesa Center Road is a 2-lane roadway with a continuous-left-turn-lane and no posted speed limit. Sidewalks are present along both sides of the roadway. Class II bicycle facilities are only present on the east side of the roadway. Parallel on-street parking is permitted on the east side of the roadway. St. Andrews Avenue/Otay Mesa Center Road is classified as a 4-lane Collector in the Otay Mesa Community Plan Update.

La Media Road is a 2-lane undivided roadway with no posted speed limit between its northern terminus and Otay Mesa Road, then it transitions into a 6-lane roadway south of Otay Mesa Road until reaching the SR-905 EB Ramps. South of the SR-905 EB Ramps La Media Road turns back into a 2-lane undivided roadway until reaching Siempre Viva Road. Sidewalks and Class II bicycle facilities are only present along the northbound side of the roadway north of Otay Mesa Road. On-street parking is prohibited on both sides of the roadway. La Media Road is classified as a 4-

lane Major Arterial between its northern terminus and Otay Mesa Road, as a 6-lane Prime Arterial between Otay Mesa Road and Airway Road, and as a 5-lane Major Arterial between Airway Road and Siempre Viva Road, in the Otay Mesa Community Plan Update.

East-West Facilities

Otay Mesa Road is a 6-lane roadway with a raised median with a 50 MPH posted speed limit. Between Ocean View Hills Parkway and Heritage Road, sidewalks are present along the north side of the roadway. Between Heritage Road and Britannia Boulevard, sidewalks are present on both sides of the roadway. Between Britannia Boulevard and La Media Road, sidewalks are only present on the south side of the roadway. Between La Media Road and Piper Ranch Road, sidewalks are only present on the north side of the roadway. Class II bicycle facilities are generally present along both sides of the roadway, with the exception of the segment between Britannia Boulevard and La Media Road, where Class II bicycle facilities are only present on the south side of the roadway, and between La Media and Piper Ranch Road, where Class II bicycle facilities are only present on the north side of the roadway. On-street parking is prohibited. Otay Mesa Road is classified as a 6-lane Prime Arterial in the Otay Mesa Community Plan Update.

Camino Maquiladora is a 2-lane undivided roadway with no posted speed limit between Heritage Road and its eastern terminus. Sidewalks are present along both sides of the roadway. Class II bicycle facilities are not present. Parallel on-street parking is allowed along both sides of the roadway. Camino Maquiladora is classified as a 2-lane Collector in the Otay Mesa Community Plan Update.

Airway Road is a discontinuous road, with a section between Old Otay Mesa Road and just east of Caliente Avenue, and a section east of Cactus Road. Between Old Otay Mesa Road and Caliente Avenue, Airway Road has four travel lanes with a continuous-left-turn lane. East of Caliente Avenue, Airway Road is a 3-lane roadway with a raised median. Sidewalks and Class II bicycle facilities are present, and on-street parking is prohibited.

Airway Road between Cactus Road and Avenida Costa Azul is a 2-lane undivided roadway and no posted speed limit. East of Avenida Costa Azul, Airway Road becomes a 4-lane roadway with a raised median until reaching Piper Ranch Road. East of Piper Ranch Road, the roadway transitions back to a 2-lane undivided roadway until reaching Sanyo Avenue. Sidewalks are generally not present, except for the roadway segments between La Media Road and Piper Ranch and Harvest Road and Sanyo Avenue, where sidewalks are present on the north side of the roadway. Class II bicycle facilities are generally not present, except between La Media Road and Piper Ranch Road, where a Class II bicycle lane is present on the north side of the roadway. Parallel parking is permitted only between La Media Road and Piper Ranch Road, along the south side of the roadway. Airway Road is classified as a 4-lane Collector between Old Otay Mesa Road and Caliente Avenue, as a 4-lane Major Roadway between Caliente Avenue and Heritage Road, as a 6-lane Prime Arterial between Heritage Road and Cactus Road, as a 6-lane Major Arterial between Cactus and Britannia Boulevard, and as a 4-lane Major Arterial until reaching its eastern terminus at Enrico Fermi Drive, in the Otay Mesa Community Plan Update.

Beyer Boulevard is a 4-lane roadway with a continuous left-turn lane between Park Avenue and Old Otay Mesa Road with a posted speed limit of 35 MPH. East of Old Otay Mesa Road, Beyer Boulevard transitions into a 2-lane undivided roadway with no posted speed limit. Sidewalks are present on both sides of the roadway between Park Avenue and Otay Mesa Road, and on the south side of the roadway east of Otay Mesa Road. Class II bicycle facilities are not present. Parking is permitted on both sides of the roadway between Park Avenue and Old Otay Mesa Road, and on the south side of the roadway east of Old Otay Mesa Road. Beyer Boulevard is classified as a 4-lane Major Arterial in the Otay Mesa Community Plan Update.

Siempre Viva Road is a discontinuous roadway, with a 1,300 feet segment of unpaved road west of La Media Road. Siempre Viva Road is a 2-lane undivided roadway between Cactus Road and 1,300 feet west of La Media Road, and terminate approximately 50 feet west of Cactus Road. Sidewalks are present along both sides of the roadway. There are no Class II bicycle facilities present on either side of the roadway. Parking is permitted along the south side of the roadway between Cactus Road and Britannia Boulevard, and along the north side of the roadway between Britannia Boulevard and 1,300 feet west of La Media Road.

East of La Media Road, Siempre Viva Road is a 6-lane roadway until approximately 700 feet west of Melksee Street. East of Melksee Street, Siempre Viva Road is a 6-lane roadway until reaching Paseo De Las Americas. Sidewalks are generally present on both sides of the road, except between La Media Road and Melksee Street, where sidewalks are only intermittently present on the north side of the roadway. Class II bicycle facilities are generally present on both sides of the roadway, except between La Media Road and Melksee Street, where Class II bicycle facilities are only present on the south side of the roadway. On-street parking is generally prohibited with the exception of the roadway segment between Cactus Road and Siempre Viva Court, where parking is permitted on both sides of the roadway. Siempre Viva Road is classified as a 6-lane Prime Arterial in the Otay Mesa Community Plan Update.

Customhouse Plaza is a 2-lane undivided roadway with no posted speed limit. Sidewalks are present along both sides of the roadway. Class II bicycle facilities are not present. Parallel on-street parking is allowed along both sides of the roadway. Customhouse Plaza is not classified as a mobility element roadway in the Otay Mesa Community Plan Update.

Study Intersections

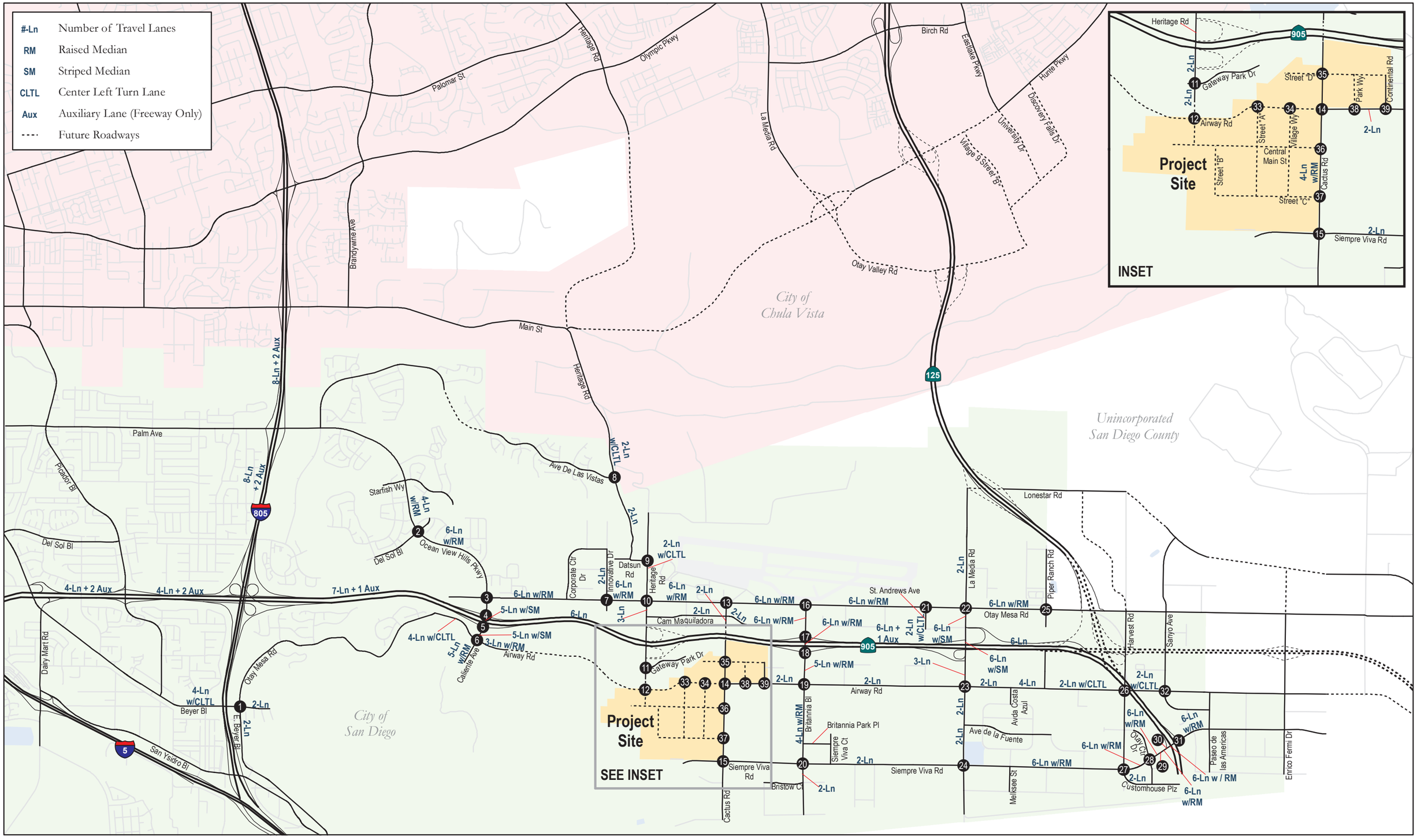
The following thirty-nine (39) key study area intersections were analyzed in the study:

1. Beyer Boulevard / Otay Mesa Road (Signal)
2. Ocean View Hills Parkway / Del Sol Boulevard (Signal)
3. Ocean View Hills Parkway / Otay Mesa Road (Signal)
4. Caliente Avenue / SR-905 WB Ramps (Signal)
5. Caliente Avenue / SR-905 EB Ramps (Signal)
6. Caliente Avenue / Airway Road (All-Way Stop Controlled)
7. Innovative Drive / Otay Mesa Road (Side-Street Stop Controlled)

8. Heritage Road / Avenida De Las Vistas (All-Way Stop Controlled)
9. Heritage Road / Datsun Street (All-Way Stop Controlled)
10. Heritage Road / Otay Mesa Road (Signal)
11. Heritage Road / Gateway Park Drive (Side-Street Stop Controlled)
12. Heritage Road / Airway Road (Future Signal, Project Access)*
13. Cactus Road / Otay Mesa Road (Signal)
14. Cactus Road / Airway Road (Side-Street Stop Controlled)
15. Cactus Road / Siempre Viva Road (All-Way Stop Controlled)
16. Britannia Boulevard / Otay Mesa Road (Signal)
17. Britannia Boulevard / SR-905 WB Ramps (Signal)
18. Britannia Boulevard / SR-905 EB Ramps (Signal)
19. Britannia Boulevard / Airway Road (Signal)
20. Britannia Boulevard / Siempre Viva Road (All-Way Stop Controlled)
21. St Andrews Avenue / Otay Mesa Road (Signal)
22. La Media Road / Otay Mesa Road (Signal)
23. La Media Road / Airway Road (All-Way Stop Controlled)
24. La Media Road / Siempre Viva Road (All-Way Stop Controlled)
25. Piper Ranch Road / Otay Mesa Road (Signal)
26. Harvest Road / Airway Road (All-Way Stop Controlled)
27. Customhouse Plaza / Siempre Viva Road (Signal)
28. Otay Center Drive / Siempre Viva Road (Signal)
29. SR-905 SB Ramps / Siempre Viva Road (Signal)
30. SR-905 SB Off Ramp / Siempre Viva Road (Side-Street Stop Controlled)
31. SR-905 NB Off Ramp / Siempre Viva Road (Signal)
32. Sanyo Avenue / Airway Road (All-Way Stop Controlled)
33. Street "A" / Airway Road (Future Signal, Project Access)*
34. Village Way / Airway Road (Future Signal, Project Access)*
35. Cactus Road / Street "D" (Future Signal, Project Access)*
36. Cactus Road / Central Main Street (Future Signal, Project Access)*
37. Cactus Road / Street "C" Road (Future Signal, Project Access)*
38. Park Way / Airway Road (Future Side-Street Stop Controlled, right-turn in/out only, Project Access)*
39. Continental Road / Airway Road (Future Signal, Project Access)*

**Intersection provides project access and does not exist, therefore, it is not analyzed under Existing conditions.*

Figure 5-1 displays the existing roadway geometrics while **Figure 5-2** displays the existing intersection lane configurations.



Otay Mesa Central Village Specific Plan

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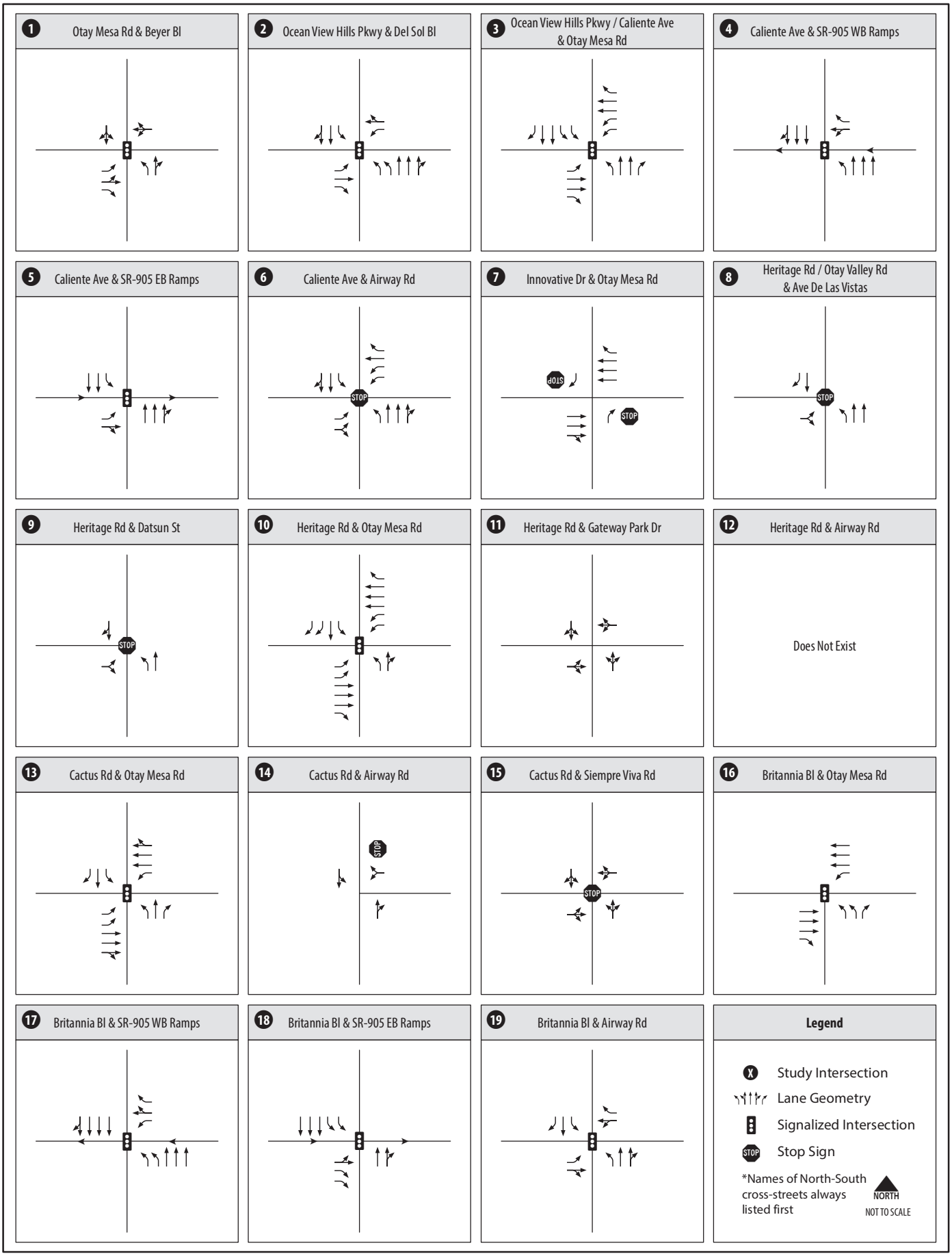
Figure 5-1
Roadway Geometrics - Existing Conditions



Otay Mesa Central Village Specific Plan

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Figure 5-2
Intersection Geometrics - Existing Conditions (Intersections 1-19)

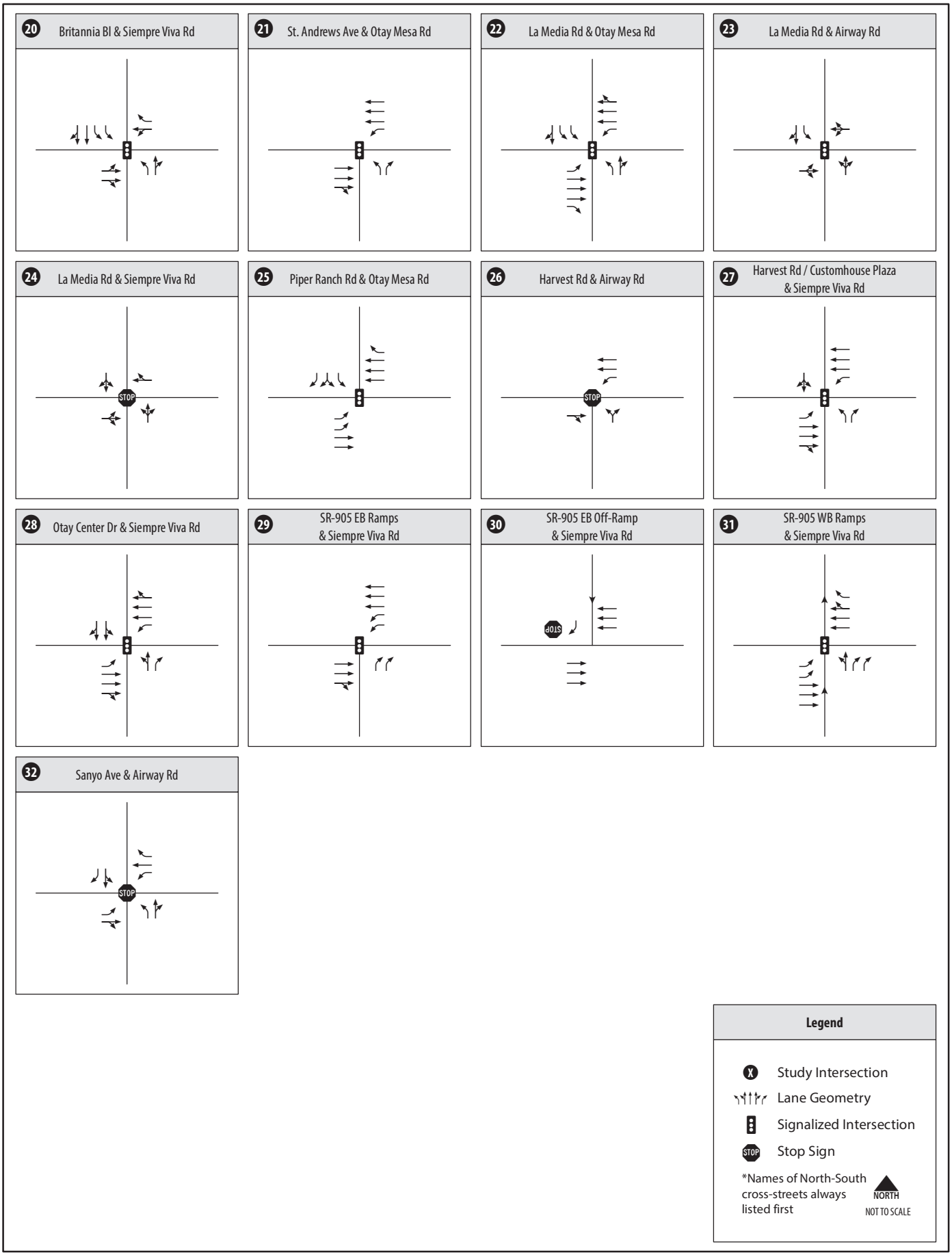

Figure 5-2
Intersection Geometrics - Existing Conditions (Intersections 20-32)

5.2 Existing Intersection and Roadway Volumes

Figure 5-3 displays Average Daily Traffic (ADT) volumes for roadway and freeway segments, while **Figure 5-4** shows existing AM/PM peak hour traffic volumes for the key study area intersections. The roadway segment and study area intersection traffic counts were conducted in October 2015 and are provided in **Appendix C**. The freeway segment counts were obtained from the Caltrans 2014 Traffic Volumes on California State Highway document.

5.3 Existing Level of Service Analysis

Level of service analyses under Existing conditions were conducted using the methodologies described in Chapter 2.0. Roadway segment, intersection, and freeway segment level of service, as well as freeway ramp intersection ILV analysis results are discussed separately below.

Roadway Segment Analysis

Table 5.1 displays the LOS analysis results for key study area roadway segments located in the City of San Diego under Existing conditions.

As shown in the table, all of the key study area roadway segments are currently operating at acceptable LOS D or better, with the exception of the following two (2) roadway segments:

- La Media Road, between Airway Road and Avenida De La Fuente – LOS E; and
- Airway Road, between La Media Road and Avenida Costa Azul – LOS E.

XX,XXX Average Daily Traffic Volumes

Future Roadways

INSET

Project Site

SEE INSET

City of Chula Vista

City of San Diego

Unincorporated San Diego County

Hilltop Dr
Palomar St
Heritage Rd
Olympic Pkwy
Birch Rd
Eastlake Pkwy
Hunte Pkwy
La Media Rd
University Dr
Discovery Falls Dr
Village 9 Street B
Brandywine Ave
Olay Valley Rd
Main St
Palm Ave
Picador Bl
Starfish Wy
Ave De Las Vistas
Del Sol Bl
Ocean View Hills Pkwy
Corporate Ctr Dr
Innovative Dr
Datsun Rd
Cam Maquiladora
Gateway Park Dr
Airway Rd
Cellente Ave
Otay Mesa Rd
Dairy Mart Rd
Beyer Bl
E. Beyer Bl
San Ysidro Bl
Siempre Viva Rd
Cactus Rd
Britannia Bl
Britannia Park Pl
Siempre Viva Ct
Bristow Ct
St. Andrews Ave
Otay Mesa Rd
Avda Costa Azul
Ave de la Fuente
Melrose St
Lonestar Rd
Piper Ranch Rd
Harvest Rd
Sanyo Ave
Otay Crest Dr
Customhouse Plz
Paseo de las Americas
Enrico Fermi Dr
Heritage Rd
Gateway Park Dr
Street "D"
Park Wy
Continental Rd
Airway Rd
Street "A"
Village Wy
Central Main St
Street "B"
Cactus Rd
Street "C"
Siempre Viva Rd

905 985 805 125 5

56 53,000 60,000 60,000 69,000 61,000 50,000 40,000 138,000 117,000

11,269 8,238 8,167 4,668 15,058 10,669 4,360 3,919 354 231 1,163 7,792 9,565 8,205 5,154 1,333 765 228 12,258 20,994 22,969 9,802 10,642 8,690 8,311 16,924 16,415 5,179 2,332 2,927 11,558 1,380 3,523 9,962 4,555 6,839 5,590 4,784 19,950 10,478 1,388 25,629 18,882 25,260 4,121 472 3,419 2,232 2,076 2,142

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39

Otay Mesa Central Village Specific Plan

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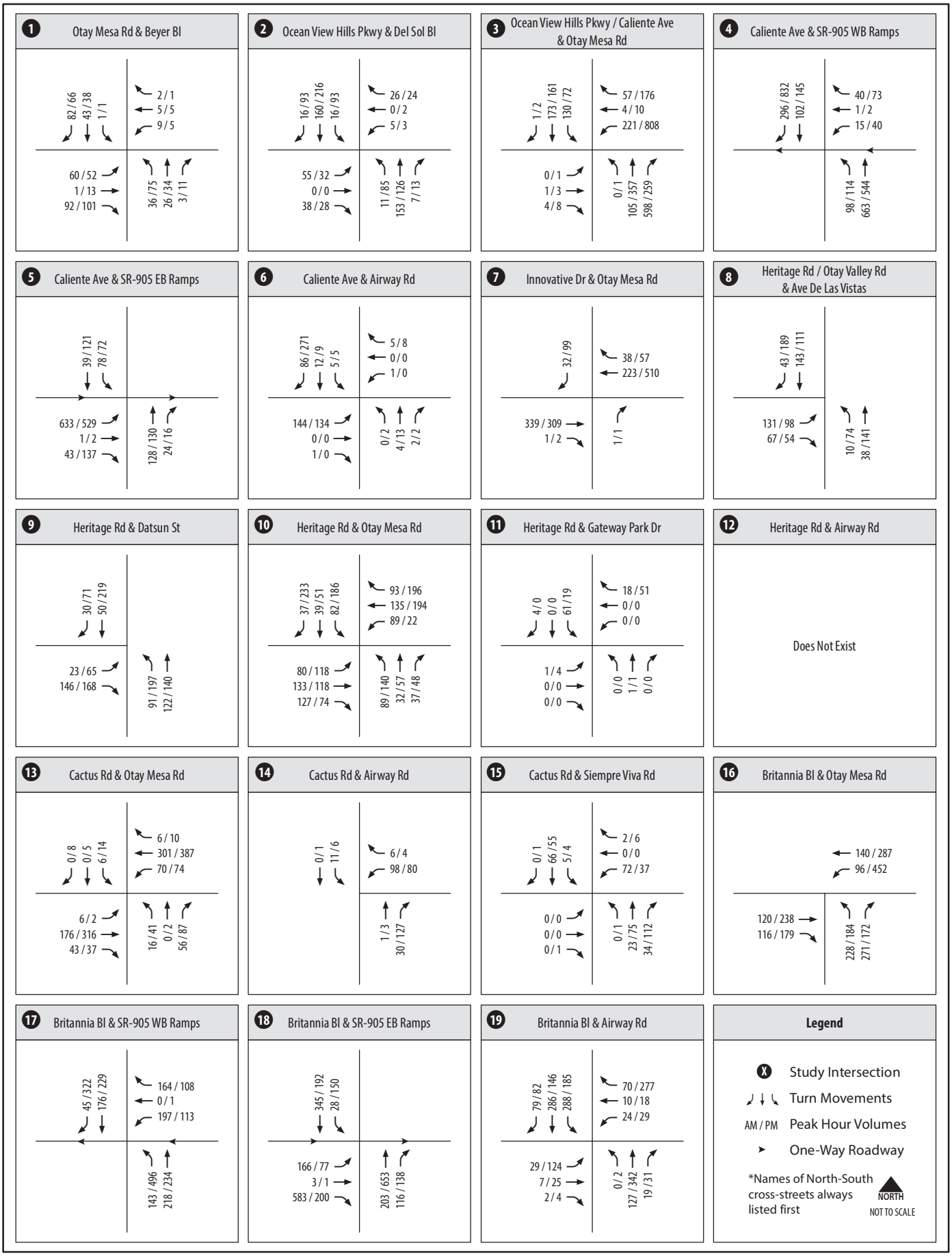
Figure 5-3

Roadway Average Daily Traffic Volumes - Existing Conditions



Otay Mesa Central Village Specific Plan

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Figure 5-4
AM/PM Peak Hour Intersection Volumes - Existing Conditions (Intersections 1-19)

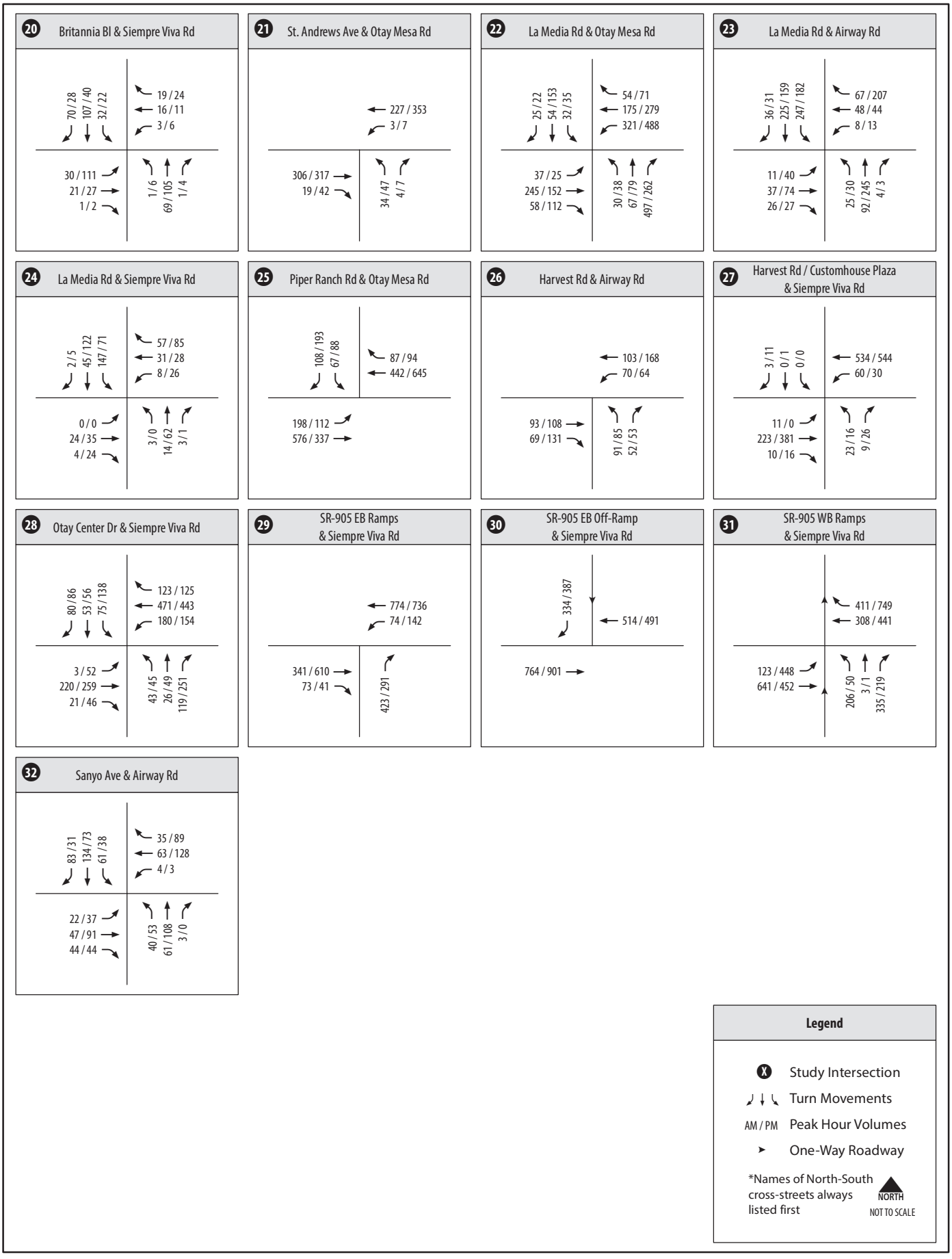


Figure 5-4
AM/PM Peak Hour Intersection Volumes - Existing Conditions (Intersections 20-32)

TABLE 5.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING CONDITIONS – CITY OF SAN DIEGO

Roadway	From	To	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	V/C	LOS
East Beyer Boulevard	Beyer Boulevard	South of Beyer Boulevard	2-Ln Collector No Fronting Property	2-Ln	3,419	10,000	0.342	A
Ocean View Hills Parkway	Starfish Way	Del Sol Boulevard	4-Ln Major Arterial	4-Ln w / RM	11,269	40,000	0.282	A
	Del Sol Boulevard	Otay Mesa Road	6-Ln Major Arterial	6-Ln w / RM	8,238	50,000	0.165	A
Caliente Avenue	SR-905 WB Ramps	SR-905 EB Ramps	5-Ln Prime Arterial	5-Ln w / SM (3-NB, 2-SB)	10,669	50,000[1]	0.213	A
	SR-905 EB Ramps	Airway Road	5-Ln Prime Arterial	5-Ln w / SM (3-NB, 2-SB)	4,360	50,000[1]	0.087	A
	Airway Road	Southern Terminus	5-Ln Prime Arterial	5-Ln w / RM (3-NB, 2-SB)	354	50,000[1]	0.007	A
Innovative Drive	Progressive Avenue	Otay Mesa Road	2-Ln Collector w/ Commercial Fronting	2-Ln	1,163	8,000	0.145	A
Heritage Road	Avenida De Las Vistas	Datsun Street	2-Ln Collector No Fronting Property	2-Ln	4,668	10,000	0.467	B
	Datsun Street	Otay Mesa Road	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	7,792	15,000	0.519	C
	Otay Mesa Road	Camino Maquiladora	3-Ln Collector	3-Ln (1-NB, 2-SB)	5,154	11,250[2]	0.458	B
	Camino Maquiladora	Gateway Park Drive	2-Ln Collector No Fronting Property	2-Ln	985	10,000	0.099	A
	Gateway Park Drive	Southern Terminus	2-Ln Collector No Fronting Property	2-Ln	56	10,000	0.006	A
Cactus Road	Otay Mesa Road	SR-905	2-Ln Collector w/ Commercial Fronting	2-Ln	228	8,000	0.029	A
	SR-905	Airway Road	2-Ln Collector w/ Commercial Fronting	2-Ln	2,076	8,000	0.260	A
	Airway Road	Siempre Viva Road	2-Ln Collector w/ Commercial Fronting	2-Ln	2,076	8,000	0.260	A

TABLE 5.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING CONDITIONS – CITY OF SAN DIEGO

Roadway	From	To	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	V/C	LOS
Britannia Boulevard	Otay Mesa Road	SR-905 WB Ramps	6-Ln Prime Arterial	6-Ln w/ RM	12,258	60,000	0.204	A
	SR-905 WB Ramps	SR-905 EB Ramps	6-Ln Prime Arterial	6-Ln w/ RM	20,994	60,000	0.350	A
	SR-905 EB Ramps	Airway Road	5-Ln Prime Arterial	5-Ln w/ RM (2-NB, 3-SB)	22,969	50,000[1]	0.459	B
	Airway Road	Siempre Viva Road	4-Ln Major Arterial	4-Ln w/ RM	11,558	40,000	0.289	A
	Siempre Viva Road	Bristow Court	2-Ln Collector w/ Commercial Fronting	2-Ln	3,523	8,000	0.440	C
Saint Andrews Avenue	Otay Mesa Road	Otay Mesa Center Road	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	8,311	15,000	0.554	C
La Media Road	Northern Terminus	Otay Mesa Road	2-Ln Collector w/ Commercial Fronting	2-Ln	5,179	8,000	0.647	D
	Otay Mesa Road	SR-905 WB Ramps	6-Ln Prime Arterial	6-Ln w/ SM	16,415[4]	60,000	0.274	A
	SR-905 WB Ramps	SR-905 EB Ramps	6-Ln Prime Arterial	6-Ln w/ SM	16,415[4]	60,000	0.274	A
	SR-905 EB Ramps	Airway Road	3-Ln Major Arterial	3-Ln (1-NB, 2-SB)	16,415[4]	30,000[3]	0.547	C
	Airway Road	Avenida De La Fuente	2-Ln Collector No Fronting Property	2-Ln	9,962[5]	10,000	0.996	**E**
	Avenida De La Fuente	Siempre Viva Road	2-Ln Collector No Fronting Property	2-Ln	4,555	10,000	0.456	B
Otay Mesa Road	Ocean View Hills Parkway	Corporate Center Drive	6-Ln Prime Arterial	6-Ln w / RM	15,058	60,000	0.251	A
	Corporate Center Drive	Heritage Road	6-Ln Prime Arterial	6-Ln w / RM	9,565	60,000	0.159	A
	Heritage Road	Cactus Road	6-Ln Prime Arterial	6-Ln w / RM	8,205	60,000	0.137	A

TABLE 5.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING CONDITIONS – CITY OF SAN DIEGO

Roadway	From	To	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	V/C	LOS
Otay Mesa Road	Cactus Road	Britannia Boulevard	6-Ln Prime Arterial	6-Ln w / RM	9,802	60,000	0.163	A
	Britannia Boulevard	Saint Andrews Avenue	6-Ln Prime Arterial	6-Ln w / RM	10,642	60,000	0.177	A
	Saint Andrews Avenue	La Media Road	6-Ln Prime Arterial	6-Ln w / RM	8,690	60,000	0.145	A
	La Media Road	Piper Ranch Road	6-Ln Prime Arterial	6-Ln w / RM	16,924	60,000	0.282	A
Camino Maquiladora	Heritage Road	Cactus Road	2-Ln Collector w/ Commercial Fronting	2-Ln	1,333	8,000	0.167	A
	Cactus Road	Eastern Terminus	2-Ln Collector w/ Commercial Fronting	2-Ln	765	8,000	0.096	A
Airway Road	Otay Mesa Road	Caliente Avenue	4-Ln w/ Continuous-Left-Turn-Lane	4-Ln w / CLTL	3,919	30,000	0.131	A
	Caliente Avenue	Eastern Terminus	3-Ln Major Arterial	3-Ln w / RM (2-EB, 1-WB)	231	30,000[3]	0.008	A
	Cactus Road	Continental Road	2-Ln Collector w/ Commercial Fronting	2-Ln	2,232	8,000	0.279	A
	Continental Road	Britannia Boulevard	2-Ln Collector w/ Commercial Fronting	2-Ln	2,232	8,000	0.292	A
	Britannia Boulevard	La Media Road	2-Ln Collector w/ Commercial Fronting	2-Ln	2,927	8,000	0.366	B
	La Media Road	Avenida Costa Azul	2-Ln Collector w/ Commercial Fronting	2-Ln	6,839	8,000	0.855	**E**
	Avenida Costa Azul	Piper Ranch Road	4-Ln Major Arterial	4-Ln w / RM	6,839	40,000	0.171	A
	Piper Ranch Road	Harvest Road	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	5,590	15,000	0.373	B
	Harvest Road	Sanyo Avenue	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	4,784	15,000	0.319	B

TABLE 5.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING CONDITIONS – CITY OF SAN DIEGO

Roadway	From	To	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	V/C	LOS
Beyer Boulevard	Park Avenue	Otay Mesa Road	4-Ln w/ Continuous-Left-Turn-Lane	4-Ln w / CLTL	4,121	30,000	0.137	A
	Otay Mesa Road	East of Otay Mesa Road	2-Ln Collector No Fronting Property	2-Ln	472	10,000	0.047	A
Siempre Viva Road	Cactus Road	Britannia Boulevard	2-Ln Collector w/ Commercial Fronting	2-Ln	2,142	8,000	0.268	A
	Britannia Boulevard	La Media Road	2-Ln Collector w/ Commercial Fronting	2-Ln	1,380	8,000	0.173	A
	La Media Road	Customhouse Plaza	6-Ln Prime Arterial	6-Ln w / RM	10,282	60,000	0.171	A
	Customhouse Plaza	Otay Center Drive	6-Ln Prime Arterial	6-Ln w / RM	10,478	60,000	0.175	A
	Otay Center Drive	SR-905 SB Ramps	6-Ln Prime Arterial	6-Ln w / RM	19,950	60,000	0.333	A
	SR-905 SB Ramps	SR-905 SB Off-Ramp	6-Ln Prime Arterial	6-Ln w / RM	25,629	60,000	0.427	B
	SR-905 SB Off-Ramp	SR-905 NB Ramps	6-Ln Prime Arterial	6-Ln w / RM	18,882	60,000	0.315	A
	SR-905 NB Ramps	East of SR-905 Ramps	6-Ln Prime Arterial	6-Ln w / RM	25,260	60,000	0.421	B
Customhouse Plaza	Siempre Viva Road	Southern Terminus	2-Ln Collector w/ Commercial Fronting	2-Ln	1,388	8,000	0.174	A

Source: AVC, Chen Ryan Associates; November2016

Notes:
Bold letter indicates substandard LOS.
V/C = Volume to Capacity Ratio.
RM = Raised Median.
SM = Striped Median.
CLTL = Continuous-Left-Turn Lane.
[1] Based on the Capacity of a 6-Ln Prime Arterial, reduced to exclude a lane. (5/6*60,000 = 50,000)
[2] Based on the capacity of a 4-Ln Collector, reduced to exclude a lane. (3/4*15,000 = 11,250)
[3] Based on the Capacity of a 4-Lane Major Arterial, reduced to exclude a lane. (3/4*40,000 = 30,000)
[4] Volumes obtained from the latest City of San Diego Traffic Counts (2010).
[5] Volumes obtained from the latest City of San Diego Traffic Counts (2013).

Table 5.2 displays LOS analysis results for key study area roadway segments located in the City of Chula Vista under Existing conditions.

TABLE 5.2
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING CONDITIONS – CITY OF CHULA VISTA

Roadway	From	To	Functional Classification	Cross-Section	ADT	LOS Threshold (LOS C)	LOS
Heritage Road	Main Street	Avenida De Las Vistas	Class II Collector	2-Ln w/ CLTL	8,167	15,000	A

Source: AVC, Chen Ryan Associates; April 2016

Note:
CLTL = Continuous Left-Turn Lane.

As shown in the table above, the roadway segment located in the City of Chula Vista operates at acceptable LOS A.

Intersection Analysis

Table 5.3 displays intersection level of service and average vehicle delay results for the key study area intersections located in the City of San Diego under Existing conditions. Level of service calculation worksheets for Existing Conditions are provided in **Appendix D**.

TABLE 5.3
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
EXISTING CONDITIONS

			AM Peak Hour		PM Peak Hour	
ID	Intersection	Control Type	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
1	Beyer Boulevard / Otay Mesa Road	Signalized	10.3	B	11.0	B
2	Ocean View Hills Parkway / Del Sol Boulevard	Signalized	12.3	B	11.4	B
3	Ocean View Hills Parkway / Otay Mesa Road	Signalized	15.8	B	36.6	D
4	Caliente Avenue / SR-905 WB Ramps	Signalized	5.8	A	8.7	A
5	Caliente Avenue / SR-905 EB Ramps	Signalized	23.7	C	15.3	B
6	Caliente Avenue / Airway Road	AWSC	7.8	A	8.7	A
7	Innovative Drive / Otay Mesa Road	SSSC	9.1	A	10.6	B
8	Heritage Road / Avenida De Las Vistas	AWSC	8.5	A	9.2	A
9	Heritage Road / Datsun Street	AWSC	8.9	A	12.4	B
10	Heritage Road / Otay Mesa Road	Signalized	37.4	D	28.8	C
11	Heritage Road / Gateway Park Drive	AWSC	7.5	A	7.1	A
12	Heritage Road / Airway Road	Does Not Exist				
13	Cactus Road / Otay Mesa Road	Signalized	14.1	B	21.8	C

TABLE 5.3
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
EXISTING CONDITIONS

ID	Intersection	Control Type	AM Peak Hour		PM Peak Hour	
			Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
14	Cactus Road / Airway Road	SSSC	9.4	A	9.6	A
15	Cactus Road / Siempre Viva Road	AWSC	7.9	A	8.2	A
16	Britannia Boulevard / Otay Mesa Road	Signalized	25.1	C	34.1	C
17	Britannia Boulevard / SR-905 WB Ramps	Signalized	11.5	B	14.0	B
18	Britannia Boulevard / SR-905 EB Ramps	Signalized	9.8	A	13.2	B
19	Britannia Boulevard / Airway Road	Signalized	16.0	B	41.2	D
20	Britannia Boulevard / Siempre Viva Road	Signalized	12.5	B	15.6	B
21	Saint Andrews Avenue / Otay Mesa Road	Signalized	6.3	A	6.9	A
22	La Media Road / Otay Mesa Road	Signalized	52.8	D	52.0	D
23	La Media Road / Airway Road	Signalized	6.5	A	8.4	A
24	La Media Road / Siempre Viva Road	AWSC	9.0	A	9.4	A
25	Piper Ranch Road / Otay Mesa Road	Signalized	9.3	A	10.9	B
26	Harvest Road / Airway Road	AWSC	9.1	A	9.9	A
27	Customhouse Plaza / Siempre Viva Road	Signalized	13.7	B	9.4	A
28	Otay Center Drive / Siempre Viva Road	Signalized	14.1	B	15.9	B
29	SR-905 SB Ramps / Siempre Viva Road	Signalized	3.8	A	4.6	A
30	SR-905 SB Off-Ramp / Siempre Viva Road	SSSC	15.6	C	14.6	B
31	SR-905 NB Off-Ramp / Siempre Viva Road	Signalized	12.3	B	14.4	B
32	Sanyo Avenue / Airway Road	AWSC	9.1	A	9.8	A
33	Street “A” / Airway Road	Does Not Exist				
34	Village Way / Airway Road	Does Not Exist				
35	Cactus Road / Street “D”	Does Not Exist				
36	Cactus Road / Central Main Street	Does Not Exist				
37	Cactus Road / Street “C”	Does Not Exist				
38	Park Way / Airway Road	Does Not Exist				
39	Continental Road / Airway Road	Does Not Exist				

Source: Chen Ryan Associates; November 2016

Notes:
AWSC = All-Way Stop Controlled.
SSSC = Side-Street Stop Controlled, the delay shown is the worst delay experienced by any of the approaches.

As shown in the table, all of the key study area intersections are currently operating at acceptable LOS D or better during both the AM and PM peak hours.

Ramp Intersection Capacity Analysis

Consistent with Caltrans requirements, the signalized ramp intersections were analyzed using ILV procedures, as described in Section 2.4. ILV analysis results are displayed in **Table 5.4** and analysis worksheets for Existing Conditions are provided in Appendix D.

TABLE 5.4
RAMP INTERSECTION CAPACITY ANALYSIS
EXISTING CONDITIONS

Ramp Intersection	Peak Hour	ILV / Hour	Description
Caliente Avenue and SR-905 EB Ramps	AM	778	*Under Capacity*
	PM	804	*Under Capacity*
Caliente Avenue and SR-905 WB Ramps	AM	468	*Under Capacity*
	PM	1,067	*Under Capacity*
Britannia Boulevard and SR-905 EB Ramps	AM	523	*Under Capacity*
	PM	640	*Under Capacity*
Britannia Boulevard and SR-905 WB Ramps	AM	373	*Under Capacity*
	PM	759	*Under Capacity*
Siempre Viva Road and SR-905 NB Ramps	AM	579	*Under Capacity*
	PM	855	*Under Capacity*
Siempre Viva Road and SR-905 SB Ramps	AM	470	*Under Capacity*
	PM	461	*Under Capacity*

Source: Chen Ryan Associates; April 2016

Notes:
Lower than 1,200 ILV/hour = Under Capacity
Between 1,200 and 1,500 ILV/hour = At Capacity
Higher than 1500 ILV/hour = Over Capacity

As shown in the table, all of the study ramp intersections are currently operating at "Under Capacity" conditions.

Freeway Segment Analysis

Table 5.5 displays freeway segment level of service results for the study area freeway mainline facilities under Existing conditions. The freeway segment level of service analysis was performed utilizing the methodology presented in Section 2.6.

As shown in the table, all of the freeway segments within the study area operate at acceptable LOS D or better.

TABLE 5.5
FREEWAY SEGMENT ANALYSIS
EXISTING CONDITIONS

Freeway	Segment	ADT[a]	Direction	# of Lanes	Capacity[b]	D[c]	K[d]	HVF[e]	Peak Hour Volume	V/C	LOS[f]	Peak Hour
I-805	Main Street and Palm Avenue	138,000	NB	4M+1A	10,810	64.6%	5.9%	10.0%	5,500	0.509	B	AM
			SB	4M+1A	10,810	56.7%	8.0%	10.0%	6,600	0.611	B	PM
	Palm Avenue and SR-905	117,000	NB	4M+1A	10,810	64.6%	5.9%	10.0%	4,700	0.435	B	AM
			SB	4M+1A	10,810	56.7%	8.0%	10.0%	5,600	0.518	B	PM
SR-905	Picador Boulevard and I-805	60,000	EB	2M+1A	6,110	64.4%	8.4%	10.0%	3,400	0.556	B	AM
			WB	2M+1A	6,110	64.4%	8.4%	10.0%	3,400	0.556	B	PM
	I-805 and Caliente Avenue	69,000	EB	4M	9,400	53.1%	7.5%	10.0%	2,900	0.309	A	AM
			WB	3M+1A	8,460	59.9%	8.2%	10.0%	3,600	0.426	B	PM
	Caliente Avenue and Heritage Road	61,000	EB	3M	7,050	53.1%	7.5%	10.0%	1,200	0.170	A	AM
			WB	3M	7,050	59.9%	8.2%	10.0%	1,000	0.142	A	PM
	Heritage Road and Britannia Boulevard	61,000	EB	3M	7,050	53.1%	7.5%	10.0%	600	0.085	A	AM
			WB	3M	7,050	59.9%	8.2%	10.0%	600	0.085	A	PM
	Britannia Boulevard and La Media Road	50,000	EB	3M+1A	8,460	53.1%	7.5%	10.0%	300	0.035	A	AM
			WB	3M	7,050	59.9%	8.2%	10.0%	400	0.057	A	PM
	La Media Road and SR-125	40,000	EB	3M	7,050	53.1%	7.5%	10.0%	200	0.028	A	AM
			WB	3M	7,050	59.9%	8.2%	10.0%	200	0.028	A	PM

Source: Chen Ryan Associates; November 2016

Notes:
Bold letter indicated substandard LOS.
M = Mainline. A = Auxiliary Lane.
[a] Traffic volumes provided by Caltrans (2014).
[b] The capacity is calculated as 2,350 ADT per main lane and 1,410 ADT (60% of the main lane capacity) per auxiliary lane.
[c] D = Directional split.| [d] K = Peak hour %. | [e] HV = Heavy vehicle % - consistent with the OMCPU. | [f] LOS during highest directional demand.

6.0 Existing Plus Project Conditions

This section provides an analysis of traffic conditions with the addition of project trips from full buildout of the proposed project. Under this scenario, the proposed project's buildout traffic volumes are added to the existing traffic volumes and roadway configuration, and impacts are assessed. This scenario is regarded by traffic engineers as a hypothetical scenario when used in connection with a long-range development project such as the proposed Otay Mesa Central Village Specific Plan, which is not anticipated to reach full buildout until 10-15 years later or even beyond but assumed at Year 2025 for purposes of this study.

6.1 Existing Plus Project Roadway Network and Traffic Volumes

Roadway and intersection geometrics under Existing Plus Project conditions were assumed to be largely identical to the Existing conditions geometrics, with the following facilities assumed to be constructed by the Project as a part of project frontage and access improvements. Note that triggers for the improvements described below cannot be determined at this point in time since the phases of construction are unknown, therefore, a trigger analysis for facilities accessing and fronting the project will be conducted at a later time for each project that takes place within the Otay Mesa Central Village.

Roadway Segments

- Airway Road, between Heritage Road (Project Access) and Cactus Road – This segment serves as the project frontage and will be constructed to a 6-lane Prime Arterial, consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).
- Airway Road, between Cactus Road and Continental Road – This segment serves as the project frontage and the north side of the roadway (westbound direction) will be improved to 4 lanes (1 eastbound lane and 3 westbound lanes). This roadway is classified as a 6-lane Major Arterial in the currently adopted Otay Mesa Community Plan, which is consistent with the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).
- Cactus Road, between SR-905 and Street "D" - This segment serves as the project frontage and the east side of the roadway (northbound direction) will be improved to 3 lanes (2 northbound lanes and 1 southbound lane). This roadway is classified as a 4-lane Major Arterial in the currently adopted Otay Mesa Community Plan, which is consistent with the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).
- Cactus Road, between Street "D" and Airway Road - This segment serves as the project frontage and will be improved to a 4-lane Major Arterial, consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).
- Cactus Road, between Airway Road and Siempre Viva Road - This segment serves as the project frontage and the west side of the roadway (southbound direction) will be

improved to 3 lanes (1 northbound lane and 2 southbound lanes). This roadway is classified as a 4-lane Major Arterial in the currently adopted Otay Mesa Community Plan, which is consistent with the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).

Intersections

12. Heritage Road / Airway Road – Construction of an L-shaped intersection providing movements between the project site and Airway Road, east of the Heritage Road project access.
14. Cactus Road / Airway Road – Construction of the west leg to form a four-legged intersection, and expanding the intersection lane configurations to match up with the roadway cross-sections. This intersection is proposed to be signalized by the project.
33. Street "A" / Airway Road – Construction of a signalized T-intersection.
34. Village Way / Airway Road – Construction of a signalized T-intersection.
35. Cactus Road / Street "D" – Construction of a signalized four-legged intersection.
36. Cactus Road / Central Main Street – Construction of a signalized T-intersection.
37. Cactus Road / Street "C" – Construction of a signalized T-intersection.
38. Park Way / Airway Road – Construction of a side-street stop controlled right-turn in/out only T-intersection.
39. Continental Road / Airway Road – construction of a signalized T-intersection.

Figures 6-1 and **6-2** display roadway geometrics and intersection lane configurations under Existing Plus Project conditions.

Existing Plus Project traffic volumes were derived by combining the existing traffic volumes (displayed in Figures 5-3 and 5-4) and the project trip assignment volumes (displayed in Figures 3-3 and 3-4). Existing Plus Project daily roadway and freeway traffic volumes are displayed in **Figure 6-3,** while **Figure 6-4** displays intersection peak hour traffic volumes.

#-Ln	Number of Travel Lanes
RM	Raised Median
SM	Striped Median
CLTL	Center Left Turn Lane
Aux	Auxiliary Lane (Freeway Only)
----	Future Roadways

INSET

Project Site

SEE INSET

City of Chula Vista

City of San Diego

Unincorporated San Diego County

Otay Mesa Central Village Specific Plan

CHEN RYAN

Figure 6-1
Roadway Geometrics - Existing Plus Project Conditions

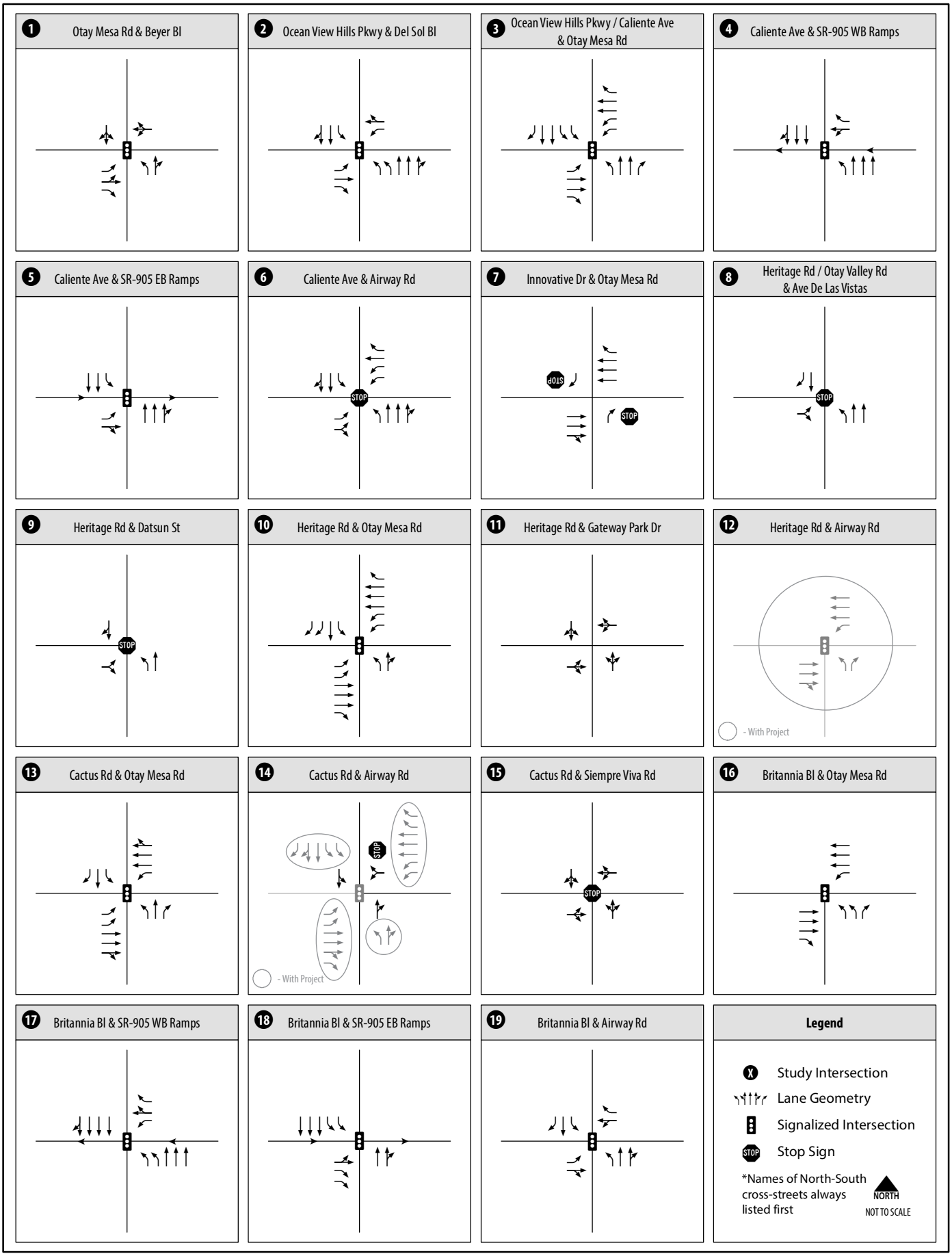


Figure 6-2
Intersection Geometrics -
Existing Plus Project Conditions (Intersections 1-19)

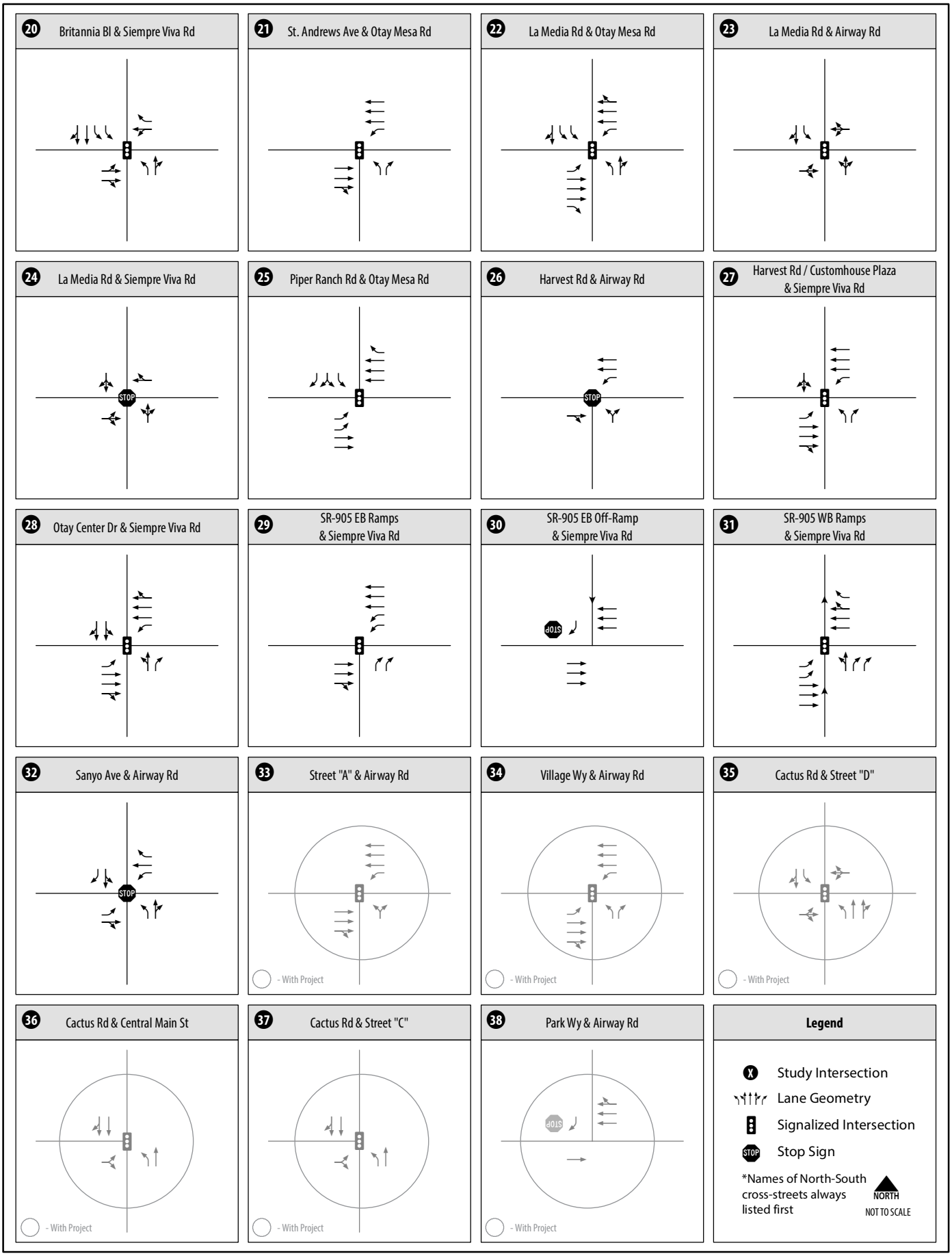
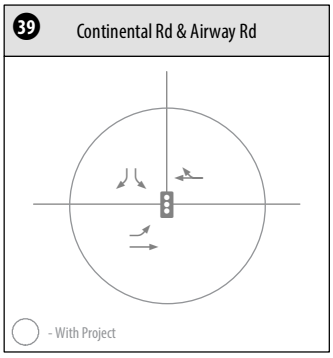


Figure 6-2
Intersection Geometrics -
Existing Plus Project Conditions (Intersections 20-38)



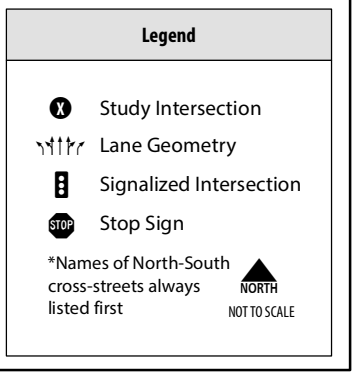


Figure 6-2
Intersection Geometrics -
Existing Plus Project Conditions (Intersection 39)

XX,XXX Average Daily Traffic Volumes

Future Roadways

INSET

SEE INSET

Project Site

City of Chula Vista

City of San Diego

Unincorporated San Diego County

Otay Mesa Central Village Specific Plan

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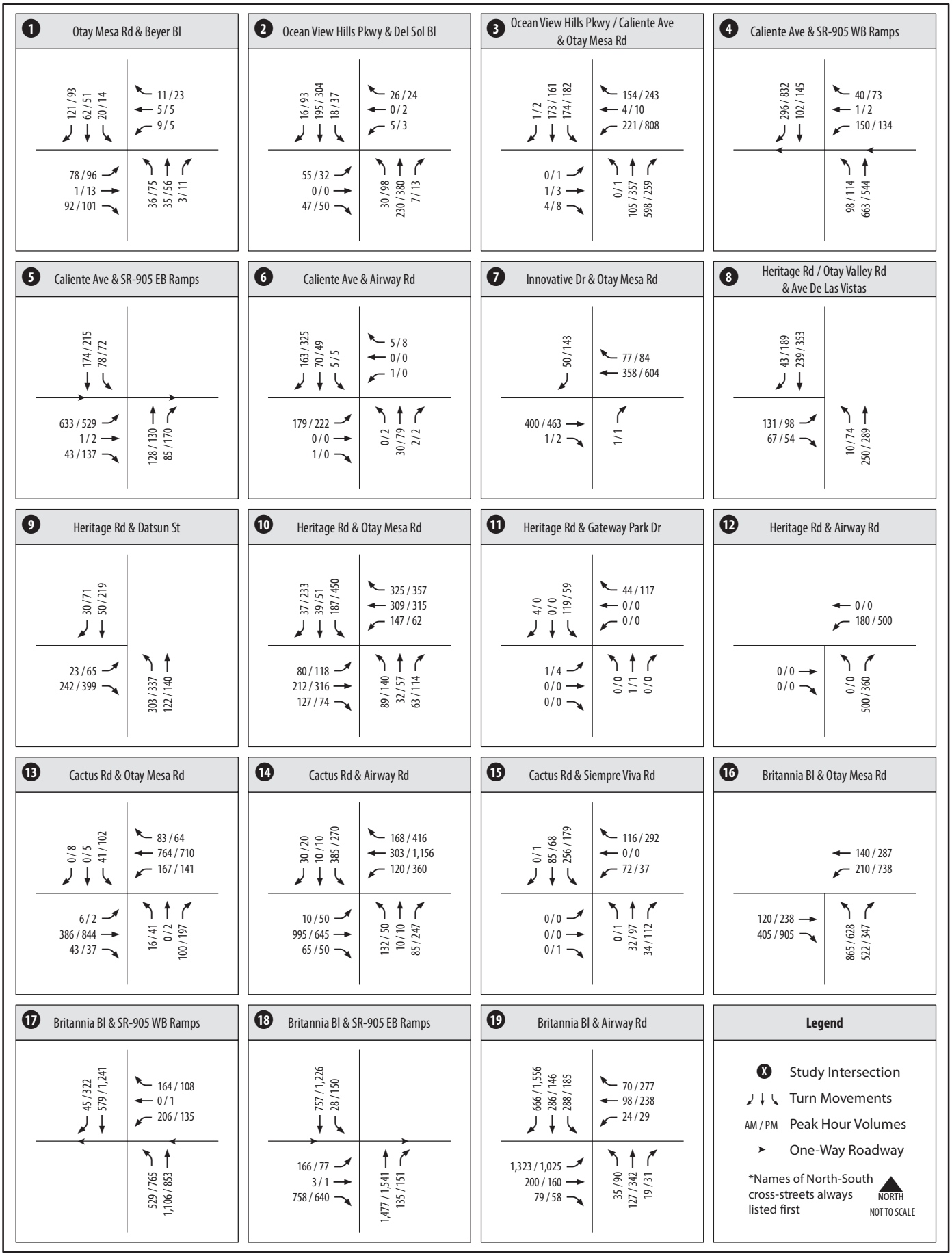
Figure 6-3

Roadway Average Daily Traffic Volumes - Existing Plus Project Conditions



Otay Mesa Central Village Specific Plan

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Figure 6-4

AM/PM Peak Hour Intersection Volumes - Existing Plus Project Conditions (Intersections 1-19)

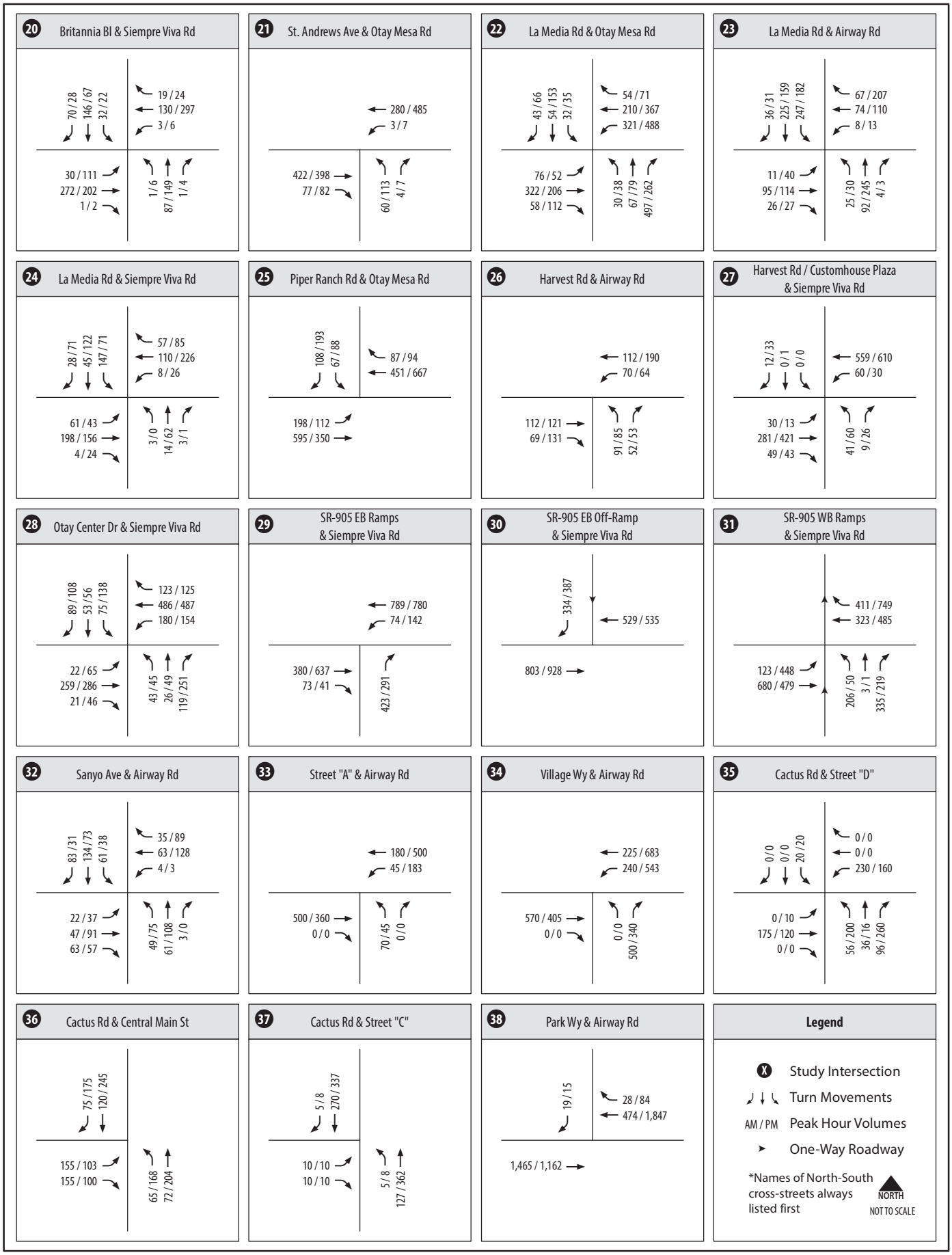
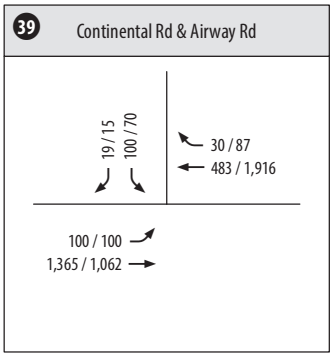


Figure 6-4

AM/PM Peak Hour Intersection Volumes - Existing Plus Project Conditions (Intersections 20-38)



Legend

- X — Study Intersection
- Turn Movements
- AM / PM — Peak Hour Volumes
- One-Way Roadway

*Names of North-South cross-streets always listed first

NORTH

NOT TO SCALE

Figure 6-4
AM/PM Peak Hour Intersection Volumes - Existing Plus Project Conditions (Intersection 39)

6.2 Existing Plus Project Traffic Conditions

Analyses were conducted using methodology described in Chapter 2.0. Roadway segment, intersection, and freeway segment level of service, as well as freeway ramp intersection ILV analysis results are discussed separately below.

Roadway Segment Analysis

Table 6.1 displays the level of service analysis results for key roadway segments located in the City of San Diego under Existing Plus Project conditions.

TABLE 6.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT CONDITIONS – CITY OF SAN DIEGO

Roadway	Segment	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	With Project		Without Project		Δ V/C	SI?
						V/C	LOS	V/C	LOS		
East Beyer Boulevard	Beyer Boulevard to South of Beyer Boulevard	2-Ln Collector No Fronting Property	2-Ln	3,790	10,000	0.379	A	0.342	A	0.037	No
Ocean View Hills Parkway	Starfish Way to Del Sol Boulevard	4-Ln Major Arterial	4-Ln w / RM	12,730	40,000	0.318	A	0.282	A	0.037	No
	Del Sol Boulevard to Otay Mesa Road	6-Ln Major Arterial	6-Ln w / RM	10,060	50,000	0.201	A	0.165	A	0.036	No
Caliente Avenue	SR-905 WB Ramps SR-905 EB Ramps	5-Ln Prime Arterial	5-Ln w / SM (3-NB, 2-SB)	13,220	50,000[1]	0.264	A	0.213	A	0.051	No
	SR-905 EB Ramps to Airway Road	5-Ln Prime Arterial	5-Ln w / SM (3-NB, 2-SB)	6,910	50,000[1]	0.138	A	0.087	A	0.051	No
	Airway Road to Southern Terminus	5-Ln Prime Arterial	5-Ln w / RM (3-NB, 2-SB)	1,450	50,000[1]	0.029	A	0.007	A	0.022	No
Innovative Drive	Progressive Avenue to Otay Mesa Road	2-Ln Collector w/ Commercial Fronting	2-Ln	1,900	8,000	0.238	A	0.145	A	0.092	No

TABLE 6.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT CONDITIONS – CITY OF SAN DIEGO

Roadway	Segment	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	With Project		Without Project		Δ V/C	SI?
						V/C	LOS	V/C	LOS		
Heritage Road	Avenida De Las Vistas to Datsun Street	2-Ln Collector No Fronting Property	2-Ln	8,670	10,000	0.867	D	0.467	B	0.400	No
	Datsun Street to Otay Mesa Road	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	12,160	15,000	0.811	D	0.519	C	0.291	No
	Otay Mesa Road to Camino Maquiladora	3-Ln Collector	3-Ln (1-NB, 2SB)	6,250	11,250[2]	0.556	C	0.458	B	0.097	No
	Camino Maquiladora to Gateway Park Drive	2-Ln Collector No Fronting Property	2-Ln	2,080	10,000	0.208	A	0.099	A	0.110	No
	Gateway Park Drive to Southern Terminus	2-Ln Collector No Fronting Property	2-Ln	60	10,000	0.006	A	0.006	A	0.000	No
Cactus Road	Otay Mesa Road to SR-905	2-Ln Collector w/ Commercial Fronting	2-Ln	2,050	8,000	0.256	A	0.029	A	0.228	No
	SR-905 to Street "D"	3-Ln Major Arterial	3-Ln w / RM (2NB, 1SB)	6,080	30,000	0.203	A	0.260	A	-0.057	No
	Street "D" to Airway Road	4-Ln Major Arterial	4-Ln w / RM	6,080	40,000	0.152	A	0.260	A	-0.108	No
	Airway Road to Siempre Viva Road	3-Ln Major Arterial	3-Ln w / RM (1NB, 2SB)	8,260	30,000	0.275	A	0.260	A	0.015	No
Britannia Boulevard	Otay Mesa Road to SR-905 WB Ramps	6-Ln Prime Arterial	6-Ln w / RM	29,350	60,000	0.489	B	0.204	A	0.285	No
	SR-905 WB Ramps to SR-905 EB Ramps	6-Ln Prime Arterial	6-Ln w / RM	45,360	60,000	0.756	C	0.350	A	0.406	No
	SR-905 EB Ramps to Airway Road	5-Ln Prime Arterial	5-Ln w / RM (2-NB, 3-SB)	47,330	50,000[1]	0.947	**E**	0.459	B	0.487	**Yes**

TABLE 6.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT CONDITIONS – CITY OF SAN DIEGO

Roadway	Segment	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	With Project		Without Project		Δ V/C	SI?
						V/C	LOS	V/C	LOS		
Britannia Boulevard	Airway Road to Siempre Viva Road	4-Ln Major Arterial	4-Ln w / RM	13,020	40,000	0.326	A	0.289	A	0.037	No
	Siempre Viva Road to Bristow Court	2-Ln Collector w/ Commercial Fronting	2-Ln	4,260	8,000	0.533	C	0.440	C	0.092	No
Saint Andrews Avenue	Otay Mesa Road to Otay Mesa Center Road	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	9,410	15,000	0.627	C	0.554	C	0.073	No
La Media Road	Northern Terminus to Otay Mesa Road	2-Ln Collector w/ Commercial Fronting	2-Ln	5,910	8,000	0.739	D	0.647	D	0.091	No
	Otay Mesa Road to SR-905 WB Ramps	6-Ln Prime Arterial	6-Ln w/ SM	16,420	60,000	0.274	A	0.274	A	0.000	No
	SR-905 WB Ramps and SR-905 EB Ramps	6-Ln Prime Arterial	6-Ln w/ SM	16,420	60,000	0.274	A	0.274	A	0.000	No
	SR-905 EB Ramps and Airway Road	3-Ln Major Arterial	3-Ln (1-NB, 2-SB)	16,420	30,000[3]	0.547	C	0.547	C	0.000	No
	Airway Road and Avenida De La Fuente	2-Ln Collector No Fronting Property	2-Ln	9,960	10,000	0.996	**E**	0.996	**E**	0.000	No
	Avenida De La Fuente to Siempre Viva Road	2-Ln Collector No Fronting Property	2-Ln	5,650	10,000	0.565	C	0.456	B	0.110	No
Otay Mesa Road	Ocean View Hills Parkway to Corporate Center Drive	6-Ln Prime Arterial	6-Ln w / RM	17,610	60,000	0.294	A	0.251	A	0.043	No
	Corporate Center Drive to Heritage Road	6-Ln Prime Arterial	6-Ln w / RM	12,840	60,000	0.214	A	0.159	A	0.055	No

TABLE 6.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT CONDITIONS – CITY OF SAN DIEGO

Roadway	Segment	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	With Project		Without Project		Δ V/C	SI?
						V/C	LOS	V/C	LOS		
Otay Mesa Road	Heritage Road to Cactus Road	6-Ln Prime Arterial	6-Ln w / RM	16,930	60,000	0.282	A	0.137	A	0.145	No
	Cactus Road to Britannia Boulevard	6-Ln Prime Arterial	6-Ln w / RM	21,800	60,000	0.363	A	0.163	A	0.200	No
	Britannia Boulevard to Saint Andrews Avenue	6-Ln Prime Arterial	6-Ln w / RM	15,740	60,000	0.262	A	0.177	A	0.085	No
	Saint Andrews Avenue to La Media Road	6-Ln Prime Arterial	6-Ln w / RM	11,240	60,000	0.187	A	0.145	A	0.043	No
	La Media Road to Piper Ranch Road	6-Ln Prime Arterial	6-Ln w / RM	18,750	60,000	0.313	A	0.282	A	0.030	No
Camino Maquiladora	Pacific Rim Court to Cactus Road	2-Ln Collector w/ Commercial Fronting	2-Ln	2,070	8,000	0.259	A	0.167	A	0.092	No
	Cactus Road to Otay Heights Court	2-Ln Collector w/ Commercial Fronting	2-Ln	1,860	8,000	0.233	A	0.096	A	0.137	No
Airway Road	Otay Mesa Road to Caliente Avenue	4-Ln w/ Continuous-Left-Turn-Lane	4-Ln w / CLTL	5,380	30,000	0.179	A	0.131	A	0.049	No
	Caliente Avenue to Eastern Terminus	3-Ln Major Arterial	3-Ln w / RM (2-EB, 1-WB)	240	30,000[3]	0.008	A	0.008	A	0.000	No
	Heritage Road to Street "A"	6-Ln Prime Arterial	6-Ln w / RM	3,640	60,000	0.061	A	Does Not Exist			No

TABLE 6.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT CONDITIONS – CITY OF SAN DIEGO

Roadway	Segment	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	With Project		Without Project		Δ V/C	SI?
						V/C	LOS	V/C	LOS		
Airway Road	Street "A" to Village Way	6-Ln Prime Arterial	6-Ln w / RM	9,090	60,000	0.152	A	Does Not Exist			No
	Village Way to Cactus Road	6-Ln Prime Arterial	6-Ln w / RM	14,550	60,000	0.243	A	Does Not Exist			No
	Cactus Road to Continental Road	4-Ln Major Arterial	4-Ln w / RM (1EB, 3WB)	32,410	33,333[4]	0.972	**E**	0.279	A	0.693	**Yes**
	Continental Road to Britannia Boulevard	2-Ln Collector w/ Commercial Fronting	2-Ln	32,510	8,000	4.064	**F**	0.292	A	3.772	**Yes**
	Britannia Boulevard to La Media Road	2-Ln Collector w/ Commercial Fronting	2-Ln	6,570	8,000	0.821	**E**	0.366	B	0.455	**Yes**
	La Media Road to Avenida Costa Azul	2-Ln Collector w/ Commercial Fronting	2-Ln	7,930	8,000	0.991	**E**	0.855	**E**	0.136	**Yes**
	Avenida Costa Azul to Piper Ranch Road	4-Ln Major Arterial	4-Ln w / RM	7,930	40,000	0.198	A	0.171	A	0.027	No
	Piper Ranch Road to Harvest Road	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	6,320	15,000	0.421	B	0.373	B	0.049	No
	Harvest Road to Sanyo Avenue	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	5,150	15,000	0.343	B	0.319	B	0.024	No
Beyer Boulevard	Park Avenue to Otay Mesa Road	4-Ln w/ Continuous-Left-Turn-Lane	4-Ln w / CLTL	4,850	30,000	0.162	A	0.137	A	0.024	No
	Otay Mesa Road to East of Otay Mesa Road	2-Ln Collector No Fronting Property	2-Ln	480	10,000	0.048	A	0.047	A	0.001	No

TABLE 6.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT CONDITIONS – CITY OF SAN DIEGO

Roadway	Segment	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	With Project		Without Project		Δ V/C	SI?
						V/C	LOS	V/C	LOS		
Siempre Viva Road	Cactus Road to Britannia Boulevard	2-Ln Collector w/ Commercial Fronting	2-Ln	6,870	8,000	0.859	**E**	0.268	A	0.591	**Yes**
	Britannia Boulevard to La Media Road	2-Ln Collector w/ Commercial Fronting	2-Ln	6,110	8,000	0.764	D	0.173	A	0.591	No
	La Media Road to Customhouse Plaza	6-Ln Prime Arterial	6-Ln w / RM	13,560	60,000	0.226	A	0.171	A	0.055	No
	Customhouse Plaza to Otay Center Drive	6-Ln Prime Arterial	6-Ln w / RM	11,570	60,000	0.193	A	0.175	A	0.018	No
	Otay Center Drive to SR-905 SB Ramps	6-Ln Prime Arterial	6-Ln w / RM	20,680	60,000	0.345	A	0.333	A	0.012	No
	SR-905 SB Ramps to SR-905 SB Off-Ramp	6-Ln Prime Arterial	6-Ln w / RM	26,360	60,000	0.439	B	0.427	B	0.012	No
	SR-905 SB Off-Ramp to SR-905 NB Ramps	6-Ln Prime Arterial	6-Ln w / RM	19,610	60,000	0.327	A	0.315	A	0.012	No
	SR-905 NB Ramps to East of SR-905 Ramps	6-Ln Prime Arterial	6-Ln w / RM	25,990	60,000	0.433	B	0.421	B	0.012	No
Customhouse Plaza	Siempre Viva Road to Southern Terminus	2-Ln Collector w/ Commercial Fronting	2-Ln	2,120	8,000	0.265	A	0.174	A	0.092	No

Source: Chen Ryan Associates; November 2016

Notes:
Bold letter indicates substandard LOS.
V/C = Volume to Capacity Ratio.
RM = Raised Median.
SM = Striped Median.
CLTL = Continuous Left-Turn Lane.
[1] Based on the Capacity of a 6-Ln Prime Arterial, reduced to exclude a lane. (5/6*60,000 = 50,000)
[2] Based on the capacity of a 4-Ln Collector, reduced to exclude a lane. (3/4*15,000 = 11,250)
[3] Based on the Capacity of a 4-Lane Major Arterial, reduced to exclude a lane. (3/4*40,000 = 30,000)
[4] Based on the Capacity of a 6-Lane Major Arterial, reduced to exclude two lanes. (4/6*50,000 = 33,333)
Δ = Change in V/C Ratio.
SI? = Significant Impact?

As shown in the Table 6.1, all of the roadway segments located in the City of San Diego are projected to operate at acceptable LOS with the addition of project traffic with the following seven (7) exceptions:

- Britannia Boulevard, between SR-905 EB Ramps and Airway Road is projected to operate at substandard LOS E with the addition of project traffic. The volume to capacity ratio is projected to increase from 0.459 under Existing conditions to 0.947 under Existing Plus Project conditions, resulting in a net increase of 0.487. This increase in volume to capacity ratio causes the roadway segment to transition from an acceptable LOS B to a substandard LOS E.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.
- La Media Road, Airway Road and Avenida De La Fuente, between Airway Road and Avenida De La Fuente is projected to remain at substandard LOS E. The volume to capacity ratio is projected to remain at 0.996 under Existing Plus Project conditions, resulting in a net increase of 0.

  Based upon the significance criteria presented in Section 2.7, facility improvements would not be required at the aforementioned roadway segment.
- Airway Road, between Cactus Road and Continental Road is projected to operate at substandard LOS E with the addition of project traffic. The volume to capacity ratio is projected to increase from 0.279 under Existing conditions to 0.972 under Existing Plus Project conditions, resulting in a net increase of 0.693. This increase in volume to capacity ratio causes the roadway segment to transition from an acceptable LOS A to a substandard LOS E.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment.

- Airway Road, between Continental Road and Britannia Boulevard is projected to operate at substandard LOS F with the addition of project traffic. The volume to capacity ratio is projected to increase from 0.292 under Existing conditions to 4.064 under Existing Plus Project conditions, resulting in a net increase of 3.772. This increase in volume to capacity ratio causes the roadway segment to transition from an acceptable LOS A to a substandard LOS F.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

- Airway Road, between Britannia Boulevard and La Media Road is projected to operate at substandard LOS E with the addition of project traffic. The volume to capacity ratio is projected to increase from 0.366 under Existing conditions to 0.821 under Existing Plus Project conditions, resulting in a net increase of 0.455. This increase in volume to capacity

ratio causes the roadway segment to transition from an acceptable LOS B to a substandard LOS E.

Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

- Airway Road, between La Media Road and Avenida Costa Azul is projected to operate at substandard LOS E with the addition of project traffic. The volume to capacity ratio is projected to increase from 0.855 under Existing conditions to 0.991 under Existing Plus Project conditions, resulting in a net increase of 0.136. This increase in volume to capacity ratio is above the allowable 0.02 threshold although the LOS would remain to be LOS E.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

- Siempre Viva Road, between Cactus Road and Britannia Boulevard is projected to operate at substandard LOS E with the addition of project traffic. The volume to capacity ratio is projected to increase from 0.268 under Existing conditions to 0.859 under Existing Plus Project conditions, resulting in a net increase of 0.591. This increase in volume to capacity ratio causes the roadway segment to transition from an acceptable LOS A to a substandard LOS E.

Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR. **Table 6.2** displays the LOS analysis results for the roadway segment located in the City of Chula Vista under Existing Plus Project conditions. As shown in the table, the roadway segment located in the City of Chula Vista is projected to operate at acceptable LOS C with the addition of project traffic.

TABLE 6.2
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT CONDITIONS – CITY OF CHULA VISTA

Roadway	Segment	Functional Classification	Cross-Section	ADT	LOS Threshold (LOS C)	LOS w/ Project	Project Contribution ≥ 5%?	Project ADT > 800?	Intersection along Segment Operating @ LOS D or Better?	SI?
Heritage Road	Main Street to Avenida De Las Vistas	Class II Collector	2-Ln w/ CLTL	11,810	15,000	C	Yes	Yes	Yes	No

Source: Chen Ryan Associates; April 2016

Notes:
CLTL = Continuous-Left-Turn Lane.
SI? = Significant Impact?

Intersection Analysis

Table 6.3 displays LOS and average vehicle delay results for the intersections under Existing Plus Project conditions. LOS calculation worksheets for the Existing Plus Project conditions are provided in **Appendix E**.

TABLE 6.3
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT CONDITIONS

ID	Intersection	Control Type	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec) AM/PM	LOS w/o Project AM/PM	Change in Delay (sec)	SI?
			Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS				
1	Beyer Boulevard / Otay Mesa Road	Signalized	11.0	B	12.1	B	10.3 / 11	B / B	0.7 / 1.1	No
2	Ocean View Hills Parkway / Del Sol Boulevard	Signalized	15.2	B	11.5	B	12.3 / 11.4	B / B	2.9 / 0.1	No
3	Ocean View Hills Parkway / Otay Mesa Road	Signalized	16.2	B	37.2	D	15.8 / 36.6	B / D	0.4 / 0.6	No
4	Caliente Avenue / SR-905 WB Ramps	Signalized	9.7	A	10.7	B	5.8 / 8.7	A / A	3.9 / 2.0	No
5	Caliente Avenue / SR-905 EB Ramps	Signalized	24.4	C	15.9	B	23.7 / 15.3	C / B	0.7 / 0.6	No
6	Caliente Avenue / Airway Road	AWSC	9.5	A	11.7	B	7.8 / 8.7	A / A	1.7 / 3.0	No
7	Innovative Drive / Otay Mesa Road	SSSC	9.5	A	11.8	B	9.1 / 10.6	A / B	0.4 / 1.2	No
8	Heritage Road / Avenida De Las Vistas	AWSC	11.7	B	15.1	C	8.5 / 9.2	A / A	3.2 / 5.9	No
9	Heritage Road / Datsun Street	AWSC	15.0	B	32.4	D	8.9 / 12.4	A / B	6.1 / 20.0	No
10	Heritage Road / Otay Mesa Road	Signalized	36.8	D	52.8	D	37.4 / 28.8	D / C	-0.6 / 24	No
11	Heritage Road / Gateway Park Drive	AWSC	8.0	A	8.0	A	7.5 / 7.1	A / A	0.5 / 0.9	No
12	Heritage Road / Airway Road	Signalized	7.2	A	9.8	A	N/A			No
13	Cactus Road / Otay Mesa Road	Signalized	13.5	B	30.4	C	14.1 / 21.8	B / C	-0.6 / 8.6	No
14	Cactus Road / Airway Road	Signalized	22.6	C	29.8	C	9.4 / 9.6	A / A	13.2 / 20.2	No
15	Cactus Road / Siempre Viva Road	AWSC	12.5	B	22.9	C	7.9 / 8.2	A / A	4.6 / 14.7	No

TABLE 6.3
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT CONDITIONS

ID	Intersection	Control Type	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec) AM/PM	LOS w/o Project AM/PM	Change in Delay (sec)	SI?
			Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS				
16	Britannia Boulevard / Otay Mesa Road	Signalized	53.2	D	344.2	**F**	25.1 / 34.1	C / C	28.1 / 310.1	**Yes**
17	Britannia Boulevard / SR-905 WB Ramps	Signalized	15.3	B	33.6	C	11.5 / 14	B / B	3.8 / 19.6	No
18	Britannia Boulevard / SR-905 EB Ramps	Signalized	47.9	D	50.8	D	9.8 / 13.2	A / B	38.1 / 37.6	No
19	Britannia Boulevard / Airway Road	Signalized	321.6	**F**	492.2	**F**	16.0 / 41.2	B / D	305.6 / 451.0	**Yes**
20	Britannia Boulevard / Siempre Viva Road	Signalized	26.2	C	52.6	D	12.5 / 15.6	B / B	13.7 / 37	No
21	Saint Andrews Avenue / Otay Mesa Road	Signalized	8.3	A	9.7	A	6.3 / 6.9	A / A	2.0 / 2.8	No
22	La Media Road / Otay Mesa Road	Signalized	54.1	D	53.0	D	52.8 / 52	D / D	1.3 / 1.0	No
23	La Media Road / Airway Road	Signalized	7.8	A	13.7	B	6.5 / 8.4	A / A	1.3 / 5.3	No
24	La Media Road / Siempre Viva Road	AWSC	12.1	B	17.5	C	9.0 / 9.4	A / A	3.1 / 8.1	No
25	Piper Ranch Road / Otay Mesa Road	Signalized	9.3	A	10.9	B	9.3 / 10.9	A / B	0.0 / 0.0	No
26	Harvest Road / Airway Road	AWSC	9.2	A	10.2	B	9.1 / 9.9	A / A	0.1 / 0.3	No
27	Customhouse Plaza / Siempre Viva Road	Signalized	8.6	A	12.1	B	13.7 / 9.4	B / A	-5.1 / 2.7	No
28	Otay Center Drive / Siempre Viva Road	Signalized	14.8	B	16.2	B	14.1 / 15.9	B / B	0.7 / 0.3	No
29	SR-905 SB Ramps / Siempre Viva Road	Signalized	3.9	A	4.6	A	3.8 / 4.6	A / A	0.1 / 0.0	No
30	SR-905 SB Off-Ramp / Siempre Viva Road	SSSC	15.8	C	15.1	C	15.6 / 14.6	C / B	0.2 / 0.5	No
31	SR-905 NB Off-Ramp / Siempre Viva Road	Signalized	12.3	B	14.5	B	12.3 / 14.4	B / B	0.0 / 0.1	No
32	Sanyo Avenue / Airway Road	AWSC	9.2	A	10.1	B	9.1 / 9.8	A / A	0.1 / 0.3	No
33	Street "A" / Airway Road	Signalized	6.3	A	6.1	A	N/A			No
34	Village Way / Airway Road	Signalized	25.2	C	13.6	B	N/A			No

TABLE 6.3
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT CONDITIONS

ID	Intersection	Control Type	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec) AM/PM	LOS w/o Project AM/PM	Change in Delay (sec)	SI?
			Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS				
35	Cactus Road / Street "D"	Signalized	13.8	B	12.7	B	N/A			No
36	Cactus Road / Central Main Street	Signalized	11.7	B	12.3	B	N/A			No
37	Cactus Road / Street "C"	Signalized	3.9	A	3.3	A	N/A			No
38	Park Way / Airway Road	SSSC	9.5	A	15.1	C	N/A			No
39	Continental Road / Airway Road	Signalized	33.6	C	197.1	**F**	N/A			**Yes**

Source: Chen Ryan Associates; November 2016

Notes:
Bold letter indicated substandard LOS.
AWSC = All-Way Stop Controlled.
SSSC = Side-Street Stop Controlled, the delay shown is the worst delay experienced by any of the approaches.
N/A = Not analyzed under this scenario.
SI? = Significant Impact?

As shown in the table, all of the study area intersections will continue to operate at acceptable LOS D or better during both the AM and PM peak hours with the addition of project traffic, with the following three (3) exceptions:

16. Britannia Boulevard / Otay Mesa Road (LOS F during the PM peak hour) - the intersection of Britannia Boulevard and Otay Mesa Road is projected to operate at LOS F during the PM peak hour under Existing Plus Project conditions. The overall intersection delay is projected to increase from 34.1 seconds of delay under Existing conditions to 344.2 seconds of delay under Existing Plus Project conditions, resulting in a net increase of 310.1 seconds of overall delay. This increase in overall delay caused the PM peak hour traffic operations to degrade from LOS C to a substandard LOS F.

    Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned intersection. The required improvements are consistent with the improvements stated in the OMCPU EIR.

19. Britannia Boulevard / Airway Road (LOS E during the PM peak hour) - the intersection of Britannia Boulevard and Airway Road is projected to operate at LOS F during the AM and PM peak hour under Existing Plus Project conditions. The overall intersection delay during the AM peak hour is projected to increase from 16.0 seconds of delay under Existing conditions to 321.6 seconds of delay under Existing Plus Project conditions, resulting in a net increase of 305.6 seconds of overall delay. The overall intersection delay during the PM peak hour is projected to increase from 41.2 seconds of delay under Existing

conditions to 488.5 seconds of delay under Existing Plus Project conditions, resulting in a net increase of 447.3 seconds of overall delay. This increase in overall delay caused the AM and PM peak hour traffic operations to degrade from LOS B and D, respectively, to a substandard LOS F.

Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned intersection. The required improvements are consistent with the improvements stated in the OMCPU EIR.

39. Continental Road / Airway Road (LOS F during both AM and PM peak hours) - the intersection of Continental Road and Airway Road is projected to operate at LOS F during the PM peak hour under Existing Plus Project conditions. The overall intersection delay during the PM peak hour is projected to be 197.1 seconds under Existing Plus Project conditions.

    Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned intersection.

Ramp Intersection Capacity Analysis

Consistent with Caltrans requirements, the signalized ramp intersections of SR-905 were analyzed using ILV procedures, as described in Section 2.4. ILV analysis results are displayed in **Table 6.4** and analysis worksheets for the Existing Plus Project conditions are provided in Appendix E.

TABLE 6.4
RAMP INTERSECTION CAPACITY ANALYSIS
EXISTING PLUS PROJECT CONDITIONS

Ramp Intersection	Peak Hour	ILV / Hour	Description
Caliente Avenue and SR-905 EB Ramps	AM	839	*Under Capacity*
	PM	814	*Under Capacity*
Caliente Avenue and SR-905 WB Ramps	AM	579	*Under Capacity*
	PM	1,130	*Under Capacity*
Britannia Boulevard and SR-905 EB Ramps	AM	1,267	*At Capacity*
	PM	1,317	*At Capacity*
Britannia Boulevard and SR-905 WB Ramps	AM	709	*Under Capacity*
	PM	1,253	*At Capacity*
Siempre Viva Road and SR-905 NB Ramps	AM	584	*Under Capacity*
	PM	870	*Under Capacity*
Siempre Viva Road and SR-905 SB Ramps	AM	449	*Under Capacity*
	PM	470	*Under Capacity*

Source: Chen Ryan Associates; April 2016

Notes:
Lower than 1,200 ILV/hour = Under Capacity
Between 1,200 and 1,500 ILV/hour = At Capacity
Higher than 1500 ILV/hour = Over Capacity

As shown, all of the study ramp intersections would operate at "At Capacity" or better conditions with the addition of project traffic.

Freeway Segment Analysis

Table 6.5 displays freeway segment level of service results for the study area freeway mainline facilities under Existing Plus Project conditions. The freeway segment level of service analysis was performed utilizing the methodology presented in Section 2.6.

As shown in Table 6.5, all of the freeway segments are projected to operate at acceptable LOS D or better under Existing Plus Project conditions.

TABLE 6.5
FREEWAY SEGMENT ANALYSIS
EXISTING PLUS PROJECT CONDITIONS

Freeway	Segment	ADT	Direction	# of Lanes	Capacity[a]	D[b]	K[c]	HVF[d]	Peak Hour Volume	V/C	LOS[f]	Peak Hour	Without Project		Δ V/C Ratio	SI?
													V/C	LOS		
I-805	Main Street and Palm Avenue	139,600	NB	4M+1A	10,810	64.6%	5.9%	10.0%	5,590	0.517	B	AM	0.511	B	0.006	No
			SB	4M+1A	10,810	56.7%	8.0%	10.0%	6,680	0.618	B	PM	0.611	B	0.007	No
	Palm Avenue and SR-905	118,800	NB	4M+1A	10,810	64.6%	5.9%	10.0%	4,760	0.440	B	AM	0.433	B	0.007	No
			SB	4M+1A	10,810	56.7%	8.0%	10.0%	5,680	0.525	B	PM	0.518	B	0.007	No
SR-905	Picador Boulevard and I-805	62,900	NB	2M+1A	6,110	64.4%	8.4%	10.0%	3,590	0.588	B	AM	0.561	B	0.027	No
			SB	2M+1A	6,110	64.4%	8.4%	10.0%	3,590	0.588	B	PM	0.560	B	0.028	No
	I-805 and Caliente Avenue	73,700	NB	4M	9,400	53.1%	7.5%	10.0%	3,070	0.327	A	AM	0.306	A	0.021	No
			SB	3M+1A	8,460	59.9%	8.2%	10.0%	3,810	0.450	B	PM	0.422	B	0.028	No
	Caliente Avenue and Heritage Road	68,200	NB	3M	7,050	53.1%	7.5%	10.0%	1,390	0.197	A	AM	0.176	A	0.021	No
			SB	3M	7,050	59.9%	8.2%	10.0%	1,140	0.162	A	PM	0.145	A	0.017	No
	Heritage Road and Britannia Boulevard	68,200	NB	3M	7,050	53.1%	7.5%	10.0%	680	0.096	A	AM	0.087	A	0.009	No
			SB	3M	7,050	59.9%	8.2%	10.0%	680	0.096	A	PM	0.087	A	0.009	No
	Britannia Boulevard and La Media Road	50,300	NB	3M+1A	8,460	53.1%	7.5%	10.0%	330	0.039	A	AM	0.039	A	0.000	No
			SB	3M	7,050	59.9%	8.2%	10.0%	360	0.051	A	PM	0.050	A	0.001	No
	La Media Road and SR-125	40,300	NB	3M	7,050	53.1%	7.5%	10.0%	200	0.028	A	AM	0.028	A	0.000	No
			SB	3M	7,050	59.9%	8.2%	10.0%	220	0.031	A	PM	0.031	A	0.000	No

Source: Chen Ryan Associates; November 2016

Notes:
Bold letter indicated substandard LOS.
SI? = Significant Impact?
M = Mainline. A = Auxiliary Lane.
[a] The capacity is calculated as 2,350 ADT per main lane and 1,410 ADT (60% of the main lane capacity) per auxiliary lane.
[b] D = Directional split.| [c] K = Peak hour %. | [d] HV = Heavy vehicle % - consistent with the OMCPU. | [f] LOS during highest directional demand.

6.3 Recommended Improvements

This section identifies required improvements for roadway, intersection, and freeway facilities that are associated with buildout of the Otay Mesa Central Village Specific Plan under Existing Plus Project conditions. Procedure for determining the ADT threshold, facility improvements trigger identification, as well as associated worksheets are provided in **Appendix F**. **Figure 6-5** illustrates the recommended study area roadway segment and intersection improvements under the Existing Plus Project conditions.

Roadway Segments

- *Britannia Boulevard, between SR-905 Eastbound Ramps and Airway Road* – The Project shall widen this roadway from a 5-lane roadway (2 NB & 3 SB) to a 6-lane Prime Arterial prior to the project's **total trip generation** of 37,678 ADT. This cross-section along Britannia Boulevard is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this roadway segment would operate at LOS F with buildout of the OMCPU. As shown in Table 6.6, this segment would operate at LOS C with the recommended improvements under Existing Plus Project conditions. It is important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.
- *Airway Road, between Cactus Road and Continental Road* – The Project shall widen this roadway segment from a 4-lane roadway (1 EB & 3 WB) to a 6-lane Major Arterial prior to the project's **total trip generation** of 36,926 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this roadway segment would operate at LOS D with buildout of the OMCPU. As shown in Table 6.6, this segment would operate at LOS C with the recommended improvements under Existing Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be

phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.

- *Airway Road, between Continental Road and Britannia Boulevard* – The Project shall widen this roadway segment from a 2-lane roadway to a 6-lane Major Arterial prior to the project's **total trip generation** of 5,543 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this roadway segment would operate at LOS D with buildout of the OMCPU. As shown in Table 6.6, this segment would operate at LOS C with the recommended improvements under Existing Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.
- *Airway Road, between Britannia Boulevard and La Media Road* - The Project shall widen this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 39,437 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this roadway segment would operate at LOS D with buildout of the OMCPU. As shown in Table 6.6, this segment would operate at LOS A with the recommended improvements under Existing Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.

- *Airway Road, between La Media Road and Avenida Costa Azul* – The Project shall widen this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 5,886 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this roadway segment would operate at LOS D with buildout of the OMCPU. As shown in Table 6.6, this segment would operate at LOS A with the recommended improvements under Existing Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.

- *Siempre Viva Road, between Cactus Road and Britannia Boulevard* – The Project shall widen this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 37,001 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this roadway segment would operate at LOS C with buildout of the OMCPU. As shown in Table 6.6, this segment would operate at LOS A with the recommended improvements under Existing Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.

Existing Intersection Geometry

Improvement Intersection Geometry

X,XXX Improvement-Triggering Project's Total Trip Generation

Project Site

City of Chula Vista

City of San Diego

Unincorporated San Diego County

16,187

24,512

5,543

37,678

5,543

39,437

5,886

36,926

37,001

16,187

5-Ln to 6-Ln Prime Arterial

4-Ln to 6-Ln Major Arterial

2-Ln to 6-Ln Major Arterial

2-Ln to 4-Ln Major Arterial

2-Ln to 6-Ln Prime Arterial

Otay Valley Rd

Main St

Palm Ave

Beyer Bl

Airway Rd

Otay Mesa Rd

Cam Maquiladora

Siempre Viva Rd

Otay Mesa Rd

Birch Rd

Olympic Pkwy

Palomar St

Heritage Rd

Brandywine Ave

La Media Rd

Eastlake Pkwy

Hunte Pkwy

Discovery Falls Dr

University Dr

Village 9 Street Dr

Ave De Las Vistas

Starfish Wy

Ocean View Hills Pkwy

Del Sol Bl

Dairy Mart Rd

Pricador Bl

E Beyer Bl

San Ysidro Bl

Caliente Ave

Corporate Ctr Dr

Innovative Dr

Datsun Rd

Cactus Rd

Britannia Bl

Britannia Park Pl

Siempre Viva Ct

Bristow Ct

St. Andrews Ave

Lonestar Rd

Piper Ranch Rd

Otay Mesa Rd

Ave de la Fuente

Avda Costa Azul

Melksee St

Harvest Rd

Sanyo Ave

Otay Ctr Dr

Customhouse Plz

Paseo de las Americas

Enrico Fermi Dr

805

905

125

5

Otay Mesa Central Village Specific Plan

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Figure 6-5

Geometrics with Recommended Improvements - Existing Plus Project Conditions

Table 6.6 displays level of service analysis results both before and after implementation of the recommended improvements at the deficient roadway segments under Existing Plus Project conditions.

TABLE 6.6
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT CONDITIONS – WITH IMPROVEMENTS

		Before Improvements			After Improvements		
Roadway	Segment	ADT	Cross Section	LOS	ADT	Cross Section	LOS
Britannia Boulevard	SR-905 EB Ramps to Airway Road	47,330	5-Ln w / RM (2-NB, 3-SB)	**E**	47,330	6-Ln w / RM (Prime Arterial)	C
Airway Road	Cactus Road to Continental Road	32,410	4-Ln w / RM (1-EB, 3-WB)	**E**	32,410	6-Ln w / RM (Major Arterial)	C
	Continental Road to Britannia Boulevard	32,510	2-Ln	**F**	32,510	6-Ln w/ RM (Major Arterial)	C
	Britannia Boulevard to La Media Road	6,570	2-Ln	**F**	6,570	4-Ln w/ RM (Major Arterial)	A
	La Media Road to Avenida Costa Azul	7,930	2-Ln	**F**	7,930	4-Ln w/ RM (Major Arterial)	A
Siempre Viva Road	Cactus Road to Britannia Boulevard	6,870	2-Ln	**E**	6,870	6-Ln w/ RM (Major Arterial)	A

Source: Chen Ryan Associates; November 2016

Notes:
Bold letter indicates substandard LOS.
RM = Raised Median.

Intersections

Facility improvements associated with buildout of the Otay Mesa Central Village Specific Plan would be required at the following three (3) intersections:

16. *Britannia Boulevard / Otay Mesa Road* – The Project shall restripe an additional exclusive left-turn lane at the westbound approach of the intersection of Britannia Boulevard / Otay Mesa Road prior to the project's **total trip generation** of 24,512 ADT. This recommended additional westbound left-turn lane is within the intersection geometrics assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS E in the AM peak hour and LOS D in the PM peak hour with buildout of the OMCPU. As shown in Table 6.7, this intersection would operate at LOS D during both peak hours with the recommended improvements under Existing Plus Project conditions. It is important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.

19. *Britannia Boulevard / Airway Road* – The Project shall widen the eastbound approach (Airway Road) of this intersection to accommodate dual left-turn lanes, two through lanes, and a through-right-turn shared lane, restripe the westbound approach (Airway Road) to accommodate an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane with right-turn overlap phasing, and widen the southbound approach (Britannia Boulevard) to accommodate an exclusive left-turn lane, two through lanes, and two exclusive right-turn lanes with right-turn overlap phasing, prior to the project's **total trip generation** of 16,187 ADT. These recommended improvements are within the intersection geometrics assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 6.7, this intersection would operate at LOS D during both peak hours with the recommended improvements under Existing Plus Project conditions. It is important to note that interim improvement with fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.

39. *Continental Road / Airway Road* – As described earlier in this section under "Roadway Segments", Airway Road between Continental Road and Britannia Boulevard shall be widened from a 2-lane roadway to a 6-lane Major Arterial prior to the project's **total trip generation** of 5,543 ADT by the project applicant. This improvement will improve traffic

operations at this intersection. As shown in Table 6.7, this intersection would operate at LOS D during the AM peak hour and LOS B during the PM peak hour with the recommended improvements under Existing Plus Project conditions. It is important to note that this improvement and identified trigger have been identified at the program level, only. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement and identified trigger have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements on a project-by-project basis.

Table 6.7 displays level of service analysis results both the before and after implementation of the recommended improvements at the deficient intersections under Existing Plus Project conditions.

TABLE 6.7
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT CONDITIONS – WITH IMPROVEMENTS

			Before Improvements				After Improvements			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Intersection	Control	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS
16	Britannia Boulevard / Otay Mesa Road	Signalized	53.2	D	344.2	**F**	42.1	D	48.8	D
19	Britannia Boulevard / Airway Road	Signalized	321.6	**F**	492.2	**F**	51.5	D	46.1	D
39	Continental Road / Airway Road	Signalized	33.6	C	197.1	**F**	36.5	D	13.9	B

Source: Chen Ryan Associates; November 2016

Note:
Bold letter indicated substandard LOS.

As shown in the table above, the recommended improvements would improve the traffic operations at the intersections impacted by the addition of the proposed project's traffic.

Freeway Segments

No freeway facilities would be significantly impacted with the addition of project traffic within the project study area, therefore, no freeway improvements are recommended under Existing Plus Project conditions.

7.0 Year 2025 Cumulative Traffic Conditions

This section provides an analysis of the expected year 2025 cumulative traffic conditions without the Otay Mesa Central Village Specific Plan project. The scenario analyzed in this section is:

- Year 2025 Cumulative (Existing Plus Cumulative Projects);

7.1 Description of Cumulative Projects

Cumulative projects include those that are approved or pending in the East Otay Mesa area (both in the City and County of San Diego). Due to the proposed project's close proximity to the City of Chula Vista, cumulative growth within the City of Chula Vista was also taken into account when developing the cumulative traffic volumes.

The Cumulative model forecast was based on the recent City of Chula Vista and County of San Diego approved model (developed for the Otay Ranch Resort Village 13 project). Note that some of the cumulative projects have been constructed and occupied when traffic counts were collected (October 2015) for this Project, however, based on further review together with City staff, it was determined that the Cumulative model forecast used for the analyses of this Project represents a more conservative assessment and the worst-case scenario. Year 2025 Cumulative traffic model land use assumptions as well as the list of cumulative projects included in the model are provided in **Appendix G.**

7.2 Year 2025 Cumulative (Existing Plus Cumulative Projects) Conditions Roadway Network and Traffic Volumes

The Year 2025 Cumulative roadway network was assumed to be largely identical to the Existing conditions network, with the inclusion of the following Capital Improvement Projects (CIP) and other known funded improvements:

- Heritage Road, between Olympic Parkway and Main Street – this facility is included as a 6-lane Prime Arterial under the Year 2025 Cumulative traffic conditions. As indicated in the City of Chula Vista's currently adopted General Plan Circulation Element, the ultimate classification for this section of the Heritage Road is a 6-lane Prime Arterial. This improvement project (STM374, OR836G, and OR837G) also includes the signalization of the intersection of Heritage Road / Main Street. Heritage Road connection is identified as a Mitigation Measure for multiple projects within the City of Chula Vista including the Village Two Comprehensive SPA Amendment (SCH #2003091012) and the University Villages Project (identified as MM TCA-4 in the University Villages FEIR, SCH # 2013071077). It is also a Chula Vista Transportation Development Impact Fee (TDIF) facility (STM 364 – Facility #57), and identified as a 6-lane Prime Arterial in the Chula Vista General Plan Circulation Plan – East. Heritage Road will be constructed by the two respective developers fronting this facility and the northern section of this road has been constructed to partial width in order to provide

access for Village Two. The University Villages FEIR identifies this project to be built by the year 2025. For additional information, see **Appendix H**.

- Heritage Road, south of Main Street to Chula Vista city limit – this facility is included as a 6-lane Prime Arterial under the Year 2025 Cumulative traffic conditions. As indicated in the City of Chula Vista's currently adopted General Plan Circulation Element, the ultimate classification designation for Heritage Road south of Main Street is a 6-lane Prime Arterial. This improvement project (STM364 - Heritage Road Bridge Replacement) is included in the Chula Vista adopted FY 2014-2015 through FY 2016-17 Capital Improvement Program (CIP) and will be funded by a mix of the Highway Bridge Program, Transportation Development Impact Fees, and other miscellaneous transportation grants. As of November 2016, the design is at approximately 35% and waiting on NEPA approval to finish design. The City of Chula Vista is expecting to start construction in late 2018 and complete in late 2020. For additional information, see Appendix H.

- Construction of Main Street, between Heritage Road and La Media Road, as a 6-lane Prime Arterial, including construction of Main Street Bridge. The construction of this segment of Main Street is included within the City's TDIF program and the first phase of the construction is included in the City's CIP Program for 2016-2017 (STM357). For additional information, see Appendix H.

Roadway geometrics under the Year 2025 Cumulative (Existing Plus Cumulative Projects) traffic conditions are displayed in **Figures 7-1**. Intersection geometrics under Year 2025 Cumulative Scenario are identical to existing conditions, as seen in Figure 5-2. **Figure 7-2** displays daily roadway and freeway traffic volumes, while **Figure 7-3** displays intersection peak hour traffic volumes. Traffic volumes for the Year 2025 Cumulative (Existing Plus Cumulative Projects) traffic conditions were derived based upon the most recent and the City of Chula Vista and County of San Diego approved model (developed for the Otay Ranch Resort Village 13 project), as described in Section 7.1.

7.3 Year 2025 Cumulative (Existing Plus Cumulative Projects) Traffic Conditions

LOS analyses for the Year 2025 Cumulative traffic conditions were conducted using the methodologies described in Chapter 2.0. Roadway segment, intersection, and freeway segment level of service, as well as freeway ramp intersection ILV analysis results for Cumulative traffic conditions are discussed separately below.

#-Ln	Number of Travel Lanes
RM	Raised Median
SM	Striped Median
CLTL	Center Left Turn Lane
Aux	Auxiliary Lane (Freeway Only)
----	Future Roadways

INSET

Project Site

SEE INSET

City of Chula Vista

City of San Diego

Unincorporated San Diego County

Otay Mesa Central Village Specific Plan

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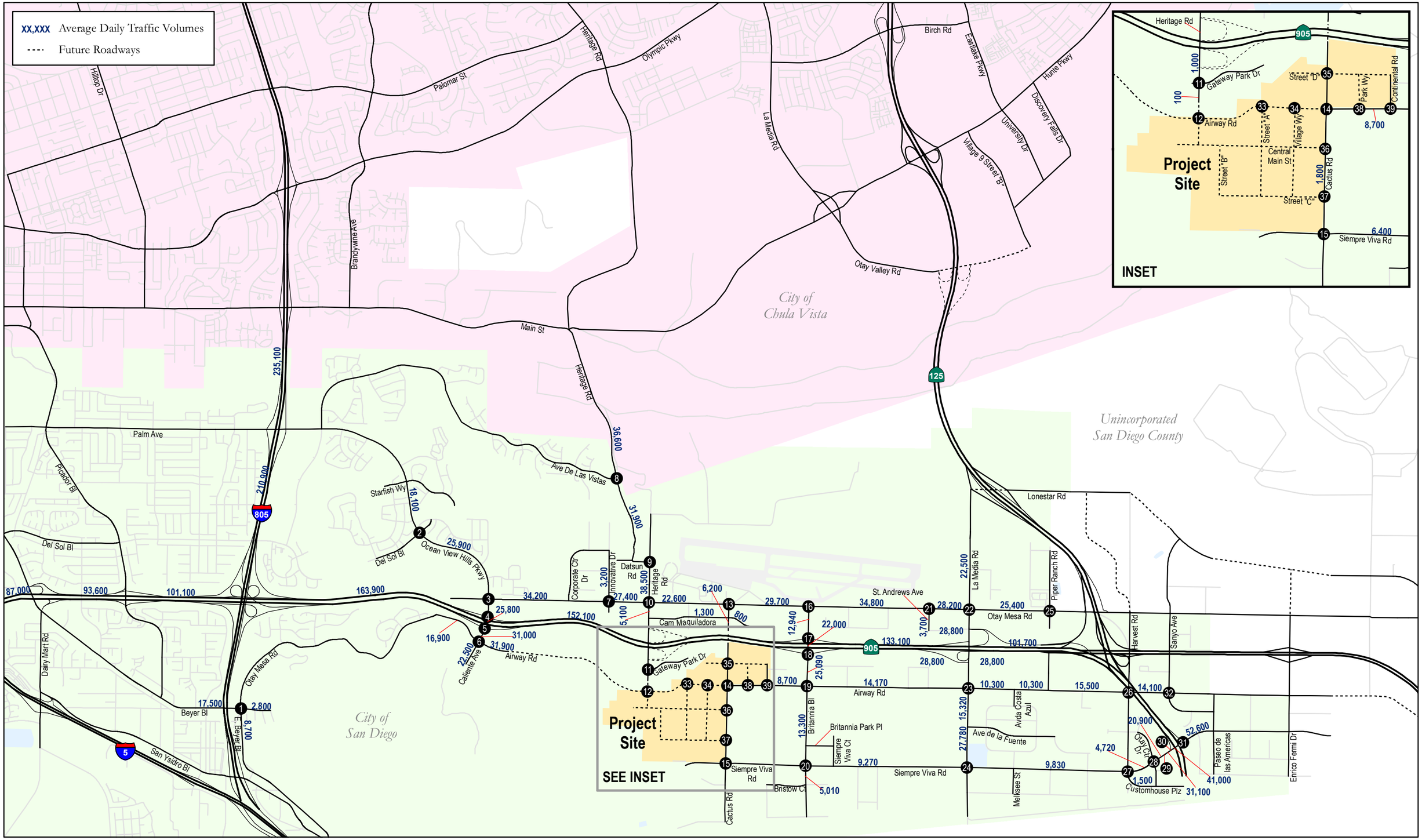
Figure 7-1
Roadway Geometrics - Year 2025 Cumulative Traffic Conditions



Otay Mesa Central Village Specific Plan

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Figure 7-2
Roadway Average Daily Traffic Volumes - Year 2025 Cumulative Traffic Conditions

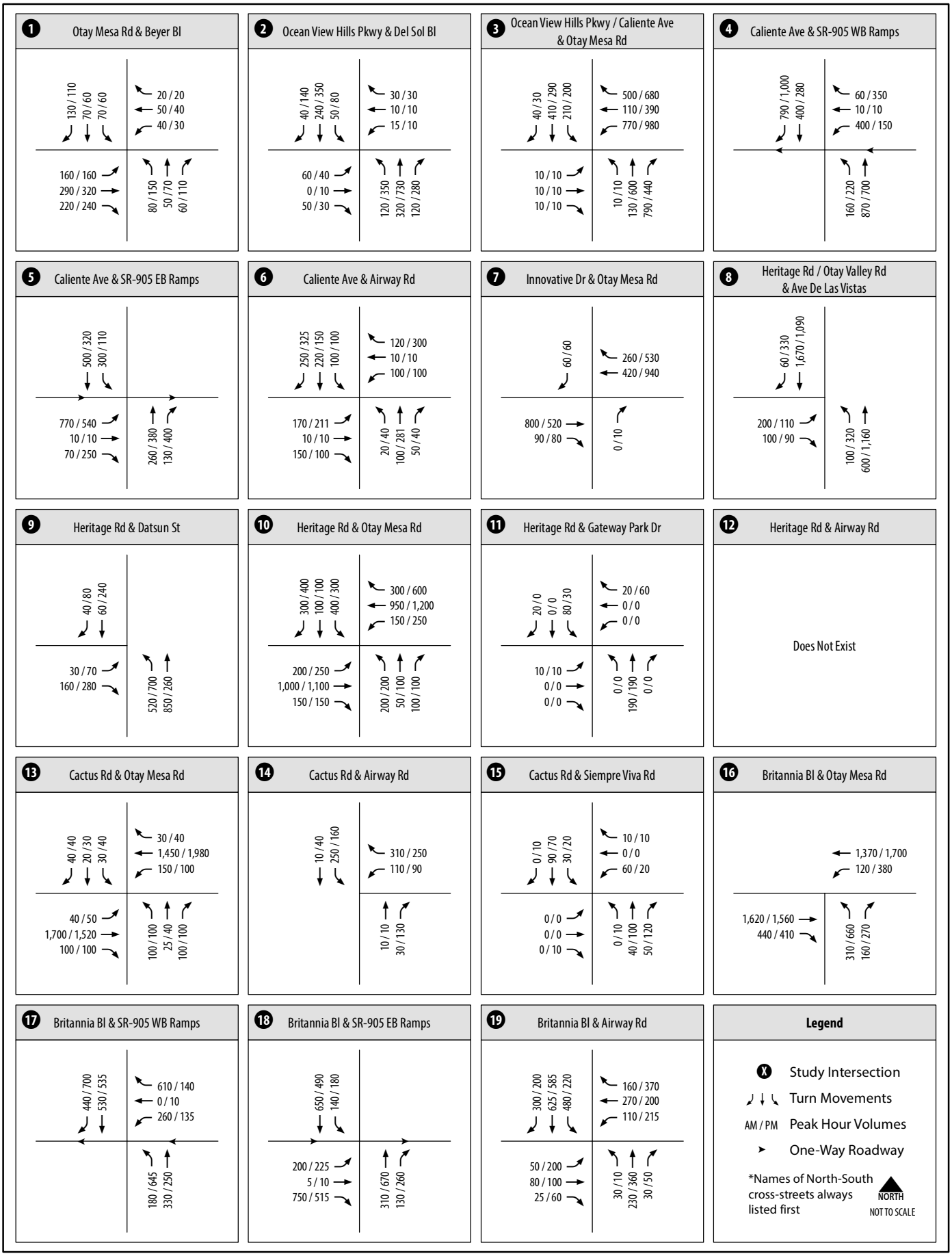

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Figure 7-3

AM/PM Peak Hour Intersection Volumes - Year 2025 Cumulative Traffic Conditions (Intersections 1-19)

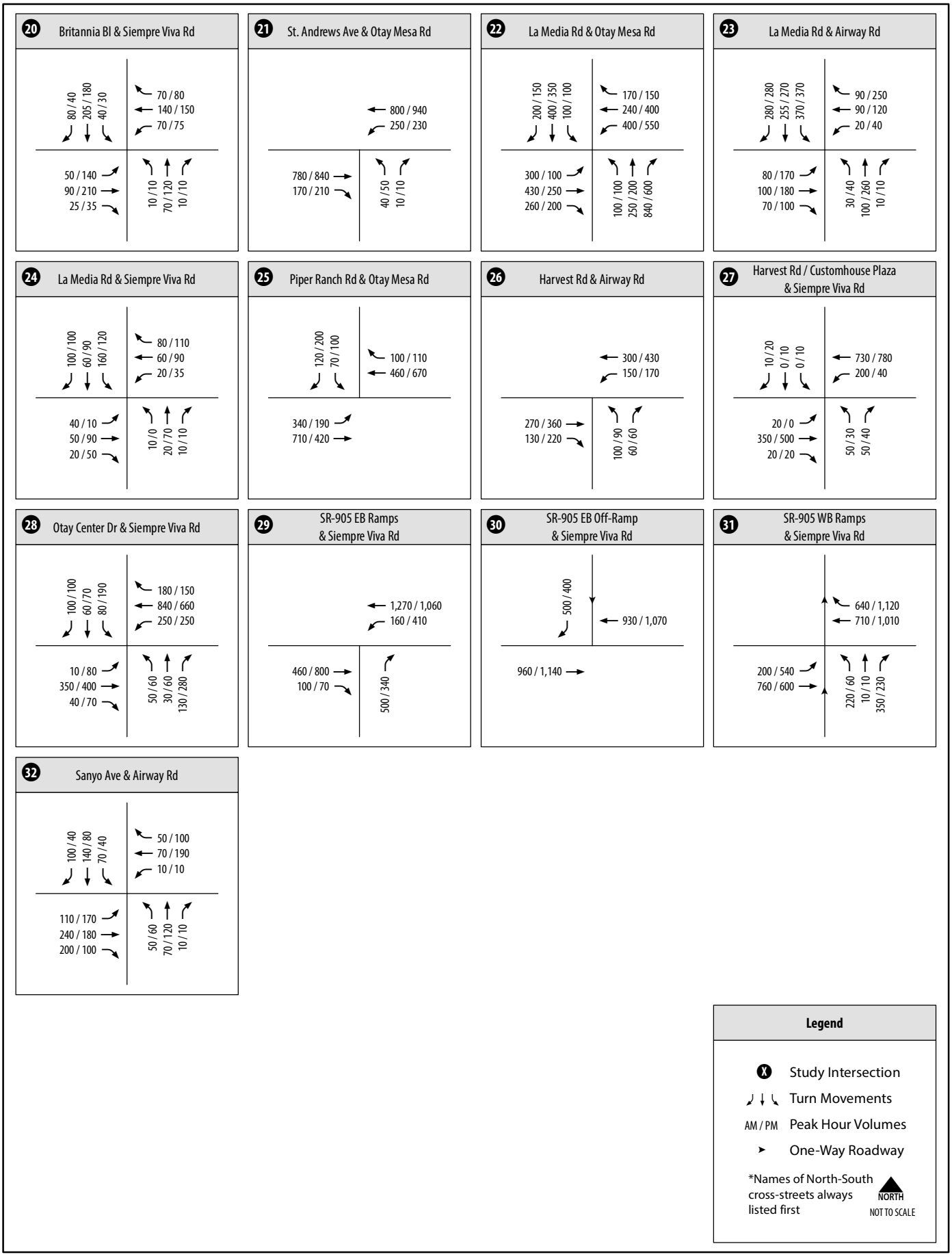

Figure 7-3

AM/PM Peak Hour Intersection Volumes - Year 2025 Cumulative Traffic Conditions (Intersections 20-32)

Roadway Segment Analysis

Table 7.1 displays the Level of Service analysis results for key roadway segments located in the City of San Diego under the Cumulative traffic conditions.

TABLE 7.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE CONDITIONS – CITY OF SAN DIEGO

Roadway	From	To	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	V/C	LOS
East Beyer Boulevard	Beyer Boulevard	South of Beyer Boulevard	2-Ln Collector No Fronting Property	2-Ln	8,700	10,000	0.870	D
Ocean View Hills Parkway	Starfish Way	Del Sol Boulevard	4-Ln Major Arterial	4-Ln w / RM	18,100	40,000	0.453	B
	Del Sol Boulevard	Otay Mesa Road	6-Ln Major Arterial	6-Ln w / RM	25,900	50,000	0.518	B
Caliente Avenue	SR-905 WB Ramps	SR-905 EB Ramps	5-Ln Prime Arterial	5-Ln w / SM (3-NB, 2-SB)	25,800	50,000[1]	0.516	B
	SR-905 EB Ramps	Airway Road	5-Ln Prime Arterial	5-Ln w / SM (3-NB, 2-SB)	31,000	50,000[1]	0.620	C
	Airway Road	Southern Terminus	5-Ln Prime Arterial	5-Ln w / RM (3-NB, 2-SB)	22,500	50,000[1]	0.450	B
Innovative Drive	Progressive Avenue	Otay Mesa Road	2-Ln Collector w/ Commercial Fronting	2-Ln	3,200	8,000	0.400	B
Heritage Road	Avenida De Las Vistas	Datsun Street	2-Ln Collector No Fronting Property	2-Ln	31,900	10,000	3.190	**F**
	Datsun Street	Otay Mesa Road	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	38,500	15,000	2.567	**F**
	Otay Mesa Road	Camino Maquiladora	3-Ln Collector	3-Ln (1-NB, 2-SB)	5,100	11,250[2]	0.453	B

TABLE 7.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE CONDITIONS – CITY OF SAN DIEGO

Roadway	From	To	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	V/C	LOS
Heritage Road	Camino Maquiladora	Gateway Park Drive	2-Ln Collector No Fronting Property	2-Ln	1,000	10,000	0.100	A
	Gateway Park Drive	Southern Terminus	2-Ln Collector No Fronting Property	2-Ln	100	10,000	0.010	A
Cactus Road	Otay Mesa Road	SR-905	2-Ln Collector w/ Commercial Fronting	2-Ln	6,200	8,000	0.775	D
	SR-905	Airway Road	2-Ln Collector w/ Commercial Fronting	2-Ln	1,800	8,000	0.225	A
	Airway Road	Siempre Viva Road	2-Ln Collector w/ Commercial Fronting	2-Ln	1,800	8,000	0.225	A
Britannia Boulevard	Otay Mesa Road	SR-905 WB Ramps	6-Ln Prime Arterial	6-Ln w/ RM	12,940	60,000	0.216	A
	SR-905 WB Ramps	SR-905 EB Ramps	6-Ln Prime Arterial	6-Ln w/ RM	22,000	60,000	0.367	A
	SR-905 EB Ramps	Airway Road	5-Ln Prime Arterial	5-Ln w/ RM (2-NB, 3-SB)	25,090	50,000[1]	0.502	B
	Airway Road	Siempre Viva Road	4-Ln Major Arterial	4-Ln w/ RM	13,300	40,000	0.333	A
	Siempre Viva Road	Bristow Court	2-Ln Collector w/ Commercial Fronting	2-Ln	5,010	8,000	0.626	D
Saint Andrews Avenue	Otay Mesa Road	Otay Mesa Center Road	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	3,700	15,000	0.247	A
La Media Road	northern terminus	Otay Mesa Road	2-Ln Collector w/ Commercial Fronting	2-Ln	22,500	8,000	2.813	**F**
	Otay Mesa Road	SR-905 WB Ramps	6-Ln Prime Arterial	6-Ln w/ SM	28,800	60,000	0.480	B
	SR-905 WB Ramps	SR-905 EB Ramps	6-Ln Prime Arterial	6-Ln w/ SM	19,100	60,000	0.318	A

TABLE 7.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE CONDITIONS – CITY OF SAN DIEGO

Roadway	From	To	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	V/C	LOS
La Media Road	SR-905 EB Ramps	Airway Road	3-Ln Major Arterial	3-Ln (1-NB, 2-SB)	24,330	30,000[3]	0.811	D
	Airway Road	Avenida De La Fuente	2-Ln Collector No Fronting Property	2-Ln	15,320	10,000	1.532	**F**
	Avenida De La Fuente	Siempre Viva Road	2-Ln Collector No Fronting Property	2-Ln	27,780	10,000	2.778	**F**
Otay Mesa Road	Ocean View Hills Parkway	Corporate Center Drive	6-Ln Prime Arterial	6-Ln w / RM	34,200	60,000	0.570	B
	Corporate Center Drive	Heritage Road	6-Ln Prime Arterial	6-Ln w / RM	27,400	60,000	0.457	B
	Heritage Road	Cactus Road	6-Ln Prime Arterial	6-Ln w / RM	22,600	60,000	0.377	A
	Cactus Road	Britannia Boulevard	6-Ln Prime Arterial	6-Ln w / RM	29,700	60,000	0.495	B
	Britannia Boulevard	Saint Andrews Avenue	6-Ln Prime Arterial	6-Ln w / RM	34,800	60,000	0.580	B
	Saint Andrews Avenue	La Media Road	6-Ln Prime Arterial	6-Ln w / RM	28,200	60,000	0.470	B
	La Media Road	Piper Ranch Road	6-Ln Prime Arterial	6-Ln w / RM	25,400	60,000	0.423	B
Camino Maquiladora	Pacific Rim Court	Cactus Road	2-Ln Collector w/ Commercial Fronting	2-Ln	1,300	8,000	0.163	A
	Cactus Road	Otay Heights Court	2-Ln Collector w/ Commercial Fronting	2-Ln	800	8,000	0.100	A
Airway Road	Otay Mesa Road	Caliente Avenue	4-Ln w/ Continuous-Left-Turn-Lane	4-Ln w / CLTL	16,900	30,000	0.563	C
	Caliente Avenue	eastern terminus	3-Ln Major Arterial	3-Ln w / RM (2-EB, 1WB)	31,900	30,000[3]	1.063	**F**
	Cactus Road	Continental Road	2-Ln Collector w/ Commercial Fronting	2-Ln	8,700	8,000	1.088	**F**

TABLE 7.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE CONDITIONS – CITY OF SAN DIEGO

Roadway	From	To	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	V/C	LOS
Airway Road	Continental Road	Britannia Boulevard	2-Ln Collector w/ Commercial Fronting	2-Ln	8,700	8,000	1.088	**F**
	Britannia Boulevard	La Media Road	2-Ln Collector w/ Commercial Fronting	2-Ln	14,170	8,000	1.771	**F**
	La Media Road	Avenida Costa Azul	2-Ln Collector w/ Commercial Fronting	2-Ln	10,300	8,000	1.288	**F**
	Avenida Costa Azul	Piper Ranch Road	4-Ln Major Arterial	4-Ln w / RM	10,300	40,000	0.258	A
	Piper Ranch Road	Harvest Road	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	15,500	15,000	1.033	**F**
	Harvest Road	Sanyo Avenue	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	14,100	15,000	0.940	**E**
Beyer Boulevard	Park Avenue	Otay Mesa Road	4-Ln w/ Continuous-Left-Turn-Lane	4-Ln w / CLTL	17,500	30,000	0.583	C
	Otay Mesa Road	East of Otay Mesa Road	2-Ln Collector No Fronting Property	2-Ln	2,800	10,000	0.280	A
Siempre Viva Road	Cactus Road	Britannia Boulevard	2-Ln Collector w/ Commercial Fronting	2-Ln	6,400	8,000	0.800	D
	Britannia Boulevard	La Media Road	2-Ln Collector w/ Commercial Fronting	2-Ln	9,270	8,000	1.159	**F**
	La Media Road	Customhouse Plaza	6-Ln Prime Arterial	6-Ln w / RM	9,830	60,000	0.164	A
	Customhouse Plaza	Otay Center Drive	6-Ln Prime Arterial	6-Ln w / RM	4,720	60,000	0.079	A
	Otay Center Drive	SR-905 SB Ramps	6-Ln Prime Arterial	6-Ln w / RM	20,900	60,000	0.348	A
	SR-905 SB Ramps	SR-905 SB Off-Ramp	6-Ln Prime Arterial	6-Ln w / RM	31,100	60,000	0.518	B

TABLE 7.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE CONDITIONS – CITY OF SAN DIEGO

Roadway	From	To	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	V/C	LOS
Siempre Viva Road	SR-905 SB Off-Ramp	SR-905 NB Ramps	6-Ln Prime Arterial	6-Ln w / RM	41,000	60,000	0.683	C
	SR-905 NB Ramps	East of SR-905 Ramps	6-Ln Prime Arterial	6-Ln w / RM	52,600	60,000	0.877	D
Customhouse Plaza	Siempre Viva Road	southern terminus	2-Ln Collector w/ Commercial Fronting	2-Ln	1,500	8,000	0.188	A

Source: Chen Ryan Associates; November 2016

Notes:
Bold letter indicates substandard LOS.
V/C = Volume to Capacity Ratio.
RM = Raised Median.
SM = Striped Median.
CLTL = Continuous-Left-Turn Lane.
[1] Based on the Capacity of a 6-Ln Prime Arterial, reduced to exclude a lane. (5/6*60,000 = 50,000)
[2] Based on the capacity of a 4-Ln Collector, reduced to exclude a lane. (3/4*15,000 = 11,250)
[3] Based on the Capacity of a 4-Lane Major Arterial, reduced to exclude a lane. (3/4*40,000 = 30,000)

As shown in the table, all of the roadway segments located in the City of San Diego are projected to operate at acceptable LOS D or better under the Year 2025 Cumulative traffic conditions, with the following thirteen (13) exceptions:

- Heritage Road, between Avenida De Las Vistas and Datsun Street – LOS F;
- Heritage Road, between Datsun Street and Otay Mesa Road – LOS F;
- La Media Road, between northern terminus and Otay Mesa Road – LOS F;
- La Media Road, between Airway Road and Avenida De La Fuente – LOS F;
- La Media Road, between Avenida De La Fuente and Siempre Viva Road – LOS F;
- Airway Road, between Caliente Avenue and eastern terminus – LOS F;
- Airway Road, between Cactus Road and Continental Road – LOS F;
- Airway Road, between Continental Road and Britannia Boulevard – LOS F;
- Airway Road, between Britannia Boulevard and La Media Road – LOS F;
- Airway Road, between La Media Road and Avenida Costa Azul – LOS F;
- Airway Road, between Piper Ranch Road and Harvest Road – LOS F;
- Airway Road, between Harvest Road and Sanyo Avenue – LOS F; and
- Siempre Viva Road, between Britannia Boulevard and La Media Road.

Table 7.2 displays the LOS analysis results for the key roadway segment located in the City of Chula Vista under the Year 2025 Cumulative traffic conditions.

TABLE 7.2
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE CONDITIONS – CITY OF CHULA VISTA

Roadway	From	To	Functional Classification	Cross-Section	ADT	LOS Threshold (LOS C)	LOS
Heritage Road	Main Street	Avenida De Las Vistas	Prime Arterial	6-Ln w / RM	36,600	50,000	A

Source: Chen Ryan Associates; April 2016

Notes:
Bold letter indicates substandard LOS.
RM = Raised Median.

As shown in the table above, the roadway segment located in the City of Chula Vista is projected to operate at acceptable LOS A under the Year 2025 Cumulative traffic conditions.

Intersection Analysis

Table 7.3 displays LOS and average vehicle delay results for intersections under Year 2025 Cumulative conditions. LOS calculation worksheets for the Year 2025 Cumulative conditions are provided in **Appendix I**.

TABLE 7.3
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE CONDITIONS

			AM Peak Hour		PM Peak Hour	
ID	Intersection	Control Type	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
1	Beyer Boulevard / Otay Mesa Road	Signalized	17.9	B	16.7	B
2	Ocean View Hills Parkway / Del Sol Boulevard	Signalized	13.1	B	22.0	C
3	Ocean View Hills Parkway / Otay Mesa Road	Signalized	39.9	D	35.4	D
4	Caliente Avenue / SR-905 WB Ramps	Signalized	18.2	B	17.3	B
5	Caliente Avenue / SR-905 EB Ramps	Signalized	45.7	D	20.9	C
6	Caliente Avenue / Airway Road	AWSC	24.9	C	47.2	**E**
7	Innovative Drive / Otay Mesa Road	SSSC	9.7	A	11.4	B
8	Heritage Road / Avenida De Las Vistas	AWSC	N/A[1]	**F**	448.6	**F**
9	Heritage Road / Datsun Street	AWSC	119.6	**F**	119.8	**F**
10	Heritage Road / Otay Mesa Road	Signalized	41.3	D	44.2	D
11	Heritage Road / Gateway Park Drive	AWSC	8.4	A	8.3	A
12	Heritage Road / Airway Road	Does Not Exist				
13	Cactus Road / Otay Mesa Road	Signalized	26.7	C	23.9	C
14	Cactus Road / Airway Road	SSSC	9.6	A	7.3	A
15	Cactus Road / Siempre Viva Road	AWSC	8.0	A	8.3	A
16	Britannia Boulevard / Otay Mesa Road	Signalized	14.6	B	38.3	D
17	Britannia Boulevard / SR-905 WB Ramps	Signalized	13.9	B	39.9	D
18	Britannia Boulevard / SR-905 EB Ramps	Signalized	13.2	B	16.4	B
19	Britannia Boulevard / Airway Road	Signalized	51.3	D	54.5	D
20	Britannia Boulevard / Siempre Viva Road	Signalized	132.9	**F**	203.2	**F**
21	St Andrews Avenue / Otay Mesa Road	Signalized	21.2	C	17.7	B
22	La Media Road / Otay Mesa Road	Signalized	172.2	**F**	119.9	**F**
23	La Media Road / Airway Road	Signalized	13.7	B	34.9	C
24	La Media Road / Siempre Viva Road	AWSC	10.7	B	11.7	B
25	Piper Ranch Road / Otay Mesa Road	Signalized	12.7	B	11.1	B
26	Harvest Road / Airway Road	AWSC	13.9	B	30.4	D

TABLE 7.3
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE CONDITIONS

ID	Intersection	Control Type	AM Peak Hour		PM Peak Hour	
			Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
27	Customhouse Plaza / Siempre Viva Road	Signalized	13.0	B	6.3	A
28	Otay Center Drive / Siempre Viva Road	Signalized	16.1	B	21.3	C
29	SR-905 SB Ramps / Siempre Viva Road	Signalized	3.8	A	6.1	A
30	SR-905 SB Off-Ramp / Siempre Viva Road	SSSC	89.8	**F**	29.6	D
31	SR-905 NB Off-Ramp / Siempre Viva Road	Signalized	15.9	B	24.8	C
32	Sanyo Avenue / Airway Road	AWSC	18.2	C	13.5	B
33	Street "A" / Airway Road	Does Not Exist				
34	Village Way / Airway Road	Does Not Exist				
35	Cactus Road / Street "D"	Does Not Exist				
36	Cactus Road / Central Main Street	Does Not Exist				
37	Cactus Road / Street "C"	Does Not Exist				
38	Park Way / Airway Road	Does Not Exist				
39	Continental Road / Airway Road	Does Not Exist				

Source: Chen Ryan Associates; November 2016

Notes:
Bold letter indicated substandard LOS.
AWSC = All-Way Stop Controlled.
SSSC = Side-Street Stop Controlled, the delay shown is the worst delay experienced by any of the approaches.
[1]Exceeds maximum reasonable calculable delay of 600 seconds per Synchro 9.0 traffic analysis software.

As shown in the table above, all of the study area intersections are projected to operate at acceptable LOS D or better during both the AM and PM peak hours under the Year 2025 Cumulative traffic conditions, with the following six (6) exceptions:

6. Caliente Avenue / Airway Road – LOS E during PM peak hour;
8. Heritage Road / Avenida De Las Vistas – LOS F during both the AM and PM peak hour;
9. Heritage Road / Datsun Street – LOS F during both the AM and PM peak hour;
20. Britannia Boulevard / Siempre Viva Road – LOS E during AM peak hour and LOS F during PM peak hour; and
22. La Media Road / Otay Mesa Road – LOS F during both the AM peak hour and PM peak hour.
30. SR-905 SB Off-Ramp / Siempre Viva Road – LOS F during the AM peak hour.

Ramp Intersection Capacity Analysis

Consistent with Caltrans requirements, the signalized ramp intersections were analyzed using ILV procedures, as described in Section 2.4. ILV analysis results are displayed in **Table 7.4** and analysis worksheets for Year 2025 Cumulative conditions are provided in Appendix I.

TABLE 7.4
RAMP INTERSECTION CAPACITY ANALYSIS
YEAR 2025 CUMULATIVE CONDITIONS

Ramp Intersection	Peak Hour	ILV / Hour	Description
Caliente Avenue and SR-905 EB Ramps	AM	1,287	*At Capacity*
	PM	1,177	*Under Capacity*
Caliente Avenue and SR-905 WB Ramps	AM	1,493	*At Capacity*
	PM	1,663	*Over Capacity*
Britannia Boulevard and SR-905 EB Ramps	AM	705	*Under Capacity*
	PM	908	*Under Capacity*
Britannia Boulevard and SR-905 WB Ramps	AM	1,008	*Under Capacity*
	PM	1,316	*At Capacity*
Siempre Viva Road and SR-905 NB Ramps	AM	887	*Under Capacity*
	PM	1,282	*At Capacity*
Siempre Viva Road and SR-905 SB Ramps	AM	673	*Under Capacity*
	PM	712	*Under Capacity*

Source: Chen Ryan Associates; April 2016

Notes:
Lower than 1,200 ILV/hour = Under Capacity
Between 1,200 and 1,500 ILV/hour = At Capacity
Higher than 1500 ILV/hour = Over Capacity

As shown in the table, all of the study ramp intersections are projected to operate at "At Capacity" or better during both the AM and PM peak hours under the Year 2025 Cumulative traffic conditions, with the exception of the following ramp intersection:

- Caliente Avenue and SR-905 WB Ramps – "Over Capacity" during the PM peak hour.

Freeway Segment Analysis

Table 7.5 displays freeway segment level of service results for the study area freeway mainline facilities under the Cumulative traffic conditions. The freeway segment level of service analysis was performed utilizing the methodology presented in Section 2.6.

As shown in the table, the following three (3) freeway segments would operate at substandard LOS E or F under the Year 2025 Cumulative traffic conditions:

- I-805, between Main Street and Palm Avenue – LOS F in the SB direction;
- I-805, between Palm Avenue and SR-905 – LOS E in the SB direction; and
- SR-905, between I-805 and Caliente Avenue – LOS F in the WB direction.

TABLE 7.5
FREEWAY SEGMENT ANALYSIS
YEAR 2025 CUMULATIVE CONDITIONS

Freeway	Segment	ADT	Direction	# of Lanes	Capacity[a]	D[b]	K[c]	HVF[d]	Peak Hour Volume	V/C	LOS[f]	Peak Hour
I-805	Main Street and Palm Avenue	235,100	NB	4M+1A	10,810	5.9%	64.6%	10.0%	9,420	0.871	D	AM
			SB	4M+1A	10,810	8.0%	56.7%	10.0%	11,250	1.041	**F**	PM
	Palm Avenue and SR-905	210,900	NB	4M+1A	10,810	5.9%	64.6%	10.0%	8,450	0.782	C	AM
			SB	4M+1A	10,810	8.0%	56.7%	10.0%	10,090	0.933	**E**	PM
SR-905	Picador Boulevard and I-805	101,100	EB	3M+1A	8,460	8.4%	64.4%	10.0%	5,780	0.683	C	AM
			WB	3M+1A	8,460	8.4%	64.4%	10.0%	5,770	0.682	C	PM
	I-805 and Caliente Avenue	163,900	EB	4M	9,400	7.5%	53.1%	10.0%	6,840	0.728	C	AM
			WB	3M+1A	8,460	8.2%	59.9%	10.0%	8,480	1.002	**F**	PM
	Caliente Avenue and Heritage Road	152,100	EB	3M	7,050	7.5%	53.1%	10.0%	3,090	0.438	B	AM
			WB	3M	7,050	8.2%	59.9%	10.0%	2,540	0.360	A	PM
	Heritage Road and Britannia Boulevard	144,460	EB	3M	7,050	7.5%	53.1%	10.0%	1,450	0.206	A	AM
			WB	3M	7,050	8.2%	59.9%	10.0%	1,440	0.204	A	PM
	Britannia Boulevard and La Media Road	133,100	EB	3M+1A	8,460	7.5%	53.1%	10.0%	890	0.105	A	AM
			WB	3M	7,050	8.2%	59.9%	10.0%	950	0.135	A	PM
	La Media Road and SR-125	101,700	EB	3M	7,050	7.5%	53.1%	10.0%	510	0.072	A	AM
			WB	3M	7,050	8.2%	59.9%	10.0%	560	0.079	A	PM

Source: Chen Ryan Associates; April 2016

Notes:
Bold letter indicated substandard LOS.
M = Mainline. A = Auxiliary Lane.
[a] The capacity is calculated as 2,350 ADT per main lane and 1,410 ADT (60% of the main lane capacity) per auxiliary lane.
[b] D = Directional split.| [c] K = Peak hour %. | [d] HV = Heavy vehicle
% - consistent with the OMCPU. | [(f)] LOS during highest directional demand

8.0 Year 2025 Cumulative Plus Project Roadway Network and Traffic Volumes

Roadway and intersection geometrics under Cumulative Plus Project conditions were assumed to be largely identical to the Year 2025 Cumulative traffic conditions geometrics, as shown in Figure 7-1, with the following facilities assumed to be constructed by the Project as a part of frontage and access improvements:

Roadway Segments

- Airway Road, between Heritage Road (Project Access) and Cactus Road – This segment serves as the project frontage and should be constructed to a 6-lane Prime Arterial, consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).
- Airway Road, between Cactus Road and Continental Road – The north side of this roadway segment (westbound direction) serves as the project frontage and should be improved to a 4-lane street (1 lane eastbound – 3 lanes westbound). This roadway segment is classified as a 6-lane Major Arterial in the currently adopted Otay Mesa Community Plan. Triggers for the full construction of this facility up to a 6-lanes with a raised median are discussed later in this report.
- Cactus Road, between SR-905 and Street "D" - The east side of this roadway segment (northbound direction) serves as the project frontage and should be improved to a 3-lane street (2 lanes northbound – 1 lane southbound).
- Cactus Road, between Street "D" and Airway Road - This segment serves as the project frontage and should be improved to a 4-lane Major Arterial, consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP).
- Cactus Road, between Airway Road and Siempre Viva Road - The west side of this roadway segment (southbound direction) serves as the project frontage and should be improved to a 3-lane street (1 lane northbound – 2 lanes southbound).

The triggers for the improvements described above cannot be determined at this point in time since the phases of construction are unknown, therefore, a trigger analysis for facilities fronting the project will be conducted for each project that takes place within the Otay Mesa Central Village.

Intersections

12. Heritage Road / Airway Road – Construction of an L-shaped intersection providing movements between the project site and Airway Road, east of the Heritage Road project access.
14. Cactus Road / Airway Road – Construction of the west leg to form a four-legged intersection, and expanding the intersection lane configurations to match up with the roadway cross-sections. This intersection is proposed to be signalized by the project.
33. Street "A" / Airway Road – Construction of a signalized T-intersection.
34. Village Way / Airway Road – Construction of a signalized T-intersection.
35. Cactus Road / Street "D" – Construction of a signalized four-legged intersection.
36. Cactus Road / Central Main Street – Construction of a signalized T-intersection.
37. Cactus Road / Street "C" – Construction of a signalized T-intersection.
38. Park Way / Airway Road – Construction of a side-street stop controlled right-turn in/out only T-intersection.
39. Continental Road / Airway Road – construction of a signalized T-intersection.

Roadway and intersection geometrics under the Year 2025 Cumulative Plus Project conditions are displayed in **Figures 8-1** and **8-2**, respectively. Year 2025 Cumulative Plus Project traffic volumes were derived by combining the Year 2025 Cumulative traffic volumes (displayed in Figures 7-3 and 7-4) and the project trip assignment volumes (displayed in Figures 3-3 and 3-4). Daily roadway volumes for this scenario are displayed in **Figure 8-3** while **Figure 8-4** displays intersection peak hour traffic volumes.

8.1 Year 2025 Cumulative Plus Project Traffic Conditions

Analyses were conducted using the methodologies described in Chapter 2.0. Roadway segment, intersection, and freeway segment level of service, as well as freeway ramp intersection ILV analysis results are discussed in the following sections.

#-Ln Number of Travel Lanes
RM Raised Median
SM Striped Median
CLTL Center Left Turn Lane
Aux Auxiliary Lane (Freeway Only)
---- Future Roadways

INSET

Project Site

SEE INSET

City of Chula Vista

City of San Diego

Unincorporated San Diego County

Otay Mesa Central Village Specific Plan

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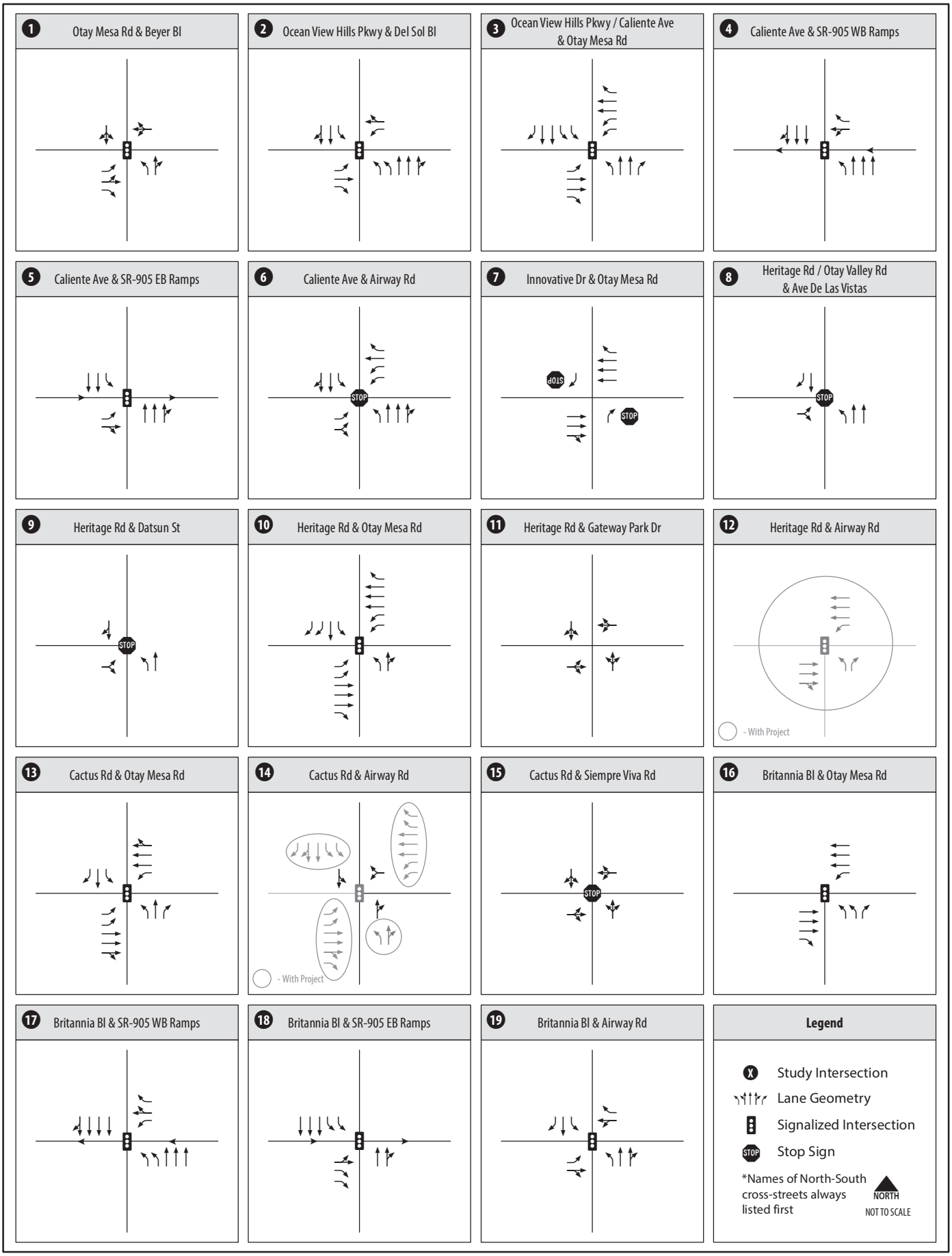
Figure 8-1
Roadway Geometrics - Year 2025 Cumulative Plus Project Conditions



Otay Mesa Central Village Specific Plan

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Figure 8-2
Intersection Geometrics -
Year 2025 Cumulative Plus Project Conditions (Intersections 1-19)

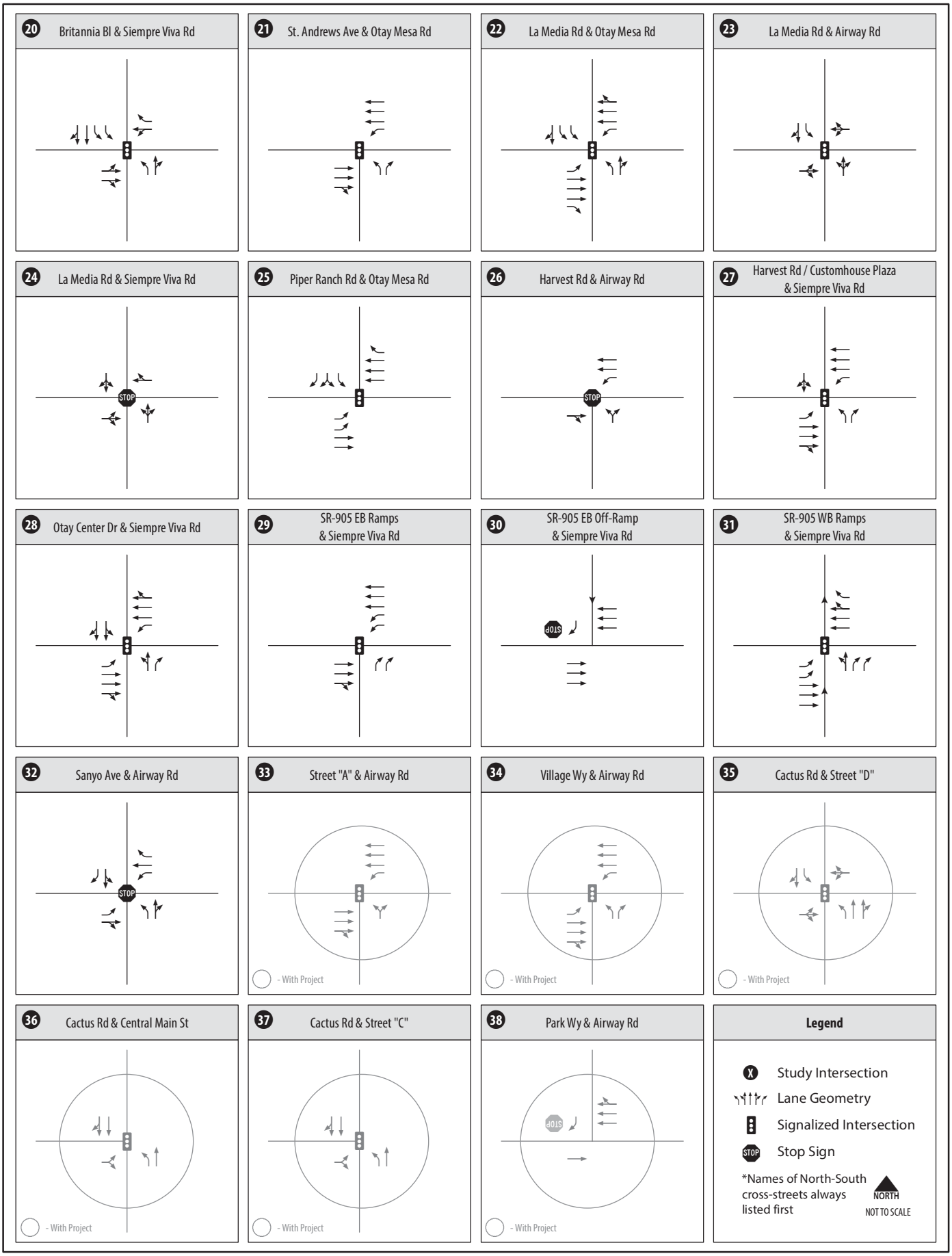

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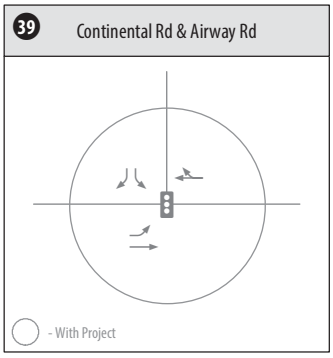
Figure 8-2
Intersection Geometrics -
Year 2025 Cumulative Plus Project Conditions (Intersections 20-38)



Legend

- Study Intersection
- Lane Geometry
- Signalized Intersection
- Stop Sign

*Names of North-South cross-streets always listed first

NORTH
NOT TO SCALE

Figure 8-2
Intersection Geometrics -
Year 2025 Cumulative Plus Project Conditions (Intersection 39)

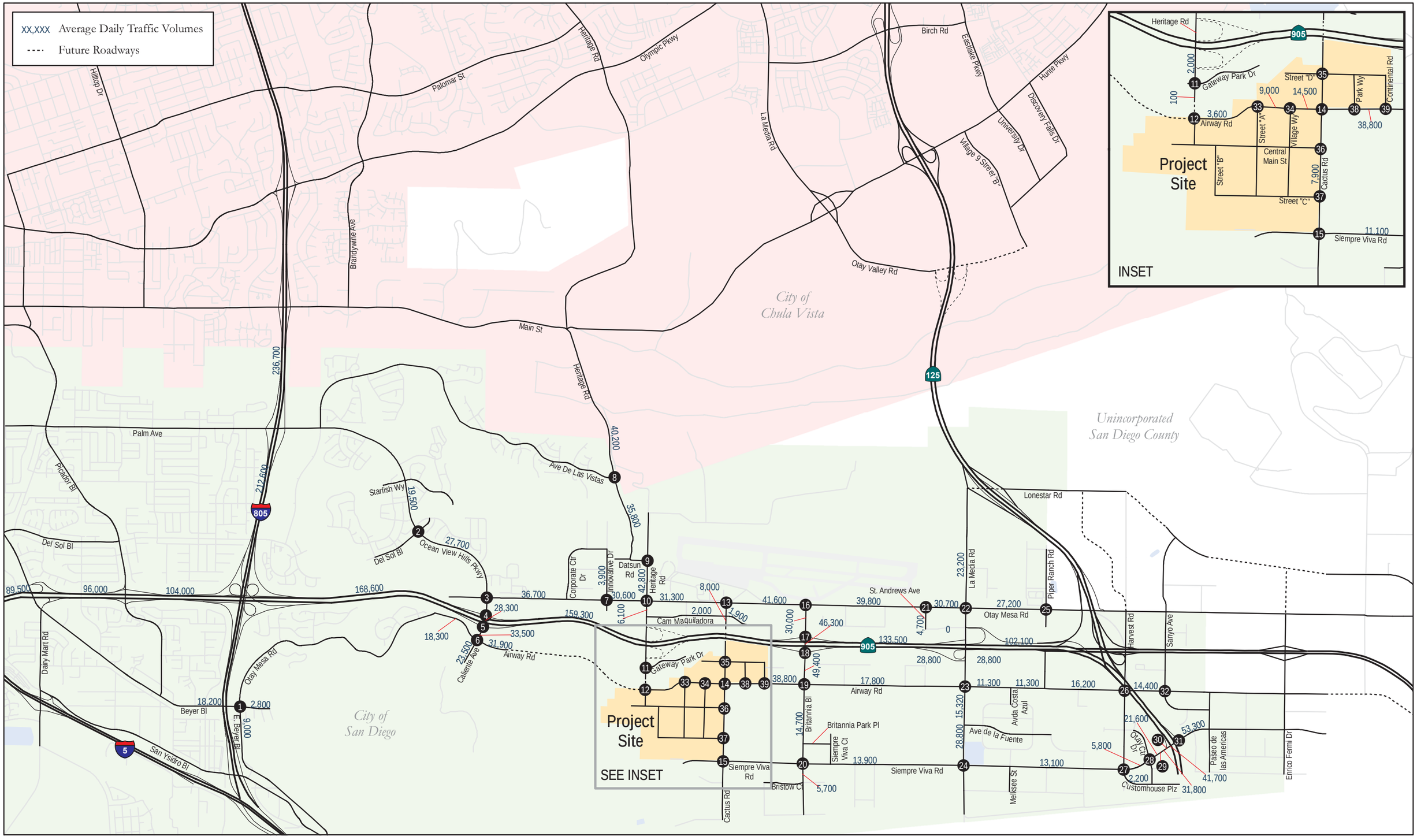


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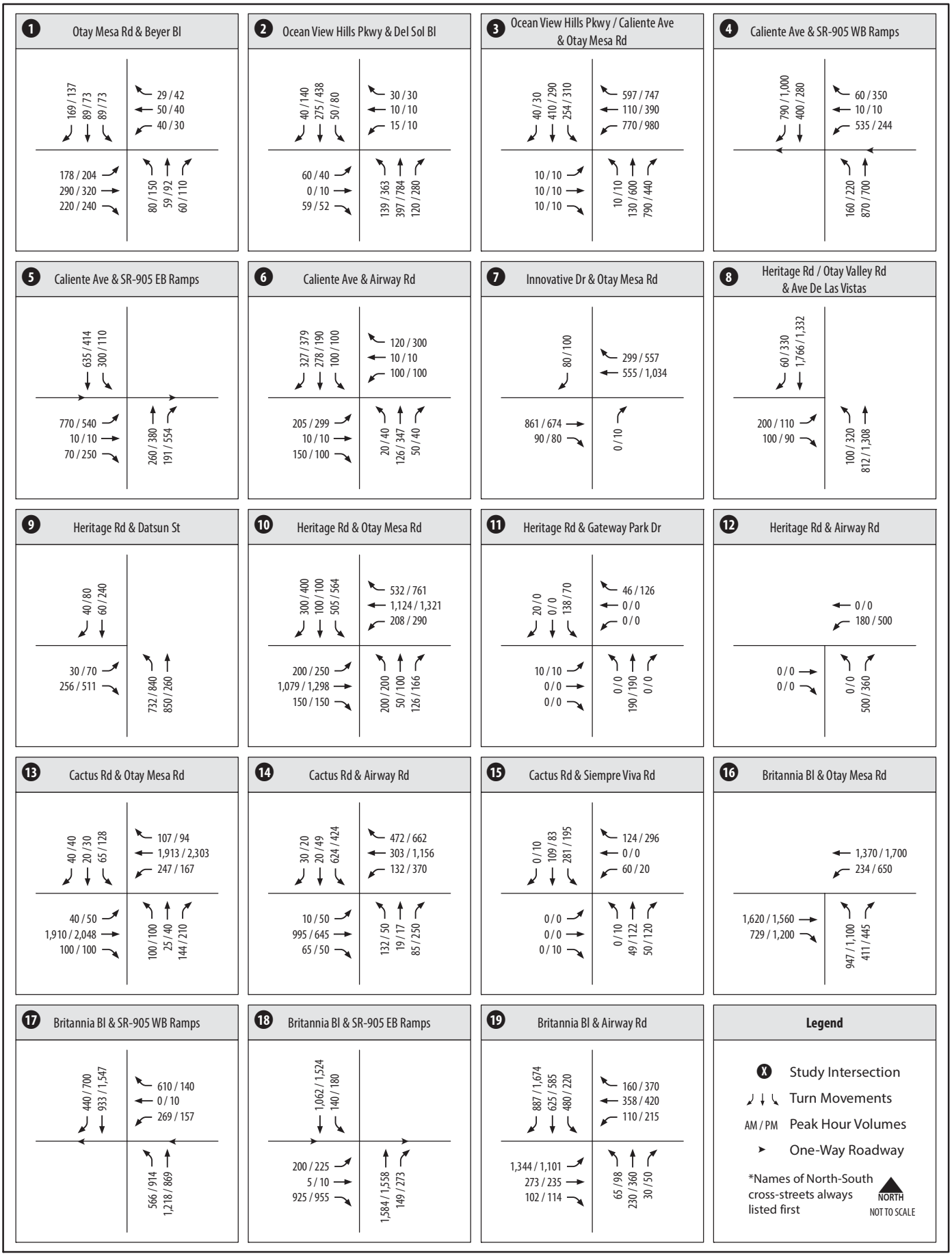
Figure 8-3

Roadway Average Daily Traffic Volumes - Year 2025 Cumulative Plus Project Conditions



Otay Mesa Central Village Specific Plan

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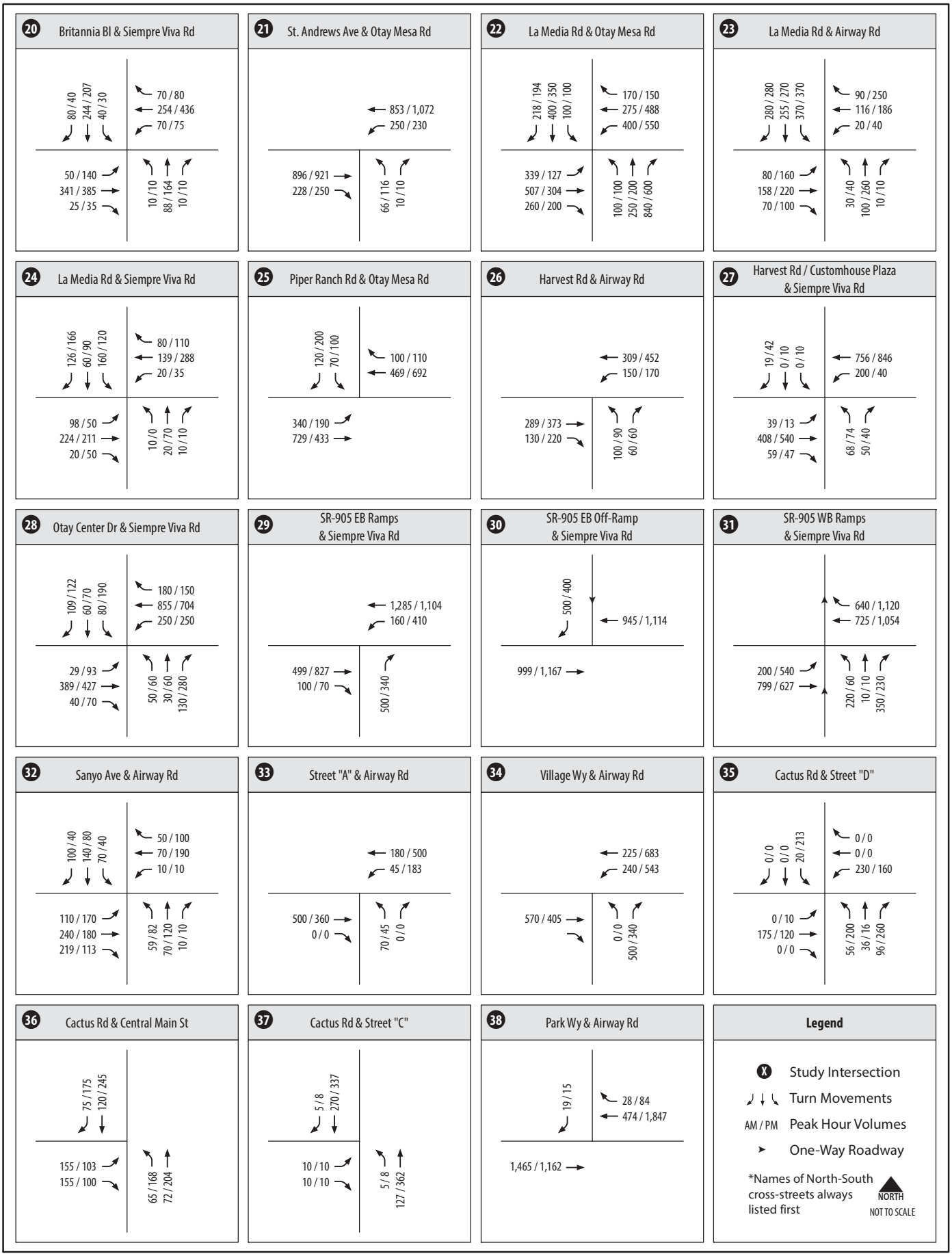
Figure 8-4

AM/PM Peak Hour Intersection Volumes - Year 2025 Cumulative Plus Project Conditions (Intersections 1-19)



Otay Mesa Central Village Specific Plan

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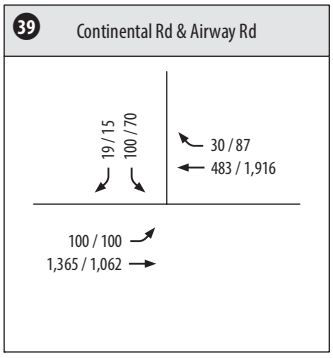
Figure 8-4

AM/PM Peak Hour Intersection Volumes - Year 2025 Cumulative Plus Project Conditions (Intersections 20-38)



Legend

- Study Intersection
- Turn Movements
- AM / PM Peak Hour Volumes
- One-Way Roadway

*Names of North-South cross-streets always listed first

NORTH
NOT TO SCALE

Figure 8-4
AM/PM Peak Hour Intersection Volumes -
Year 2025 Cumulative Plus Project Conditions (Intersection 39)

Roadway Segment Analysis

Table 8.1 displays the Level of Service analysis results for key roadway segments located in the City of San Diego under Year 2025 Cumulative Plus Project conditions.

TABLE 8.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE PLUS PROJECT CONDITIONS – CITY OF SAN DIEGO

Roadway	Segment	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	With Project		Without Project		Δ V/C	SI?
						V/C	LOS	V/C	LOS		
East Beyer Boulevard	Beyer Boulevard to South of Beyer Boulevard	2-Ln Collector No Fronting Property	2-Ln	9,000	10,000	0.900	D	0.870	D	0.030	No
Ocean View Hills Parkway	Starfish Way to Del Sol Boulevard	4-Ln Major Arterial	4-Ln w / RM	19,500	40,000	0.488	B	0.453	B	0.035	No
	Del Sol Boulevard to Otay Mesa Road	6-Ln Major Arterial	6-Ln w / RM	27,700	50,000	0.554	B	0.518	B	0.036	No
Caliente Avenue	SR-905 WB Ramps to SR-905 EB Ramps	5-Ln Prime Arterial	5-Ln w / SM (3-NB, 2-SB)	28,300	50,000[1]	0.566	B	0.516	B	0.050	No
	SR-905 EB Ramps to Airway Road	5-Ln Prime Arterial	5-Ln w / SM (3-NB, 2-SB)	33,500	50,000[1]	0.670	C	0.620	C	0.050	No
	Airway Road to Southern Terminus	5-Ln Prime Arterial	5-Ln w / RM (3-NB, 2-SB)	23,500	50,000[1]	0.470	B	0.450	B	0.020	No
Innovative Drive	Progressive Avenue to Otay Mesa Road	2-Ln Collector w/ Commercial Fronting	2-Ln	3,900	8,000	0.488	C	0.400	B	0.088	No
Heritage Road	Avenida De Las Vistas to Datsun Street	2-Ln Collector No Fronting Property	2-Ln	35,800	10,000	3.580	**F**	3.190	**F**	0.390	**Yes**
	Datsun Street to Otay Mesa Road	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	42,800	15,000	2.853	**F**	2.567	**F**	0.287	**Yes**
	Otay Mesa Road to Camino Maquiladora	3-Ln Collector	3-Ln (1-NB, 2-SB)	6,100	11,250[2]	0.542	C	0.453	B	0.089	No

TABLE 8.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE PLUS PROJECT CONDITIONS – CITY OF SAN DIEGO

Roadway	Segment	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	With Project		Without Project		Δ V/C	SI?
						V/C	LOS	V/C	LOS		
Heritage Road	Camino Maquiladora to Gateway Park Drive	2-Ln Collector No Fronting Property	2-Ln	2,000	10,000	0.200	A	0.100	A	0.100	No
	Gateway Park Drive to Southern Terminus	2-Ln Collector No Fronting Property	2-Ln	100	10,000	0.010	A	0.010	A	0.000	No
Cactus Road	Otay Mesa Road to SR-905	2-Ln Collector w/ Commercial Fronting	2-Ln	8,000	8,000	1.000	**E**	0.775	D	0.225	**Yes**
	SR-905 to Street "D"	3-Ln Major Arterial	3-Ln w / RM (2NB-1SB)	5,700	30,000	0.190	A	0.225	A	-0.035	No
	Street "D" to Airway Road	4-Ln Major Arterial	4-Ln w / RM	5,700	40,000	0.143	A	0.225	A	-0.083	No
	Airway Road to Siempre Viva Road	3-Ln Major Arterial	3-Ln w / RM (2NB-1SB)	7,900	30,000	0.263	A	0.225	A	0.038	No
Britannia Boulevard	Otay Mesa Road to SR-905 WB Ramps	6-Ln Prime Arterial	6-Ln w / RM	30,000	60,000	0.500	B	0.216	A	0.284	No
	SR-905 WB Ramps to SR-905 EB Ramps	6-Ln Prime Arterial	6-Ln w / RM	46,300	60,000	0.772	C	0.367	A	0.405	No
	SR-905 EB Ramps to Airway Road	5-Ln Prime Arterial	5-Ln w / RM (2-NB, 3-SB)	49,400	50,000[1]	0.988	**E**	0.502	B	0.486	**Yes**
	Airway Road to Siempre Viva Road	4-Ln Major Arterial	4-Ln w / RM	14,700	40,000	0.368	A	0.333	A	0.035	No
	Siempre Viva Road to Bristow Court	2-Ln Collector w/ Commercial Fronting	2-Ln	5,700	8,000	0.713	D	0.626	C	0.086	No
Saint Andrews Avenue	Otay Mesa Road to Otay Mesa Center Road	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	4,700	15,000	0.313	A	0.247	A	0.067	No

TABLE 8.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE PLUS PROJECT CONDITIONS – CITY OF SAN DIEGO

Roadway	Segment	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	With Project		Without Project		Δ V/C	SI?
						V/C	LOS	V/C	LOS		
La Media Road	Northern Terminus to Otay Mesa Road	2-Ln Collector w/ Commercial Fronting	2-Ln	23,200	8,000	2.900	**F**	2.813	**F**	0.087	**Yes**
	Otay Mesa Road to SR-905 WB Ramps	6-Ln Prime Arterial	6-Ln w/ SM	28,800	60,000	0.480	B	0.480	B	0.000	No
	SR-905 WB Ramps to SR-905 EB Ramps	6-Ln Prime Arterial	6-Ln w/ SM	19,100	60,000	0.318	A	0.318	A	0.000	No
	SR-905 WB Ramps to Airway Road	3-Ln Major Arterial	3-Ln (1-NB, 2-SB)	24,330	30,000[3]	0.811	D	0.811	D	0.000	No
	Airway Road to Avenida De La Fuente	2-Ln Collector No Fronting Property	2-Ln	15,320	10,000	1.532	**F**	1.532	**F**	0.000	No
	Avenida De La Fuente to Siempre Viva Road	2-Ln Collector No Fronting Property	2-Ln	28,800	10,000	2.880	**F**	2.778	**F**	0.102	**Yes**
Otay Mesa Road	Ocean View Hills Parkway to Corporate Center Drive	6-Ln Prime Arterial	6-Ln w / RM	36,700	60,000	0.612	C	0.570	B	0.042	No
	Corporate Center Drive to Heritage Road	6-Ln Prime Arterial	6-Ln w / RM	30,600	60,000	0.510	B	0.457	B	0.053	No
	Heritage Road to Cactus Road	6-Ln Prime Arterial	6-Ln w / RM	31,300	60,000	0.522	B	0.377	A	0.145	No
	Cactus Road to Britannia Boulevard	6-Ln Prime Arterial	6-Ln w / RM	41,600	60,000	0.693	C	0.495	B	0.198	No
	Britannia Boulevard to Saint Andrews Avenue	6-Ln Prime Arterial	6-Ln w / RM	39,800	60,000	0.663	C	0.580	B	0.083	No
	Saint Andrews Avenue to La Media Road	6-Ln Prime Arterial	6-Ln w / RM	30,700	60,000	0.512	B	0.470	B	0.042	No

TABLE 8.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE PLUS PROJECT CONDITIONS – CITY OF SAN DIEGO

Roadway	Segment	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	With Project		Without Project		Δ V/C	SI?
						V/C	LOS	V/C	LOS		
Otay Mesa Road	La Media Road to Piper Ranch Road	6-Ln Prime Arterial	6-Ln w / RM	27,200	60,000	0.453	B	0.423	B	0.030	No
Camino Maquiladora	Pacific Rim Court to Cactus Road	2-Ln Collector w/ Commercial Fronting	2-Ln	2,000	8,000	0.250	A	0.163	A	0.088	No
	Cactus Road to Otay Heights Court	2-Ln Collector w/ Commercial Fronting	2-Ln	1,900	8,000	0.238	A	0.100	A	0.138	No
Airway Road	Otay Mesa Road to Caliente Avenue	4-Ln w/ Continuous-Left-Turn-Lane	4-Ln w / CLTL	18,300	30,000	0.610	C	0.563	C	0.047	No
	Caliente Avenue to Eastern Terminus	3-Ln Major Arterial	3-Ln w / RM (2-EB, 1-WB)	31,900	30,000[3]	1.063	**F**	1.063	**F**	0.000	No
	Heritage Road to Street "A"	6-Ln Prime Arterial	6-Ln w / RM	3,600	60,000	0.060	A	Does Not Exist		0.00	No
	Street "A" to Village Way	6-Ln Prime Arterial	6-Ln w / RM	9,000	60,000	0.150	A	Does Not Exist		0.00	No
	Village Way to Cactus Road	6-Ln Prime Arterial	6- Ln w / RM	14,500	60,000	0.242	A	Does Not Exist		0.00	No
	Cactus Road to Continental Road	4-Ln Prime Arterial	4-Ln w / RM	38,800	33,333[4]	1.164	**F**	1.088	**F**	0.077	**Yes**
	Continental Road to Britannia Boulevard	2-Ln Collector w/ Commercial Fronting	2-Ln	38,800	8,000	4.850	**F**	1.088	**F**	3.763	**Yes**
	Britannia Boulevard to La Media Road	2-Ln Collector w/ Commercial Fronting	2-Ln	17,800	8,000	2.225	**F**	1.771	**F**	0.454	**Yes**
	La Media Road to Avenida Costa Azul	2-Ln Collector w/ Commercial Fronting	2-Ln	11,300	8,000	1.413	**F**	1.288	**F**	0.125	**Yes**

TABLE 8.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE PLUS PROJECT CONDITIONS – CITY OF SAN DIEGO

Roadway	Segment	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	With Project		Without Project		Δ V/C	SI?
						V/C	LOS	V/C	LOS		
Airway Road	Avenida Costa Azul to Piper Ranch Road	4-Ln Major Arterial	4-Ln w / RM	11,300	40,000	0.283	A	0.258	A	0.025	No
	Piper Ranch Road to Harvest Road	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	16,200	15,000	1.080	**F**	1.033	**F**	0.047	**Yes**
	Harvest Road to Sanyo Avenue	2-Ln w/ Continuous-Left-Turn-Lane	2-Ln w / CLTL	14,400	15,000	0.960	**E**	0.940	**E**	0.020	**Yes**
Beyer Boulevard	Park Avenue to Otay Mesa Road	4-Ln w/ Continuous-Left-Turn-Lane	4-Ln w / CLTL	18,200	30,000	0.607	C	0.583	C	0.023	No
	Otay Mesa Road to East of Otay Mesa Road	2-Ln Collector No Fronting Property	2-Ln	2,800	10,000	0.280	A	0.280	A	0.000	No
Siempre Viva Road	Cactus Road to Britannia Boulevard	2-Ln Collector w/ Commercial Fronting	2-Ln	11,100	8,000	1.388	**F**	0.800	D	0.588	**Yes**
	Britannia Boulevard to La Media Road	2-Ln Collector w/ Commercial Fronting	2-Ln	13,900	8,000	1.738	**F**	1.159	**F**	0.579	**Yes**
	La Media Road to Customhouse Plaza	6-Ln Prime Arterial	6-Ln w / RM	13,100	60,000	0.218	A	0.164	A	0.055	No
	Customhouse Plaza to Otay Center Drive	6-Ln Prime Arterial	6-Ln w / RM	5,800	60,000	0.097	A	0.079	A	0.018	No
	Otay Center Drive to SR-905 SB Ramps	6-Ln Prime Arterial	6-Ln w / RM	21,600	60,000	0.360	A	0.348	A	0.012	No
	SR-905 SB Ramps to SR-905 SB Off-Ramp	6-Ln Prime Arterial	6-Ln w / RM	31,800	60,000	0.530	B	0.518	B	0.012	No
	SR-905 SB Off-Ramp to SR-905 NB Ramps	6-Ln Prime Arterial	6-Ln w / RM	41,700	60,000	0.695	C	0.683	C	0.012	No
	SR-905 NB Ramps to East of SR-905 Ramps	6-Ln Prime Arterial	6-Ln w / RM	53,300	60,000	0.888	D	0.877	D	0.012	No

TABLE 8.1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE PLUS PROJECT CONDITIONS – CITY OF SAN DIEGO

Roadway	Segment	Functional Classification	Cross-Section	ADT	Capacity (LOS E)	With Project		Without Project		Δ V/C	SI?
						V/C	LOS	V/C	LOS		
Customhouse Plaza	Siempre Viva Road to Southern Terminus	2-Ln Collector w/ Commercial Fronting	2-Ln	2,200	8,000	0.275	A	0.188	A	0.088	No

Source: Chen Ryan Associates; November 2016

Notes:
Bold letter indicates substandard LOS.
V/C = Volume to Capacity Ratio.
RM = Raised Median.
CLTL = Continuous Left-Turn Lane.
Δ = Change in V/C Ratio
SI? = Significant Impact?
[1] Based on the Capacity of a 6-Ln Prime Arterial, reduced to exclude a lane. (5/6*60,000 = 50,000)
[2] Based on the capacity of a 4-Ln Collector, reduced to exclude a lane. (3/4*15,000 = 11,250)
[3] Based on the Capacity of a 4-Lane Major Arterial, reduced to exclude a lane. (3/4*40,000 = 30,000)
[4] Based on the Capacity of a 6-Lane Major Arterial, reduced to exclude two lanes. (4/6*50,000 = 33,333)

As shown in Table 8.1, all of the study area roadway segments located in the City of San Diego are projected to continue operating at acceptable LOS D or better under Year 2025 Cumulative Plus Project conditions, with the following sixteen (16) exceptions:

- Heritage Road, between Avenida De Las Vistas to Datsun Street is projected to operate at substandard LOS F with the addition of project traffic. The volume to capacity ratio is projected to increase from 3.190 under Year 2025 Cumulative conditions to 3.580 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.390.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

- Heritage Road, between Datsun Street and Otay Mesa Road is projected to operate at substandard LOS F with the addition of project traffic. The volume to capacity ratio is projected to increase from 2.567 under Year 2025 Cumulative conditions to 2.853 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.287. This increase in volume to capacity ratio is above the allowable 0.01 threshold.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

- Cactus Road, between Otay Mesa Road and SR-905 is projected to operate at substandard LOS E with the addition of project traffic. The volume to capacity ratio is projected to increase from 0.775 under Year 2025 Cumulative conditions to 1.000 under Year 2025

Cumulative Plus Project conditions, resulting in a net increase of 0.225. This increase in volume to capacity ratio is above the allowable 0.01 threshold.

Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

- Britannia Boulevard, between SR-905 EB Ramps to Airway Road is projected to operate at substandard LOS F with the addition of project traffic. The volume to capacity ratio is projected to increase from 0.502 under Year 2025 Cumulative conditions to 0.988 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.486. This increase in volume to capacity ratio causes the roadway segment to transition from an acceptable LOS B to a substandard LOS E.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

- La Media Road, between northern terminus and Otay Mesa Road is projected to operate at substandard LOS F with the addition of project traffic. The volume to capacity ratio is projected to increase from 2.813 under Year 2025 Cumulative conditions to 2.900 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.087. This increase in volume to capacity ratio is above the allowable 0.01 threshold.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

- La Media Road, between Airway Road and Avenida De La Fuente is projected to continue operating at substandard LOS F with the addition of project traffic. The volume to capacity ratio is projected to remain at 1.532 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.

  Based upon the significance criteria presented in Section 2.7, facility improvements would not be required at the aforementioned roadway segment.

- La Media Road, between Avenida De La Fuente and Siempre Viva Road is projected to operate at substandard LOS F with the addition of project traffic. The volume to capacity ratio is projected to increase from 2.778 under Year 2025 Cumulative conditions to 2.880 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.102. This increase in volume to capacity ratio is above the allowable 0.01 threshold.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

- Airway Road, between Caliente Avenue and eastern terminus is projected to operate at substandard LOS F with the addition of project traffic. The volume to capacity ratio is

projected remain at 1.063 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.

Based upon the significance criteria presented in Section 2.7, facility improvements would not be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

- Airway Road, between Cactus Road and Continental Road is projected to operate at substandard LOS F with the addition of project traffic. The volume to capacity ratio is projected to increase from 1.088 under Year 2025 Cumulative conditions to 1.164 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.077. This increase in volume to capacity ratio is above the allowable 0.01 threshold.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment.

- Airway Road, between Continental Road and Britannia Boulevard is projected to operate at substandard LOS F with the addition of project traffic. The volume to capacity ratio is projected to increase from 1.088 under Year 2025 Cumulative conditions to 4.850 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 3.763. This increase in volume to capacity ratio is above the allowable 0.01 threshold.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

- Airway Road, between Britannia Boulevard and La Media Road is projected to operate at substandard LOS F with the addition of project traffic. The volume to capacity ratio is projected to increase from 1.771 under Year 2025 Cumulative conditions to 2.225 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.454. This increase in volume to capacity ratio is above the allowable 0.01 threshold.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

- Airway Road, between La Media Road and Avenida Costa Azul is projected to operate at substandard LOS F with the addition of project traffic. The volume to capacity ratio is projected to increase from 1.288 under Year 2025 Cumulative conditions to 1.413 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.125. This increase in volume to capacity ratio is above the allowable 0.01 threshold.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

- Airway Road, between Piper Ranch Road and Harvest Road is projected to operate at substandard LOS F with the addition of project traffic. The volume to capacity ratio is

projected to increase from 1.033 under Year 2025 Cumulative conditions to 1.080 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.047. This increase in volume to capacity ratio is above the allowable 0.01 threshold.

Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

- Airway Road, between Harvest Road and Sanyo Avenue is projected to operate at substandard LOS E with the addition of project traffic. The volume to capacity ratio is projected to increase from 0.940 under Year 2025 Cumulative conditions to 0.960 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.020. This increase in volume to capacity ratio is the allowable 0.02 threshold.

  Based upon the significance criteria presented in Section 2.7, facility improvements would not be required at the aforementioned roadway segment.

- Siempre Viva Road, between Cactus Road and Britannia Boulevard is projected to operate at substandard LOS F with the addition of project traffic. The volume to capacity ratio is projected to increase from 0.800 under Year 2025 Cumulative conditions to 1.388 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.588. This increase in volume to capacity ratio causes the roadway segment to transition from an acceptable LOS D to a substandard LOS F.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

- Siempre Viva Road, between Britannia Boulevard and La Media Road is projected to operate at substandard LOS F with the addition of project traffic. The volume to capacity ratio is projected to increase from 1.159 under Cumulative conditions to 1.738 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.579. This increase in volume to capacity ratio is above the allowable 0.01 threshold.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned roadway segment. The required improvements are consistent with the improvements stated in the OMCPU EIR.

Table 8.2 displays the Level of Service analysis results for key roadway segments located in the City of Chula Vista under Cumulative Plus Project conditions.

TABLE 8.2
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE PLUS PROJECT CONDITIONS – CITY OF CHULA VISTA

Roadway	Segment	Functional Classification	Cross-Section	ADT	LOS Threshold (LOS C)	LOS w/ Project	Project Contribution ≥ 5%?	Project ADT > 800?	Intersection along Segment Operating @ LOS D or Better?	SI?
Heritage Road	Main Street to Avenida De Las Vistas	Prime Arterial	6-Ln w / RM	40,200	50,000	B	Yes	Yes	Yes	No

Source: Chen Ryan Associates; April 2016

Notes:
Bold letter indicates substandard LOS.
RM = Raised Median.
SI? = Significant Impact?

As shown in the Table 8.2, the study area roadway segment located in the City of Chula Vista is projected to continue operating at acceptable LOS B under Year 2025 Cumulative Plus Project conditions.

Intersection Analysis

Table 8.3 displays Level of Service and average vehicle delay results for study area intersections under Year 2025 Cumulative Plus Project conditions. Level of Service calculation worksheets for the Year 2025 Cumulative Plus Project conditions are provided in **Appendix J**.

TABLE 8.3
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE PLUS PROJECT CONDITIONS

ID	Intersection	Control Type	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec) AM/PM	LOS w/o Project AM/PM	Change in Delay (sec)	SI?
			Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS				
1	Beyer Boulevard / Otay Mesa Road	Signalized	19.4	B	18.2	B	17.9 / 16.7	B / B	1.5 / 1.5	No
2	Ocean View Hills Parkway / Del Sol Boulevard	Signalized	13.2	B	26.3	C	13.1 / 22	B / C	0.1 / 4.3	No
3	Ocean View Hills Parkway / Otay Mesa Road	Signalized	40.2	D	38.7	D	39.9 / 35.4	D / D	0.3 / 3.3	No
4	Caliente Avenue / SR-905 WB Ramps	Signalized	24.5	C	18.5	B	18.2 / 17.3	B / B	6.3 / 1.2	No
5	Caliente Avenue / SR-905 EB Ramps	Signalized	46.3	D	22.1	C	45.7 / 20.9	D / C	0.6 / 1.2	No
6	Caliente Avenue / Airway Road	AWSC	64.7	**F**	97.5	**F**	24.9 / 47.2	C / **E**	39.8 / 50.3	**Yes**
7	Innovative Drive / Otay Mesa Road	SSSC	10.3	B	12.4	B	9.7 / 11.4	A / B	0.6 / 1.0	No
8	Heritage Road / Avenida De Las Vistas	AWSC	N/A[1]	**F**	N/A[1]	**F**	N/A[1] / 448.6	**F / F**	over threshold / 153.4	**Yes**
9	Heritage Road / Datsun Street	AWSC	183.2	**F**	231.8	**F**	119.6 / 119.8	**F / F**	63.6 / 112.0	**Yes**
10	Heritage Road / Otay Mesa Road	Signalized	55.1	**E**	99.0	**F**	41.3 / 44.2	D / D	13.8 / 54.8	**Yes**
11	Heritage Road / Gateway Park Drive	AWSC	8.7	A	8.6	A	8.4 / 8.3	A / A	0.3 / 0.3	No
12	Heritage Road / Airway Road	Signalized	7.2	A	9.8	A	N / A	N / A	N / A	No
13	Cactus Road / Otay Mesa Road	Signalized	35.9	D	40.7	D	26.7 / 23.9	C / C	9.2 / 16.8	No
14	Cactus Road / Airway Road	Signalized	26.9	C	27.3	C	9.6 / 7.3	A / A	17.3 / 20.0	No
15	Cactus Road / Siempre Viva Road	AWSC	12.3	B	12.8	B	8.0 / 8.3	A / A	4.3 / 4.5	No

TABLE 8.3
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE PLUS PROJECT CONDITIONS

ID	Intersection	Control Type	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec) AM/PM	LOS w/o Project AM/PM	Change in Delay (sec)	SI?
			Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS				
16	Britannia Boulevard / Otay Mesa Road	Signalized	42.3	D	174.5	**F**	14.6 / 38.3	B / D	27.7 / 136.2	**Yes**
17	Britannia Boulevard / SR-905 WB Ramps	Signalized	22.1	C	38.7	D	13.9 / 39.9	B / D	8.2 / -1.2	No
18	Britannia Boulevard / SR-905 EB Ramps	Signalized	71.4	**E**	93.0	**F**	13.2 / 16.4	B / B	58.2 / 76.6	**Yes**
19	Britannia Boulevard / Airway Road	Signalized	472.8	**F**	N/A[1]	**F**	51.3 / 54.5	D / D	421.5 / over threshold	**Yes**
20	Britannia Boulevard / Siempre Viva Road	Signalized	318.5	**F**	N/A[1]	**F**	132.9 / 203.2	**F / F**	185.6 / over threshold	**Yes**
21	St Andrews Avenue / Otay Mesa Road	Signalized	15.3	B	26.9	C	21.2 / 17.7	C / B	-5.9 / 9.2	No
22	La Media Road / Otay Mesa Road	Signalized	181.5	**F**	121.7	**F**	172.2 / 119.9	**F / F**	9.3 / 1.8	**Yes**
23	La Media Road / Airway Road	Signalized	15.4	B	51.2	D	13.7 / 34.9	B / C	1.7 / 16.3	No
24	La Media Road / Siempre Viva Road	AWSC	16.4	C	29.8	D	10.7 / 11.7	B / B	5.7 / 18.1	No
25	Piper Ranch Road / Otay Mesa Road	Signalized	12.7	B	11.1	B	12.7 / 11.1	B / B	0.0 / 0.0	No
26	Harvest Road / Airway Road	AWSC	14.6	B	34.2	D	13.9 / 30.4	B / D	0.7 / 3.8	No
27	Customhouse Plaza / Siempre Viva Road	Signalized	12.7	B	10.1	B	13 / 6.3	B / A	-0.3 / 3.8	No
28	Otay Center Drive / Siempre Viva Road	Signalized	17.2	B	21.9	C	16.1 / 21.3	B / C	1.1 / 0.6	No
29	SR-905 SB Ramps / Siempre Viva Road	Signalized	4.1	A	6.4	A	3.8 / 6.1	A / A	0.3 / 0.3	No
30	SR-905 SB Off-Ramp / Siempre Viva Road	SSSC	93.2	**F**	31.9	D	89.8 / 29.6	**F** / D	3.4 / 2.3	**Yes**
31	SR-905 NB Off-Ramp / Siempre Viva Road	Signalized	15.7	B	23.3	C	15.9 / 24.8	B / C	-0.2 / -1.5	No
32	Sanyo Avenue / Airway Road	AWSC	20.1	C	14.0	B	18.2 / 13.5	C / B	1.9 / 0.5	No
33	Street "A" / Airway Road	Signalized	6.4	A	6.1	A	N/A			No
34	Village Way / Airway Road	Signalized	25.2	C	13.6	B	N/A			No

TABLE 8.3
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE PLUS PROJECT CONDITIONS

ID	Intersection	Control Type	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec) AM/PM	LOS w/o Project AM/PM	Change in Delay (sec)	SI?
			Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS				
35	Cactus Road / Street "D"	Signalized	13.8	B	13.5	B	N/A			No
36	Cactus Road / Central Main Street	Signalized	11.7	B	12.3	B	N/A			No
37	Cactus Road / Street "C"	Signalized	3.9	A	3.3	A	N/A			No
38	Park Way / Airway Road	SSSC	9.5	A	15.1	C	N/A			No
39	Continental Road / Airway Road	Signalized	33.6	C	197.1	**F**	N/A			**Yes**

Source: Chen Ryan Associates; November 2016

Notes:
Bold letter indicates substandard LOS.
SI? = Significant Impact?
AWSC = All Way Stop Control.
SSSC = Side-Street Stop Controlled, the delay shown is the worst delay experienced by any of the approaches.
NA = Not analyzed under this scenario.
[1]Exceeds maximum reasonable calculable delay of 600 seconds per Synchro 9.0 traffic analysis software.

As shown in the table above, all of the study area intersections located in the City of San Diego are projected to operate at acceptable LOS D or better during both the AM and PM peak hours under Year 2025 Cumulative Plus Project conditions, with the following eleven (11) exceptions:

6. The intersection of Caliente Avenue / Airway Road is projected to operate at LOS F under Year 2025 Cumulative Plus Project conditions, during the AM and PM peak hour. During the AM peak hour, the overall intersection delay is projected to increase from 24.4 seconds of delay under Year 2025 Cumulative conditions to 64.9 seconds of delay under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 40.5 seconds of overall delay. During the PM peak hour, the overall intersection delay is projected to increase from 47.2 seconds of delay under Year 2025 Cumulative conditions to 97.4 seconds of delay under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 50.2 seconds of overall delay. The delay increase during the AM peak hour caused the intersection to transition from an acceptable LOS C to a substandard LOS F during the AM peak hour and from LOS E to LOS F during the PM peak hour. The delay increase during both the AM and PM peak hours exceeded the allowable thresholds.

   Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned intersection. The required improvements are consistent with the improvements stated in the OMCPU EIR.

8. The intersection of Heritage Road / Avenida De Las Vistas is projected to operate at LOS F under Year 2025 Cumulative Plus Project conditions, during the AM and PM peak hour. During the AM peak hour, the overall intersection delay is projected to exceed the allowable delay increase threshold of 1.0 second. During the PM peak hour, the overall intersection delay is projected to increase from 448.6 seconds of delay under Year 2025 Cumulative conditions to 602.0 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 153.4 seconds of delay. The delay increase during both the AM and PM peak hours exceeded the allowable thresholds.

   Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned intersection. The required improvements are consistent with the improvements stated in the OMCPU EIR.

9. The intersection of Heritage Road / Datsun Street is projected to operate at LOS F under Year 2025 Cumulative Plus Project conditions, during the AM and PM peak hour. During the AM peak hour, the overall intersection delay is projected to increase from 119.6 seconds of delay under Year 2025 Cumulative conditions to 183.2 seconds of delay under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 63.6 seconds of overall delay. During the PM peak hour, the overall intersection delay is projected to increase from 119.8 seconds of delay under Year 2025 Cumulative conditions to 231.8 seconds of delay under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 112.0 seconds of overall delay. The delay increase during both the AM and PM peak hours exceeded the allowable thresholds.

   Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned intersection. The required improvements are consistent with the improvements stated in the OMCPU EIR.

10. The intersection of Heritage Road / Otay Mesa Road is projected to operate at LOS E under Year 2025 Cumulative Plus Project conditions, during the AM peak hour and LOS F during the PM peak hour. During the AM peak hour, the overall intersection delay is projected to increase from 41.3 seconds of delay under Year 2025 Cumulative conditions to 55.1 seconds of delay under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 13.8 seconds of overall delay. This increase in delay caused the intersection to transition from an acceptable LOS D to a substandard LOS E. During the PM peak hour, the overall intersection delay is projected to increase from 44.2 seconds of delay under Year 2025 Cumulative conditions to 99.0 seconds of delay under Year 2025 Cumulative Plus Project conditions resulting in a net increase of 54.8 seconds of overall delay. This increase in delay caused the intersection to transition from an acceptable LOS D to a substandard LOS F.

    Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned intersection. The required improvements are consistent with the improvements stated in the OMCPU EIR.

16. The intersection of Britannia Boulevard / Otay Mesa Road is projected to operate at LOS F under Year 2025 Cumulative Plus Project conditions, during the PM peak hour. The overall intersection delay is projected to increase from 38.3 seconds of delay under Year 2025 Cumulative Plus conditions to 174.5 seconds of delay under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 136.2 seconds of overall delay. This increase in delay caused the intersection to transition from an acceptable LOS D to a substandard LOS F.

    Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned intersection. The required improvements are consistent with the improvements stated in the OMCPU EIR.

18. The intersection of Britannia Boulevard / SR-905 EB Ramps is projected to operate at LOS E under Year 2025 Cumulative Plus Project conditions, during the AM peak hour and LOS F during the PM peak hour. During the AM peak hour, the overall intersection delay is projected to increase from 13.2 seconds of delay under Year 2025 Cumulative conditions to 71.4 seconds of delay under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 58.2 seconds of overall delay. During the PM peak hour, the overall intersection delay is projected to increase from 16.4 under Year 2025 Cumulative conditions to 93.0 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 76.6 seconds of overall delay. The delay increase during both the AM and PM peak hour caused the intersection to transition from an acceptable LOS B to a substandard LOS E/F.

    Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned intersection. The required improvements are consistent with the improvements stated in the OMCPU EIR.

19. The intersection of Britannia Boulevard / Airway Road is projected to operate at LOS F under Year 2025 Cumulative Plus Project conditions, during the AM and PM peak hour. During the AM peak hour, the overall intersection delay is projected to increase from 51.3 seconds of delay under Year 2025 Cumulative conditions to 472.8 seconds of delay under Cumulative Plus Project conditions, resulting in a net increase of 421.5 seconds of overall delay. During the PM peak hour, the overall intersection delay is projected to exceed the allowable delay increase threshold of 1.0 second. The delay increase during both the AM and PM peak hour caused the intersection to transition from an acceptable LOS D to a substandard LOS F.

    Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned intersection. The required improvements are consistent with the improvements stated in the OMCPU EIR.

20. The intersection of Britannia Boulevard / Siempre Viva Road is projected to operate at LOS F under Cumulative Plus Project conditions, during the AM and PM peak hour. During the AM peak hour, the overall intersection delay is projected to increase from 132.9 seconds of delay under Cumulative conditions to 318.5 seconds of delay under Year 2025

Cumulative Plus Project conditions, resulting in a net increase of 185.6 seconds of overall delay. During the PM peak hour, the overall intersection delay is projected to exceed the allowable delay increase threshold of 1.0 second. The delay increase during both the AM and PM peak hours exceeded the allowable thresholds.

Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned intersection. The required improvements are consistent with the improvements stated in the OMCPU EIR.

22. The intersection of La Media Road / Otay Mesa Road is projected to operate at LOS F under Cumulative Plus Project conditions, during both the AM and PM peak hour. During the AM peak hour, the overall intersection delay is projected to increase from 172.2 seconds of delay under Year 2025 Cumulative conditions to 181.5 seconds of delay under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 9.3 seconds of overall delay. During the PM peak hour, the overall intersection delay is projected to increase from 119.9 under Year 2025 Cumulative conditions to 121.7 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 1.8 seconds of overall delay. The delay increase during both the AM and PM peak hours exceeded the allowable thresholds.

    Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned intersection. The required improvements are consistent with the improvements stated in the OMCPU EIR.

30. The intersection of SR-905 SB Off-Ramp / Siempre Viva Road is projected to operate at LOS F under Cumulative Plus Project conditions, during both the AM and PM peak hour. During the AM peak hour, the overall intersection delay is projected to increase from 89.8 seconds of delay under Year 2025 Cumulative conditions to 93.2 seconds of delay under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 3.4 seconds of overall delay. During the PM peak hour, the overall intersection delay is projected to increase from 29.6 under Year 2025 Cumulative conditions to 31.9 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 2.4 seconds of overall delay. The delay increase during both the AM peak hour exceeded the allowable threshold.

    Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned intersection. The required improvements are consistent with the improvements stated in the OMCPU EIR.

39. Continental Road / Airway Road (LOS F during both AM and PM peak hours) - the intersection of Continental Road and Airway Road is projected to operate at LOS F during the PM peak hour under Existing Plus Project conditions. The overall intersection delay during the PM peak hour is projected to be 197.1 seconds under Existing Plus Project conditions.

    Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned intersection.

Ramp Intersection Capacity Analysis

Consistent with Caltrans requirements, the signalized ramp intersections were analyzed using ILV procedures, as described in Section 2.4. ILV analysis results are displayed in **Table 8.4** and analysis worksheets for the Year 2025 Cumulative Plus Project conditions are provided in Appendix J.

TABLE 8.4
RAMP INTERSECTION CAPACITY ANALYSIS
YEAR 2025 CUMULATIVE PLUS PROJECT CONDITIONS

Ramp Intersection	Peak Hour	ILV / Hour	Description
Caliente Avenue and SR-905 EB Ramps	AM	1,348	*At Capacity*
	PM	1,331	*At Capacity*
Caliente Avenue and SR-905 WB Ramps	AM	1,628	*Over Capacity*
	PM	1,663	*Over Capacity*
Britannia Boulevard and SR-905 EB Ramps	AM	1,474	*At Capacity*
	PM	1,620	*Over Capacity*
Britannia Boulevard and SR-905 WB Ramps	AM	1,303	*At Capacity*
	PM	1,830	*Over Capacity*
Siempre Viva Road and SR-905 NB Ramps	AM	892	*Under Capacity*
	PM	1,296	*At Capacity*
Siempre Viva Road and SR-905 SB Ramps	AM	678	*Under Capacity*
	PM	721	*Under Capacity*

Source: Chen Ryan Associates; April 2016

Notes:
Lower than 1,200 ILV/hour = Under Capacity
Between 1,200 and 1,500 ILV/hour = At Capacity
Higher than 1500 ILV/hour = Over Capacity

As shown in the table above, all of the study ramp intersections would continue to operate at "At Capacity" or better conditions during both the AM and PM peak hours under Year 2025 Cumulative Plus Project conditions, with the exception of the following:

- Caliente Avenue and SR-905 WB Ramps – operates at "Over Capacity" during the AM and PM peak hours;
- Britannia Boulevard and SR-905 EB Ramps – operates at "Over Capacity" during the PM peak hour; and
- Britannia Boulevard and SR-905 WB Ramps – operates at "Over Capacity" during the PM peak hour.

As previously discussed in Section 2.4, neither Caltrans nor the City uses ILV results in determining significance of project impacts, but the analyses are included for informational purposes.

Freeway Segment Analysis

Table 8.5 displays freeway segment level of service results for the study area freeway mainline facilities under Year 2025 Cumulative Plus Project conditions. The freeway segment level of service analysis was performed utilizing the methodology presented in Section 2.6.

As shown in the Table 8.5, all of the freeway segments operate at acceptable LOS D or better with the exception of the following:

- I-805, between Main Street and Palm Avenue (LOS F in the NB direction) - The addition of the proposed project traffic would cause the volume to capacity ratio to increase from 1.041 under Year 2025 Cumulative conditions to 1.046 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.005. This increase in volume to capacity ratio does not exceed the allowable 0.005 threshold.

  Based upon the significance criteria presented in Section 2.7, facility improvements would not be required at the aforementioned freeway segment.

- I-805, between Palm Avenue and SR-905 (LOS E in the SB direction) - The addition of the proposed project traffic would cause the volume to capacity ratio to increase from 0.933 under Year 2025 Cumulative conditions to 0.942 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.009. This increase in volume to capacity ratio does not exceed the allowable 0.010 threshold.

  Based upon the significance criteria presented in Section 2.7, facility improvements would not be required at the aforementioned freeway segment.

- SR-905, between I-805 and Caliente Avenue (LOS F in the WB direction) - The addition of the proposed project traffic would cause the volume to capacity ratio to increase from 1.002 under Year 2025 Cumulative conditions to 1.032 under Year 2025 Cumulative Plus Project conditions, resulting in a net increase of 0.030. This increase in volume to capacity ratio exceeds the allowable 0.010 threshold.

  Based upon the significance criteria presented in Section 2.7, facility improvements would be required at the aforementioned freeway segment to achieve acceptable LOS. However, this facility is under the purview of Caltrans, and no current plans exist to widen this freeway segment; thus this freeway segment would continue to operate at LOS F with the addition of Project traffic. It should be noted that the OMCPU EIR disclosed that this segment of SR-905 would operate at a deficient LOS F, and disclosed impacts to this freeway segment as a significant and unavoidable impact of the OMCPU. The proposed Project, which would produce approximately 20% less traffic than accounted for by the OMCPU EIR, is consistent with the findings and conclusions of the OMCPU EIR with respect to this freeway segment.

TABLE 8.5
FREEWAY SEGMENT ANALYSIS
YEAR 2025 CUMULATIVE PLUS PROJECT CONDITIONS

Freeway	Segment	ADT	Direction	# of Lanes	Capacity[a]	D[b]	K[c]	HVF[d]	Peak Hour Volume	V/C	LOS[f]	Peak Hour	Without Project		Δ V/C Ratio	SI?
													V/C	LOS		
I-805	Main Street and Palm Avenue	236,700	NB	4M+1A	10,810	5.9%	64.6%	10.0%	9,480	0.877	D	AM	0.871	D	0.006	No
			SB	4M+1A	10,810	8.0%	56.7%	10.0%	11,310	1.046	**F**	PM	1.041	**F**	0.005	No
	Palm Avenue and SR-905	212,600	NB	4M+1A	10,810	5.9%	64.6%	10.0%	8,520	0.788	C	AM	0.782	C	0.007	No
			SB	4M+1A	10,810	8.0%	56.7%	10.0%	10,180	0.942	**E**	PM	0.933	**E**	0.009	No
SR-905	Picador Boulevard and I-805	104,000	EB	3M+1A	8,460	8.4%	64.4%	10.0%	5,940	0.702	C	AM	0.683	C	0.019	No
			WB	3M+1A	8,460	8.4%	64.4%	10.0%	5,940	0.702	C	PM	0.682	C	0.020	No
	I-805 and Caliente Avenue	168,600	EB	4M	9,400	7.5%	53.1%	10.0%	7,040	0.749	C	AM	0.728	C	0.021	No
			WB	3M+1A	8,460	8.2%	59.9%	10.0%	8,730	1.032	**F**	PM	1.002	**F**	0.030	**Yes**
	Caliente Avenue and Heritage Road	159,300	EB	3M	7,050	7.5%	53.1%	10.0%	3,240	0.460	B	AM	0.438	B	0.021	No
			WB	3M	7,050	8.2%	59.9%	10.0%	2,660	0.377	A	PM	0.360	A	0.017	No
	Heritage Road and Britannia Boulevard	151,700	EB	3M	7,050	7.5%	53.1%	10.0%	1,530	0.217	A	AM	0.206	A	0.011	No
			WB	3M	7,050	8.2%	59.9%	10.0%	1,510	0.214	A	PM	0.204	A	0.010	No
	Britannia Boulevard and La Media Road	133,500	EB	3M+1A	8,460	7.5%	53.1%	10.0%	890	0.105	A	AM	0.105	A	0.000	No
			WB	3M	7,050	8.2%	59.9%	10.0%	950	0.135	A	PM	0.135	A	0.000	No
	La Media Road and SR-125	102,100	EB	3M	7,050	7.5%	53.1%	10.0%	510	0.072	A	AM	0.072	A	0.000	No
			WB	3M	7,050	8.2%	59.9%	10.0%	570	0.081	A	PM	0.079	A	0.001	No

Source: Chen Ryan Associates; November2016

Notes:
Bold letter indicated substandard LOS.
SI? = Significant Impact?
M = Mainline. A = Auxiliary Lane.
[a] The capacity is calculated as 2,350 ADT per main lane and 1,410 ADT (60% of the main lane capacity) per auxiliary lane.
[b] D = Directional split.| [c] K = Peak hour %. | [d] HV = Heavy vehicle % - consistent with the OMCPU. | [f] LOS during highest directional demand

8.2 Recommended Improvements

This section identifies required improvements for roadway, intersection, and freeway facilities that are associated with buildout of the Otay Mesa Central Village Specific Plan under Year 2025 Cumulative Plus Project conditions. Procedure for determining the ADT threshold, facility improvements trigger identification, as well as associated worksheets are provided in **Appendix K**.

Table 8.6 displays level of service analysis results both before and after implementation of the recommended improvements at the deficient roadway segments under Year 2025 Cumulative Plus Project conditions.

Figure 8-5 illustrates the recommended study area roadway segments and intersections improvements under Year 2025 Cumulative Plus Project conditions.

Roadway Segments

- *Heritage Road*, between Avenida De Las Vistas and Datsun Street – The Project shall pay a 13% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 1,003 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS F with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS C with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.
- *Heritage Road, between Datsun Street and Otay Mesa Road* – The Project shall pay a 12% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 1,380 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent

with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS C with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS C with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Cactus Road, between Otay Mesa Road and SR-905* – The Project shall pay a 23% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 6,623 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS D with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS A with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

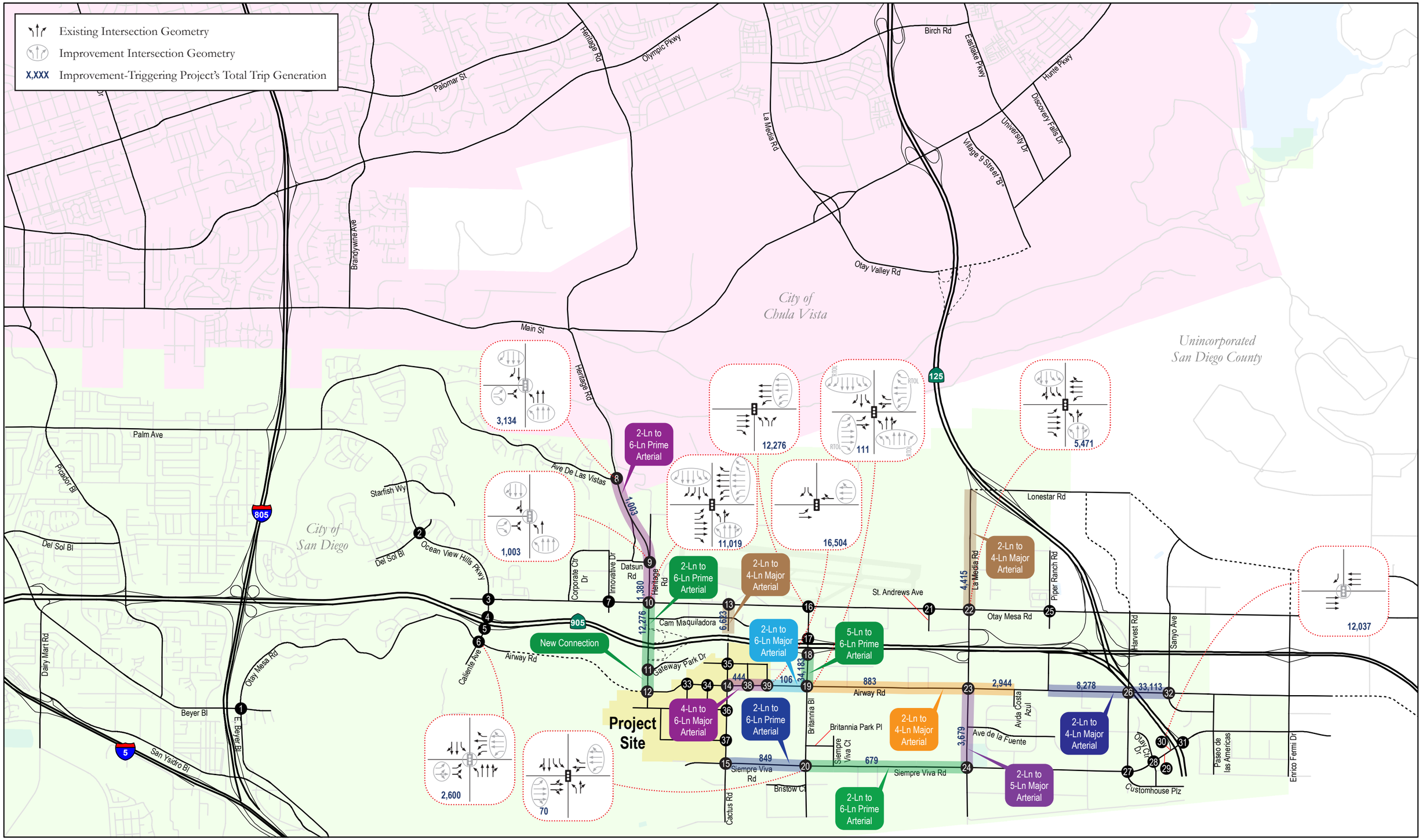


Figure 8-5

Geometrics with Recommended Improvements - Year 2025 Cumulative Plus Project Conditions

- *Britannia Boulevard, between SR-905 EB Ramps and Airway Road* - The Project shall pay a 92% fair share contribution towards the widening of this roadway from a 5-lane roadway (2 NB & 3 SB) to a 6-lane Prime Arterial prior to the project's **total trip generation** of 34,183 ADT. This cross-section along Britannia Boulevard is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this roadway segment would operate at LOS F with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS C with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. However, this improvement was also identified under the Existing Plus Project scenario and the project will be expected to construct this improvement. It is important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.
- *La Media Road, between northern terminus and Otay Mesa Road* – The Project shall pay a 4% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 4,415 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS C with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at an acceptable LOS C with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.
- *La Media Road, between Avenida De La Fuente and Siempre Viva Road* – The Project shall pay a 4% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 5-lane Major Arterial prior to the project's **total trip**

generation of 3,679 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS C with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at an acceptable LOS B with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Airway Road, between Cactus Road and Continental Road* – The Project shall pay an 83% fair share contribution towards the widening of this roadway segment from a 4-lane roadway (1 EB & 3 WB) to a 6-lane Major Arterial prior to the project's **total trip generation** of 444 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS F with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS C with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. However, this improvement was also identified under the Existing Plus Project scenario and the project will be expected to construct this improvement. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Airway Road, between Continental Road and Britannia Boulevard* – The Project shall pay an 83% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 6-lane Major Arterial prior to the project's **total trip generation** of 106 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS F with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS C with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. However, this improvement was also identified under the Existing Plus Project scenario and the project will be expected to construct this improvement. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Airway Road, between Britannia Boulevard and La Media Road* – The Project shall pay a 24% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 883 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS D with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS B with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. However, this improvement was also identified under the Existing Plus Project scenario and the project will be expected to construct this improvement. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the

program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Airway Road, between La Media Road and Avenida Costa Azul* – The Project shall pay a 24% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 2,944 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS D with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS A with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. However, this improvement was also identified under the Existing Plus Project scenario and the project will be expected to construct this improvement. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Airway Road, between Piper Ranch Road and Harvest Road* – The Project shall pay a 7% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 8,278 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS D with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS B with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum

improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Airway Road, between Harvest Road and Sanyo Avenue* – The Project shall pay a 4% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 33,113 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS C with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS A with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Siempre Viva Road, between Cactus Road and Britannia Boulevard* – The Project shall pay a 53% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 849 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS C with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS A with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. However, this improvement was also identified under the Existing Plus Project scenario and the project will be expected to construct this improvement. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-

specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

- *Siempre Viva Road, between Britannia Boulevard and La Media Road* – The Project shall pay a 26% fair share contribution towards the widening of this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 679 ADT. This cross-section is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this segment would operate at LOS C with buildout of the OMCPU. As shown in Table 8.6, this segment would operate at LOS A with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

TABLE 8.6
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE PLUS PROJECT CONDITIONS – WITH IMPROVEMENTS

		Before Improvements			After Improvements		
Roadway	Segment	ADT	Cross Section	LOS	ADT	Functional Classification	LOS
Heritage Road	Avenida De Las Vistas to Datsun Street	35,800	2-Ln	**F**	35,800	6-Ln Prime Arterial	C
	Datsun Street to Otay Mesa Road	42,800	2-Ln	**F**	42,800	6-Ln Prime Arterial	C
	Otay Mesa Road to Camino Maquiladora	6,100	3-Ln (1-NB, 2-SB)	C	18,100[1]	6-Ln Prime Arterial	A
	Camino Maquiladora to Gateway Park Drive	2,000	2-Ln	A	14,000[1]	6-Ln Prime Arterial	A
	Gateway Park Drive to Airway Road	100	2-Ln	A	12,100[1]	6-Ln Prime Arterial	A
Cactus Road	Otay Mesa Road to SR-905	8,000	2-Ln	**E**	8,000	4-Ln Major Arterial	A
Britannia Boulevard	SR-905 EB Ramps to Airway Road	49,400	5-Ln w / RM (2-NB, 3-SB)	**E**	49,400	6-Ln Prime Arterial	C
La Media Road	Northern terminus to Otay Mesa Road	23,200	2-Ln	**F**	23,200	4-Ln Major Arterial	C
	Avenida De La Fuente and Siempre Viva Road	28,800	2-Ln	**F**	28,800	5-Ln Major Arterial	B
Airway Road	Cactus Road to Continental Road	38,800	4-Ln w / RM (1-EB, 3-WB)	**F**	38,800	6-Ln Major Arterial	C
	Continental Road to Britannia Boulevard	38,800	2-Ln	**F**	38,800	6-Ln Major Arterial	C
	Britannia Boulevard to La Media Road	17,800	2-Ln	**F**	17,800	4-Ln Major Arterial	B
	La Media Road to Avenida Costa Azul	11,300	2-Ln	**F**	11,300	4-Ln Major Arterial	A
	Piper Ranch to Harvest Road	16,200	2-Ln w / CLTL	**F**	16,200	4-Ln Major Arterial	B
	Harvest Road to Sanyo Avenue	14,400	2-Ln w / CLTL	**E**	14,400	4-Ln Major Arterial	A
Siempre Viva Road	Cactus Road to Britannia Boulevard	11,100	2-Ln	**F**	11,100	6-Ln Prime Arterial	A
	Britannia Boulevard to La Media Road	13,900	2-Ln	**F**	13,900	6-Ln Prime Arterial	A

Source: Chen Ryan Associates; November 2016

Notes:
Bold letter indicates substandard LOS.
RM = Raised Median.
[1]Approximately 1/3 (33%) of the project traffic would reroute from Britannia Boulevard to the Heritage Road connection.

Intersections

Facility improvements associated with buildout of the Otay Mesa Central Village Specific Plan would be required at the following intersections:

6. *Caliente Avenue / Airway Road* – The Project shall pay a 17% fair share contribution towards the installation of the traffic signal at this intersection prior to the project's **total trip generation** of 2,600 ADT. The recommended traffic signal is consistent with the assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS C during both peak hours with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. Signal warrant analysis worksheets are provided in Appendix K. It is important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

8 *Heritage Road / Avenida De Las Vistas* – The Project shall pay a 12% fair share contribution towards the installation of the traffic signal at this intersection prior the project's **total trip generation** of 3,134 ADT. The recommended traffic signal is consistent with the assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS B during both peak hours with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. Signal warrant analysis worksheets are provided in Appendix K. It is important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

9 *Heritage Road / Datsun Street* - The Project shall pay a 20% fair share contribution towards the installation of the traffic signal at this intersection prior to the project's **total trip generation** of 1,003 ADT. The recommended traffic signal is consistent with the assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS B in the AM peak hour and LOS C during the PM peak hour with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. Signal warrant analysis worksheets are provided in Appendix K. It is important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village

Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

10 *Heritage Road / Otay Mesa Road* – The project shall pay a 20% fair share contribution towards the restriping of Otay Mesa Road to include an additional exclusive right-turn lane at the westbound approach of the intersection of Heritage Road / Otay Mesa Road prior to the project's **total trip generation** of 11,019 ADT. This recommended improvement is within the intersection geometrics assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS C during the AM peak hour and LOS D during the PM peak hour with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

16. *Britannia Boulevard / Otay Mesa Road* – The Project shall pay a 100% contribution towards the restriping of Otay Mesa Road to add an additional exclusive left-turn lane at the westbound approach and the extension of Heritage Road southerly to connect to Airway Road (Intersection #12) and widen Heritage Road between Otay Mesa Road and Airway Road, from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 12,276 ADT. This recommended improvement is within the intersection geometrics assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. Furthermore, the construction of the Heritage Road connection alleviate congestion at Britannia Boulevard / Otay Mesa Road intersection due to the rerouting of approximately 1/3 (33%) of the project trips. This recommended improvement is consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS E in the AM peak hour and LOS D in the PM peak hour with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS B during the AM peak hour and LOS C during the PM peak hour with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village

will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

18. *Britannia Boulevard / SR-905 EB Ramps* - The Project shall pay a 100% contribution towards the extension of Heritage Road southerly to connect to Airway Road (Intersection #12) and widen Heritage Road between Otay Mesa Road and Airway Road, from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 27,225 ADT. The construction of this roadway connection would alleviate congestion at Britannia Boulevard / SR-905 EB Ramps intersection due to the rerouting of approximately 1/3 (33%) of the project trips. The recommended improvements are consistent with the classification identified in the currently adopted Otay Mesa Community Plan and the project description in the Otay Mesa Public Facilities Financing Plan (PFFP), and these improvements are consistent with the OMCPU EIR at buildout of the OMCPU; thus, the required improvements are within the scope of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F in the AM peak hour and LOS E in the PM peak hour with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS C during the AM peak hour and LOS D in the PM peak hour with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.
19. *Britannia Boulevard / Airway Road* - The Project shall pay a 69% fair share contribution towards the widening of the eastbound approach (Airway Road) of this intersection to accommodate dual left-turn lanes, three through lanes, and an exclusive right-turn lane with right-turn overlap phasing, widen the westbound approach (Airway Road) to accommodate exclusive dual left-turn lanes, two through lanes, and exclusive dual right-turn lane with right-turn overlap phasing, widen the southbound approach (Britannia Boulevard) to accommodate exclusive dual left-turn lanes, three through lanes, and two exclusive right-turn lanes with right-turn overlap phasing, and widen the northbound approach to accommodate dual left-turn lanes, three through lanes, and an exclusive right-turn lane with right-turn overlap phasing, prior to the project's **total trip generation** of 111 ADT. These recommended improvements are consistent with the intersection geometrics assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 6.7, this intersection would operate at

LOS D during both peak hours with the recommended improvements under Year 2025 Cumulative Plus Project conditions. It is important to note that interim improvement with fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

20. *Britannia Boulevard / Siempre Viva Road* - The Project shall pay a 43% fair share contribution towards the widening of the westbound approach (Siempre Viva Road) to accommodate two through lanes and an exclusive left-turn lane, and widen the eastbound approach to accommodate two through lanes and an exclusive left-turn-lane, prior to the project's **total trip generation** of 70 ADT. The recommended improvements are within the intersection geometrics assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS C during the AM peak hour and LOS D during the PM peak hour with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that interim improvement with fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

22. *La Media Road / Otay Mesa Road* – The Project shall pay a 7% fair share contribution towards the widening of the northbound approach (La Media Road) to accommodate two through lanes and an exclusive left turn lane, and widen the southbound approach (La Media Road) to accommodate an additional through lane, prior the project's **total trip generation** of 5,471 ADT. The recommended improvements are within the intersection geometrics assumption of the OMCPU EIR's analysis of traffic at OMCPU buildout. The OMCPU EIR disclosed that this intersection would operate at LOS F during both peak hours with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS D during both peak hours with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. It is important to note that interim improvement with fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this

improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

30. *SR-905 SB Off-Ramp / Siempre Viva Road* – The Project shall pay a 6% fair share contribution towards the installation of the traffic signal at this intersection prior to the project's **total trip generation** of 12,037 ADT. The recommended traffic signal is consistent with the assumption of the OMCPU EIR's analysis of traffic. The OMCPU EIR disclosed that this intersection would operate at LOS F during the AM peak hour with buildout of the OMCPU. As shown in Table 8.7, this intersection would operate at LOS B during both peak hours with the recommended improvements under Year 2025 Cumulative Traffic Plus Project conditions. Signal warrant analysis worksheets are provided in Appendix K. It is important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

39. *Continental Road / Airway Road* – As described earlier in this section under "Roadway Segments", Airway Road between Continental Road and Britannia Boulevard shall be widened from a 2-lane roadway to a 6-lane Major Arterial prior to the project's **total trip generation** of 106 ADT by the project applicant. This improvement will improve traffic operations at this intersection. As shown in Table 8.7, this intersection would operate at LOS D during the AM peak hour and LOS B during the PM peak hour with the recommended improvements under Year 2025 Cumulative Plus Project conditions. It is important to note that the recommended improvement reflects the ultimate Community Plan designated-classification for this roadway; however, interim improvement to a lesser roadway width or fewer lanes could provide sufficient capacity. The Central Village Specific Plan requires that site-specific traffic studies must be prepared in conjunction with implementing development, and these studies will determine the minimum improvements needed to maintain acceptable LOS. It is also important to note that this improvement, identified trigger, and fair share contribution percentage have been identified at the program level, only. As it is unknown how buildout of the Central Village will be phased, the project-level traffic studies that are required by the Central Village Specific Plan will update and refine the required improvements and fair-share amounts on a project-by-project basis.

Table 8.7 displays level of service analysis results both the before and after implementation of the recommended improvements at the deficient intersections under Year 2025 Cumulative Plus Project conditions.

TABLE 8.7
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
YEAR 2025 CUMULATIVE PLUS PROJECT CONDITIONS – WITH IMPROVEMENTS

			Before Improvements				After Improvements			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Intersection	Control Type	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS
6	Caliente Avenue / Airway Road	Signalized	64.7	**F**	97.5	**F**	20.2	C	23.0	C
8	Heritage Road / Avenida De Las Vistas	Signalized	N/A[1]	**F**	N/A[1]	**F**	14.2	B	13.5	B
9	Heritage Road / Datsun Street	Signalized	183.2	**F**	231.8	**F**	10.7	B	29.3	C
10	Heritage Road / Otay Mesa Road	Signalized	55.1	**E**	99.0	**F**	33.8	C	54.2	D
16	Britannia Boulevard / Otay Mesa Road	Signalized	42.3	D	174.5	**F**	18.6	B	34.1	C
18	Britannia Boulevard / SR-905 EB Ramps	Signalized	71.4	**E**	93.0	**F**	32.2	C	48.0	D
19	Britannia Boulevard / Airway Road	Signalized	472.8	**F**	N/A[1]	**F**	49.5	D	53.8	D
20	Britannia Boulevard / Siempre Viva Road	Signalized	318.5	**F**	N/A[1]	**F**	31.1	C	39.0	D
22	La Media Road / Otay Mesa Road	Signalized	181.5	**F**	121.7	**F**	53.7	D	54.1	D
30	SR-905 SB Off-Ramp / Siempre Viva Road	Signalized	93.2	**F**	31.9	D	19.6	B	13.2	B
39	Continental Road / Airway Road	Signalized	33.6	C	197.1	**F**	36.5	D	13.8	B

Source: Chen Ryan Associates; November 2016

Notes:
Bold letter indicates substandard LOS.
[1]Exceeds maximum reasonable calculable delay of 600 seconds per Synchro 9.0 traffic analysis software.

Freeway Segments

The following freeway segment would be impacted by the proposed project under Year 2025 Cumulative Plus Project conditions:

- *SR-905, between I-805 and Caliente Avenue – LOS F in the WB direction.*

Neither Caltrans nor SANDAG have plans to construct additional lanes on State Route 905, nor is there a plan or program in place into which the project applicant could pay its fair-share towards the cost of such improvements. Therefore, improvements are considered infeasible and the impacts along SR-905 would remain significant and unavoidable. This recommendation is consistent with the conclusion of the OMCPU EIR.

9.0 Alternative Transportation and Transportation Demand Management

This chapter focuses on alternative modes of travel (walking, bicycling and transit) to/from and within the project site. It also outlines a proposed Transportation Demand Management (TDM) Plan to help reduce vehicular traffic and parking demand associated with the proposed project.

9.1 Alternative Transportation Facilities and Connectivity

The proposed project will contain a comprehensive, interconnected non-vehicular mobility system that connects residents and visitors to homes, retail establishments, parks, trails, and the school. The mobility system will be comprised of future transit stations along Airway Road, bicycle facilities, and pedestrians connections including sidewalks, pedestrian paseos, pedestrian nodes, and a trail located parallel to Cactus Road (south of Central Main Street) and along the southern boundary of Central Village.

Bicycle Facilities

Bicycle facilities will be provided along most of the roadways within the proposed project. Two types of bicycle facilities are planned within Central Village:

Class I bike paths are separated from vehicular traffic by a curb-adjacent clear zone or tree-lined parkway and accommodate two lanes (one bike lane in each direction). Class I bike paths are proposed along the south side of Airway Road and on one side of the road along Central Main Street and Park Way.

Class II bike lanes are on-street, six-foot wide lanes that are generally bordered by a landscaped parkway adjacent to a sidewalk. Class II lanes are provided along both sides of the streets along the following streets:

- Airway Road
- Heritage Road
- Cactus Road
- Central Village Entry streets

Class II bike lanes along Village Entry roads are bordered by on-street parking.

Pedestrian Facilities

In addition to traditional sidewalks, pedestrian connections in the Central Village include paseos, pedestrian nodes, and trails, which connect pedestrians to parks and other destinations within the Central Village. This pedestrian system encourages walking throughout the village by providing a safe and pleasant pedestrian environment that is separated from vehicular traffic along major backbone roadways.

Transit Facilities

The Central Village Specific Plan area is currently served by Metropolitan Transit System (MTS) express Routes 905, 905A, and 950. Route 905 generally runs along Otay Mesa Road and the SR-905. Route 905A takes a similar route as Route 905, but provides local service to industrial uses located south of Airway Road and Britannia Boulevard. Route 950 is an express route with limited stops. All three of these routes provide service between the SR-905 Point of Entry in the east and the Iris Avenue transfer station in the west.

San Diego Forward: The Regional Plan Revenue Constrained scenario identifies several public transit service improvements within the Otay Mesa community, and each of the service improvements are summarized below, including frequency changes, new routes, and anticipated implementation years:

- Rapid Bus, Route 225 – Otay Mesa to Down Town San Diego, including the Otay Mesa International Travel Center (ITC). This route will operate at 15-minute headways during the peak and 30-minute headway during the off-peak periods. According to the 2050 RTP, the route will be implemented by 2020.
- Rapid Bus, Route 905 – Extending the rapid bus services from the current terminus at the Iris Trolley Station to the Otay Mesa East Port of Entry (POE). This route will operate at 10-minute headways during both the peak and off-peak periods. According to the 2050 RTP, the route will be implemented by 2020.
- Rapid Bus, Route 638 – Otay Mesa to Iris Trolley Station via Otay Mesa Road, Airway Road, and the SR-905 corridor. This route will operate at 10-minute headways during both the peak and off-peak periods. According to the 2050 RTP, the route will be implemented by 2035.
- Rapid Bus, Route 689 – Otay Mesa POE to UTC/Torrey Pines via Otay Ranch / Millennia. This route will operate at 15-minute headways during the peak periods only. According to the 2050 RTP, the route will be implemented by 2035.

In the vicinity of the Otay Mesa Central Village Specific Plan site, there are two (2) planned transit stops along Airway Road at Continental Road, Village Way, and Heritage Road. Potential transit priority treatment is also planned on Airway Road. **Figure 9-1** displays the proposed transit stops for the project.

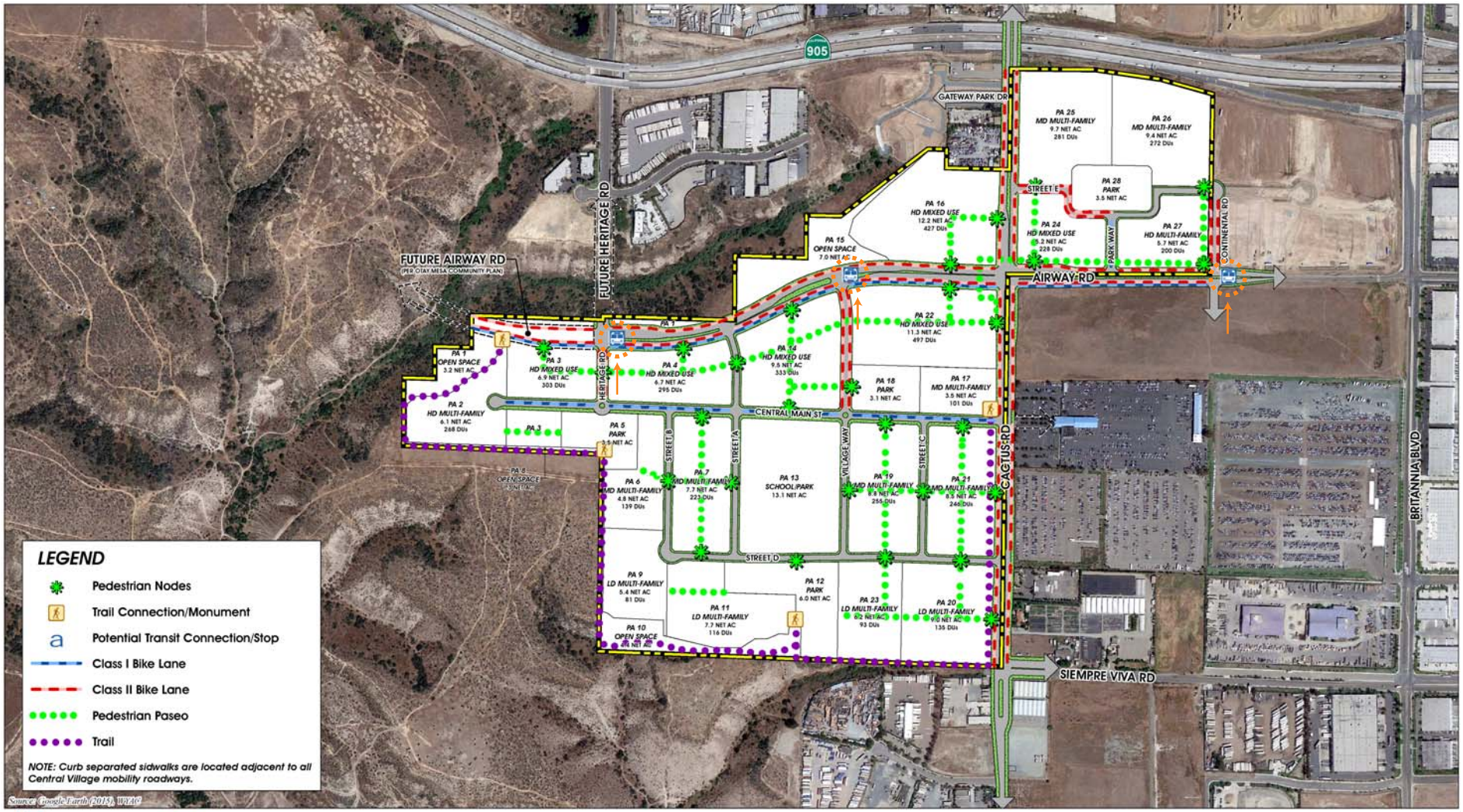


Figure 9-1
Planned Transit Stops

9.2 Transportation Demand Management Plan

To reduce single occupant vehicle trips to the extent feasible, the Specific Plan should consider the implementation of a Transportation Demand Management (TDM) program to reduce vehicle trips in favor of alternative modes of transportation. The TDM program will facilitate increased opportunities for transit, bicycling, and pedestrian travel. The project applicant shall incorporate the following measures as part of the project design and development, consistent with the identified triggers, to the satisfaction of the City Engineer:

- Participate in car sharing and bike sharing programs through HOA noticing, should such programs become available.
- Promote available websites providing transportation options for residents and businesses.
- Create and distribute a "new resident" information packet addressing alternative modes of transportation.
- Where transit is available on-site, participate in providing the necessary transit facilities, such as bus pads, shelters, signs, lighting, and trash receptacles.

10.0 On-Site Circulation and Parking

This chapter presents access to the project site and recommends functional classifications for internal roadways to the Project.

10.1 Project Access

The project site proposes eight (8) access points at the following locations:

12. Heritage Road / Airway Road – Construction of an L-shaped intersection providing movements between the project site and Airway Road, east of the Heritage Road project access.
33. Street "A" / Airway Road – Construction of a signalized T-intersection.
34. Village Way / Airway Road – Construction of a signalized T-intersection.
35. Cactus Road / Street "D" – Construction of a signalized four-legged intersection.
36. Cactus Road / Central Main Street – Construction of a signalized T-intersection.
37. Cactus Road / Street "C" – Construction of a signalized T-intersection.
38. Park Way / Airway Road – Construction of a side-street stop controlled right-turn in/out only T-intersection.
39. Continental Road / Airway Road – construction of a signalized T-intersection.

The traffic operations at these access points are provided in Chapters 5.0 and 6.0, and all eight assess points would operate at acceptable LOS assuming traffic generated from the full build-out of the proposed project.

10.2 Internal Circulation

Based upon buildout of the proposed project land uses and trip generation as shown previously, ADT volumes were estimated for the internal roadway segments within Central Village. Project trips were distributed and assigned to the internal roadway system based on the location and characteristics of the proposed land uses.

Table 10.1 displays recommended roadway classifications and resulting Level of Service for the Central Village internal roadway segments. LOS D is considered acceptable for internal roadways within the Central Village.

TABLE 10.1
OTAY MESA CENTRAL VILLAGE SPECIFIC PLAN
INTERNAL STREET SIZING AND LOS ANALYSIS

Internal Roadway	Segment	Estimated ADT	Recommended Classification	Capacity Threshold LOS E	LOS
Street "D"	from Cactus Road to Park Way	5,100	2-lane Collector w/ Raised Median & Turn Pocket	<15,000	B
	from Park Way to Continental Road	600	2-lane Collector (multi-family)	<8,000	A
Central Main Street	from Heritage Road to Street "B"	6,700	2-lane Collector w/ Raised Median & Turn Pocket	<15,000	B
	from Street "B" to Street "A"	5,700	2-lane Collector w/ Raised Median & Turn Pocket	<15,000	B
	from Street "A" to Village Way	4,700	2-lane Collector w/ Raised Median & Turn Pocket	<15,000	A
	from Village Way to Cactus Road	7,500	2-lane Collector w/ Raised Median & Turn Pocket	<15,000	C
Street "C"	from Street "B" to Street "A"	2,000	2-lane Collector (multi-family)	<8,000	A
	from Street "A" to Village Way	1,900	2-lane Collector (multi-family)	<8,000	A
	from Village Way to Cactus Road	2,900	2-lane Collector (multi-family)	<8,000	B
Heritage Road	from Airway Road to Central Main Street	9,300	2-lane Collector w/ Striped Median & Turn Pocket	<15,000	C
Street "B"	from Central Main Street to Street "C"	8,100	2-lane Collector (no fronting property)	<10,000	D
Street "A"	from Airway Road to Central Main Street	1,400	2-lane Collector (multi-family)	<8,000	A
	from Central Main Street to Street "C"	3,000	2-lane Collector (multi-family)	<8,000	B
Village Way	from Airway Road to Central Main Street	8,400	2-lane Collector w/ Raised Median & Turn Pocket	<15,000	C
	from Central Main Street to Street "C"	2,700	2-lane Collector (multi-family)	<8,000	B
Park Way	from Street "D" to Airway Road	3,500	2-lane Collector (multi-family)	<8,000	B
Continental Road	Street "D" to Airway Road	12,000*	2-lane Collector w/ Continuous left-turn lane	<15,000	D

Source: Chen Ryan Associates; April 2016

Note:
*Continental Road would serve two parcels, one to the west is a part of the Central Village Specific Plan while the undeveloped parcel to the east belongs to another property owner and specific land use information is unknown. To be consistent with the Otay Mesa Community Plan, the forecast roadway ADT for Continental Road was obtained from the Otay Mesa Community Plan Update FEIR, Appendix J - Figure 7-1.

10.3 Parking

Since this TIS is being prepared for a program level, the project specific details related to parking within Central Village are not known at the moment. Additionally, the location of individual parking facilities, the specific uses in which they will serve and the total number of parking spaces they will include are also not known at this time. Therefore, a project specific parking analysis could not be performed. As the Central Village develops, individual projects will need to perform project specific parking studies to ensure that they are in compliance with the current City of San Diego municipal code (Article 2, Division 5 Parking Regulations).

11.0 Findings and Recommendations

This chapter provides a summary of the key findings and study recommendations, including the Level of Service results and traffic improvements requirements, associated with the various analysis scenarios. Specific recommendations related to improvements of the proposed project traffic impacts on intersection, roadway and freeway/state highway segments are also summarized.

Summary of Roadway Segment Analyses

Table 11.1 and **Table 11.2** display the roadway segment Level of Service results for each of the study scenarios analyzed.

TABLE 11.1
SUMMARY OF ROADWAY SEGMENT LOS RESULTS – CITY OF SAN DIEGO

Roadway	From	To	Existing	Existing Plus Project	Year 2025 Cumulative	Year 2025 Cumulative Plus Project
East Beyer Boulevard	Beyer Boulevard	South of Beyer Boulevard	A	A	D	D
Ocean View Hills Parkway	Starfish Way	Del Sol Boulevard	A	A	B	B
	Del Sol Boulevard	Otay Mesa Road	A	A	B	B
Caliente Avenue	SR-905 WB Ramps	SR-905 EB Ramps	A	A	B	B
	SR-905 EB Ramps	Airway Road	A	A	C	C
	Airway Road	Southern Terminus	A	A	B	B
Innovative Drive	Progressive Avenue	Otay Mesa Road	A	A	B	C
Heritage Road	Avenida De Las Vistas	Datsun Street	B	D	**F**	**F**/C
	Datsun Street	Otay Mesa Road	C	D	**F**	**F**/C
	Otay Mesa Road	Camino Maquiladora	B	C	B	C
	Camino Maquiladora	Gateway Park Drive	A	A	A	A
	Gateway Park Drive	Southern Terminus	A	A	A	A
Cactus Road	Otay Mesa Road	SR-905	A	A	D	**E**/A
	SR-905	Street "D"	A	A	A	A
	Street "D"	Airway Road	A	A	A	A
	Airway Road	Siempre Viva Road	A	A	A	A
Britannia	Otay Mesa Road	SR-905 WB Ramps	A	B	A	B

TABLE 11.1
SUMMARY OF ROADWAY SEGMENT LOS RESULTS – CITY OF SAN DIEGO

Roadway	From	To	Existing	Existing Plus Project	Year 2025 Cumulative	Year 2025 Cumulative Plus Project
Boulevard	SR-905 WB Ramps	SR-905 EB Ramps	A	C	A	C
	SR-905 EB Ramps	Airway Road	B	**E** / C	B	**E**/C
Britannia Boulevard	Airway Road	Siempre Viva Road	A	A	A	A
	Siempre Viva Road	Bristow Court	C	C	D	D
Saint Andrews Avenue	Otay Mesa Road	Otay Mesa Center Road	C	C	A	A
La Media Road	Northern Terminus	Otay Mesa Road	D	D	**F**	**F**/C
	Otay Mesa Road	SR-905 WB Ramps	A	A	B	B
	SR-905 WB Ramps	SR-905 EB Ramps	A	A	A	A
	SR-905 EB Ramps	Airway Road	C	C	D	D
	Airway Road	Avenida De La Fuente	**E**	**E**	**F**	**F**
	Avenida De La Fuente	Siempre Viva Road	B	C	**F**	**F**/B
Otay Mesa Road	Ocean View Hills Parkway	Corporate Center Drive	A	A	B	C
	Corporate Center Drive	Heritage Road	A	A	B	B
	Heritage Road	Cactus Road	A	A	A	B
	Cactus Road	Britannia Boulevard	A	A	B	C
	Britannia Boulevard	Saint Andrews Avenue	A	A	B	C
	Saint Andrews Avenue	La Media Road	A	A	B	B
	La Media Road	Piper Ranch Road	A	A	B	B
Camino Maquiladora	Heritage Road	Cactus Road	A	A	A	A
	Cactus Road	Eastern Terminus	A	A	A	A
Airway Road	Otay Mesa Road	Caliente Avenue	A	A	C	C
	Caliente Avenue	Eastern Terminus	A	A	**F**	**F**
	Heritage	Street "A"	DNE	A	DNE	A
	Street "A"	Village Way	DNE	A	DNE	A
	Village Way	Cactus Road	DNE	A	DNE	A
	Cactus Road	Continental Road	A	**E**/C	**F**	**F**/C
	Continental Road	Britannia Boulevard	A	**F**	**F**	**F**/C
Airway Road	Britannia Boulevard	La Media Road	B	**E**	**F**	**F**/B

TABLE 11.1
SUMMARY OF ROADWAY SEGMENT LOS RESULTS – CITY OF SAN DIEGO

Roadway	From	To	Existing	Existing Plus Project	Year 2025 Cumulative	Year 2025 Cumulative Plus Project
	La Media Road	Avenida Costa Azul	**E**	**E**	**F**	**F**/A
	Avenida Costa Azul	Piper Ranch Road	A	A	A	A
	Piper Ranch Road	Harvest Road	B	B	**F**	**F**/B
	Harvest Road	Sanyo Avenue	B	B	**E**	**E**/A
Beyer Boulevard	Park Avenue	Otay Mesa Road	A	A	C	C
	Otay Mesa Road	East of Otay Mesa Road	A	A	A	A
Siempre Viva Road	Cactus Road	Britannia Boulevard	A	**E**	D	**F**/A
	Britannia Boulevard	La Media Road	A	D	**F**	**F**/A
	La Media Road	Customhouse Plaza	A	A	A	A
	Customhouse Plaza	Otay Center Drive	A	A	A	A
	Otay Center Drive	SR-905 SB Ramps	A	A	A	A
	SR-905 SB Ramps	SR-905 SB Off-Ramp	B	B	B	B
	SR-905 SB Off-Ramp	SR-905 NB Ramps	A	A	C	C
	SR-905 NB Ramps	East of SR-905 Ramps	B	B	D	D
Customhouse Plaza	Siempre Viva Road	Southern Terminus	A	A	A	A

Source: Chen Ryan Associates; November 2016

Note:
Bold letter indicates substandard LOS.
X / Y = Before Recommended Improvements / After Recommended Improvements.

Based upon the significance criteria presented in Section 2.7, and consistent with the conclusions of the OMCPU EIR, facility improvements would be required at the following roadway segments:

<u>Existing Plus Project</u>

- Britannia Boulevard, between SR-905 EB Ramps and Airway Road;
- Airway Road, between Cactus Road and Continental Road;
- Airway Road, between Continental Road and Britannia Boulevard;
- Airway Road, between Britannia Boulevard and La Media Road;
- Airway Road, between La Media Road and Avenida Costa Azul; and
- Siempre Viva Road, between Cactus Road and Britannia Boulevard.

Year 2025 Cumulative Plus Project

- Heritage Road, between Avenida De Las Vistas to Datsun Street;
- Heritage Road, between Datsun Street and Otay Mesa Road;
- Cactus Road, between Otay Mesa Road and SR-905;
- Britannia Boulevard, between SR-905 EB Ramps to Airway Road;
- La Media Road, between northern terminus and Otay Mesa Road;
- La Media Road, between Avenida De La Fuente and Siempre Viva Road;
- Airway Road, between Cactus Road and Continental Road;
- Airway Road, between Continental Road and Britannia Boulevard;
- Airway Road, between Britannia Boulevard and La Media Road;
- Airway Road, between La Media Road and Avenida Costa Azul;
- Airway Road, between Piper Ranch Road and Harvest Road;
- Airway Road, between Harvest Road and Sanyo Avenue;
- Siempre Viva Road, between Cactus Road and Britannia Boulevard; and
- Siempre Viva Road, between Britannia Boulevard and La Media Road.

TABLE 11.2
SUMMARY OF ROADWAY SEGMENT LOS RESULTS – CITY OF CHULA VISTA

Roadway	From	To	Existing	Existing Plus Project	Year 2025 Cumulative	Year 2025 Cumulative Plus Project
Heritage Road	Main Street	Avenida De Las Vistas	A	C	A	B

Source: Chen Ryan Associates; February 2016

Note:
Bold letter indicates substandard LOS.

Summary of Intersection Analyses

Table 11.3 and **Table 11.4** display the intersection Level of Service results for each of the study scenarios analyzed.

TABLE 11.3
SUMMARY OF INTERSECTION LOS RESULTS

		Existing		Existing Plus Project		Year 2025 Cumulative		Year 2025 Cumulative Plus Project	
ID	Intersection	AM	PM	AM	PM	AM	PM	AM	PM
1	Beyer Boulevard / Otay Mesa Road	B	B	B	B	B	B	B	B
2	Ocean View Hills Parkway / Del Sol Boulevard	B	B	B	B	B	C	B	C
3	Ocean View Hills Parkway / Otay Mesa Road	B	D	B	D	D	D	D	D
4	Caliente Avenue / SR-905 WB Ramps	A	A	A	B	B	B	C	B
5	Caliente Avenue / SR-905 EB Ramps	C	B	C	B	D	C	D	C

TABLE 11.3
SUMMARY OF INTERSECTION LOS RESULTS

ID	Intersection	Existing		Existing Plus Project		Year 2025 Cumulative		Year 2025 Cumulative Plus Project	
		AM	PM	AM	PM	AM	PM	AM	PM
6	Caliente Avenue / Airway Road	A	A	A	B	C	**E**	**F**/C	**F**/C
7	Innovative Drive / Otay Mesa Road	A	B	A	B	A	B	B	B
8	Heritage Road / Avenida De Las Vistas	A	A	B	C	**F**	**F**	**F**/B	**F**/B
9	Heritage Road / Datsun Street	A	B	B	D	**F**	**F**	**F**/B	**F**/C
10	Heritage Road / Otay Mesa Road	D	C	D	D	D	D	**E**/C	**F**/D
11	Heritage Road / Gateway Park Drive	A	A	A	A	A	A	A	A
12	Heritage Road / Airway Road	Does Not Exist		A	A	Does Not Exist		A	A
13	Cactus Road / Otay Mesa Road	B	C	B	C	C	C	D	D
14	Cactus Road / Airway Road	A	A	C	C	A	A	C	C
15	Cactus Road / Siempre Viva Road	A	A	B	C	A	A	B	B
16	Britannia Boulevard / Otay Mesa Road	C	C	D/D	**F**/D	B	D	D/B	**F**/C
17	Britannia Boulevard / SR-905 WB Ramps	B	B	B	C	B	D	C	D
18	Britannia Boulevard / SR-905 EB Ramps	A	B	D	D	B	B	**E**/C	**F**/D
19	Britannia Boulevard / Airway Road	B	D	**F**/D	**F**/D	D	D	**F**/D	**F**/D
20	Britannia Boulevard / Siempre Viva Road	B	B	C	D	**F**	**F**	**F**/C	**F**/D
21	Saint Andrews Avenue / Otay Mesa Road	A	A	A	A	C	B	B	C
22	La Media Road / Otay Mesa Road	D	D	D	D	**F**	**F**	**F**/D	**F**/D
23	La Media Road / Airway Road	A	A	A	B	B	C	B	D
24	La Media Road / Siempre Viva Road	A	A	B	C	B	B	C	D
25	Piper Ranch Road / Otay Mesa Road	A	B	A	B	B	B	B	B
26	Harvest Road / Airway Road	A	A	A	B	B	D	B	D
27	Customhouse Plaza / Siempre Viva Road	B	A	A	B	B	A	B	B
28	Otay Center Drive / Siempre Viva Road	B	B	B	B	B	C	B	C
29	SR-905 SB Ramps / Siempre Viva Road	A	A	A	A	A	A	A	A
30	SR-905 SB Off-Ramp / Siempre Viva Road	C	B	C	C	**F**	D	**F**/B	D/B
31	SR-905 NB Off-Ramp / Siempre Viva Road	B	B	B	B	B	C	B	C
32	Sanyo Avenue / Airway Road	A	A	A	B	C	B	C	B
33	Street "A" / Airway Road	Does Not Exist		A	A	Does Not Exist		A	A

TABLE 11.3
SUMMARY OF INTERSECTION LOS RESULTS

ID	Intersection	Existing		Existing Plus Project		Year 2025 Cumulative		Year 2025 Cumulative Plus Project	
		AM	PM	AM	PM	AM	PM	AM	PM
34	Village Way / Airway Road	Does Not Exist		C	B	Does Not Exist		C	B
35	Cactus Road / Street "D"	Does Not Exist		B	B	Does Not Exist		B	B
36	Cactus Road / Central Main Street	Does Not Exist		B	B	Does Not Exist		B	B
37	Cactus Road / Street "C"	Does Not Exist		A	A	Does Not Exist		A	A
38	Park Way / Airway Road	Does Not Exist		A	C	Does Not Exist		A	C
39	Continental Road / Airway Road	Does Not Exist		C/D	**F**/B	Does Not Exist		C/D	**F**/B

Source: Chen Ryan Associates; November 2016

Note:
Bold letter indicates substandard LOS.
X / Y = Before Recommended Improvements / After Recommended Improvements.

Based upon the significance criteria presented in Section 2.7, and consistent with the conclusions of the OMCPU EIR, facility improvements would be required at the following intersections:

Existing Plus Project

16. *Britannia* Boulevard / Otay Mesa Road;
19. Britannia Boulevard / Airway Road;
39. Continental Road / Airway Road.

Year 2025 Cumulative Plus Project

6. Caliente Avenue / Airway Road;
8. Heritage Road / Avenida De Las Vistas;
9. Heritage Road / Datsun Street;
10. Heritage Road / Otay Mesa Road;
16. Britannia Boulevard / Otay Mesa Road;
18. Britannia Boulevard / SR-905 EB Ramps;
19. Britannia Boulevard / Airway Road;
20. Britannia Boulevard / Siempre Viva Road;
22. La Media Road / Otay Mesa Road;
30. SR-905 SB Off-Ramp / Siempre Viva Road; and
39. Continental Road / Airway Road.

Summary of Ramp Intersection Analyses

Table 11.4 displays ramp intersection results for each of the analyzed scenarios. As previously noted previously in Section 2.4, neither Caltrans nor the City uses ILV results in determining significance of project impacts, but the analyses are included for informational purposes.

TABLE 11.4
SUMMARY OF RAMP INTERSECTION RESULTS

Ramp Intersection	Existing	Existing Plus Project	Year 2025 Cumulative	Year 2025 Cumulative Plus Project
Caliente Avenue and SR-905 EB Ramps	Under Capacity	Under Capacity	At Capacity	At Capacity
	Under Capacity	Under Capacity	Under Capacity	At Capacity
Caliente Avenue and SR-905 WB Ramps	Under Capacity	Under Capacity	At Capacity	**Over Capacity**
	Under Capacity	Under Capacity	**Over Capacity**	**Over Capacity**
Britannia Boulevard and SR-905 EB Ramps	Under Capacity	At Capacity	Under Capacity	At Capacity
	Under Capacity	At Capacity	Under Capacity	**Over Capacity**
Britannia Boulevard and SR-905 WB Ramps	Under Capacity	Under Capacity	Under Capacity	At Capacity
	Under Capacity	At Capacity	At Capacity	**Over Capacity**
Siempre Viva Road and SR-905 NB Ramps	Under Capacity	Under Capacity	Under Capacity	Under Capacity
	Under Capacity	Under Capacity	At Capacity	At Capacity
Siempre Viva Road and SR-905 SB Ramps	Under Capacity	Under Capacity	Under Capacity	Under Capacity
	Under Capacity	Under Capacity	Under Capacity	Under Capacity

Source: Chen Ryan Associates; February 2016

Summary of Freeway Segment Analyses

Table 11.5 displays freeway Level of Service results for each of the analyzed scenarios.

TABLE 11.5
SUMMARY OF FREEWAY SEGMENT LOS RESULTS

Freeway	Segment	Direction	Existing	Existing Plus Project	Year 2025 Cumulative	Year 2025 Cumulative Plus Project
I-805	Main Street and Palm Avenue	NB	B	B	D	D
		SB	B	B	**F**	**F**
	Palm Avenue and SR-905	NB	B	B	C	C
		SB	B	B	**E**	**E**
SR-905	Picador Boulevard and I-805	EB	B	B	C	C
		WB	B	B	C	C
	I-805 and Caliente Avenue	EB	A	A	C	C
		WB	B	B	**F**	**F**
	Caliente Avenue and Heritage Road	EB	A	A	B	B
		WB	A	A	A	A

TABLE 11.5
SUMMARY OF FREEWAY SEGMENT LOS RESULTS

Freeway	Segment	Direction	Existing	Existing Plus Project	Year 2025 Cumulative	Year 2025 Cumulative Plus Project
SR-905	Heritage Road and Britannia Boulevard	EB	A	A	A	A
		WB	A	A	A	A
	Britannia Boulevard and La Media Road	EB	A	A	A	A
		WB	A	A	A	A
	La Media Road and SR-125	EB	A	A	A	A
		WB	A	A	A	A

Source: Chen Ryan Associates; February 2016

Note:
Bold letter indicates substandard LOS.

Based upon the significance criteria presented in Section 2.7, and consistent with the conclusions of the OMCPU EIR, facility improvements would be required at the following freeway segment:

Year 2025 Cumulative Plus Project

- SR-905, between I-805 and Caliente Avenue – WB direction.

However, neither Caltrans nor SANDAG have plans to construct additional lanes on State Route 905, nor is there a plan or program in place into which the project applicant could pay its fair-share towards the cost of such improvements. Therefore, improvements are considered infeasible and the impacts along SR-905 would remain significant and unavoidable. This finding is consistent with the conclusion of the OMCPU EIR.

Summary of Improvement Recommendations

Table 11.6 summarizes the recommended improvements to roadway segments, intersections, and freeway segments under each of the scenarios analyzed associated with buildout of the Otay Mesa Central Village Specific Plan.

TABLE 11.6
SUMMARY OF IMPROVEMENTS RECOMMENDATIONS

Location	Existing Plus Project	Year 2025 Cumulative Plus Project
Roadway Segment		
Britannia Boulevard, between SR-905 Eastbound Ramps and Airway Road	Widen this roadway from a 5-lane roadway (2 NB & 3 SB) to a 6-lane Prime Arterial prior to the project's **total trip generation** of 37,678 ADT.	Widen this roadway from a 5-lane roadway (2 NB & 3 SB) to a 6-lane Prime Arterial prior to the project's **total trip generation** of 34,183 ADT
Airway Road, between Cactus Road and Continental Road	Widen this roadway segment from a 4-lane roadway (1 EB & 3 WB) to a 6-lane Major Arterial prior to the project's **total trip generation** of 36,926 ADT.	Widen this roadway segment from a 4-lane roadway (1 EB & 3 WB) to a 6-lane Major Arterial prior to the project's **total trip generation** of 444 ADT.
Airway Road, between Continental Road and Britannia Boulevard	Widen this roadway segment from a 2-lane roadway to a 6-lane Major Arterial prior to the project's **total trip generation** of 5,543 ADT	Widen this roadway segment from a 2-lane roadway to a 6-lane Major Arterial prior to the project's **total trip generation** of 106 ADT.
Airway Road, between Britannia Boulevard and La Media Road	Widen this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 39,437 ADT	Widen this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 883 ADT.
Airway Road, between La Media Road and Avenida Costa Azul	Widen this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 5,886 ADT.	Widen this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 2,944 ADT.
Siempre Viva Road, between Cactus Road and Britannia Boulevard	Widen this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 37,001 ADT.	Widen this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 849 ADT.
Heritage Road, between Avenida De Las Vistas and Datsun Street	N/A	Widen this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 1,003 ADT.
Heritage Road, between Datsun Street and Otay Mesa Road	N/A	Widen this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 1,380 ADT.
Cactus Road, between Otay Mesa Road and SR-905	N/A	Widen this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 6,623 ADT.

TABLE 11.6
SUMMARY OF IMPROVEMENTS RECOMMENDATIONS

Location	Existing Plus Project	Year 2025 Cumulative Plus Project
La Media Road, between northern terminus and Otay Mesa Road	N/A	Widen this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 4,415 ADT.
La Media Road, between Avenida De La Fuente and Siempre Viva Road	N/A	Widen this roadway segment from a 2-lane roadway to a 5-lane Major Arterial prior to the project's **total trip generation** of 3,679 ADT.
Airway Road, between Piper Ranch Road and Harvest Road	N/A	Widen this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 8,278 ADT.
Airway Road, between Harvest Road and Sanyo Avenue	N/A	Widen this roadway segment from a 2-lane roadway to a 4-lane Major Arterial prior to the project's **total trip generation** of 33,113 ADT.
Siempre Viva Road, between Cactus Road and Britannia Boulevard	N/A	Widen this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 849 ADT.
Siempre Viva Road, between Britannia Boulevard and La Media Road	N/A	Widen this roadway segment from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 679 ADT.
Intersection		
6. Caliente Avenue / Airway Road	N/A	Signalize prior to the project's **total trip generation** of 2,600 ADT and widen the westbound approach to accommodate three through lanes with a shared right-turn lane and an exclusive left-turn lane – see Figure 8-5 for intersection geometrics

TABLE 11.6
SUMMARY OF IMPROVEMENTS RECOMMENDATIONS

Location	Existing Plus Project	Year 2025 Cumulative Plus Project
8. Heritage Road / Avenida De Las Vistas	N/A	Signalize prior to the project's **total trip generation** of 3,134 ADT and widen Heritage Road to its ultimate classification to accommodate three through lanes and an exclusive left-turn lane in the northbound direction, three through lanes with an exclusive right-turn lane in the southbound direction, and an exclusive left-turn lane and exclusive right-turn lane in the eastbound direction – see Figure 8-5 for intersection geometrics
9. Heritage Road / Datsun Street	N/A	Signalize prior to the project's **total trip generation** of 1,003 ADT and widen Heritage Road to its ultimate classification to accommodate three through lanes and an exclusive left-turn lane in the northbound direction, three through lanes with a shared right lane in the southbound direction, and an exclusive left-turn lane and exclusive right-turn lane in the eastbound direction – see Figure 8-5 for intersection geometrics
10. Heritage Road / Otay Mesa Road	N/A	Widen the westbound approach of Otay Mesa Road to construct an additional exclusive right-turn lane and widen Heritage Road from a 2-lane roadway to a 6-lane Prime Arterial between Otay Mesa Road and Airway Road to accommodate three through lanes with a shared right-turn lane and an exclusive left-turn lane in the northbound direction, as well as, three through lanes, dual left-turns and an exclusive right-turn lane in the southbound direction prior to the project's **total trip generation** of 11,019 ADT – see Figure 8-5 for intersection geometrics
16. Britannia Boulevard / Otay Mesa Road	Restripe an additional exclusive left-turn lane at the westbound approach of the intersection of Britannia Boulevard / Otay Mesa Road prior to the project's **total trip generation** of 24,512 ADT	Restripe Otay Mesa Road to add an additional exclusive left-turn lane at the westbound approach and the extension of Heritage Road southerly to connect to Airway Road (Intersection #12) and widen Heritage Road between Otay Mesa Road and Airway Road, from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 12,276 ADT.

TABLE 11.6
SUMMARY OF IMPROVEMENTS RECOMMENDATIONS

Location	Existing Plus Project	Year 2025 Cumulative Plus Project
18. Britannia Boulevard / SR-905 Eastbound Ramps	N/A	Extend Heritage Road southerly to connect to Airway Road (Intersection #12) and widen Heritage Road between Otay Mesa Road and Airway Road, from a 2-lane roadway to a 6-lane Prime Arterial prior to the project's **total trip generation** of 27,225 ADT.
19. Britannia Boulevard / Airway Road	Widen the eastbound approach (Airway Road) of this intersection to accommodate dual left-turn lanes, two through lanes, and a through-right-turn shared lane, widen the westbound approach (Airway Road) to construct an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane with right-turn overlap phasing, and widen the southbound approach (Britannia Boulevard) to accommodate an exclusive left-turn lane, two through lanes, and two exclusive right-turn lanes with right-turn overlap phasing, prior to the project's **total trip generation** of 16,187 ADT.	Widen the eastbound approach (Airway Road) of this intersection to accommodate dual left-turn lanes, three through lanes, and an exclusive right-turn lane with right-turn overlap phasing, widen the westbound approach (Airway Road) to accommodate exclusive dual left-turn lanes, two through lanes, and exclusive dual right-turn lane with right-turn overlap phasing, widen the southbound approach (Britannia Boulevard) to accommodate exclusive dual left-turn lanes, three through lanes, and two exclusive right-turn lanes with right-turn overlap phasing, and widen the northbound approach to accommodate dual left-turn lanes, three through lanes, and an exclusive right-turn lane with right-turn overlap phasing, prior to the project's **total trip generation** of 111 ADT.- see Figure 8-5 for intersection geometrics
20. Britannia Boulevard / Siempre Viva Road	N/A	Widen the westbound approach (Siempre Viva Road) to accommodate two through lanes and an exclusive left-turn lane, and widen the eastbound approach to accommodate two through lanes and an exclusive left-turn-lane, prior to the project's **total trip generation** of 70 ADT. - see Figure 8-5 for intersection geometrics

TABLE 11.6
SUMMARY OF IMPROVEMENTS RECOMMENDATIONS

Location	Existing Plus Project	Year 2025 Cumulative Plus Project
22. La Media Road / Otay Mesa Road	N/A	Widen the northbound approach (La Media Road) to accommodate two through lanes with a shared right-turn lane and an exclusive left turn lane, and widen the southbound approach (La Media Road) to accommodate an additional through lane, prior the project's **total trip generation** of 5,471 ADT- see Figure 8-5 for intersection geometrics
23. La Media Road / Airway Road	N/A	Widen the western leg of Airway Road to accommodate two through lanes and exclusive left-turn lane in the eastbound and westbound direction, prior to the project's **total trip generation** of 883 ADT - see Figure 8-5 for intersection geometrics
24. La Media Road / Siempre Viva Road	N/A	Widen the western leg of Siempre Viva Road to accommodate three through lanes and an exclusive left-turn lane in the eastbound direction, prior to the project's **total trip generation** of 679 ADT - see Figure 8-5 for intersection geometrics
26. Harvest Road / Airway Road	N/A	Widen the western leg of the intersection to accommodate two through lanes with a shared right-turn lane in the eastbound direction, prior to the project's **total trip generation** of 8,278 ADT. - see Figure 8-5 for intersection geometrics
30. SR-905 SB Off-Ramp / Siempre Viva Road	N/A	Signalize prior to the project's **total trip generation** of 12,037 ADT – see Figure 8-5 for intersection geometrics
39. Continental Road / Airway Road	Widen Airway Road between Continental Road and Britannia Boulevard from a 2-lane roadway to a 6-lane Major Arterial prior to the project's **total trip generation** of 5,543 ADT.	Widen Airway Road between Continental Road and Britannia Boulevard from a 2-lane roadway to a 6-lane Major Arterial prior to the project's **total trip generation** of 106 ADT.

TABLE 11.6
SUMMARY OF IMPROVEMENTS RECOMMENDATIONS

Location	Existing Plus Project	Year 2025 Cumulative Plus Project
Freeway Segment		
SR-905, between I-805 and Caliente Avenue – WB direction	N/A	Caltrans Facility – Significant and Unavoidable Impact. Consistent with the conclusion of the OMCPU EIR.

Source: Chen Ryan Associates; April 2016

Otay Mesa Central Village Specific Plan

Transportation Facilities Trigger Analysis

Final Appendices | January 2017

Prepared For:

CENTRAL VILLAGE

444West Beech Street, Suite 300
San Diego, CA 92103

Prepared By:

CHEN RYAN

CHEN RYAN ASSOCIATES, INC.
3900 5th Avenue, Suite 210
San Diego, CA 92103

Appendix A
Signal Timing Plans

INTERSECTION: BEYER BL / E BEYER BL / OTAY MESA RD

#1

Group Assignment:
Field Master Assignment: None

N/S Street Name: Otay Mesa Rd/E Beyer Bl
E/W Street Name: E Beyer Bl/Beyer Bl

Last Change: 06/26/02
Timing Sheet By: DRH
Approved By:

Drawing Number: 883-1-D
System Ref. Number:
Timing implemented on: 03/15/00

Row	Column # →	E. Beyer 1	Beyer 2	Otay Mesa 3	Otay Mesa 4	5	6	7	Otay Mesa 8
	Phase # →			Phase					
	N	↖	↗		↓				↑
0	Ped Walk	7	7		7				7
1	Ped FDW	11	12		21				10
2	Min Green	4	7		7				7
3	Type 3 Limit								
4	Add/Veh				①				
5	Veh Extn	2.9	2.9		4.5 ~~3.7~~				3.8
6	Max Gap	2.9	2.9		4.5 ~~3.7~~				3.8
7	Min Gap	0.2	0.2		0.2				0.2
8	Max Limit	30	50		40				40
9	Max Limit 2								
A	Bus Adv								
B	Call to Phs								
C	Reduce By	0.1	0.1		0.1				0.1
D	Every	① 1.1	1.1		0.9				0.8
E	Yellow	3.9 ~~3.7~~	3.9 ~~3.7~~		4.2				3.9
F	Red Clear	1.0	1.0		1.0				1.0

Phase Timing - Bank 1
F + Phase + Row

<F Page>

Row	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	
EV-A Clear	0
EV-B Delay	
EV-B Clear	0
EV-C Delay	
EV-C Clear	0
EV-D Delay	
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing
F + E + Row

Row	F
Permit	12_4__8
Red Lock	
Yellow Lock	
Min Recall	_2_____
Ped Recall	
Peds (View)	
Rest In Walk	
Red Rest	
Dbl Entry	__4__8
Max Recall	
Soft Recall	
Max 2	
Cond Serv	
Ped Lock	12345678
Yellow Start	__4__8
1st Phases	1_____

Phase Functions
F + F + Row

<F Page>

Max Initial	0
Red Revert	5.0
All Red Start	0.0

F + 0 + E
F + 0 + F
F + C + O

Start / Revert Times

Drop Number	
Zone Number	
Area Number	
Area Address	
QuicNet Channel	

C + 0 + 0
C + 0 + 1
C + 0 + 2
C + 0 + 3
(QuicNet)

Communication Addresses

C + F + O Free Lag

F	Row
_2_4__8	0

Lag Phases <C Page>

Row		9 Green Clear	C Yellow Change	D Red Clear	0 Load-Switch #
A	Overlap A				
B	Overlap B				
C	Overlap C				
D	Overlap D				

Overlap Timing <F Page>
F + COLOR +

<D Page>
D + 0 + OVERLAP

Manual Plan	14
Manual Offset	0

C + A + 1
C + B + 1

Manual Selection

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset 0
= Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Downtime Flash	255 (minutes)

Downtime Before Auto Manual Flash
F + 0 + 8

Disable Ports	234

Disable Communications Ports
D + D + 9

INTERSECTION: BEYER BL / E BEYER BL / OTAY MESA RD

223 Program

#1

Row	Time	Function	Day of Week	Column F Phases/Bits
0	0745	E	23456	2
1	0830	E	23456	
2	1400	E	23456	2
3	1500 1530	E	23456	
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function

7 + ROW

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

<D Page>

D + F + ROW

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	2
6	Ped 6P	1
7	Ped 4P	4
8	Ped 8P	8
9	Yellow Flash Phases	
A	Overlap A - Phases	
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	

Configuration

E + F + ROW

<E Page>

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	
6	Overlap B - Green Omit	
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	2
B	EV-B Phases	4
C	EV-C Phases	1
D	EV-D Phases	8
E	Extra 1 Config. Bits	1_345
F	IC Select (Interconnect)	2

Configuration

For access, set F + 9 + E = 1

E + E + ROW

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Remote Download
6 = Special Event
7 = Pretimed Operation
8 = Split Ring Operation

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Day of Week

1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

Assign 5 Outputs
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 =

Time and Date

8-0 Hour, Minute, Day-of-Week

8-1 Day-of-Month, Year, Month

8-F Seconds

Disable Parity	0	D+B+0

Dial-Up Telephone Communications

(If set to a non-zero value, parity will be disabled)

(This parameter is NOT downloaded)

Program Information

C + C + 0 = program

C + C + F = version

Remote Download

C + 0 + 4 = 1 -255

w/ E + E + E bit 5 on

Row	1 Delay	3 Carry-over
0		
1		1.8
2	10.0	
3		
4		
5		
6		
7		1.8
8		
9		
A		
B		
C		1.8
D		
E		---
F	---	---

Detector Name	332 Input File	Detector Number
	1I1	14
	2I2U	1
	2I2L	5
	2I3U	21
	2I3L	25
	2I4	9
	3I5	16
	4I6U	3
	4I6L	7
	4I7U	23
	4I7L	27
	4I8	11
	1I9U	18
	3I9L	20
---	---	---
---	---	---

Row	2 Delay	4 Carry-over
0		
1		
2		
3		
4		
5		
6		
7		1.8
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
---	---	---
---	---	---

Detector Delay & Carryover <D Page>

D + X (across) + ROW

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 – – – –	1234
C	13 14 15 16 17 18 19 20	12345678
D	– – – – 21 22 23 24	5678
E	– – – – – – – –	1234
F	– 25 26 27 28 – – –	2345

Active Detectors <D Page>

Row		0 Detector #
0		
1	System Det. # 1	0
2	System Det. # 2	0
3	System Det. # 3	0
4	System Det. # 4	0
5	System Det. # 5	0
6	System Det. # 6	0
7	System Det. # 7	0
8	System Det. # 8	0

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number	0	F+C+1
Time Before Yellow	0.0	F+C+3

Advance Warning Beacon - Sign 1

Phase Number	0	F+D+1
Time Before Yellow	0.0	F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

(These parameters are NOT downloaded.)

INTERSECTION: BEYER BL & E. BEYER BL / OTAY MESA RD

223 Program

#1

Row	Column # / Phase #	1	2	3	4	5	6	7	8
		E. Beyer	Beyer		Otay Mesa				Otay Mesa
		Phase							
		N							
0	Ped Walk	15	15		15				15
1	Ped FDW	11	12		21				10
2	Min Green	4	7		7				7
3	Type 3 Limit								
4	Added Initial				0				
5	Veh Extension	2.9	2.9		4.5 ~~3.7~~				4 5 ~~3.8~~
6	Max Gap	2.9	2.9		4.5 ~~3.7~~				4.5 3.8
7	Min Gap	0.2	0.2		0.2				0.2
8	Max Limit	25	35		40 ~~30~~				40 ~~30~~
9	Max Limit 2								
A	Bus Advance								
B	Call To Phase								
C	Reduce By	0.1	0.1		0.1				0.1
D	Reduce Every	1.1	1.1		0.9				0.8
E	Yellow Change	3.9 ~~3.7~~	3.9 ~~3.7~~		4.2				3.9
F	Red Clear	1.0	1.0		1.0				1.0

<F Page>

0 ~~E6~~
12/14/01

Phase Timing - Bank 2

F + Phase + Location

Break[illegible] Wy / Del Sol Bl @ Ocean View Hills Py

223 Pr[illegible]am

#2

Group Assignment:
Field Master Assignment: None

N/S Street Name: Ocean View Hills Py
E/W Street Name: Del Sol Bl

Last Change:
Timing Sheet By: rej
Approved By:

Drawing Number: 30853-2-D
System Ref. Number:
Timing Implemented on: Nov 28, 2001

19/08 MCL

Column # →		Ocean View Hills Py		Breakers Wy		Ocean view Hills Py		Del Sol Bl	
Row	Phase # →	1	2	3	4	5	6	7	8
0	Ped Walk		7		7		7		7
1	Ped FDW		19 ~~18~~		27		10		29 ~~28~~
2	Min Green	4	10	4	7	4	10	4	7
3	Type 3 Limit								
4	Add/Veh								
5	Veh Extn	2.0	5.4	2.0	2.0	2.0	5.4	2.0	5.6
6	Max Gap	2.0	5.4	2.0	2.0	2.0	5.4	2.0	5.6
7	Min Gap	2.0	0.2	2.0	2.0	2.0	0.2	2.0	0.2
8	Max Limit	30	60	30	40	30	60	30	40
9	Max Limit 2								
A	Bus Adv								
B	Call to Phs			2				6	
C	Reduce By		0.1				0.1		0.1
D	Every		0.6				0.6		0.6
E	Yellow	3.4 ~~3.0~~	4.4 ~~5.0~~	3.4 ~~3.0~~	3.9 ~~3.0~~	3.4 ~~3.0~~	4.6 ~~5.0~~	3.4 ~~3.0~~	3.9 ~~4.3~~
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 1
F + Phase + Row
<F Page>

Row		E
0	RR-1 Delay	
1	RR-1 Clear	
2	EV-A Delay	0
3	EV-A Clear	0
4	EV-B Delay	0
5	EV-B Clear	0
6	EV-C Delay	0
7	EV-C Clear	0
8	EV-D Delay	0
9	EV-D Clear	0
A	RR-2 Delay	
B	RR-2 Clear	
C	View EV Delay	---
D	View EV Clear	---
E	View RR Delay	---
F	View RR Clear	---

Preempt Timing
F + E + Row

Row		F
0	Permit	12345678
1	Red Lock	
2	Yellow Lock	
3	Min Recall	
4	Ped Recall	
5	Peds (View)	
6	Rest In Walk	
7	Red Rest	
8	Dbl Entry	
9	Max Recall	
A	Soft Recall	2 6
B	Max 2	
C	Cond Serv	
D	Ped Lock	12345678
E	Yellow Start	2 6
F	1st Phases	4 8

Phase Functions
<F Page>
F + F + Row

Max Initial	
Red Revert	5.0
All Red Start	0.0

Start / Revert Times
F + 0 + E
F + 0 + F
F + C + O

Drop Number	4
Zone Number	4
Area Number	7
Area Address	74
QuicNet Channel	Com3 4

Communication Addresses
C + 0 + 0
C + 0 + 1
C + 0 + 2
C + 0 + 3
(QuicNet)

Row		Green Clear	Yellow Change	Red Clear	Load-Switch #
0	Overlap A				
1	Overlap B				
2	Overlap C				
3	Overlap D				

Overlap Timing
<F Page>
F + COLOR +
<D Page>
D + 0 + OVERLAP

Manual Plan	14
Manual Offset	0

C + A + 1
C + B + 1

Manual Selection

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset 0
= Automatic
1 = Offset A
2 = Offset B
3 = Offset C

C + F + O
Free Lag

	Row
2 4 6 8	1

Lag Phases
<C Page>

Downtime Flash	255 (minutes)

Downtime Before Auto Manual Flash
F + 0 + 8

Disable Ports	234

Disable Communications Ports
D + D + 9

PHASE 3 TO 4 AND 7 TO 8 ARE HARDWIRED WITH A DIRECTIONAL DIODE

Breakers Wy / Del Sol Bl @ Ocean View Hills Py

223 Program

#2

Row	Time	Function	Day of Week	Column F Phases/Bits
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function

7 + ROW

<D Page>

D + F + ROW

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	2
6	Ped 6P	6
7	Ped 4P	4
8	Ped 8P	8
9	Yellow Flash Phases	
A	Overlap A - Phases	
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	

Configuration

E + F + ROW

<E Page>

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	3 7
5	Overlap A - Green Cmit	
6	Overlap B - Green Cmit	
7	Overlap C - Green Cmit	
8	Overlap D - Green Cmit	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4 7
C	EV-C Phases	1 6
D	EV-D Phases	3 8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration

For access, set F + 9 + E = 1

E + E + ROW

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Remote Download
6 = Special Event
7 = Prefimed Operation
8 = Split Ring Operation

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Day of Week
1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

Assign 5 Outputs
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 =

Time and Date
8-0 Hour, Minute, Day-of-Week
8-1 Day-of-Month, Year, Month
8-F Seconds

Disable Parity	0	D+B+0

Dial-Up Telephone Communications
(If set to a non-zero value, parity will be disabled)

(This parameter is NOT downloaded)

Program Information
C + C + 0 = program
C + C + F = version

Remote Download
C + 0 + 4 = 1 -255
w/ E + E + E bit 5 on

Row	1 Delay	3 Carry-over
0		
1		1.8
2		1.8
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E		---
F	---	---

Detector Name	332 Input File	Detector Number
	1I1	14
	2I2U	1
	2I2L	5
	2I3U	21
	2I3L	25
	2I4	9
	3I5	16
	4I6U	3
	4I6L	7
	4I7U	23
	4I7L	27
	4I8	11
	1I9U	18
	3I9L	20
---	---	---
---	---	---

Row	2 Delay	4 Carry-over
0		
1		1.8
2		1.8
3		
4		
5		
6		
7		1.8
8		
9		
A	10.0	
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
---	---	---
---	---	---

Detector Delay & Carryover <D Page>

D + X (across) + ROW

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 – – – –	1234
C	13 14 15 16 17 18 19 20	12345678
D	– – – – 21 22 23 24	5678
E	– – – – – – – –	1234
F	– 25 26 27 28 – – –	2345

Active Detectors <D Page>

Row	0 Detector #
0	
1	System Det. # 1 0
2	System Det. # 2 0
3	System Det. # 3 0
4	System Det. # 4 0
5	System Det. # 5 0
6	System Det. # 6 0
7	System Det. # 7 0
8	System Det. # 8 0

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number	0	F+C+1
Time Before Yellow	0.0	F+C+3

Advance Warning Beacon - Sign 1

Phase Number	0	F+D+1
Time Before Yellow	0.0	F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

(These parameters are NOT downloaded.)

LOCATION: RTE 905 @ CALIENTE AVE./OCEAN VIEW HILLS PARKWAY

CALTRANS C8 Version 3 DATE: 3/3/15

F PAGE

 #3

	INTERVAL	PHASE TIMING 1	2	3	4	5	6	7	8
0	WALK	1	1	1	7	1	7	1	7
1	DONT WALK	1	1	1	39	1	45	1	42
2	MIN GREEN	11	11	11	11	11	11	11	11
3	TYPE 3 DET	0	0	0	0	0	0	0	0
4	ADD/VEH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	PASSAGE	2.0	3.0	3.0	2.0	2.0	3.0	2.0	2.0
6	MAX GAP	2.0	3.0	3.0	2.0	2.0	3.0	2.0	2.0
7	MIN GAP	2.0	3.0	3.0	2.0	2.0	3.0	2.0	2.0
8	MAX EXT	20	35	20	25	15	35	20	25
9	MAX 2			35					
A	MAX 3								
B									
C	REDUCE BY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
D	EVERY	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
E	YELLOW	3.7	4.8	3.7	4.1	3.7	4.8	3.7	5.2
F	RED	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
3.5'	PED XING FT				137'		156'		146'
	BIKE XING FT	132'	158'	113'	146'	131'	161'	136'	147'

NOTES:

CLK RST	
YR	
MO	
DAY	
DOW	
HR	
MIN	
SEC	

	PRE-EMPTION E	
EV SEL	0	
RR1 CLR	5	
EVA DLY	0	
EVA CLR	5	
EVB DLY	0	
EVB CLR	5	
EVC DLY	0	
EVC CLR	5	
EVD DLY	0	
EVD CLR	5	
MAX EV	255	
RR2 CLR	5	

FLAGS	F 1	2	3	4	5	6	7	8	
PERMIT	1	2	3	4	5	6	7	8	0
RED LOCK									1
YEL LOCK									2
V RECALL		2				6			3
P RECALL									4
PED PHASES				4		6		8	5
RT OLA									6
RT OLB									7
DBL ENTRY									8
MAX 2 PHASES			3						9
LAG PHASES	READ ONLY								A
RED REST									B
REST-IN-WALK									C
MAX 3 PHASES									D
YEL START UP				4				8	E
FIRST PHASE		2				6			F
	1	2	3	4	5	6	7	8	

FOC LONG FAILURE	
FOD SHORT FAILURE	
FOE	0
FOF	5

FCO	3
FC1	3
FC2	10
FCA	0.0
FCB	0.0
FCC	0.0
FCD	0.0

FDO TB SELECT	1
FD3 PED SELECT	0
FD4 7 WIRE	0
FD5 PERMISSIVE	0
FD8 OS SEEKING	1

CO5 FLASH TYPE	1
CC2 DOWNLOAD	1

ENTRIES IN THESE LOCATIONS CAN BE CHANGED IN CC1 FLASH ONLY

LOCATION: RTE 905 @ CALIENTE AVE./OCEAN VIEW HILLS PARKWAY

CALTRANS C8 Version 3 DATE: 12/13/2012

C PAGE

#3

		CONTROL PLANS								
		1	2	3	4	5	6	7	8	9
0	CYCLE LENGTH									
1	FZ1 GRN FCTR									
2										
3	FZ3 GRN FCTR									
4	FZ4 GRN FCTR									
5	FZ5 GRN FCTR									
6										
7	FZ7 GRN FCTR									
8	FZ8 GRN FCTR									
9	MULTI CYCLE									
A	OFFSET A									
B	OFFSET B									
C	OFFSET C									
D	FZ 3 EXT									
E	FZ 7 EXT									
F	OFFSET INTRPT									

Y-COORD	C	D
PERM TIME		
LAG OFFSET		
FORCE OFF		
LONG GRN		
NO GREEN		
OFFSET		

LAG PHASE	E
GAPOUT CP1	
GAPOUT CP2	
GAPOUT CP3	
GAPOUT CP4	
GAPOUT CP5	
GAPOUT CP6	
GAPOUT CP7	
GAPOUT CP8	
GAPOUT CP9	

FLAGS	F	1	2	3	4	5	6	7	8	
	LAG FZ FREE		2		4		6		8	0
	LAG FZ CP 1									1
	LAG FZ CP 2									2
	LAG FZ CP 3									3
	LAG FZ CP 4									4
	LAG FZ CP 5									5
	LAG FZ CP 6									6
	LAG FZ CP 7									7
	LAG FZ CP 8									8
	LAG FZ CP 9									9
	LAG C COORD									A
	LAG D COORD									B
	COORD FAZES		2				6			C
										D
										E
										F
		1	2	3	4	5	6	7	8	

CO1 MANUAL CP
CO2 MASTER CP
CO3 CURRENT CP
CO4 LAST CP
CO7 TRNSMT CP
COD MANUAL OFFSET
CAO LOCAL CYCLE TIMER
CBO MASTER CYCLE TIMER
CAA LOCAL OFFSET
CBA MASTER OFFSET

SYSTEM MASTER:
EB @ Caliente Ave

FEATURE	OFF	ON
1		
2		
3		
4		
5		
6		
7		
8		

LOCATION	OFF	ON
1		1
2		2
3	4	
4	8	
5	16	
6	32	
7		
8		

COO = 3

CCB/CDB OFFSET TIMER
CCC/CDC LAG GREEN TIMER
CCD/CDD FORCE OFF TIMER
CCE/CDE LONG GREEN TIMER
CCF/CDF NO GREEN TIMER

#3

E PAGE

	D	FLAGS								E	FLAGS								F	FLAGS								
	MAX	1	2	3	4	5	6	7	8	MIN	1	2	3	4	5	6	7	8	PED	1	2	3	4	5	6	7	8	
0	RCL									RCL									RCL									
1	CP 1									CP 1									CP 1									
2	CP 2									CP 2									CP 2									
3	CP 3									CP 3									CP 3									
4	CP 4									CP 4									CP 4									
5	CP 5									CP 5									CP 5									
6	CP 6									CP 6									CP 6									
7	CP 7									CP 7									CP 7									
8	CP 8									CP 8									CP 8									
9	CP 9									CP 9									CP 9									
A																			RCL 1									
B																			RCL 2									
C																												
D																												
E																												
F																												
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	

	E	FLAGS								F	FLAGS								
	FUNCTION	1	2	3	4	5	6	7	8	FUNCTION	1	2	3	4	5	6	7	8	
0										CODE 4									0
1										CODE 5									1
2										C-RECALL									2
3										D-RECALL									3
4										EXCLUSIVE									4
5										2 PED		2							5
6										6 PED						6			6
7										4 PED				4					7
8										8 PED								8	8
9																			9
A	OLA NOT									OLA ON									A
B	OLB NOT									OLB ON									B
C	OLC NOT									OLC ON									C
D	OLD NOT									OLD ON									D
E																			E
F																			F
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	

LAST POWER FAILURE REGISTER

HOUR = D-A-E
MINUTE = D-B-E
DAY = D-C-E

RCL 1 = TIME OF DAY MAX RECALL (1ST SELECT) PHASES
(CALL ACTIVE LIGHTS)
RCL 2 = TIME OF DAY MAX RECALL (2ND SELECT) PHASES
(CALL ACTIVE LIGHTS)

LAST FLASH TIME REGISTER

HOUR = D-A-F
MINUTE = D-B-F
DAY = D-C-F

D-E-E = C8 VERSION NUMBER
D-E-F = LITHIUM BATTERY CONDITION
84 = BAD
85 = GOOD

LOCATION: RTE 905 @ CALIENTE AVE./OCEAN VIEW HILLS PARKWAY

CALTRANS C8 Version 3 DATE: 12/13/12

7 PAGE

TIME OF DAY ACTIVITY TABLE

7+EVENT+HR+MIN+ACT+"E"+ON/OFF+DOW LTS

	HR	MIN	ACT	ON/ OFF	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0	15	00	2	ON		2	3	4	5	6	
1	17	30	2	OFF		2	3	4	5	6	
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

ACTIVITY CODE

1 TYPE OF MAX TERMINATION
2 MAX 2
3 MAX 3
4 COND SERV (1ST SELECT)
5 COND SERV (2ND SELECT)
6 ENERGIZE AUX OUTPUT-RED

7 ENERGIZE AUX OUTPUT-GREEN

9 PAGE C09 = 0 or 1

CONTROL PLAN TIME OF DAY

9+EVENT+HR+MIN+CP+OS+E+DOW

	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

8 ENERGIZE AUX OUTPUT-YELLOW

9 TIME OF DAY MAX RECALL (1ST SELECT)
A TRAFFIC ACT. MAX 2 OPERATION
B TIME OF DAY MAX RECALL (2ND SELECT)
C YELLOW YIELD COORDINATION
D YELLOW YIELD COORDINATION
E TIME OF DAY FREE OPERATION
F FLASHING OPERATION

#3

9 PAGE C09 = 2

CONTROL PLAN TIME OF DAY

9+EVENT+HR+MIN+CP+OS+E+DOW

	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

#3

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	905	R9.5/R15.0	667C	857

Enrique P Bernal 08-28-09
REGISTERED ELECTRICAL ENGINEER — DATE

10-20-08
PLANS APPROVAL DATE

E.P.BERNAL No. 15675 EXP. 6-30-10 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

NOTE:

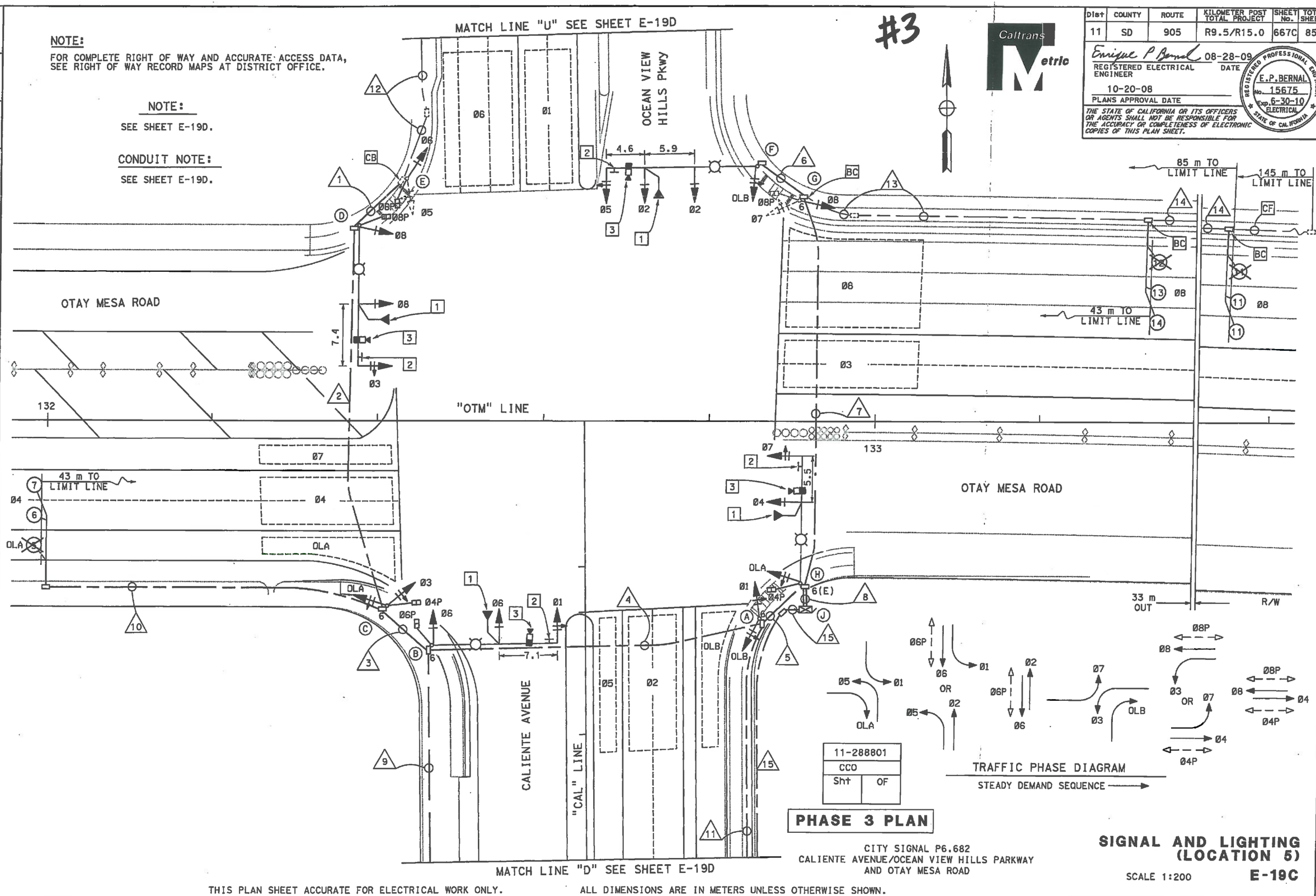
FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

NOTE:

SEE SHEET E-19D.

CONDUIT NOTE:

SEE SHEET E-19D.



TRAFFIC PHASE DIAGRAM
STEADY DEMAND SEQUENCE →

11-288801	
CCO	
Sht	OF

PHASE 3 PLAN

CITY SIGNAL P6.682
CALIENTE AVENUE/OCEAN VIEW HILLS PARKWAY
AND OTAY MESA ROAD

SIGNAL AND LIGHTING (LOCATION 5)

SCALE 1:200 **E-19C**

THIS PLAN SHEET ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: H. SAWAYA
CHECKED BY: ENRIQUE BERNAL
FUNCTIONAL SUPERVISOR: DALE WILSON

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC ELECTRICAL

LAST REVISION DATE PLOTTED = 15-MAR-2011

LOCATION: **905 WB @ Caliente Ave**
CALTRANS C8 Version 3
F PAGE

3/4/15

4

	INTERVAL	PHASE TIMING 1	2	3	4	5	6	7	8
0	WALK	1	7	1	1	1	7	1	1
1	DONT WALK	1	14	1	1	1	18	1	1
2	MIN GREEN	1	7	1	1	5	7	1	5
3	TYPE 3 DET	0	0	0	0	0	0	0	0
4	ADD/VEH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	PASSAGE	0.9	3.0	0.9	0.9	2.0	3.0	0.9	3.0
6	MAX GAP	0.9	3.0	0.9	0.9	2.0	3.0	0.9	3.0
7	MIN GAP	0.9	3.0	0.9	0.9	2.0	3.0	0.9	3.0
8	MAX EXT	9	30	9	9	25	30	9	30
9	MAX 2								
A	MAX 3								
B									
C	REDUCE BY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
D	EVERY	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
E	YELLOW	3.0	4.1	3.0	3.0	3.7	4.1	3.0	4.1
F	RED	0.0	1.0	0.0	0.0	1.0	1.0	0.0	1.0
3.5'	PED XING FT		50'				50'		
	BIKE XING FT		57'				81'		

	9
	CLK RST
	YR
	MO
	DAY
	DOW
	HR
	MIN
	SEC

PRE-EMPTION E	
EV SEL	0
RR1 CLR	15
EVA DLY	0
EVA CLR	5
EVB DLY	0
EVB CLR	5
EVC DLY	0
EVC CLR	5
EVD DLY	0
EVD CLR	5
MAX EV	255
RR2 CLR	15

F FLAGS	1	2	3	4	5	6	7	8	
PERMIT		2			5	6		8	0
RED LOCK									1
YEL LOCK									2
V RECALL		2				6			3
P RECALL									4
PED PHASES		2				6			5
RT OLA									6
RT OLB									7
DBL ENTRY									8
MAX 2 PHASES									9
LAG PHASES	READ ONLY								A
RED REST									B
REST-IN-WALK									C
MAX 3 PHASES									D
YEL START UP		2				6			E
FIRST PHASE								8	F
	1	2	3	4	5	6	7	8	

FOC LONG FAILURE	
FOD SHORT FAILURE	
FOE	30
FOF	5

FCO	3
FC1	3
FC2	10
FCA	0.0
FCB	0.0
FCC	0.0
FCD	0.0

FDO TB SELECT	1
FD3 PED SELECT	0
FD4 7 WIRE	0
FD5 PERMISSIVE	0
FD8 OS SEEKING	1

CO5 FLASH TYPE	1
CC2 DOWNLOAD	1

ENTRIES IN THESE LOCATIONS CAN BE CHANGED IN CC1 FLASH ONLY

LOCATION: 905 WB @ Caliente Ave
CALTRANS C8 Version 3
C PAGE

8/15/12

		CONTROL PLANS									Y-COORD			LAG PHASE	FLAGS									
		1	2	3	4	5	6	7	8	9		C	D	E	F	1	2	3	4	5	6	7	8	
0	CYCLE LENGTH														LAG FZ FREE		2		4		6		8	0
1	FZ1 GRN FCTR													GAPOUT CP1	LAG FZ CP 1									1
2														GAPOUT CP2	LAG FZ CP 2									2
3	FZ3 GRN FCTR													GAPOUT CP3	LAG FZ CP 3									3
4	FZ4 GRN FCTR										PERM TIME			GAPOUT CP4	LAG FZ CP 4									4
5	FZ5 GRN FCTR										LAG OFFSET			GAPOUT CP5	LAG FZ CP 5									5
6											FORCE OFF			GAPOUT CP6	LAG FZ CP 6									6
7	FZ7 GRN FCTR										LONG GRN			GAPOUT CP7	LAG FZ CP 7									7
8	FZ8 GRN FCTR										NO GREEN			GAPOUT CP8	LAG FZ CP 8									8
9	MULTI CYCLE													GAPOUT CP9	LAG FZ CP 9									9
A	OFFSET A										OFFSET				LAG C COORD									A
B	OFFSET B														LAG D COORD									B
C	OFFSET C														COORD FAZES		2				6			C
D	FZ 3 EXT																							D
E	FZ 7 EXT																							E
F	OFFSET INTRPT																							F
																1	2	3	4	5	6	7	8	

CO1 MANUAL CP
CO2 MASTER CP
CO3 CURRENT CP
CO4 LAST CP
CO7 TRNSMT CP
COD MANUAL OFFSET
CAO LOCAL CYCLE TIMER
CBO MASTER CYCLE TIMER
CAA LOCAL OFFSET
CBA MASTER OFFSET

System Master:
EB @ Caliente Ave

FEATURE	OFF	ON
1		
2		
3		
4		
5		
6		
7		
8		

LOCATION	OFF	ON
1		
2		2
3		
4		
5		
6		
7		
8		

COO = 2

CCB/CDB OFFSET TIMER
CCC/CDC LAG GREEN TIMER
CCD/CDD FORCE OFF TIMER
CCE/CDE LONG GREEN TIMER
CCF/CDF NO GREEN TIMER

LOCATION: 905 WB @ Caliente Ave
CALTRANS C8 Version 3
D PAGE

7/12/12

#9

	D	FLAGS								E	FLAGS								F	FLAGS							
	MAX	1	2	3	4	5	6	7	8	MIN	1	2	3	4	5	6	7	8	PED	1	2	3	4	5	6	7	8
0	RCL									RCL									RCL								
1	CP 1									CP 1									CP 1								
2	CP 2									CP 2									CP 2								
3	CP 3									CP 3									CP 3								
4	CP 4									CP 4									CP 4								
5	CP 5									CP 5									CP 5								
6	CP 6									CP 6									CP 6								
7	CP 7									CP 7									CP 7								
8	CP 8									CP 8									CP 8								
9	CP 9									CP 9									CP 9								
A																			RCL 1								
B																			RCL 2								
C																											
D																											
E																											
F																											
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8

E PAGE

	E	FLAGS								F	FLAGS								
	FUNCTION	1	2	3	4	5	6	7	8	FUNCTION	1	2	3	4	5	6	7	8	
0										CODE 4									0
1										CODE 5									1
2										C-RECALL									2
3										D-RECALL									3
4										EXCLUSIVE									4
5										2 PED		2							5
6										5 PED						6			6
7										4 PED				4					7
8										8 PED								8	8
9																			9
A	OLA NOT									OLA ON									A
B	OLB NOT									OLB ON									B
C	OLC NOT									OLC ON									C
D	OLD NOT									OLD ON									D
E																			E
F																			F
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	

LAST POWER FAILURE REGISTER

HOUR = D-A-E
MINUTE = D-B-E
DAY = D-C-E

RCL 1 = TIME OF DAY MAX RECALL (1ST SELECT) PHASES
(CALL ACTIVE LIGHTS)
RCL 2 = TIME OF DAY MAX RECALL (2ND SELECT) PHASES
(CALL ACTIVE LIGHTS)

LAST FLASH TIME REGISTER

HOUR = D-A-F
MINUTE = D-B-F
DAY = D-C-F

D-E-E = C8 VERSION NUMBER
D-E-F = LITHIUM BATTERY CONDITION
84 = BAD
85 = GOOD

LOCATION: **905 WB @ Caliente Ave**

CALTRANS C8 Version 3

7 PAGE

7/12/12

TIME OF DAY ACTIVITY TABLE											
7+EVENT+HR+MIN+ACT+"E"+ON/OFF+DOW LTS											
	HR	MIN	ACT	ON/ OFF	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

ACTIVITY CODE

1 TYPE OF MAX TERMINATION
2 MAX 2
3 MAX 3
4 COND SERV (1ST SELECT)
5 COND SERV (2ND SELECT)
6 ENERGIZE AUX OUTPUT-RED

7 ENERGIZE AUX OUTPUT-GREEN

9 PAGE C09 = 0 or 1

CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

8 ENERGIZE AUX OUTPUT-YELLOW

9 TIME OF DAY MAX RECALL (1ST SELECT)
A TRAFFIC ACT. MAX 2 OPERATION
B TIME OF DAY MAX RECALL (2ND SELECT)
C YELLOW YIELD COORDINATION
D YELLOW YIELD COORDINATION
E TIME OF DAY FREE OPERATION
F FLASHING OPERATION

9 PAGE C09 = 2

CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

#4

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	905	R9.5/R15.0	667	857

Enrique P Bernal 08-28-09
REGISTERED ELECTRICAL ENGINEER — DATE

10-20-08
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

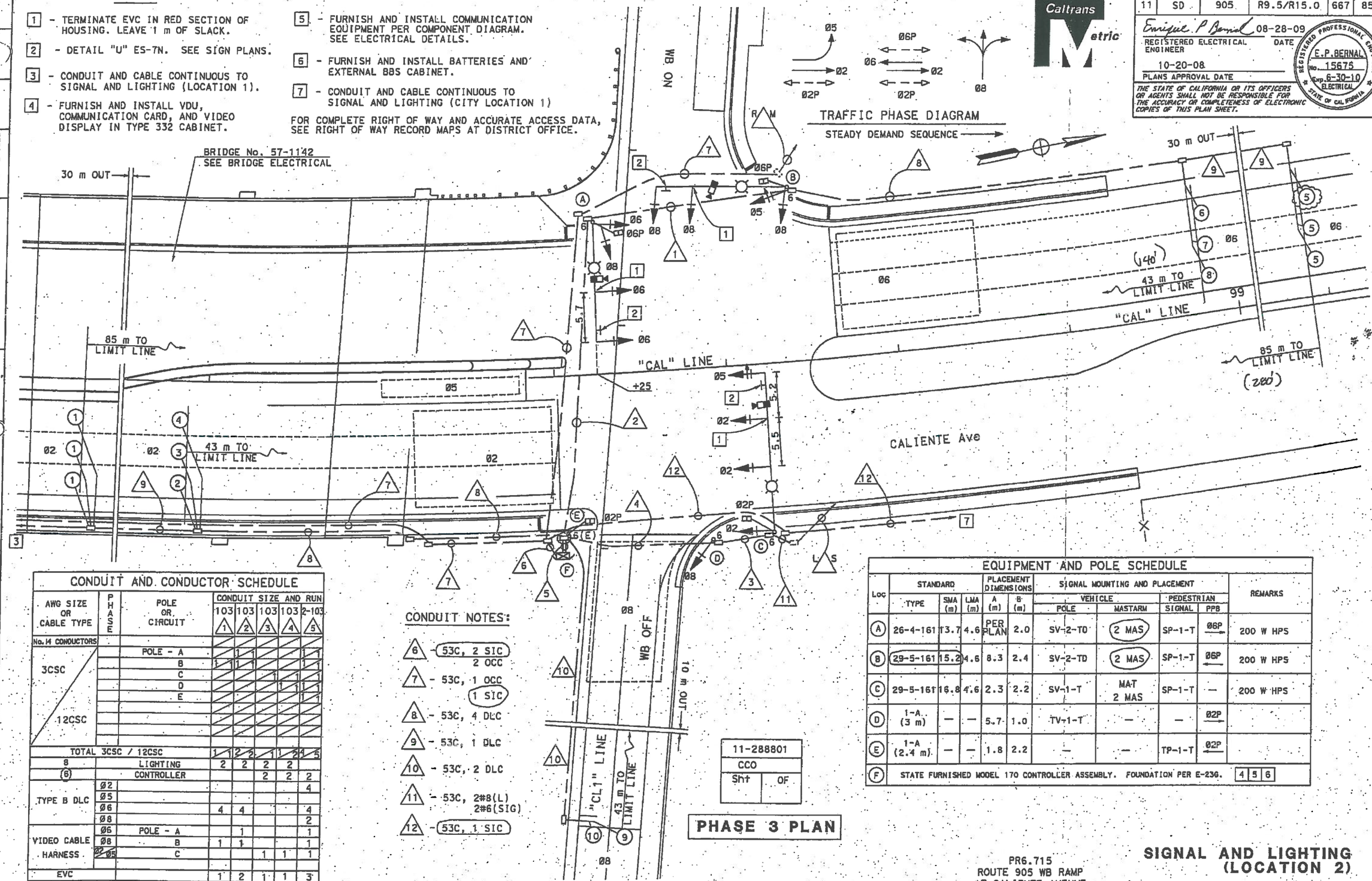
REGISTERED PROFESSIONAL ENGINEER — E.P.BERNAL — No. 15675 — Exp. 6-30-10 — ELECTRICAL — STATE OF CALIFORNIA

Caltrans Metric

NOTES:

1. TERMINATE EVC IN RED SECTION OF HOUSING. LEAVE 1 m OF SLACK.
2. DETAIL "U" ES-7N. SEE SIGN PLANS.
3. CONDUIT AND CABLE CONTINUOUS TO SIGNAL AND LIGHTING (LOCATION 1).
4. FURNISH AND INSTALL VDU, COMMUNICATION CARD, AND VIDEO DISPLAY IN TYPE 332 CABINET.
5. FURNISH AND INSTALL COMMUNICATION EQUIPMENT PER COMPONENT DIAGRAM. SEE ELECTRICAL DETAILS.
6. FURNISH AND INSTALL BATTERIES AND EXTERNAL BBS CABINET.
7. CONDUIT AND CABLE CONTINUOUS TO SIGNAL AND LIGHTING (CITY LOCATION 1)

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



TRAFFIC PHASE DIAGRAM

STEADY DEMAND SEQUENCE →

CONDUIT AND CONDUCTOR SCHEDULE

AWG SIZE OR CABLE TYPE	PHASE	POLE OR CIRCUIT	CONDUIT SIZE AND RUN 103 (1)	103 (2)	103 (3)	103 (4)	2-103 (5)
No.14 CONDUCTORS							
3CSC / 12CSC		POLE - A		1	1		1 1
		B	1	1	1		1 1
		C				1	1 1
		D				1	1 1
		E					1 1
TOTAL 3CSC / 12CSC			1	1 2	2	1 1	2 4 5
8		LIGHTING	2	2	2	2	
(6)		CONTROLLER			2	2	2
TYPE B DLC	Ø2						4
	Ø5						
	Ø6		4	4			4
	Ø8						2
VIDEO CABLE HARNESS	Ø6	POLE - A		1			1
	Ø8	B	1	1			1
	Ø2 Ø5	C			1	1	1
EVC			1	2	1	1	3
TOTAL CONDUCTORS / CABLES			10	14	7	9	27

CONDUIT NOTES:

6 - 53C, 2 SIC, 2 OCC
7 - 53C, 1 OCC, 1 SIC
8 - 53C, 4 DLC
9 - 53C, 1 DLC
10 - 53C, 2 DLC
11 - 53C, 2#8(L) 2#6(SIG)
12 - 53C, 1 SIC

EQUIPMENT AND POLE SCHEDULE

Loc	STANDARD TYPE	SMA (m)	LMA (m)	PLACEMENT DIMENSIONS A (m)	B (m)	SIGNAL MOUNTING AND PLACEMENT VEHICLE POLE	VEHICLE MASTARM	PEDESTRIAN SIGNAL	PEDESTRIAN PPB	REMARKS
(A)	26-4-161	13.7	4.6	PER PLAN	2.0	SV-2-TD	(2 MAS)	SP-1-T	Ø6P →	200 W HPS
(B)	(29-5-161)	(15.2)	4.6	8.3	2.4	SV-2-TD	(2 MAS)	SP-1-T	Ø6P ←	200 W HPS
(C)	29-5-161	16.8	4.6	2.3	2.2	SV-1-T	MAT 2 MAS	SP-1-T	—	200 W HPS
(D)	1-A (3 m)	—	—	5.7	1.0	TV-1-T	—	—	Ø2P →	
(E)	1-A (2.4 m)	—	—	1.8	2.2	—	—	TP-1-T	Ø2P ←	
(F)	STATE FURNISHED MODEL 170 CONTROLLER ASSEMBLY. FOUNDATION PER E-23G.									4 5 6

11-288801	
CCO	
Sht	OF

PHASE 3 PLAN

PR6.715
ROUTE 905 WB RAMP
AT CALIENTE AVENUE

SIGNAL AND LIGHTING (LOCATION 2)

SCALE 1:200

E-19

THIS PLAN SHEET ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

REVISED BY | DATE REVISED
H. SAWAYA | ENRIQUE BERNAL
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: DALE WILSON
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC ELECTRICAL

LAST REVISION DATE PLOTTED = 29-DEC-2011

LOCATION: **905 EB @ Caliente Ave**
CALTRANS C8 Version 3
F PAGE

3/4/15

#5

	INTERVAL	PHASE TIMING 1	2	3	4	5	6	7	8
0	WALK	1	7	1	1	1	7	1	1
1	DONT WALK	1	14	1	1	1	14	1	1
2	MIN GREEN	5	7	1	5	1	7	1	1
3	TYPE 3 DET	0	0	0	0	0	0	0	0
4	ADD/VEH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	PASSAGE	2.0	3.0	0.9	3.0	0.9	3.0	0.9	0.9
6	MAX GAP	2.0	3.0	0.9	3.0	0.9	3.0	0.9	0.9
7	MIN GAP	2.0	3.0	0.9	3.0	0.9	3.0	0.9	0.9
8	MAX EXT	15	30	9	30	9	30	9	9
9	MAX 2								
A	MAX 3								
B									
C	REDUCE BY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
D	EVERY	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
E	YELLOW	3.7	4.1	3.0	4.1	3.0	4.1	3.0	3.0
F	RED	1.0	1.0	0.0	1.0	0.0	1.0	0.0	0.0
3.5'	PED XING FT		48'				48'		
	BIKE XING FT		67'				60'		

CLK RST	
YR	
MO	
DAY	
DOW	
HR	
MIN	
SEC	

PRE-EMPTION E	
EV SEL	0
RR1 CLR	15
EVA DLY	0
EVA CLR	5
EVB DLY	0
EVB CLR	5
EVC DLY	0
EVC CLR	5
EVD DLY	0
EVD CLR	5
MAX EV	255
RR2 CLR	15

F FLAGS	1	2	3	4	5	6	7	8	
PERMIT	1	2		4		6			0
RED LOCK									1
YEL LOCK									2
V RECALL		2				6			3
P RECALL									4
PED PHASES		2				6			5
RT OLA									6
RT OLB									7
DBL ENTRY									8
MAX 2 PHASES									9
LAG PHASES	READ ONLY								A
RED REST									B
REST-IN-WALK									C
MAX 3 PHASES									D
YEL START UP		2				6			E
FIRST PHASE				4					F
	1	2	3	4	5	6	7	8	

FOC LONG FAILURE	
FOD SHORT FAILURE	
FOE	30
FOF	5

FCO	3
FC1	3
FC2	10
FCA	0.0
FCB	0.0
FCC	0.0
FCD	0.0

FDO TB SELECT	1
FD3 PED SELECT	0
FD4 .7 WIRE	0
FD5 PERMISSIVE	0
FD8 OS SEEKING	1

CO5 FLASH TYPE	1
CC2 DOWNLOAD	1

ENTRIES IN THESE LOCATIONS CAN BE CHANGED IN CC1 FLASH ONLY

LOCATION: 905 EB @ Caliente Ave
CALTRANS C8 Version 3
C PAGE

8/15/12

		CONTROL PLANS									Y-COORD			LAG PHASE	FLAGS									
		1	2	3	4	5	6	7	8	9		C	D	E	F	1	2	3	4	5	6	7	8	
0	CYCLE LENGTH														LAG FZ FREE		2		4		6		8	0
1	FZ1 GRN FCTR													GAPOUT CP1	LAG FZ CP 1									1
2														GAPOUT CP2	LAG FZ CP 2									2
3	FZ3 GRN FCTR													GAPOUT CP3	LAG FZ CP 3									3
4	FZ4 GRN FCTR										PERM TIME			GAPOUT CP4	LAG FZ CP 4									4
5	FZ5 GRN FCTR										LAG OFFSET			GAPOUT CP5	LAG FZ CP 5									5
6											FORCE OFF			GAPOUT CP6	LAG FZ CP 6									6
7	FZ7 GRN FCTR										LONG GRN			GAPOUT CP7	LAG FZ CP 7									7
8	FZ8 GRN FCTR										NO GREEN			GAPOUT CP8	LAG FZ CP 8									8
9	MULTI CYCLE													GAPOUT CP9	LAG FZ CP 9									9
A	OFFSET A										OFFSET				LAG C COORD									A
B	OFFSET B														LAG D COORD									B
C	OFFSET C														COORD FAZES		2				6			C
D	FZ 3 EXT																							D
E	FZ 7 EXT																							E
F	OFFSET INTRPT																							F
																1	2	3	4	5	6	7	8	

CO1 MANUAL CP
CO2 MASTER CP
CO3 CURRENT CP
CO4 LAST CP
CO7 TRNSMT CP
COD MANUAL OFFSET
CAO LOCAL CYCLE TIMER
CBO MASTER CYCLE TIMER
CAA LOCAL OFFSET
CBA MASTER OFFSET

System Master:
EB @ Caliente Ave

FEATURE	OFF	ON
1		
2		
3		
4		
5		
6		
7		
8		

LOCATION	OFF	ON
1		1
2		
3		
4		
5		
6		
7		
8		

COO = 1

CCB/CDB OFFSET TIMER
CCC/CDC LAG GREEN TIMER
CCD/CDD FORCE OFF TIMER
CCE/CDE LONG GREEN TIMER
CCF/CDF NO GREEN TIMER

LOCATION: 905 EB @ Caliente Ave
CALTRANS C8 Version 3
D PAGE

7/18/12

#5

	D	FLAGS								E	FLAGS								F	FLAGS							
	MAX	1	2	3	4	5	6	7	8	MIN	1	2	3	4	5	6	7	8	PED	1	2	3	4	5	6	7	8
0	RCL									RCL									RCL								
1	CP 1									CP 1									CP 1								
2	CP 2									CP 2									CP 2								
3	CP 3									CP 3									CP 3								
4	CP 4									CP 4									CP 4								
5	CP 5									CP 5									CP 5								
6	CP 6									CP 6									CP 6								
7	CP 7									CP 7									CP 7								
8	CP 8									CP 8									CP 8								
9	CP 9									CP 9									CP 9								
A																			RCL 1								
B																			RCL 2								
C																											
D																											
E																											
F																											
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8

E PAGE

	E	FLAGS								F	FLAGS								
	FUNCTION	1	2	3	4	5	6	7	8	FUNCTION	1	2	3	4	5	6	7	8	
0										CODE 4									0
1										CODE 5									1
2										C-RECALL									2
3										D-RECALL									3
4										EXCLUSIVE									4
5										2 PED		2							5
6										6 PED						6			6
7										4 PED				4					7
8										8 PED								8	8
9																			9
A	OLA NOT									OLA ON									A
B	OLB NOT									OLB ON									B
C	OLC NOT									OLC ON									C
D	OLD NOT									OLD ON									D
E																			E
F																			F
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	

LAST POWER FAILURE REGISTER

HOUR = D-A-E
MINUTE = D-B-E
DAY = D-C-E

RCL 1 = TIME OF DAY MAX RECALL (1ST SELECT) PHASES
(CALL ACTIVE LIGHTS)
RCL 2 = TIME OF DAY MAX RECALL (2ND SELECT) PHASES
(CALL ACTIVE LIGHTS)

LAST FLASH TIME REGISTER

HOUR = D-A-F
MINUTE = D-B-F
DAY = D-C-F

D-E-E = C8 VERSION NUMBER
D-E-F = LITHIUM BATTERY CONDITION
84 = BAD
85 = GOOD

LOCATION: 905 EB @ Caliente Ave
CALTRANS C8 Version 3
7 PAGE

7/18/12

9 PAGE C09 = 0 or 1

9 PAGE C09 = 2

TIME OF DAY ACTIVITY TABLE											
7+EVENT+HR+MIN+ACT+"E"+ON/OFF+DOW LTS											
	HR	MIN	ACT	ON/ OFF	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

ACTIVITY CODE

1 TYPE OF MAX TERMINATION
2 MAX 2
3 MAX 3
4 COND SERV (1ST SELECT)
5 COND SERV (2ND SELECT)
6 ENERGIZE AUX OUTPUT-RED

7 ENERGIZE AUX OUTPUT-GREEN

CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

8 ENERGIZE AUX OUTPUT-YELLOW

9 TIME OF DAY MAX RECALL (1ST SELECT)
A TRAFFIC ACT. MAX 2 OPERATION
B TIME OF DAY MAX RECALL (2ND SELECT)
C YELLOW YIELD COORDINATION
D YELLOW YIELD COORDINATION
E TIME OF DAY FREE OPERATION
F FLASHING OPERATION

CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

#5

CONDUIT AND CONDUCTOR SCHEDULE

AWG SIZE OR CABLE TYPE	PHASE	POLE OR CIRCUIT	CONDUIT SIZE AND RUN 103 (1)	103 (2)	103 (3)	103 (4)	103 (5)	103 (6)	53 (7)	2-103 (8)
No.14 CONDUCTORS										
3CSC / 12CSC		POLE - A			1	1				1
		B		(1)	1	1				1
		C	(1)	(1)	1	1				1
		D					1	1		1
		E						1		1
		F							1	1
TOTAL 3CSC / 12CSC			1	1	2	3	3	3	1	5
8		LIGHTING			2	2	2	2	2	
		CONTROLLER			2	2				2
		(F)			2					
TYPE B DLC	Ø1									
	Ø2					4				4
	Ø4			2	2	2				2
	Ø6		4	4	4	4				4
VIDEO CABLE HARNESS	Ø2	POLE - D					1	1		1
	Ø4	F							1	1
	Ø1 / Ø6	A			1	1				1
EVC					1	1	1	1	1	3
TOTAL CONDUCTORS / CABLES			6	10	20	22	6	7	5	28

CONDUIT NOTES:

F9 O - 27C, 1 FO12
27C, 1 OCC

10 - 53C, 1 OCC, 1 SIC

11 - 53C, 1 DLC

12 - 53C, 4 DLC

13 - 53C, 2 DLC

14 - 53C, 2#8(L), 2#8(SIG), 2#8(F), 4#14(PEU)

15 - 53C, WITH 1 OCC, 1 SIC, 1 SIC(TELEPHONE)

16 - 53C, WITH 1 SIC(TELEPHONE)

NOTES:

1. TERMINATE EVC IN RED SECTION OF HOUSING. LEAVE 1 m OF SLACK.
2. DETAIL "U" ES-7N. SEE SIGN PLANS.
3. PLACE LUMINAIRE COUNTER-CLOCKWISE 60° TO SIGNAL MAST ARM.
4. FURNISH AND INSTALL VDU, COMMUNICATION CARD, AND VIDEO DISPLAY IN TYPE 332 CABINET.
5. FURNISH AND INSTALL COMMUNICATION EQUIPMENT PER COMPONENT DIAGRAM. SEE ELECTRICAL DETAILS.
6. FURNISH AND INSTALL BATTERIES AND EXTERNAL BBS CABINET.
7. CONDUIT AND CABLE CONTINUOUS TO SIGNAL AND LIGHTING (LOCATION 2).

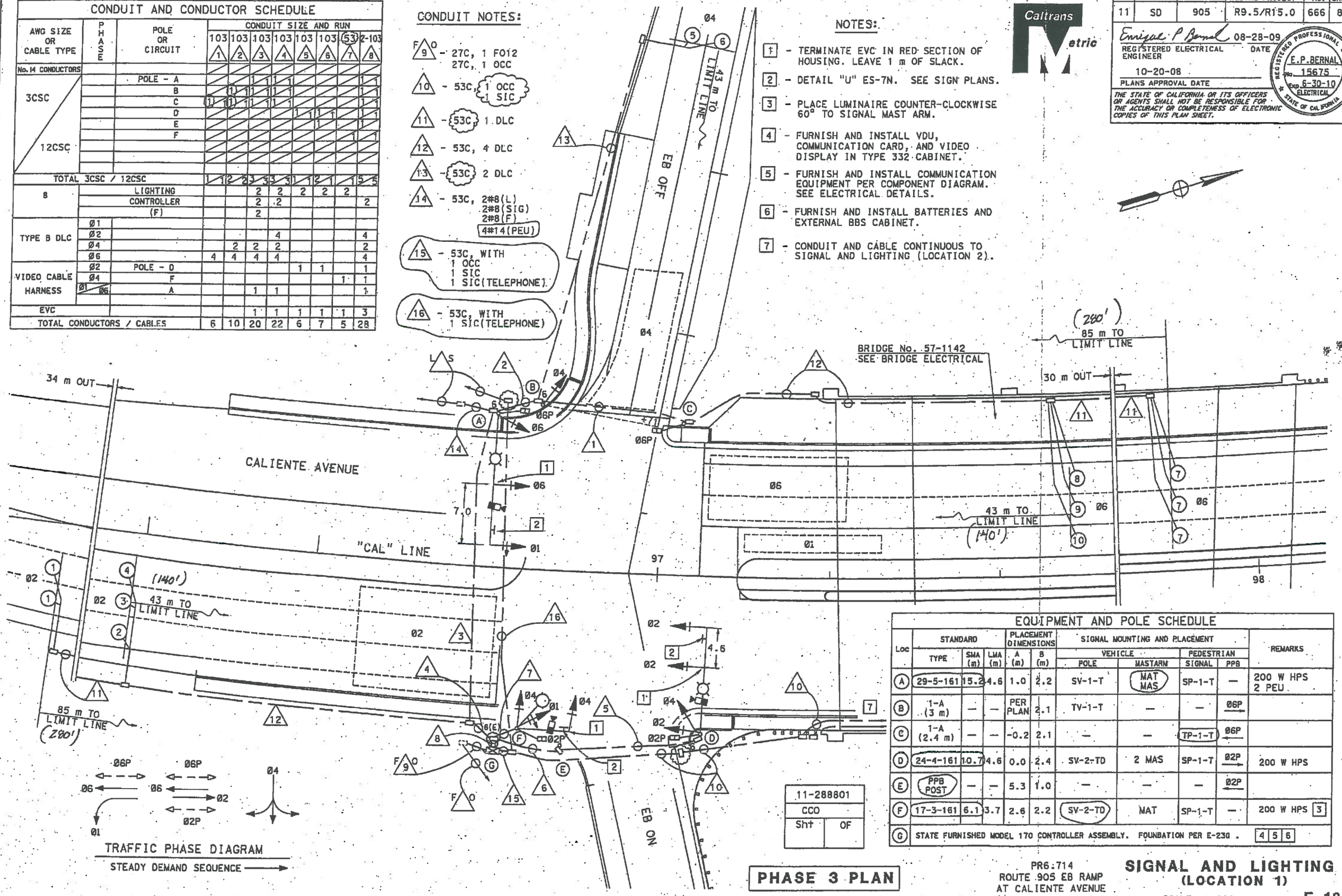
Caltrans Metric

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	905	R9.5/R15.0	666	857

Enrique P Bernal 08-28-09
REGISTERED ELECTRICAL ENGINEER — DATE
10-20-08
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — E.P. BERNAL — No. 15675 — EXP. 6-30-10 — ELECTRICAL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.



TRAFFIC PHASE DIAGRAM
STEADY DEMAND SEQUENCE

EQUIPMENT AND POLE SCHEDULE

Loc	STANDARD TYPE	SMA (m)	LMA (m)	PLACEMENT DIMENSIONS A (m)	B (m)	SIGNAL MOUNTING AND PLACEMENT VEHICLE POLE	VEHICLE MASTARM	PEDESTRIAN SIGNAL	PEDESTRIAN PPB	REMARKS
A	29-5-161	15.2	24.6	1.0	2.2	SV-1-T	MAT MAS	SP-1-T	—	200 W HPS 2 PEU
B	1-A (3 m)	—	—	PER PLAN	2.1	TV-1-T	—	—	Ø6P	
C	1-A (2.4 m)	—	—	-0.2	2.1	—	—	TP-1-T	Ø6P	
D	24-4-161	10.7	24.6	0.0	2.4	SV-2-TD	2 MAS	SP-1-T	Ø2P	200 W HPS
E	PPB POST	—	—	5.3	1.0	—	—	—	Ø2P	
F	17-3-161	6.1	13.7	2.6	2.2	SV-2-TD	MAT	SP-1-T	—	200 W HPS 3
G	STATE FURNISHED MODEL 170 CONTROLLER ASSEMBLY. FOUNDATION PER E-23G.									4 5 6

11-288801	
CCO	
Sht	OF

PHASE 3 PLAN

PR6:714
ROUTE 905 EB RAMP
AT CALIENTE AVENUE

SIGNAL AND LIGHTING (LOCATION 1)

SCALE 1:200

E-18

THIS PLAN SHEET ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC ELECTRICAL
FUNCTIONAL SUPERVISOR: DALE WILSON
CALCULATED-DESIGNED BY: H. SAWAYA
CHECKED BY: ENRIQUE BERNAL
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED = 30-DEC-2011

OTAY MESA RD / HERITAGE RD — OTAY MESA RD / HERITAGE RD

200 SA 1.e #12

PHASE TIMING

INTERVAL		1	2	3	4	5	6	7	8
WALK	0		7				7		5
FLASH D/W	1		19 17				24 25		36
MIN GREEN	2	4	10 25	4	7	4	10 25	4	7 10
TYPE 3 DET	3								
ADD PER VEH	4								
VEH EXTN *	5	2.0	4.1	2.0	3.7	2.0	4.5	2.0	4.3
MAX GAP *	6	2.0	4.1	2.0	3.7	2.0	4.5	2.0	4.3
MIN GAP *	7	2.0	0.2	2.0	0.2	2.0	0.2	2.0	0.2
MAX EXTN	8	30	60	30	40	30	60	30	40
MAX 2	9								
BUS LEAD	A								
CALL TO PHS	B								
REDUCE BY	C		0.1		0.1		0.1		0.1
EVERY	D		0.8		0.9		0.7		0.7
YELLOW	E	3.0	5.4 5.3	3.0	3.9	3.0	5.1 4.8	3.0	3.9
RED CLEAR	F	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0

F + PHASE + LOCATION

EFF. 3/29/00

* Must be the same for non-density operation

EFF 3/29/00

PREEMPT		
	E	
RR 1 DELAY		0
RR 1 CLEAR		1
EVA DELAY	0	2
EVA CLEAR	0	3
EVB DELAY	0	4
EVB CLEAR	0	5
EVC DELAY	0	6
EVC CLEAR	0	7
EVD DELAY	0	8
EVD CLEAR	0	9
RR2 DELAY		A
RR 2 CLEAR		B
EV CLR TMR		C
EV DLY TMR		D
RR CLR TMR		E
RR DLY TMR		F

MAX INITIAL (F-0-E) 0 RED REVERT (F-0-F) 5.0 ALL-RED START (F-C-0) 0.0

PHASE FUNCTION FLAGS

		PHASE 1	2	3	4	5	6	7	8
PERMIT	0	X	X	X	X	X	X	X	X
RED LOCK	1								
YELLOW LOCK	2								
VEHICLE RECALL	3								X
PED RECALL	4		X						
PEDS (VIEW)	5								
REST IN WALK	6								
RED REST	7								
DOUBLE ENTRY	8								
MAX RECALL	9								
SOFT RECALL	A		X				X		
MAX 2	B								
COND SERVICE	C								
	D								
START-UP	E		X				X		
FIRST PHASES	F			X				X	

F + F + FUNCTION

OVERLAP TIMING

LOAD SWITCH

	GREEN 9	YELLOW C	RED D
OLAP A			
OLAP B			
OLAP C			
OLAP D			

D + 0 + OVERLAP

F + COLOR +

PHASE SEQUENCE

	PHASE 1	2	3	4	5	6	7	8
LAG 0 (FREE)	X			X				X

C + F + 0

MANUAL (C-A-1) 0

ADDRESS (C-0-0) 2

~~TURN-ON DATE: 01-04-2000~~

TIME:

DRAWING NO. D- 28063-86

LAST CHANGE:

BY: REJ

LOCATION	HERITAGE RD & OTAY MESA RD

#12

DETECTOR TIMES

X \ Y	SET DELAY 1	SET DELAY 2	SET CARRY 3	SET CARRY 4	OBS COUNT 5	OBS COUNT 6	OBS DELAY 7	OBS DELAY 8	OBS CARRY 9	OBS CARRY A
0	1I1	5J1	1I1	5J1	1I1	5J1	1I1	5J1	1I1	5J1
1	2I2U	6J2U	2I2U 1.8	6J2U 1.8	2I2U	6J2U	2I2U	6J2U	2I2U	6J2U
2	2I2L	6J2L	2I2L	6J2L	2I2L	6J2L	2I2L	6J2L	2I2L	6J2L
3	2I3U	6J3U	2I3U	6J3U	2I3U	6J3U	2I3U	6J3U	2I3U	6J3U
4	2I3L	6J3L	2I3L	6J3L	2I3L	6J3L	2I3L	6J3L	2I3L	6J3L
5	2I4	6J4	2I4	6J4	2I4	6J4	2I4	6J4	2I4	6J4
6	3I5	7J5	3I5	7J5	3I5	7J5	3I5	7J5	3I5	7J5
7	4I6U	8J6U	4I6U 1.8	8J6U 1.8	4I6U	8J6U	4I6U	8J6U	4I6U	8J6U
8	4I6L	8J6L	4I6L	8J6L	4I6L	8J6L	4I6L	8J6L	4I6L	8J6L
9	4I7U	8J7U	4I7U	8J7U	4I7U	8J7U	4I7U	8J7U	4I7U	8J7U
A	4I7L	8J7L	4I7L	8J7L	4I7L	8J7L	4I7L	8J7L	4I7L	8J7L
B	4I8	8J8	4I8	8J8	4I8	8J8	4I8	8J8	4I8	8J8
C	1I9U	5J9U	1I9U	5J9U	1I9U	5J9U	1I9U	5J9U	1I9U	5J9U
D	3I9L	7J9L	3I9L	7J9L	3I9L	7J9L	3I9L	7J9L	3I9L	7J9L

D + X (ACROSS) + Y (DOWN)

TIME OF DAY FEATURES

EVENT	TIME	FUNC	DAY OF WEEK S	M	T	W	T	F	S
0									
1									
2									
3									
4									
5									
6									
7									
8									
9									

7 + EVENT #

PHASE OR FUNCTION

1	2	3	4	5	6	7	8

D + F + EVENT

TIME OF DAY FUNCTION CODES

0-PERMIT	E-1-LOCAL OVERRIDE
1-RED LOCK	2-PHASE BANK 2
2-YELLOW LOCK	3-PHASE BANK 3
3-VEH RECALL	7-DET COUNT
4-PED RECALL	8-SPLIT MONITOR
5-(RESERVED)	
6-REST IN WALK	
7-RED REST	
8-DBL ENTRY	
9-VEH MAX RCL	
A-SOFT RCL	
B-MAX 2 EXT	
C-COND SERV	
D-TOD LAG PHS	

F - TOD OUTPUTS
1- TOD OUTPUT 1
2- TOD OUTPUT 2
3- TOD OUTPUT 3
4- TOD OUTPUT 4

TIME AND DATE

8 - 0 HOUR, MINUTE, DAY-OF-WEEK
8 - 1 DAY-OF-MONTH, YEAR, MONTH
8 - F SECONDS

TO ACCESS CONFIGURATION DATA, SET F-9-E = 1

CONFIGURATION DATA

		PHASE 1	2	3	4	5	6	7	8
EXCLUSIVE	0								
RR1 GN CLR	1								
RR2 GRN CLR	2								
RR2 LTD SRV	3								
PRO/PERM	4								
OLA GN OMIT	5								
OLB GN OMIT	6								
OLC GN OMIT	7								
OLD GN OMIT	8								
OV FL YELLOW	9								
EMVEH A	A		X			X			
EMVEH B	B			X			X		
EMVEH C	C	X				X			
EMVEH D	D			X				X	
EXTRA	E	X		X	X				
IC SELECT	F		X						

E + E + INTERVAL

EXTRA (E+E+E)
1-TBC TYPE 1
2-NEMA COORD
3-DAYLIGHT
4-EV ADVANCE
5-REMOTE EVP
6-SPECIAL EVENT
7-PRETIMED
8-SPLIT RING

ICSELECT (E+E+F)
1-SIMPLEX IN
2-2 WAY MODEM
3-7 WIRE IN
4-FLH/FREE
5-SIMPLEX OUT
6-7 WIRE OUT

ASSIGN5 (E+F+F)
1-RT OVERLAP
2-TOD OUTPUTS
3-STEADY EV BEACON
4-FLASH EV BEACON

CONFIGURATION DATA

		PHASE 1	2	3	4	5	6	7	8
	0								
RR OLAP A	1								
RR OLAP B	2								
RR OLAP C	3								
RR OLAP D	4								
PED 2P	5		X						
PED 6P	6						X		
PED 4P	7								
PED 8P	8								X
FLH YELLOW	9								
OVERLAP A	A				X				
OVERLAP B	B				X				
OVERLAP C	C								
OVERLAP D	D								
RESTRICT	E								
ASSIGN5	F	X							

E + F + INTERVAL

LOCATION: HERITAGE RD & OTAY MESA RD

COORDINATION PARAMETERS

200 SA 1.e #12

FEATURE		PLAN 1	2	3	4	5	6	7	8	9
CYCLE	0	140	140	120						
FORCE 1	1	88	88	75	--					
FORCE 2	2	--	--	--						
FORCE 3	3	27	27	22						
FORCE 4	4	60	60	51						
FORCE 5	5	88	88	75						
FORCE 6	6	--	--	--						
FORCE 7	7	27	27	22						
FORCE 8	8	60	60	51						
RING OFFSET	9									
OFFSET A	A	0	0	7						
OFFSET B	B									
OFFSET C	C									
PERMISSIVE	D	14	14	12						
HOLD RELEASE	E	255	255	255						
ZONE OFFSET	F									

C + PLAN + FEATURE

TRANSITION TYPE
C - D - D = 0
SHORTWAY = 0
DWELL > 0

PEDESTRIAN FORCEOFF SHIFT
C - D - F = 12

FOR OBSERVATION ONLY

MASTER PLAN	C - A - 2
CURRENT PLAN	C - A - 3
T.O.D. PLAN	C - A - 5
MASTER CYCLE	C - A - 0
RING A CYCLE	C - B - 0
RING B CYCLE	C - D - 0
MINIMUM CYCLE	C - A - E
MAXIMUM CYCLE	C - B - E

PLAN TIMETABLE

EVENT	TIME	PLAN	OFFSET	DAY OF WEEK S	M	T	W	T	F	S
0	0600	1	A		X	X	X	X	X	
1	1400	2	A		X	X	X	X	X	
2	2000	E	A		X	X	X	X	X	
3	0900	3	A	X						X
4	1800	E	A	X						X
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

9 + EVENT

SYNC PHASES

		PHASE 1	2	3	4	5	6	7	8
	0								
SYNC 1	1	X				X			
SYNC 2	2	X				X			
SYNC 3	3	X				X			
SYNC 4	4								
SYNC 5	5								
SYNC 6	6								
SYNC 7	7								
SYNC 8	8								
SYNC 9	9								
CPEDRCL	A								
NEMA HLD	B								
SCANMEM	C								
BADPROM	D								
TODFN E	E								
TODFN F	F								

C + E + FUNCTION

PHASE SEQUENCES

		PHASE 1	2	3	4	5	6	7	8
	0								
LAG 1	1	X		X		X		X	
LAG 2	2	X		X		X		X	
LAG 3	3	X		X		X		X	
LAG 4	4								
LAG 5	5								
LAG 6	6								
LAG 7	7								
LAG 8	8								
LAG 9	9								
COOR MAX RCL	A								
COOR LAG RCL	B								
SYNC PHASES	C								
HOLD	D								
NEXT PHASE	E								
FORCE OFF	F								

C + F + FUNCTION

LOCATION: Heritage Rd & Otay Mesa Rd

Date: 01/05/2000

#15

TRAFFIC SIGNAL TIMING - PROGRAM

2009

4N

OTAY MESA — CACTUS

PHASE TIMING

INTERVAL		1	2	3	4	5	6	7	8
WALK	0		7						7
FLASH D/W	1		17						22
MIN GREEN	2	4	10				10		4
TYPE 3 DET	3								
ADD/VEH	4								
VEH EXTEN *	5	2.0	5.3				5.3		2.0
MAX GAP *	6	2.0	5.3				5.3		2.0
MIN GAP *	7	2.0	0.2				0.2		2.0
MAX EXTEN	8	30	60				60		30
MAX 2	9								
	A								
CALL TO PHASE	B								
REDUCE BY	C		0.1				0.1		
REDUCE EVERY	D		0.6				0.6		
YELLOW	E	3.0	5.5				5.5		3.0
RED CLEAR	F	1.0	1.0				1.0		1.0

PREEMPT

	E	
RR1 DELAY		0
RR1 CLEAR		1
EVA DELAY	0	2
EVA CLEAR	3	3
EVB DELAY		4
EVB CLEAR		5
EVC DELAY	0	6
EVC CLEAR	3	7
EVD DELAY	0	8
EVD CLEAR	3	9
RR2 DELAY		A
RR2 CLEAR		B
EV CLR TMR		C
EV DLY TMR		D
RR CLR TMR		E
RR DLY TMR		F

MAX INITIAL (F-0-E) = 0 (KEYSTROKES: F + PHASE + LOCATION)

RED REVERT (F-0-F) = 5

ALL RED START (F-C-0) = 0

* MUST BE SAME FOR NON-DENSITY OPERATION

PHASE FUNCTION FLAGS

KEYSTROKES: F+F+FUNCTION#

FUNCTION		PHASE 1	2	3	4	5	6	7	8
PERMIT	0	X	X				X		X
RED LOCK	1								
YELLOW LOCK	2								
VEH RECALL	3								
PED RECALL	4								
PEDS	5								
REST IN WALK	6								
RED REST	7								
DOUBLE ENTRY	8								
MAX RECALL	9								
SOFT RECALL	A		X				X		
MAX 2	B								
COND SERVE	C								
RESERVED	D								
STARTUP	E		X				X		
FIRST PHASES	F								X

OVERLAP TIMING

KEYSTROKE: F+ COLOR CODE+OVERLAP

	9 GREEN	C YELLO	D RED
OVERLAP A			
OVERLAP B			
OVERLAP C			
OVERLAP D			

PHASE SEQUENCES (SFO)

	PHASE 1	2	3	4	5	6	7	8
LAG 0 (FREE)		X				X		X

D.G. 26466-17-D

LOC: Cactus Road @ OTAY Mesa Road | DATE: 9/9/93 1025

#15

DETECTOR TIMES (332 CABINET)

Y \ X	1 SET DELAY	2 SET DELAY	3 SET CARRY	4 SET CARRY	5 OBS COUNT	6 OBS COUNT	7 OBS DELAY	8 OBS DELAY	9 OBS CARRY	A OBS CARRY
0	111	5J1	111	5J1	111	5J1	111	5J1	111	5J1
1	212L	6J2L	212L	6J2L	212U	6J2U	212U	6J2U	212U	6J2U
2	212L	6J2L	212L	6J2L	212L	6J2L	212L	6J2L	212L	6J2L
3	213U	6J3U	213U	6J3U	213U	6J3U	213U	6J3U	213U	6J3U
4	213L	6J3L	213L	6J3L			213L	6J3L	213L	6J3L
5	214	6J4	214	6J4			214	6J4	214	6J4
6	315	7J5	315	7J5	315	7J5	315	7J5	315	7J5
7	416U	8J6U	416U	8J6U	416U	8J6U	416U	8J6U	416U	8J6U
8	416L	8J6L	416L	8J6L	416L	8J6L	416L	8J6L	416L	8J6L
9	417U	8J7U	417U	8J7U	417U	8J7U	417U	8J7U	417U	8J7U
A	417L	8J7L	417L	8J7L			417L	8J7L	417L	8J7L
B	418	8J8	418	8J8			418	8J8	418	8J8
C	119U	5J9U	119U	5J9U	119U	5J9U	119U	5J9U	119U	5J9U
D	119L	7J9L	119L	7J9L	319L	7J9L	319L	7J9L	319L	7J9L
E										
F										

KEYSTROKES: D + X + Y

TIME OF DAY FEATURES

EVENT	TIME	FUNCT	DAY OF WEEK S	M	T	W	T	F	S
0									
1									
2									
3									
4									
5									
6									
7									
8									
9									
A									
B									
C									
D									
E									
F									

KEYSTROKES: 7+EVENT#

FUNCTION BY PHASE

	1	2	3	4	5	6	7	8

KEYSTROKES: D-F-EVENT #

TIME OF DAY LOCAL FUNCTION CODES

0 - PERMIT
1 - RED LOCK
2 - YELLOW OCK
3 - VEH RECALL
4 - PED RECALL
5 - RESERVED
6 - REST IN WALK
7 - RED REST
8 - DBL ENTRY
9 - VEH MAX RCL
A - SOFT RECALL
B - MAX II EXT
C - COND SERVE
D - TOD LAG P
E - 1 - LOCAL OVERIDE
2 - PHASE BANK 2
3 - PHASE BANK 3
7 - DET COUNT
8 - SPLIT MONITOR
F - TOD OUTPUTS
1 - TOD OU
2 - TOD OU
3 - TOD OU
4 - TOD OU

CURRENT TIME AND DATE

8-0 HOUR MINUTE, DAY OF WEEK
8-1 DAY OF MONTH, YEAR, MONTH
8-F SECONDS

CONFIGURATION DATA

NOTE "E" KEY ENABLED (F-9-E = 0)

KEYSTROKES: E+E+INTERVAL

INTERVAL	PHASE 1	2	3	4	5	6	7	8
0 EXCLU PR								
1 RR1 GRN								
2 RR2 GRN								
3 RR2 LTD								
4								
5 OLA COMIT								
6 OLB COMIT								
7 OLC COMIT								
8 OLD COMIT								
9 OU FL YEL								
A EMUEH A		X						
B EMUEH B								
C EMUEH C	X				X			
D EMUEH D							X	
E EXTRA	X		X	X				
F IC SELECT		X						

EXTRA. (E+E+E)
1-TBC TYPE 1
2-NEMA COOD
3-DAYLIGHT SAV
4-EV ADVANCE
6-SPECIAL EVENT
7-PRETIMED
8-SPLIT RING

ICSEL: (E+E+F)
1-SIMPLEX IN
2-2-WAY MODEM
3-7 WIRE IN
4-FLH/FREE
5-SIMPLEX OUT
7-7 WIRE OUT

ASSIGNS (E+F+F)
1-ART OVERLAP
2-TOD OUTPUTS
3-STEADY EV BEAC
4-FLASH EV BEAC

KEYSTROKES: E+F+INTERVAL

INTERVAL	PHASE 1	2	3	4	5	6	7	8
0								
1 RR OLAP A								
2 RR OLAP B								
3 RR OLAP C								
4 RR OLAP D								
5 PED2P		X						
6 PED6P								
7 PED4P								
8 PED8P							X	X
9 FLH YELO								
A OVERLAP A								
B OVERLAP B								
C OVERLAP C								
D OVERLAP D								
E RESTRICT								
F ASSIGNS								

#15

COORDINATION TIMING

2005A

KEYSTROKES: C+PLAN+FEATURE

FEATURE		PLAN 1	2	3	4	5	6	7	8	9	
CYCLE	0	90	100	80	128	140 VAC 11/8/96					0
FORCE1	1	38	38	37	58						1
FORCE2	2	—	—	—	—						2
FORCE3	3	\	\	\	\						3
FORCE4	4	\	\	\	\						4
FORCE5	5	\	\	\	\						5
FORCE6	6	—	—	—	—						6
FORCE7	7	\	\	\							7
FORCE8	8	20	20	22	33						8
RING OFFSET	9										9
OFFSET A	A	33	71	56	48						A
OFFSET B	B	50									B
OFFSET C	C	9/23/94	45								C
PERMISSIVE	D	10	10	10	20						D
HOLD RELEASE	E	255	255	255	110						E
ZONE OFFSET	F	0	0	0	0						F

ADDRESS (C-D-0)= 0

MANUAL PLAN: (C-A-1)= 0
AUTO = 0
PLAN = 1-9
FREE = 14
FLASH = 15

TRANSITION TYPE (C-D-D)= 0
SHORTWAY = 0
DWELL > 0

FORCEOFF SHIFT FOR PEDESTRIAN (C-D-F) 13

FOR OBSERVATION ONLY.
MASTER PLAN (C-A-2)
CURRENT PLAN(C-A-3)
TOD PLAN (C-A-5)
MASTER CYCLE(C-A-0)
RING A CYCLE (C-B-0)
RING B CYCLE (C-D-0)
MINIMUM CYCLE (C-A-E)
MAXIMUM CYCLE (C-B-E)

TIME BASE COORDINATION

KEYSTROKES: 9+EVENT#

EVENT	TIME	PLAN	OFFSET	DAY OF WEEK S	M	T	W	T	F	S
0	0630	1	A	X	X	X	X	X		
1	0630	3	A	X						X
2	1400	84	A		X	X	X	X	X	
3	1830	E	A	X	X	X	X	X	X	X
4	1730									
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

5/9/94

PLAN = 1...9 (DIAL)
E (FREE)
F (FLASH)

OFFSET = A...C

SYNCHRONIZED PHASES

KEYSTROKES: C+E+PLAN

PLAN	PHASE 1	2	3	4	5	6	7	8
0								
1 SYNC 1		X				X		
2 SYNC 2		X				X		
3 SYNC 3		X				X		
4 SYNC 4		X				X		
5 SYNC 5								
6 SYNC 6								
7 SYNC 7								
8 SYNC 8								
9 SYNC 9								
A CPEDRCL								
B NEMA HLD								
C SCANMEM								
D BADPROM								
E TODFN E								
F TODFN F								

PHASE SEQUENCES

KEYSTROKES: C+F+FUNCTION#

FUNCTION	PHASE 1	2	3	4	5	6	7	8
0 LAG 0 (FREE)	X					X		X
1 LAG 1	X					X		X
2 LAG 2	X					X		X
3 LAG 3	X					X		X
4 LAG 4	X					X		X
5 LAG 5								
6 LAG 6								
7 LAG 7								
8 LAG 8								
9 LAG 9								
A COOR MAX RECALL								
B COOR LAG RECALL								
C SYNC PHASES								
D HOLD								
E NEXT PHASE								
F FORCE OFF								

INTERSECTION: CACTUS RD at OTAY MESA RD

BY: DLS Date: 9/30/93

(COORDINATION ONLY)

TRAFFIC SIGNAL TIMING - BITS 152

#18

PHASE TIMING

OTAY MESA

BRITANNIA

LOCATION		PHASE # →	1	2	3	4	5	6	7	8
	0	WALK		7						7
	1	FLASH D/W		17						17
	2	MIN GREEN	4	10				10		4
	3	TYPE 3 DET								
	4	ADD/VEH								
	5	VEH EXTEN	2.0	4.8				4.8		2.0
	6	MAX GAP	2.0	4.8				4.8		2.0
	7	MIN GAP	2.0	0.2				0.2		2.0
	8	MAX EXTEN	30	60				60		40
	9	MAX 2								
	A									
	B									
	C	REDUCE BY		0.1				0.1		
	D	REDUCE EVERY		0.7				0.7		
	E	YELLOW	3.0	5.0				5.0		3.0
	F	RED CLEAR	1.0	~~1.5~~ 2.0				~~1.5~~ 2.0		1.0

PREEMPT

	E	
RR1 DELAY		0
RR1 CLEAR		1
EV A DELAY	0	2
EV A CLEAR	3	3
EV B DELAY	0	4
EV B CLEAR	3	5
EV C DELAY	0	6
EV C CLEAR	3	7
EV D DELAY		8
EV D CLEAR		9
RR2 DELAY		A
RR2 CLEAR		B

MAX INITIAL (F-0-E) = DLS 11/15/92 KEYSTROKES: F + PHASE + LOCATION RED REVERT (F-0-F) = _____

PHASE FUNCTION FLAGS

		PHASE 1	2	3	4	5	6	7	8
PERMIT	0	X	X				X		X
RED LOCK	1								
YELLOW LOCK	2								
VEH RECALL	3		X				X		
PED RECALL	4								
PEDS	5								
REST IN WALK	6								
RED REST	7								
DOUBLE ENTRY	8								
MAX RECALL	9								
OVERLAP A	A								
OVERLAP B	B								
OVERLAP C	C								
OVERLAP D	D								
STARTUP	E		X				X		
(RESERVED)	F								

KEYSTROKES: F + F + FUNCTION #

PHASE SEQUENCES

		PHASE 1	2	3	4	5	6	7	8
LAG 0 (FREE)	0		X				X		X
LAG 1 9/23/94	1	X					X		X
LAG 2 DLS	2		X				X		X
LAG 3	3		X				X		X
LAG 4	4		X				X		X
LAG 5	5								
LAG 6	6								
LAG 7	7								
LAG 8	8								
LAG 9	9								
COOR MAX RECALL	A								
COOR LAG RECALL	B								
SYNC PHASES	C								
HOLD	D								
NEXT PHASE	E								
FORCE OFF	F								

KEYSTROKES: C + F + FUNCTION #

REMARKS:

LOC: BRITANNIA BL./ OTAY MESA RD | DATE: 13 JUN 89 | T.O 11:15 EM

DETECTOR TIMES (332 CABINET)

X → SET DELAY SET CARRY OBS COUNT OBS DELAY OBS CARRY

Y ↓

Y \ X	1	2	3	4	5	6	7	8	9	A
0	1I1	5J1	1I1	5J1						
1	2I2U	6J2U	2I2U 1.8	6J2U 1.8						
2	2I2L	6J2L	2I2L	6J2L						
3	2I3U	6J3U	2I3U	6J3U						
4	2I3L	6J3L	2I3L	6J3L						
5	2I4	6J4	2I4	6J4						
6	5I5	7J5	5I5	7J5						
7	4I6U	8J6U	4I6U	8J6U						
8	4I6L 5	8J6L 10	4I6L	8J6L						
9	4I7U	8J7U	4I7U	8J7U						
A	4I7L	8J7L 10	4I7L	8J7L						
B	4I8	8J8	4I8	8J8						
C	1I9U	5J9U	1I9U	5J9U						
D	5I9L	7J9L	5I9L	7J9L						
E										
F										

4/26/97 TRM

KEYSTROKES: D + X + Y

TIME OF DAY FUNCTION

	TIME (24 HOUR)	FUN	DAY OF WEEK 1	2	3	4	5	6	7
0									
1									
2									
3									
4									
5									
6									
7									
8									
9									
A									
B									
C									
D									
E									
F									

KEYSTROKES: 7 + EVENT NUMBER

PEDESTRIAN ASSIGNMENTS

LOC	SWITCH-PACK	INPUT CI PIN	PHASE 1	2	3	4	5	6	7	8
EF5	2P	67		X						
EF6	6P	68								
EF7	4P	69								
EF8	8P	70								X

EMERGENCY VEHICLE PREEMPT ASSIGNMENTS

LOC	PREEM	INPUT CI PIN	PHASE 1	2	3	4	5	6	7	8
EEA	EVA	71		X			X			
EEB	EVB	72								X
EEC	EVC	73	X					X		
EED	EVD	74								

RAILROAD PREEMPTION ASSIGNMENTS

LOC	PHASE	1	2	3	4	5	6	7	8
EE1	RR1 CLEAR								
EE2	RR2 CLEAR								
EE3	RR2 LMT SVC								

CONDITIONAL SERVICE D-F-O _____

LONG POWER FAIL CORRECTION F-O-6 _____

SHORT POWER FAIL CORRECTION F-O-7 _____

CURRENT TIME AND DATE

8-0 HOUR, MINUTE, DAY OF WEEK

8-1 DAY OF MONTH, YEAR, MONTH

C-4-9 SECONDS

TRAFFIC SIGNAL TIMING BITS 15

COORDINATION PARAMETERS

TIME OF DAY PLAN #18

1st LOCATION CODE X

2ND LOCATION CODE Y

	0	1	2	3	4	5	6	7	8	9	A	B
0		CYCLE 90	CYCLE 100	CYCLE 80	CYCLE 128	CYCLE 140	CYCLE AC 116	CYCLE 96	CYCLE	CYCLE	CYCLE	MSTCLK
1	MANUAL C	FORCE 1 34	FORCE 1 34	FORCE 1 37	FORCE 1 55	FORCE 1	FORCE 1	FORCE 1	FORCE 1	FORCE 1	FORCE 1	
2		FORCE 2 ~~20~~	FORCE 2 —	FORCE 2 —	FORCE 2 —	FORCE 2	FORCE 2	FORCE 2	FORCE 2	FORCE 2	FORCE 2	
3	CURRENT PLAN	FORCE 3 /	FORCE 3 /	FORCE 3 /	FORCE 3 \	FORCE 3	FORCE 3	FORCE 3	FORCE 3	FORCE 3	FORCE 3	
4		FORCE 4 /	FORCE 4 /	FORCE 4 /	FORCE 4 \	FORCE 4	FORCE 4	FORCE 4	FORCE 4	FORCE 4	FORCE 4	
5	RED PLAN	FORCE 5 /	FORCE 5 /	FORCE 5 /	FORCE 5 \	FORCE 5	FORCE 5	FORCE 5	FORCE 5	FORCE 5	FORCE 5	
6		FORCE 6 —	FORCE 6 —	FORCE 6 —	FORCE 6 —	FORCE 6	FORCE 6	FORCE 6	FORCE 6	FORCE 6	FORCE 6	
7		FORCE 7 /	FORCE 7 /	FORCE 7 /	FORCE 7 \	FORCE 7	FORCE 7	FORCE 7	FORCE 7	FORCE 7	FORCE 7	
8		FORCE 8 ~~18~~	FORCE 8 18	FORCE 8 22	FORCE 8 30	FORCE 8	FORCE 8	FORCE 8	FORCE 8	FORCE 8	FORCE 8	
9		40										WalkOff
A		OFFSET ~~88~~	OFFSET 32	OFFSET 18	OFFSET 102	OFFSET	OFFSET	OFFSET	OFFSET	OFFSET		CURR OFFSET
B		5	DLS									
C			9/22	1st								
D	HOLDON 1	PERM 10	PERM 10	PERM 10	PERM 20	PERM	PERM	PERM	PERM	PERM	CURR PERM	138
E											MINCY 70	MAXCY ~~110~~ 142
F											LMASTR	LLOCAL

KEYSTROKE C + X + Y

	TIME (24 HOUR)	PLAN	DAY OF WEEK 1	2	3	4	5	6	7
0	0630	1		X	X	X	X	X	
1	0630	3	X						X
2	1400	~~4~~		X	X	X	X	X	
3	~~1830~~	E	X	X	X	X	X	X	X
4	1730								
5									
6									
7									
8									
9									
A									
B									
C									
D									
E									
F									

KEYSTROKES: 9 + EVENT NUMBER

SYNCHRONIZED PHASES

PLAN #	PHASE 1	2	3	4	5	6	7	8
1		X				X		
2		X				X		
3		X				X		
4		X				X		
5								
6								
7								
8								
9								

KEYSTROKES: D + F + PLAN #

LAGS

Plan 1 1, 6, 8

Plans 2-4 2, 6, 8

LOC: BRITANNIA BL & OTAY MESA RD

DATE:

ED-75

LOCATION: **905 WB @ Britannia Blvd**
CALTRANS C8 Version 3
F PAGE

2/24/2015

#19

	INTERVAL	PHASE TIMING 1	2	3	4	5	6	7	8
0	WALK	1	7	1	1	1	7	1	1
1	DONT WALK	1	17	1	1	1	17	1	1
2	MIN GREEN	1	5	1	1	5	5	1	5
3	TYPE 3 DET	0	0	0	0	0	0	0	0
4	ADD/VEH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	PASSAGE	0.9	3.0	0.9	0.9	3.0	3.0	0.9	3.0
6	MAX GAP	0.9	3.0	0.9	0.9	3.0	3.0	0.9	3.0
7	MIN GAP	0.9	3.0	0.9	0.9	3.0	3.0	0.9	3.0
8	MAX EXT	9	30	9	9	30	30	9	30
9	MAX 2								
A	MAX 3								
B									
C	REDUCE BY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
D	EVERY	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
E	YELLOW	3.0	4.1	3.0	3.0	3.7	4.1	3.0	4.1
F	RED	0.0	1.0	0.0	0.0	1.0	1.0	0.0	1.0
3.5'	PED XING FT		58'				59'		
	BIKE XING FT		86'				80'		

CLK RST	
YR	
MO	
DAY	
DOW	
HR	
MIN	
SEC	

PRE-EMPTION E	
EV SEL	0
RR1 CLR	15
EVA DLY	0
EVA CLR	5
EVB DLY	0
EVB CLR	5
EVC DLY	0
EVC CLR	5
EVD DLY	0
EVD CLR	5
MAX EV	255
RR2 CLR	15

F FLAGS	1	2	3	4	5	6	7	8	
PERMIT		2			5	6		8	0
RED LOCK									1
YEL LOCK									2
V RECALL		2				6			3
P RECALL									4
PED PHASES		2				6			5
RT OLA									6
RT OLB									7
DBL ENTRY									8
MAX 2 PHASES									9
LAG PHASES	READ ONLY								A
RED REST									B
REST-IN-WALK									C
MAX 3 PHASES									D
YEL START UP		2				6			E
FIRST PHASE								8	F
	1	2	3	4	5	6	7	8	

FOC LONG FAILURE	
FOD SHORT FAILURE	
FOE	30
FOF	5

FCO	3
FC1	3
FC2	10
FCA	0.0
FCB	0.0
FCC	0.0
FCD	0.0

FD0 TB SELECT	1
FD3 PED SELECT	0
FD4 7 WIRE	0
FD5 PERMISSIVE	0
FD8 OS SEEKING	1

CO5 FLASH TYPE	1
CC2 DOWNLOAD	1

ENTRIES IN THESE LOCATIONS CAN BE CHANGED IN CC1 FLASH ONLY

LOCATION: **905 WB @ Britannia Blvd**
CALTRANS C8 Version 3
C PAGE

11/29/2010

#19 PAGE 2

		CONTROL PLANS									Y-COORD			LAG PHASE	FLAGS									
		1	2	3	4	5	6	7	8	9		C	D	E	F	1	2	3	4	5	6	7	8	
0	CYCLE LENGTH														LAG FZ FREE		2		4		6		8	0
1	FZ1 GRN FCTR													GAPOUT CP1	LAG FZ CP 1									1
2														GAPOUT CP2	LAG FZ CP 2									2
3	FZ3 GRN FCTR													GAPOUT CP3	LAG FZ CP 3									3
4	FZ4 GRN FCTR										PERM TIME			GAPOUT CP4	LAG FZ CP 4									4
5	FZ5 GRN FCTR										LAG OFFSET			GAPOUT CP5	LAG FZ CP 5									5
6											FORCE OFF			GAPOUT CP6	LAG FZ CP 6									6
7	FZ7 GRN FCTR										LONG GRN			GAPOUT CP7	LAG FZ CP 7									7
8	FZ8 GRN FCTR										NO GREEN			GAPOUT CP8	LAG FZ CP 8									8
9	MULTI CYCLE													GAPOUT CP9	LAG FZ CP 9									9
A	OFFSET A										OFFSET				LAG C COORD									A
B	OFFSET B														LAG D COORD									B
C	OFFSET C														COORD FAZES		2				6			C
D	FZ 3 EXT																							D
E	FZ 7 EXT																							E
F	OFFSET INTRPT																							F
																1	2	3	4	5	6	7	8	

CO1 MANUAL CP
CO2 MASTER CP
CO3 CURRENT CP
CO4 LAST CP
CO7 TRNSMT CP
COD MANUAL OFFSET
CAO LOCAL CYCLE TIMER
CBO MASTER CYCLE TIMER
CAA LOCAL OFFSET
CBA MASTER OFFSET

System Master:
EB @ Britannia

FEATURE	OFF	ON
1		
2		
3		
4		
5		
6		
7		
8		

LOCATION	OFF	ON
1	1	
2		2
3		
4		
5		
6		
7		
8		

COO = 2

CCB/CDB OFFSET TIMER
CCC/CDC LAG GREEN TIMER
CCD/CDD FORCE OFF TIMER
CCE/CDE LONG GREEN TIMER
CCF/CDF NO GREEN TIMER

LOCATION: 905 WB @ Britannia Blvd
CALTRANS C8 Version 3
D PAGE

11/29/2010

E PAGE

#19

	D	FLAGS								E	FLAGS								F	FLAGS								
	MAX	1	2	3	4	5	6	7	8	MIN	1	2	3	4	5	6	7	8	PED	1	2	3	4	5	6	7	8
0	RCL									RCL									RCL								
1	CP 1									CP 1									CP 1								
2	CP 2									CP 2									CP 2								
3	CP 3									CP 3									CP 3								
4	CP 4									CP 4									CP 4								
5	CP 5									CP 5									CP 5								
6	CP 6									CP 6									CP 6								
7	CP 7									CP 7									CP 7								
8	CP 8									CP 8									CP 8								
9	CP 9									CP 9									CP 9								
A																			RCL 1								
B																			RCL 2								
C																											
D																											
E																											
F																											
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8

	E	FLAGS								F	FLAGS								
	FUNCTION	1	2	3	4	5	6	7	8	FUNCTION	1	2	3	4	5	6	7	8	
0										CODE 4									0
1										CODE 5									1
2										C-RECALL									2
3										D-RECALL									3
4										EXCLUSIVE									4
5										2 PED		2							5
6										6 PED						6			6
7										4 PED				4					7
8										8 PED								8	8
9																			9
A	OLA NOT									OLA ON									A
B	OLB NOT									OLB ON									B
C	OLC NOT									OLC ON									C
D	OLD NOT									OLD ON									D
E																			E
F																			F
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	

LAST POWER FAILURE REGISTER

HOUR = D-A-E
MINUTE = D-B-E
DAY = D-C-E

RCL 1 = TIME OF DAY MAX RECALL (1ST SELECT) PHASES
(CALL ACTIVE LIGHTS)
RCL 2 = TIME OF DAY MAX RECALL (2ND SELECT) PHASES
(CALL ACTIVE LIGHTS)

LAST FLASH TIME REGISTER

HOUR = D-A-F
MINUTE = D-B-F
DAY = D-C-F

D-E-E = C8 VERSION NUMBER
D-E-F = LITHIUM BATTERY CONDITION
84 = BAD
85 = GOOD

LOCATION: 905 WB @ Britannia Blvd
CALTRANS C8 Version 3
7 PAGE

11/29/2010

#19 PAGE 4

9 PAGE C09 = 0 or 1

9 PAGE C09 = 2

TIME OF DAY ACTIVITY TABLE											
7+EVENT+HR+MIN+ACT+"E"+ON/OFF+DOW LTS											
	HR	MIN	ACT	ON/ OFF	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

ACTIVITY CODE

1 TYPE OF MAX TERMINATION
2 MAX 2
3 MAX 3
4 COND SERV (1ST SELECT)
5 COND SERV (2ND SELECT)
6 ENERGIZE AUX OUTPUT-RED

7 ENERGIZE AUX OUTPUT-GREEN

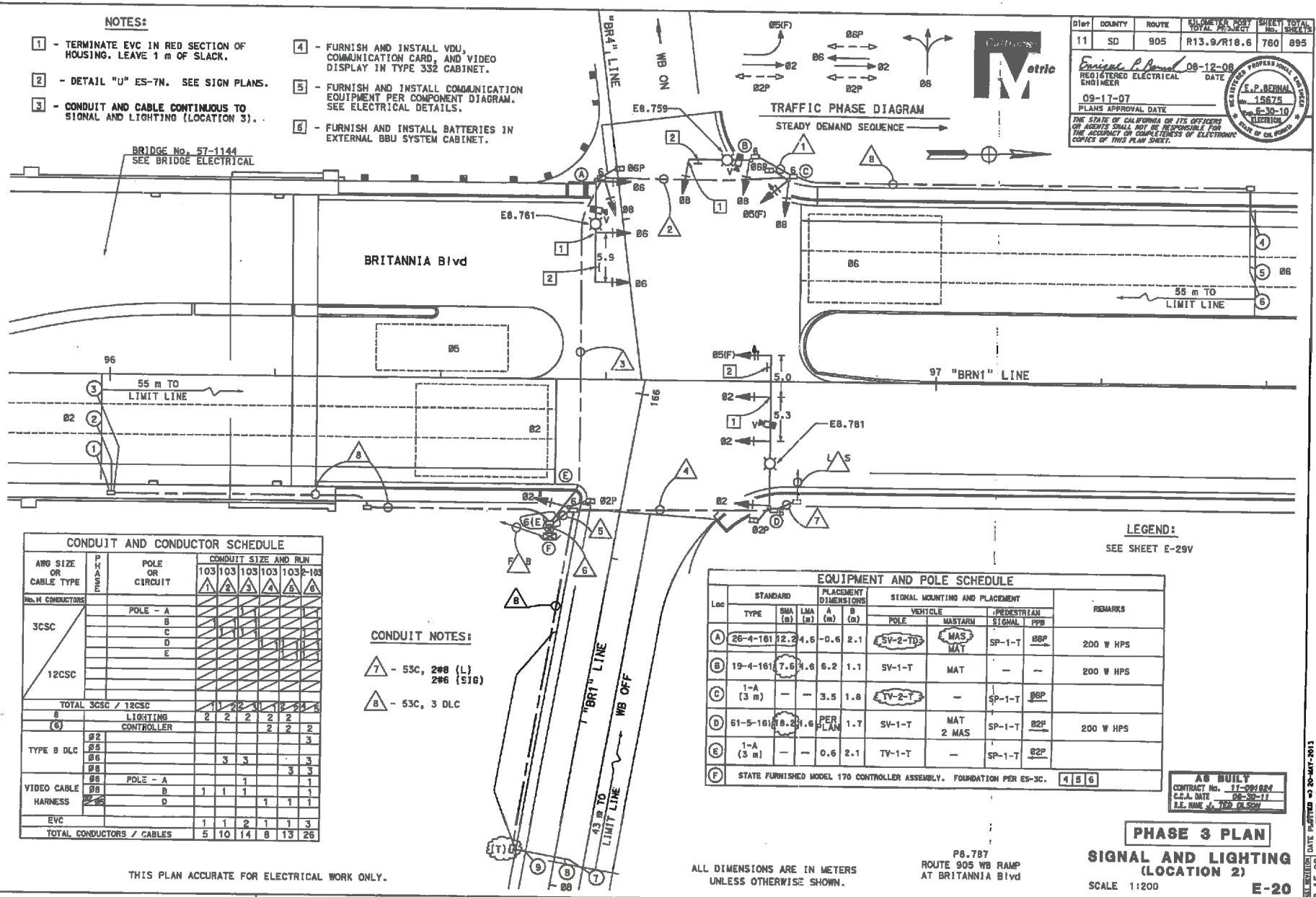
CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

8 ENERGIZE AUX OUTPUT-YELLOW

9 TIME OF DAY MAX RECALL (1ST SELECT)
A TRAFFIC ACT. MAX 2 OPERATION
B TIME OF DAY MAX RECALL (2ND SELECT)
C YELLOW YIELD COORDINATION
D YELLOW YIELD COORDINATION
E TIME OF DAY FREE OPERATION
F FLASHING OPERATION

CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

#19



CONDUIT AND CONDUCTOR SCHEDULE								
AWG SIZE OR CABLE TYPE	PHASES	POLE OR CIRCUIT	CONDUIT SIZE AND RUN 1	2	3	4	5	6-10
No. OF CONDUCTORS								
3CSC / 12CSC		POLE - A			1	1		1
		B	1		1	1		1
		C	1		1	1		1
		D				1	1	1
		E				1	1	1
TOTAL 3CSC / 12CSC			1	1	2	3	1	5
6 (6)		LIGHTING CONTROLLER	2	2	2	2 2	2	2
TYPE B DLC	Ø2							3
	Ø5							
	Ø6				3	3		3
	Ø8						3	3
VIDEO CABLE HARNESS	Ø6	POLE - A				1		1
	Ø8	B	1	1	1			1
	Ø2 Ø6	D				1	1	1
EVC			1	1	2	1	1	3
TOTAL CONDUCTORS / CABLES			5	10	14	8	13	26

EQUIPMENT AND POLE SCHEDULE										
Loc	STANDARD TYPE	SNA (m)	LMA (m)	PLACEMENT DIMENSIONS A (m)	B (m)	SIGNAL MOUNTING AND PLACEMENT VEHICLE POLE	MASTARM	PEDESTRIAN SIGNAL	PPB	REMARKS
A	26-4-161	12.2	4.6	-0.6	2.1	SV-2-TD	MAS MAT	SP-1-T	Ø6P	200 W HPS
B	19-4-161	7.6	4.6	6.2	1.1	SV-1-T	MAT	—	—	200 W HPS
C	1-A (3 m)	—	—	3.5	1.8	TV-2-T	—	SP-1-T	Ø6P	
D	61-5-161	18.2	4.6	PER PLAN	1.7	SV-1-T	MAT 2 MAS	SP-1-T	Ø2P	200 W HPS
E	1-A (3 m)	—	—	0.6	2.1	TV-1-T	—	SP-1-T	Ø2P	
F	STATE FURNISHED MODEL 170 CONTROLLER ASSEMBLY. FOUNDATION PER ES-3C. 4 5 6									

LOCATION: 905 EB @ Britannia Blvd
CALTRANS C8 Version 3
C PAGE

11/29/2010

 #20

		CONTROL PLANS									Y-COORD			LAG PHASE	FLAGS								
		1	2	3	4	5	6	7	8	9		C	D	E	F	1	2	3	4	5	6	7	8	
0	CYCLE LENGTH														LAG FZ FREE		2		4		6		8	0
1	FZ1 GRN FCTR													GAPOUT CP1	LAG FZ CP 1									1
2														GAPOUT CP2	LAG FZ CP 2									2
3	FZ3 GRN FCTR													GAPOUT CP3	LAG FZ CP 3									3
4	FZ4 GRN FCTR										PERM TIME			GAPOUT CP4	LAG FZ CP 4									4
5	FZ5 GRN FCTR										LAG OFFSET			GAPOUT CP5	LAG FZ CP 5									5
6											FORCE OFF			GAPOUT CP6	LAG FZ CP 6									6
7	FZ7 GRN FCTR										LONG GRN			GAPOUT CP7	LAG FZ CP 7									7
8	FZ8 GRN FCTR										NO GREEN			GAPOUT CP8	LAG FZ CP 8									8
9	MULTI CYCLE													GAPOUT CP9	LAG FZ CP 9									9
A	OFFSET A										OFFSET				LAG C COORD									A
B	OFFSET B														LAG D COORD									B
C	OFFSET C														COORD FAZES		2				6			C
D	FZ 3 EXT																							D
E	FZ 7 EXT																							E
F	OFFSET INTRPT																							F
																1	2	3	4	5	6	7	8	

CO1 MANUAL CP
CO2 MASTER CP
CO3 CURRENT CP
CO4 LAST CP
CO7 TRNSMT CP
COD MANUAL OFFSET
CAO LOCAL CYCLE TIMER
CBO MASTER CYCLE TIMER
CAA LOCAL OFFSET
CBA MASTER OFFSET

System Master:
EB @ Britannia

FEATURE	OFF	ON
1		
2		
3		
4		
5		
6		
7		
8		

LOCATION	OFF	ON
1		1
2	2	
3	4	
4	8	
5	16	
6	32	
7		
8		

COO = 1

CCB/CDB OFFSET TIMER
CCC/CDC LAG GREEN TIMER
CCD/CDD FORCE OFF TIMER
CCE/CDE LONG GREEN TIMER
CCF/CDF NO GREEN TIMER

LOCATION: 905 EB @ Britannia Blvd
CALTRANS C8 Version 3
D PAGE

11/29/2010

 #20

	D	FLAGS								E	FLAGS								F	FLAGS							
	MAX	1	2	3	4	5	6	7	8	MIN	1	2	3	4	5	6	7	8	PED	1	2	3	4	5	6	7	8
0	RCL									RCL									RCL								
1	CP 1									CP 1									CP 1								
2	CP 2									CP 2									CP 2								
3	CP 3									CP 3									CP 3								
4	CP 4									CP 4									CP 4								
5	CP 5									CP 5									CP 5								
6	CP 6									CP 6									CP 6								
7	CP 7									CP 7									CP 7								
8	CP 8									CP 8									CP 8								
9	CP 9									CP 9									CP 9								
A																			RCL 1								
B																			RCL 2								
C																											
D																											
E																											
F																											
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8

E PAGE

	E	FLAGS								F	FLAGS								
	FUNCTION	1	2	3	4	5	6	7	8	FUNCTION	1	2	3	4	5	6	7	8	
0										CODE 4									0
1										CODE 5									1
2										C-RECALL									2
3										D-RECALL									3
4										EXCLUSIVE									4
5										2 PED		2							5
6										6 PED						6			6
7										4 PED				4					7
8										8 PED								8	8
9																			9
A	CLA NOT									CLA ON									A
B	CLB NOT									CLB ON									B
C	CLC NOT									CLC ON									C
D	CLD NOT									CLD ON									D
E																			E
F																			F
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	

LAST POWER FAILURE REGISTER

HOUR = D-A-E
MINUTE = D-B-E
DAY = D-C-E

RCL 1 = TIME OF DAY MAX RECALL (1ST SELECT) PHASES
(CALL ACTIVE LIGHTS)
RCL 2 = TIME OF DAY MAX RECALL (2ND SELECT) PHASES
(CALL ACTIVE LIGHTS)

LAST FLASH TIME REGISTER

HOUR = D-A-F
MINUTE = D-B-F
DAY = D-C-F

D-E-E = C8 VERSION NUMBER
D-E-F = LITHIUM BATTERY CONDITION
84 = BAD
85 = GOOD

LOCATION: 905 EB @ Britannia Blvd
CALTRANS C8 Version 3
7 PAGE

11/29/2010

#20

TIME OF DAY ACTIVITY TABLE											
7+EVENT+HR+MIN+ACT+"E"+ON/OFF+DOW LTS											
	HR	MIN	ACT	ON/OFF	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

ACTIVITY CODE

1 TYPE OF MAX TERMINATION
2 MAX 2
3 MAX 3
4 COND SERV (1ST SELECT)
5 COND SERV (2ND SELECT)
6 ENERGIZE AUX OUTPUT-RED
7 ENERGIZE AUX OUTPUT-GREEN
8 ENERGIZE AUX OUTPUT-YELLOW
9 TIME OF DAY MAX RECALL (1ST SELECT)
A TRAFFIC ACT. MAX 2 OPERATION
B TIME OF DAY MAX RECALL (2ND SELECT)
C YELLOW YIELD COORDINATION
D YELLOW YIELD COORDINATION
E TIME OF DAY FREE OPERATION
F FLASHING OPERATION

9 PAGE C09 = 0 or 1

CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

9 PAGE C09 = 2

CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

LOCATION: 905 EB @ Britannia Blvd
CALTRANS C8 Version 3
F PAGE

2/24/2015

 #20

	INTERVAL	PHASE TIMING 1	2	3	4	5	6	7	8	9
0	WALK	1	7	1	1	1	7	1	1	CLK RST
1	DONT WALK	1	16	1	1	1	17	1	1	
2	MIN GREEN	5	5	1	5	1	5	1	1	
3	TYPE 3 DET	0	0	0	0	0	0	0	0	
4	ADD/VEH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	PASSAGE	3.0	3.0	0.9	3.0	0.9	3.0	0.9	0.9	
6	MAX GAP	3.0	3.0	0.9	3.0	0.9	3.0	0.9	0.9	
7	MIN GAP	3.0	3.0	0.9	3.0	0.9	3.0	0.9	0.9	
8	MAX EXT	20	30	9	30	9	30	9	9	
9	MAX 2									YR
A	MAX 3									MO
B										DAY
C	REDUCE BY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	DOW
D	EVERY	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	HR
E	YELLOW	3.7	4.1	3.0	4.1	3.0	4.1	3.0	3.0	MIN
F	RED	1.0	1.0	0.0	1.0	0.0	1.0	0.0	0.0	SEC
3.5'	PED XING FT		57'				58'			
	BIKE XING FT		65'				75'			

	PRE-EMPTION E	
	EV SEL	0
	RR1 CLR	15
	EVA DLY	0
	EVA CLR	5
	EVB DLY	0
	EVB CLR	5
	EVC DLY	0
	EVC CLR	5
	EVD DLY	0
	EVD CLR	5
	MAX EV	255
	RR2 CLR	15

	F FLAGS	1	2	3	4	5	6	7	8	
	FFRMT	1	2		4		6			0
	RED LOCK									1
	YEL LOCK									2
	V RECALL		2				6			3
	P RECALL									4
	PED PHASES		2				6			5
	RT OLA									6
	RT OLB									7
	DBL ENTRY									8
	MAX 2 PHASES									9
	LAG PHASES	READ ONLY								A
	RED REST									B
	REST-IN-WALK									C
	MAX 3 PHASES									D
	YEL START UP		2				6			E
	FIRST PHASE				4					F
		1	2	3	4	5	6	7	8	

FOC LONG FAILURE	
FOD SHORT FAILURE	
FOE	30
FOF	5

FCO	3
FC1	3
FC2	10
FCA	0.0
FCB	0.0
FCC	0.0
FCD	0.0

FDO TB SELECT	1
FD3 PED SELECT	0
FD4 7 WIRE	0
FD5 PERMISSIVE	0
FD8 OS SEEKING	1

CO5 FLASH TYPE	1
CC2 DOWNLOAD	1

ENTRIES IN THESE LOCATIONS CAN BE CHANGED IN CC1 FLASH ONLY

#20

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	905	R9.5/R15.0	667A	857

Enrique P Bernal 08-28-09
REGISTERED ELECTRICAL ENGINEER — DATE

10-20-08
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — E.P. BERNAL — No. 15675 — EXP. 6-30-10 — ELECTRICAL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

Caltrans Metric

NOTES:

1 - Exist TRAFFIC SIGNAL PARTIAL SHOWN ONLY.

2 - Exist SIGNAL, LIGHTING STANDARD AND ASSOCIATED EQUIPMENT TO REMAIN UNLESS OTHERWISE NOTED.

3 - Exist CONDUIT, PULL BOXES AND DETECTOR LOOPS TO REMAIN UNLESS OTHERWISE NOTED

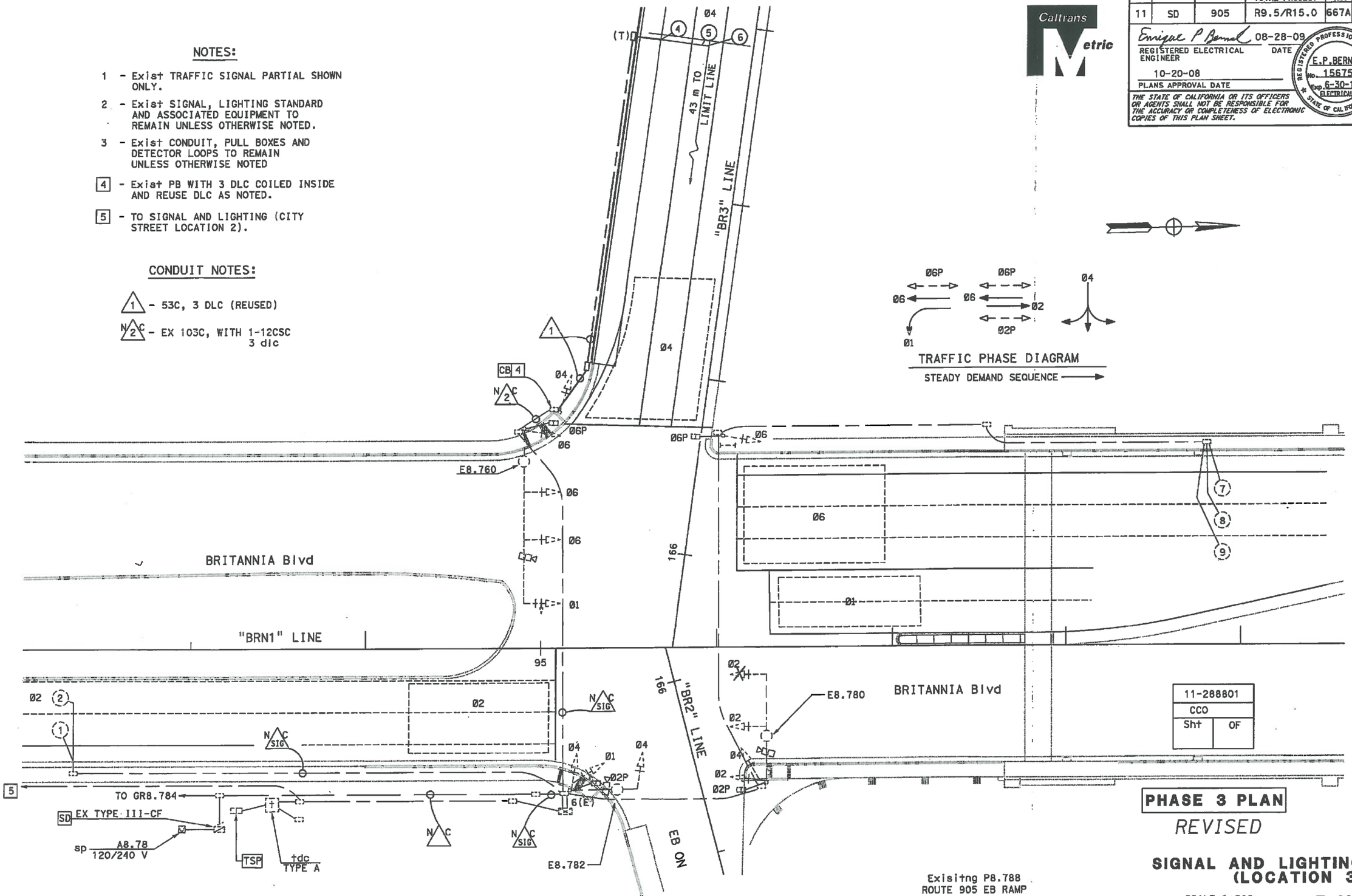
[4] - Exist PB WITH 3 DLC COILED INSIDE AND REUSE DLC AS NOTED.

[5] - TO SIGNAL AND LIGHTING (CITY STREET LOCATION 2).

CONDUIT NOTES:

(1) - 53C, 3 DLC (REUSED)

(2) N 2C - EX 103C, WITH 1-12CSC 3 dlc



TRAFFIC PHASE DIAGRAM
STEADY DEMAND SEQUENCE

11-288801	
CCO	
Sht	OF

PHASE 3 PLAN
REVISED

Exisitng P8.788
ROUTE 905 EB RAMP
AT BRITANNIA Blvd

SIGNAL AND LIGHTING (LOCATION 3)

SCALE 1:200

E-19A

THIS PLAN SHEET ACCURATE FOR ELECTRICAL WORK ONLY. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

RELATIVE PLOTTER SCALE 0 20 40 60 80 USERNAME => P109748

LAST REVISION DATE PLOTTED =>13-JUN-2013

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC ELECTRICAL

FUNCTIONAL SUPERVISOR	DALE WILSON
CALCULATED-DESIGNED BY	H. SAWAYA
CHECKED BY	ENRIQUE BERNAL
REVISED BY	DATE REVISED

INTERSECTION: Airway Rd @ Britannia Bl

#21

Group Assignment:
Field Master Assignment:

N/S Street Name: Britannia
E/W Street Name: Airway

223 Pro[illegible]am

Last Database Change:
System Ref. Number:

Row	Column # ---->	1	2	3	4	5	6	7	8
	Phase # ---->								
		Britannia				Britannia		Airway	Airway
0	Ped Walk		7						7
1	Ped FDW		21						27
2	Min Green	4	10			4	10	4	4
3	Type 3 Limit								
4	Add/Veh								
5	Veh Extn	2.0	3.8			2.0	3.8	2.0	3.7
6	Max Gap	2.0	3.8			2.0	3.8	2.0	3.7
7	Min Gap	2.0	0.2			2.0	0.2	0.2	0.2
8	Max Limit	30	60			30	60	40	40
9	Max Limit 2								
A	Bus Adv								
B	Call to Phs								
C	Reduce By		0.1				0.1	0.1	0.1
D	Every		0.8				0.8	1.7	0.8
E	Yellow	3.4	3.9			3.4	4.1	4.3	4.2
F	Red Clear	1.0	1.0			1.0	1.0	1.0	1.0
	Grade								

Phase Timing - Bank 1
F + Phase + Row

<F Page>

Row	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	0
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing
F + E + Row

Row	F
Permit	12__5678
Red Lock	
Yellow Lock	
Min Recall	
Ped Recall	
Peds (View)	_2____8
Rest In Walk	
Red Rest	
Dbl Entry	
Max Recall	
Soft Recall	_2___6__
Max 2	
Cond Serv	
Ped Lock	12345678
Yellow Start	_2___6__
1st Phases	_____7_

Phase Functions <F Page>
F + F + Row

Max Initial	0
Red Revert	5.0
All Red Start	0.0

F + 0 + E
F + 0 + F
F + C + O

Start / Revert Times

Drop Number	
Zone Number	
Area Number	
Area Address	
QuicNet Channel	

C + 0 + 0
C + 0 + 1
C + 0 + 2
C + 0 + 3
(QuicNet)

Communication Addresses

Overlap Timing

	Row	9 Green Clear	C Yellow Change	D Red Clear	0 Load-Switch #
Overlap A	A				
Overlap B	B				
Overlap C	C				
Overlap D	D				

<F Page>
F + COLOR +

<D Page>
D + 0 + OVERLAP

Manual Plan	14
Manual Offset	0

C + A + 1
C + B + 1

Manual Selection

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

C + F + O	F	Row
Free Lag	_2___6_8	0

Lag Phases <C Page>

Downtime Flash	255 (minutes)

Downtime Before Auto Manual Flash
F + D + 8

Disable Ports	_234____

Disable Communication Ports
D + D + 9

Timing Sheet By: FLG
Approved By: FLG
Drawing Number:
Timing Implemented On: 4/4/2011

#21

Row	Time	Function	Day of Week	Column F Phases/Bits
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function <D Page>

7 + ROW D + F + ROW

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	2
6	Ped 6P	
7	Ped 4P	
8	Ped 8P	8
9	Yellow Flash Phases	
A	Overlap A - Phases	
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	

Configuration <E Page>

E + F + ROW

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	
6	Overlap B - Green Omit	
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	7
C	EV-C Phases	1 6
D	EV-D Phases	8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration

For access, set F + 9 + E = 1 E + E + ROW

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Remote Download
6 = Special Event
7 = Pretimed Operation
8 = Split Ring Operation

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Day of Week
1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

Assign 5 Outputs
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 =

Time and Date
8-0 Hour, Minute, Day-of-Week
8-1 Day-of-Month, Year, Month
8-F Seconds

Disable Parity	0	D+8+0

Dial-Up Telephone Communications
(If set to a non-zero value, parity will be disabled)

Program Information
C + C + 0 = program
C + C + F = version

Remote Download
C + 0 + 4 = 1 -255
w/ E + E + E bit 5 on

#21

Row	1 Delay	3 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	1I1	14
	2I2U	1
	2I2L	5
	2I3U	21
	2I3L	25
	2I4	9
	3I5	16
	4I6U	3
	4I6L	7
	4I7U	23
	4I7L	27
	4I8	11
	1I9U	18
	3I9L	20
---	---	---
---	---	---

Row	2 Delay	4 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		1.8
8		
9		
A		
B		
C		
D		1.8
E	---	---
F	---	---

Detector Delay & Carryover <D Page>

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
---	---	---
---	---	---

D + X (across) + ROW

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 – – – –	1234____
C	13 14 15 16 17 18 19 20	12345678
D	– – – – 21 22 23 24	____5678
E	– – – – – – – –	1234____
F	– 25 26 27 28 – – –	_2345___

Active Detectors <D Page>

Row		0 Detector #
0		
1	System Det. # 1	
2	System Det. # 2	
3	System Det. # 3	
4	System Det. # 4	
5	System Det. # 5	
6	System Det. # 6	
7	System Det. # 7	
8	System Det. # 8	

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number		F+C+1
Time Before Yellow		F+C+3

Advance Warning Beacon - Sign 1

Phase Number		F+D+1
Time Before Yellow		F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

23

	INTERVAL	PHASE TIMING 1	2	3	4	5	6	7	8	9
0	WALK	1	7	1	1	1	1	1	7	CLK RST
1	DONT WALK	1	25	1	1	1	1	1	38	
2	MIN GREEN	5	10	1	1	1	10	1	10	
3	TYPE 3 DET	0	0	0	0	0	0	0	0	
4	ADD/VEH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	PASSAGE	2.0	6.9	0.9	0.9	0.9	6.9	0.9	2.0	
6	MAX GAP	2.0	8.9	0.9	0.9	0.9	8.9	0.9	2.0	
7	MIN GAP	2.0	3.0	0.9	0.9	0.9	3.0	0.9	2.0	
8	MAX EXT	25	35	9	9	9	35	9	25	
9	MAX 2									YR
A	MAX 3									MO
B										DAY
C	REDUCE BY	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	DOW
D	EVERY	1.0	0.4	1.0	1.0	1.0	0.4	1.0	1.0	HR
E	YELLOW	3.7	5.2	3.0	3.0	3.0	5.2	3.0	4.1	MIN
F	RED	2.0	2.0	0.0	0.0	0.0	2.0	0.0	2.0	SEC
3.5'	PED XING FT		88'						132'	

PRE-EMPTION E		F FLAGS	1	2	3	4	5	6	7	8	
EV SRL	0	PERMIT	1	2				6		8	0
RR1 CLR	5	RED LOCK									1
EVA DLY	0	YEL LOCK									2
EVA CLR	5	V RECALL		2				6			3
EVB DLY	0	P RECALL									4
EVB CLR	5	PED PHASE		2						8	5
EVC DLY	0	RT OLA									6
EVC CLR	5	RT OLB									7
EVD DLY	0	DBL ENTRY									8
EVD CLR	5	MAX 2 PHASES									9
MAX EV	255	LAG PHASES	READ ONLY								A
RR2 CLR	5	RED REST									B
		REST-IN-WALK									C
		MAX 3 PHASES									D
		YEL START UP		2				6			E
		FIRST PHASE								8	F
			1	2	3	4	5	6	7	8	

FOC LONG FAILURE	
FOD SHORT FAILURE	
FOE	0
FOF	5

FCO	3
FC1	3
FC2	10
FCA	0.0
FCB	0.0
FCC	0.0
FCD	0.0

FDO TB SELECT	1
FD3 PED SELECT	0
FD4 7 WIRE	0
FD5 PERMISSIVE	0
FD8 OS SEEKING	1

CO5 FLASH TYPE	1
CC2 DOWNLOAD	1

NOTES: 50 MPH

ENTRIES IN THESE LOCATIONS CAN BE CHANGED IN CC1 FLASH ONLY

		CONTROL PLANS									Y-COORD			LAG PHASE	FLAGS									
		1	2	3	4	5	6	7	8	9		C	D	E	F	1	2	3	4	5	6	7	8	
0	CYCLE LENGTH														LAG FZ FREE		2		4		6		8	0
1	FZ1 GRN FCTR													GAPOUT CP1	LAG FZ CP 1									1
2														GAPOUT CP2	LAG FZ CP 2									2
3	FZ3 GRN FCTR													GAPOUT CP3	LAG FZ CP 3									3
4	FZ4 GRN FCTR										PERM TIME			GAPOUT CP4	LAG FZ CP 4									4
5	FZ5 GRN FCTR										LAG OFFSET			GAPOUT CP5	LAG FZ CP 5									5
6											FORCE OFF			GAPOUT CP6	LAG FZ CP 6									6
7	FZ7 GRN FCTR										LONG GRN			GAPOUT CP7	LAG FZ CP 7									7
8	FZ8 GRN FCTR										NO GREEN			GAPOUT CP8	LAG FZ CP 8									8
9	MULTI CYCLE													GAPOUT CP9	LAG FZ CP 9									9
A	OFFSET A										OFFSET				LAG C COORD									A
B	OFFSET B														LAG D COORD									B
C	OFFSET C														COORD FAZES		2				6			C
D	FZ 3 EXT																							D
E	FZ 7 EXT																							E
F	OFFSET INTRPT																							F
																1	2	3	4	5	6	7	8	

CO1 MANUAL CP
CO2 MASTER CP
CO3 CURRENT CP
CO4 LAST CP
CO7 TRNSMT CP
COD MANUAL OFFSET
CAO LOCAL CYCLE TIMER
CBO MASTER CYCLE TIMER
CAA LOCAL OFFSET
CBA MASTER OFFSET

SYSTEM MASTER:
Rte 125 NB ON

FEATURE

	OFF	ON
1		
2		
3		
4		
5		
6		
7		
8		

LOCATION

	OFF	ON
1		1
2		2
3		4
4		
5		
6		
7		
8		

COO = 7

CCB/CDB OFFSET TIMER
CCC/CDC LAG GREEN TIMER
CCD/CDD FORCE OFF TIMER
CCE/CDE LONG GREEN TIMER
CCF/CDF NO GREEN TIMER

	D	FLAGS								E	FLAGS								F	FLAGS							
	MAX	1	2	3	4	5	6	7	8	MIN	1	2	3	4	5	6	7	8	PED	1	2	3	4	5	6	7	8
0	RCL									RCL									RCL								
1	CP 1									CP 1									CP 1								
2	CP 2									CP 2									CP 2								
3	CP 3									CP 3									CP 3								
4	CP 4									CP 4									CP 4								
5	CP 5									CP 5									CP 5								
6	CP 6									CP 6									CP 6								
7	CP 7									CP 7									CP 7								
8	CP 8									CP 8									CP 8								
9	CP 9									CP 9									CP 9								
A																			RCL 1								
B																			RCL 2								
C																											
D																											
E																											
F																											
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8

E PAGE

	E	FLAGS								F	FLAGS								
	FUNCTION	1	2	3	4	5	6	7	8	FUNCTION	1	2	3	4	5	6	7	8	
0										CODE 4									0
1										CODE 5									1
2										C-RECALL									2
3										D-RECALL									3
4										EXCLUSIVE									4
5										2 PED		2							5
6										6 PED						6			6
7										4 PED				4					7
8										8 PED								8	8
9																			9
A	OLA NOT									OLA ON									A
B	OLB NOT									OLB ON									B
C	OLC NOT									OLC ON									C
D	OLD NOT									OLD ON									D
E																			E
F																			F
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	

LAST POWER FAILURE REGISTER

HOUR = D-A-E
MINUTE = D-B-E
DAY = D-C-E

RCL 1 = TIME OF DAY MAX RECALL (1ST SELECT) PHASES
(CALL ACTIVE LIGHTS)
RCL 2 = TIME OF DAY MAX RECALL (2ND SELECT) PHASES
(CALL ACTIVE LIGHTS)

LAST FLASH TIME REGISTER

HOUR = D-A-F
MINUTE = D-B-F
DAY = D-C-F

D-E-E = C8 VERSION NUMBER
D-E-F = LITHIUM BATTERY CONDITION
84 = BAD
85 = GOOD

7 PAGE

TIME OF DAY ACTIVITY TABLE											
7+EVENT+HR+MIN+ACT+"E"+ON/OFF+DOW LTS											
	HR	MIN	ACT	ON/ OFF	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

ACTIVITY CODE

1 TYPE OF MAX TERMINATION
2 MAX 2
3 MAX 3
4 COND SERV (1ST SELECT)
5 COND SERV (2ND SELECT)
6 ENERGIZE AUX OUTPUT-RED

7 ENERGIZE AUX OUTPUT-GREEN

9 PAGE C09 = 0 or 1

CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

8 ENERGIZE AUX OUTPUT-YELLOW

9 TIME OF DAY MAX RECALL (1ST SELECT)
A TRAFFIC ACT. MAX 2 OPERATION
B TIME OF DAY MAX RECALL (2ND SELECT)
C YELLOW YIELD COORDINATION
D YELLOW YIELD COORDINATION
E TIME OF DAY FREE OPERATION
F FLASHING OPERATION

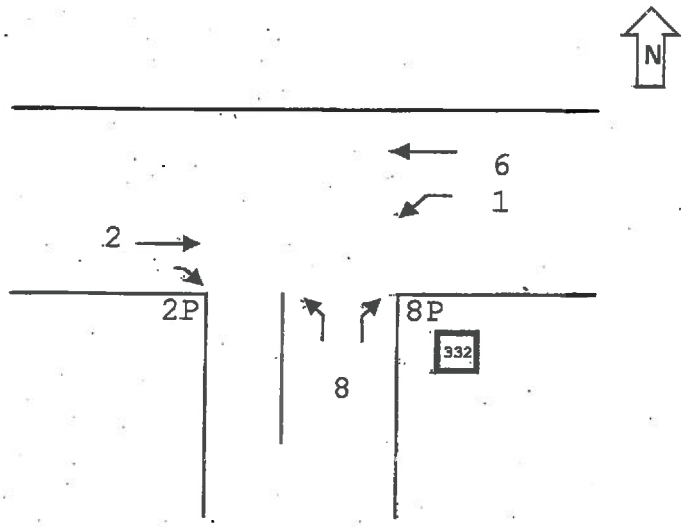
9 PAGE C09 = 2

CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

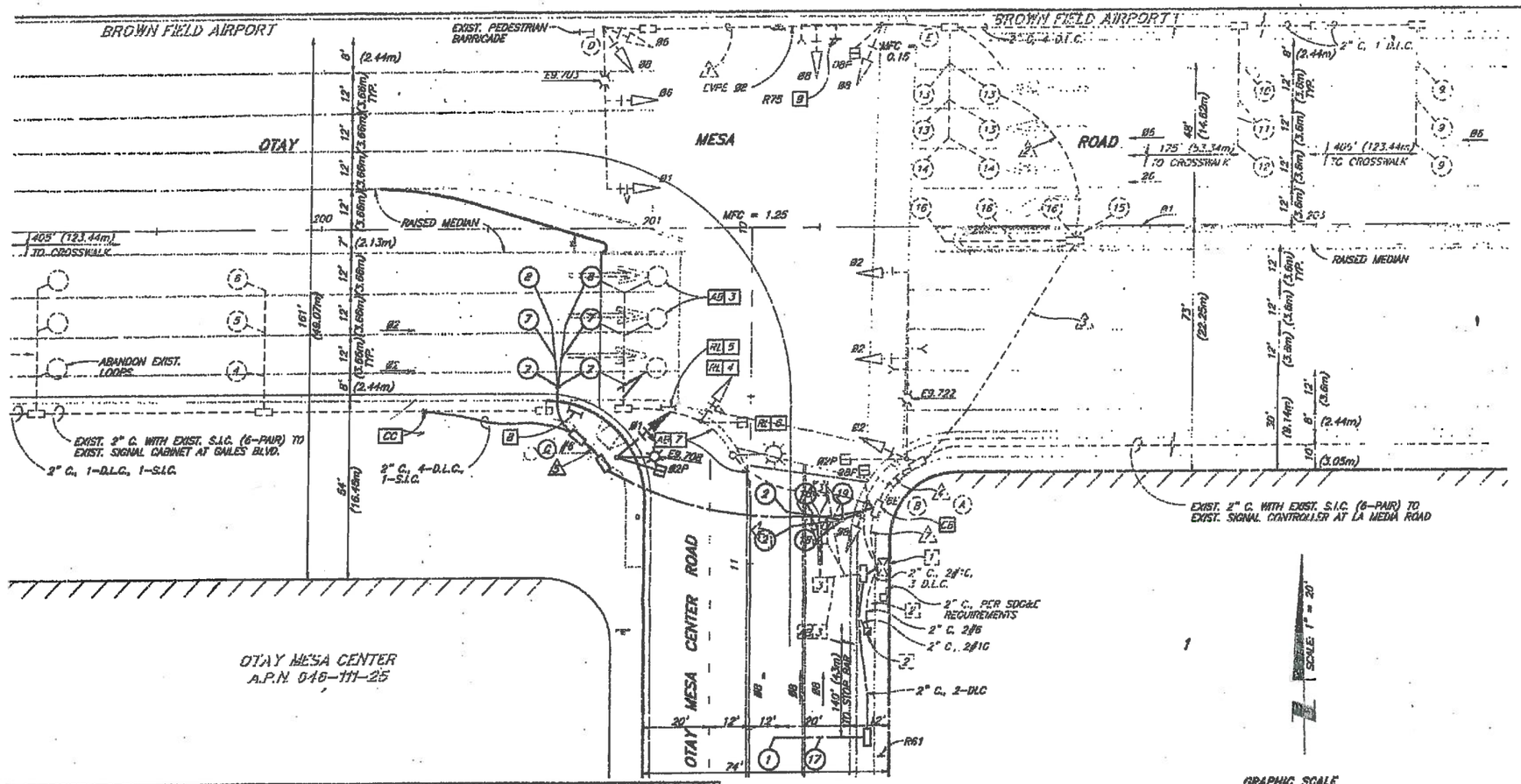
DATE: 1/13/13

LOCATION: RTE 905 @ OTAY MESA CENTER ROAD

CONFLICT MONITOR PROGRAM



#23



WORK TO BE DONE

MODIFY TRAFFIC SIGNAL AND STREET LIGHTING SYSTEMS AS SHOWN AND NOTED.

STANDARD SPECIFICATIONS

1. STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (2000 EDITION), INCLUDING THE REGIONAL AND CITY OF SAN DIEGO SUPPLEMENT AMENDMENTS, DOCUMENT NO. 769845 FILED JULY 21, 2000.
2. LIGHTING AND ELECTRICAL SYSTEMS OF CITY OF SAN DIEGO, DOCUMENT NO. 769842, FILED OCTOBER 22, 1999.
3. "STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES (1996 (REVISION 2) EDITION)".
4. "STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, JULY 1999".

STANDARD DRAWINGS

1. CITY OF SAN DIEGO STANDARD DRAWINGS, INCLUDING ALL REGIONAL STANDARD DRAWINGS, DOCUMENT NO. 769846, FILED JULY 21, 2000.
2. "STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD PLANS, JULY 1999".
3. "STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD PLANS, JULY 1999 ERRATUM NO. 99-1".

TRAFFIC SIGNAL GENERAL NOTES

1. PULL BOXES SHALL BE NO. 5, AND CONDUIT 3" UNLESS NOTED OTHERWISE.
2. LOCATION OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND VERIFY ALL CONDITIONS ON THE JOB SITE.
3. THE TRAFFIC SIGNAL CONTRACTOR SHALL OBTAIN A TRAFFIC CONTROL PLAN PERMIT FROM THE CITY OF SAN DIEGO PERMIT CENTER A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
4. ALL TRAFFIC SIGNAL POLE FOUNDATIONS SHALL HAVE A 3" (78C) CONDUIT INSTALLED TO THE ADJACENT PULL BOX AND THE CONTROLLER FOUNDATION SHALL HAVE A SPARE 3" (78C) CONDUIT INSTALLED TO THE ADJACENT #8 PULL BOX FOR FUTURE USE.
5. THE TRAFFIC SIGNAL CONTRACTOR IS RESPONSIBLE FOR THE LAYOUT AND INSTALLATION OF LOOP DETECTORS, TRAFFIC STRIPING, PAVEMENT MARKINGS, PARKING REMOVAL AND TRAFFIC SIGNING (EXCEPT "G" SERIES STREET NAME SIGNS) AS SHOWN ON THESE PLANS.
   - 5a THE TRAFFIC SIGNAL CONTRACTOR SHALL OBTAIN THE APPROVAL OF THE CITY RESIDENT ENGINEER OF THE LOOP LOCATIONS PRIOR TO CUTTING AND THE STRIPING, PAVEMENT MARKINGS, PARKING REMOVAL AND SIGN LOCATIONS PRIOR TO PAINTING AND INSTALLATION.
   - 5b AFTER APPROVAL OF LOCATION, THE TRAFFIC SIGNAL CONTRACTOR SHALL WAIT A MINIMUM OF FIFTEEN (15) WORKING DAYS BEFORE PERMANENTLY REMOVING ANY PARKING, SO THAT ADVANCE NOTICE TO ADJACENT PROPERTY OWNERS CAN BE MADE BY THE CITY.
   - 5c THE TRAFFIC SIGNAL CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL UNNECESSARY AND CONFLICTING STRIPING AND PAVEMENT MARKINGS.
6. TRAFFIC SIGNAL CONTRACTOR SHALL NOT ERECT ANY SIGNAL STANDARDS MORE THAN THREE (3) WEEKS PRIOR TO SCHEDULED TRAFFIC SIGNAL TURN TURNOFF.
7. CONTRACTOR SHALL PROVIDE ALL CABLING AND CONDUCTORS NECESSARY TO PERFORM ALL FUNCTIONS SHOWN ON THESE PLANS.
8. ALL POLES, CONDUIT, PULL BOXES, STRIPING AND LOOP DETECTOR LOCATIONS SHOWN THESE PLANS ARE APPROXIMATE. ACTUAL LOCATIONS SHALL BE DETERMINED BY FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND AS DIRECTED BY THE CITY OF SAN DIEGO.
9. ROUTING AND LOCATIONS OF UNDERGROUND ELECTRICAL SYSTEM IS DIAGRAMMATIC AND SUBJECT TO APPROVAL OF THE ENGINEER. UNDERGROUND ELECTRICAL LINES AND SUBSURFACE STRUCTURES MAY BE RELOCATED IF NECESSARY TO CLEAR OTHER EXISTING UNDERGROUND FACILITIES.
10. ALL TREES AND SHRUBS SHALL BE TRIMMED OR REMOVED AS DETERMINED BY THE CITY RESIDENT ENGINEER AS REQUIRED TO MAINTAIN SIGNAL HEAD VISIBILITY AND SIGHT DISTANCE.
11. ALL VEHICLES SIGNAL HEADS SHALL BE 12" (300mm) WITH BACK PLATES. ALL VISORS SHALL BE TUNNEL TYPE.
12. ALL VEHICLE AND PEDESTRIAN INDICATIONS SHALL BE OF THE L.E.D. TYPE.

CONSTRUCTION NOTES

1. EXISTING TYPE 170 CONTROLLER AND 332 CABINET. ADD LOOP DETECTOR SENSOR AMPLIFIER.
2. EXISTING SDG&E SERVICE CABINET.
3. ABANDON EXISTING INDUCTIVE LOOP DETECTORS.
4. RELOCATE TYPE 1-A POLE, SIGNAL HEAD, PED. HEAD AND P.P.B.
5. RELOCATE EXISTING PEDESTRIAN BARRICADE AND SIGN.
6. RELOCATE EXISTING TYPE 15 LIGHTING STANDARD.
7. ABANDONED EXISTING 2" CONDUIT AND REMOVE ALL CONDUCTORS.
8. INSTALL PEDESTRIAN BARRICADE PER S.D.E.-103.
9. CALTRANS STANDARD DRAWING ES-7N, DETAIL "U" REQUIRED. REMOVE EXIST. R34.
10. INSTALL BI-DIRECTIONAL DUAL CHANNEL EMERGENCY VEHICLE PRE-EMPTION DETECTOR (E.V.P.E.) PER CITY OF SAN DIEGO REQUIREMENTS.
11. INSTALL TYPE "A" HANDHOLE PER ES-5E WITH LOCKING COVER - NO SPLICING IN HANDHOLE.

POLE SCHEDULE

STANDARD TYPE	MT.	ARMS SIG.	ARMS LUM	LUM H.P.S.V.	PUSH BT. TYPE	PUSH BT. #	PUSH BT. QUID.	SIGNAL MOUNTING VEHICLE	SIGNAL MOUNTING PED.	REMARKS	LOCATION A	LOCATION B
-5-129	35'	55	15	250 W*	B	6	W	2-MAS, SV-1-T	SP-1-T	(EXISTING)	—	—
1-A	10'	—	—	—	B	2	N	TV-1-T	SP-1-T	(EXISTING)	—	—
15	30'	—	15	250 W	B	2	S	TV-1-T	SP-1-T	RELOCATED	22'	4'
-5-129	35'	35	15	250 W*	—	—	—	MAT. 2-MAS, SV-2-TB	—	EXISTING	—	—
-3-129	17'	40	—	—	B	6	W	MAS-4B, SV-1-T	SP-1-T	EXISTING	—	—

DE EXIST. ST. LT.

CONDUCTOR TABLE

SIZE OR TYPE	PHASE	POLE OR CIRCUIT	CONDUIT SIZE AND RUN 1	2	3	4	5	6	7		
		POLE A				1			1	—	—
		POLE B					1	1	1	—	—
		POLE C				1	1	1	1	—	—
		POLE D	2	2	2	2			2	—	—
		POLE E	1	1	1	1			1	—	—
			—	—	—	—	—	—	—	—	—
			—	—	—	—	—	—	—	—	—
12 SIGNALS			—	—	—	—	—	—	—	—	—
			—	—	—	—	—	—	—	—	—
CABLES: 3 C. / 12 C.			3	1	1	2	1	1	4	6	—
0, 10		I.L. S.N.S.	—	—	—	—	—	—	—	—	—
0, 8		LIGHTING	2	2	2	2	—	2	—	—	—
		SIGNAL SERVICE	—	—	—	—	—	—	—	—	—
NO. 22 (SIC) NNECT CABLE			—	—	—	1	1	1	2	—	—
YPE B L.C.	Ø1	LOOP DETECTOR	—	—	2	2	—	—	2	—	—
	Ø2	LOOP DETECTOR	—	—	—	—	6	6	6	—	—
			—	—	—	—	—	—	—	—	—
			—	—	—	—	—	—	—	—	—
	Ø8	LOOP DETECTOR	—	6	6	6	—	—	8	—	—
	Ø3	LOOP DETECTOR	—	—	—	—	—	—	3	—	—
NCY VEHICLE DETECTOR (EV-DLC)			—	1	1	3	—	—	3	—	—

PHASE DIAGRAM

GROUP A		GROUP B	
	2P	UNUSED	UNUSED
Ø1	Ø2	Ø3	Ø4
UNUSED		UNUSED	2P
Ø5	Ø6	Ø7	Ø8

PREVIOUS PHASE DIAGRAM

GROUP A		GROUP B	
		UNUSED	UNUSED
Ø1	Ø2	Ø3	Ø4
UNUSED		UNUSED	
Ø5	Ø6	Ø7	Ø8

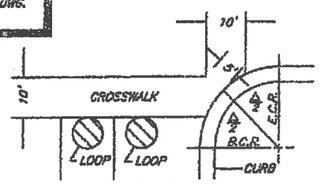
*PER DWG. NO. 28063-91-D

DETECTOR ASSIGNMENT SCHEDULE

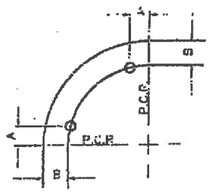
NO.	PHASE	SLOT	FIELD TERMINAL
01	2	I2U	T2-5 AND 8
02	2	I2L	T2-7 AND 8
03	2	I3U	T2-9 AND 10
04	2	I3L	T2-11 AND 12
05	6	J2U	T3-5 AND 8
06	6	J2L	T3-7 AND 8
07	6	J3U	T3-9 AND 10
08	6	J3L	T3-11 AND 12
09	1	I14	T2-1 AND 2
10	8	J8U	T5-9 AND 10
11	8	J8L	T5-11 AND 12
12	8	J7U	T7-1 AND 2
13	8	J7L	T7-3 AND 4
PPB	2	I12U	T8-4 AND COM 6
PPB	8	I13L	T8-8 AND COM 9
EVP A	2	J12U	T9-4 AND COM 6
EVP C	6	J12L	T9-5 AND COM 6
EVP D	8	J13L	T9-8 AND COM 9

NOTE
FOR EXIST. SIGNAL PLANS ON OTAY MESA ROAD AND OTAY MESA CENTER ROAD SEE CITY OF SAN DIEGO DWG. NO. 28063-91-D.

GRAPHIC SCALE
20 0 20 40 60



PLACEMENT DETAIL
NOT TO SCALE



STANDARD PLACEMENT DETAIL
NOT TO SCALE

DETAIL - R-75 SIGN
NOT TO SCALE

PETER R. SAFINO No. 44171 Exp. 6/30/08 CIVIL STATE OF CALIFORNIA PROFESSIONAL ENGINEER

PLANNING DESIGN CONSULTATION

SB&O

Land Planning
Civil Engineering
Land Surveying

SB&O, Inc.
3615 Kearny Villa Road, Suite 201
San Diego, California 92123 (858)560-1141

10-8-07
PETER R. SAFINO R.C.E. 44171 DATE

SIGNAL NO. P 9.710
P.R.D.
PRIVATE CONTRACT

TRAFFIC SIGNAL PLANS FOR:

TRANSBORDER PLAZA

OTAY MESA ROAD AND OTAY MESA CENTER ROAD

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 10 OF 13 SHEETS

T.M. 98-0831
W.O. NO. 420248

FOR CITY ENGINEER — DATE

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	K.B.& O.			

1784-6339
MAP NO. COORDINATES
144-1779
CADSTAT COORDINATES

CONTRACTOR — DATE STARTED
INSPECTOR — DATE COMPLETED

31807-10-D

#24

200 SA 1.e

PHASE TIMING

INTERVAL		1 (OTAY MESA)	2 (LA MEDIA)	3	4 (OTAY MESA)	5	6 (LA MEDIA)	7	8
WALK	0		7				7		7
FLASH D/W	1		18				19		29
MIN GREEN	2	4	10	4	7	4	10	4	4
TYPE 3 DET	3								
ADD PER VEH	4								
VEH EXTN *	5	2.0	5.0	2.0	5.3	2.0	4.9	2.0	3.2
MAX GAP *	6	2.0	5.0	2.0	5.3	2.0	4.9	2.0	3.2
MIN GAP *	7	2.0	0.2	2.0	0.2	2.0	0.2	2.0	0.2
MAX EXTN	8	30	60	30	40	30	60	30	40
MAX 2	9								
BUS LEAD	A								
CALL TO PHS	B								
REDUCE BY	C		0.1		0.1		0.1		0.1
EVERY	D		0.6		0.6		0.6		1.0
YELLOW	E	3.0	4.7	3.0	3.3	3.0	4.7	3.0	4.2
RED CLEAR	F	1.0	2.0	1.0	1.0	1.0	2.0	1.0	1.0

F + PHASE + LOCATION

* Must be the same for non-density operation

PREEMPT		
	E	
RR 1 DELAY		0
RR 1 CLEAR		1
EVA DELAY	0	2
EVA CLEAR	0	3
EVB DELAY	0	4
EVB CLEAR	0	5
EVC DELAY	0	6
EVC CLEAR	0	7
EVD DELAY	0	8
EVD CLEAR	0	9
RR2 DELAY		A
RR 2 CLEAR		B
EV CLR TMR		C
EV DLY TMR		D
RR CLR TMR		E
RR DLY TMR		F

MAX INITIAL (F-0-E) 0 RED REVERT (F-0-F) 5.0 ALL-RED START (F-C-0) 0.0

PHASE FUNCTION FLAGS

		PHASE 1	2	3	4	5	6	7	8
PERMIT	0	X	X	X	X	X	X	X	X
RED LOCK	1								
YELLOW LOCK	2								
VEHICLE RECALL	3								
PED RECALL	4								
PEDS (VIEW)	5								
REST IN WALK	6								
RED REST	7								
DOUBLE ENTRY	8								
MAX RECALL	9								
SOFT RECALL	A	X				X			
MAX 2	B								
COND SERVICE	C								
	D								
START-UP	E	X				X			
FIRST PHASES	F		X				X		

F + F + FUNCTION

OVERLAP TIMING

LOAD SWITCH

	GREEN 9	YELLOW C	RED D
OLAP A			
OLAP B			
OLAP C			
OLAP D			

D + 0 + OVERLAP

F + COLOR +

PHASE SEQUENCE

	PHASE 1	2	3	4	5	6	7	8
LAG 0 (FREE)		X		X		X		X

C + F + 0

MANUAL (C-A-1) 0

ADDRESS (C-0-0) 7

TURN-ON DATE: 01-26-2000

TIME: 10:30

DRAWING NO. D- 284063-92

LAST CHANGE:

BY: REJ

LOCATION La Media Rd & Otay Mesa Rd

#24

DETECTOR TIMES

X / Y	SET DELAY 1	SET DELAY 2	SET CARRY 3	SET CARRY 4	OBS COUNT 5	OBS COUNT 6	OBS DELAY 7	OBS DELAY 8	OBS CARRY 9	OBS CARRY A
0	1I1	5J1	1I1	5J1	1I1	5J1	1I1	5J1	1I1	5J1
1	222U	6J2U	222U 1.8	6J2U 1.8	222U	6J2U	222U	6J2U	222U	6J2U
2	212L	6J2L	212L	6J2L	212L	6J2L	212L	6J2L	212L	6J2L
3	213U	6J3U	213U	6J3U	213U	6J3U	213U	6J3U	213U	6J3U
4	213L	6J3L	213L	6J3L	213L	6J3L	213L	6J3L	213L	6J3L
5	214	6J4	214	6J4	214	6J4	214	6J4	214	6J4
6	315	7J5	315	7J5	315	7J5	315	7J5	315	7J5
7	416U	8J6U	416U 1.8	8J6U 1.8	416U	8J6U	416U	8J6U	416U	8J6U
8	416L	8J6L	416L	8J6L	416L	8J6L	416L	8J6L	416L	8J6L
9	417U	8J7U	417U	8J7U	417U	8J7U	417U	8J7U	417U	8J7U
A	417L	8J7L	417L	8J7L	417L	8J7L	417L	8J7L	417L	8J7L
B	418	8J8	418	8J8	418	8J8	418	8J8	418	8J8
C	119U	5J9U	119U	5J9U	119U	5J9U	119U	5J9U	119U	5J9U
D	319L	7J9L	319L	7J9L	319L	7J9L	319L	7J9L	319L	7J9L

D + X (ACROSS) + Y (DOWN)

TIME OF DAY FEATURES

EVENT	TIME	FUNC	DAY OF WEEK S	M	T	W	T	F	S
0									
1									
2									
3									
4									
5									
6									
7									
8									
9									

7 + EVENT #

PHASE OR FUNCTION

1	2	3	4	5	6	7	8

D + F + EVENT

TIME OF DAY FUNCTION CODES

- 0-PERMIT
- 1-RED LOCK
- 2-YELLOW LOCK
- 3-VEH RECALL
- 4-PED RECALL
- 5-(RESERVED)
- 6-REST IN WALK
- 7-RED REST
- 8-DBL ENTRY
- 9-VEH MAX RCL
- A-SOFT RCL
- B-MAX 2 EXT
- C-COND SERV
- D-TOD LAG PHS

- E-1-LOCAL OVERRIDE
- 2-PHASE BANK 2
- 3-PHASE BANK 3
- 7-DET COUNT
- 8-SPLIT MONITOR

- F - TOD OUTPUTS
- 1- TOD OUTPUT 1
- 2- TOD OUTPUT 2
- 3- TOD OUTPUT 3
- 4- TOD OUTPUT 4

TIME AND DATE

8 - 0 HOUR, MINUTE, DAY-OF-WEEK
8 - 1 DAY-OF-MONTH, YEAR, MONTH
8 - F SECONDS

TO ACCESS CONFIGURATION DATA, SET F-8-E = 1

CONFIGURATION DATA

		PHASE 1	2	3	4	5	6	7	8
EXCLUSIVE	0								
RR1 GN CLR	1								
RR2 GRN CLR	2								
RR2 LTD SRV	3								
PRO/PERM	4								
OLA GN OMIT	5								
OLB GN OMIT	6								
OLC GN OMIT	7								
OLD GN OMIT	8								
OV FL YELLOW	9								
EMVEH A	A		X			X			
EMVEH B	B				X			X	
EMVEH C	C	X					X		
EMVEH D	D			X					X
EXTRA	E	X		X	X				
IC SELECT	F		X						

E + E + INTERVAL

EXTRA (E+E+E)
- 1-TBC TYPE 1
- 2-NEMA COORD
- 3-DAYLIGHT
- 4-EV ADVANCE
- 5-REMOTE EVP
- 6-SPECIAL EVENT
- 7-PRETIMED
- 8-SPLIT RING

ICSELECT (E+E+F)
- 1-SIMPLEX IN
- 2-2 WAY MODEM
- 3-7 WIRE IN
- 4-FLH/FREE
- 5-SIMPLEX OUT
- 6-7 WIRE OUT

ASSIGN5 (E+F+F)
- 1-RT OVERLAP
- 2-TOD OUTPUTS
- 3-STEADY EV BEACON
- 4-FLASH EV BEACON

CONFIGURATION DATA

		PHASE 1	2	3	4	5	6	7	8
	0								
RR OLAP A	1								
RR OLAP B	2								
RR OLAP C	3								
RR OLAP D	4								
PED 2P	5		X						
PED 6P	6						X		
PED 4P	7								
PED 8P	8								X
FLH YELLOW	9								
OVERLAP A	A								
OVERLAP B	B								
OVERLAP C	C								
OVERLAP D	D								
RESTRICT	E								
ASSIGN5	F								

E + F + INTERVAL

LOCATION: La Media Rd & Otay Mesa Rd

#24

COORDINATION PARAMETERS

200 SA 1.e

PLAN

FEATURE		1	2	3	4	5	6	7	8	9
CYCLE	0	140	140	120						
FORCE 1	1	88	88	75						
FORCE 2	2	--	--	--						
FORCE 3	3	27	27	23						
FORCE 4	4	60	60	51						
FORCE 5	5	88	88	75						
FORCE 6	6	--	--	--						
FORCE 7	7	27	27	23						
FORCE 8	8	60	60	51						
RING OFFSET	9									
OFFSET A	A	0	0	0						
OFFSET B	B									
OFFSET C	C									
PERMISSIVE	D	14	14	12						
HOLD RELEASE	E	255	255	255						
ZONE OFFSET	F									

C + PLAN + FEATURE

TRANSITION TYPE
C - D - D = 0
SHORTWAY = 0
DWELL > 0

PEDESTRIAN FORCEOFF SHIFT
C - D - F = 10

FOR OBSERVATION ONLY

MASTER PLAN	C - A - 2
CURRENT PLAN	C - A - 3
T.O.D. PLAN	C - A - 5
MASTER CYCLE	C - A - 0
RING A CYCLE	C - B - 0
RING B CYCLE	C - D - 0
MINIMUM CYCLE	C - A - E
MAXIMUM CYCLE	C - B - E

PLAN TIMETABLE

EVENT	TIME	PLAN	OFFSET	DAY OF WEEK S	M	T	W	T	F	S
0	0600	1	A		X	X	X	X	X	
1	1400	2	A		X	X	X	X	X	
2	2000	E	A		X	X	X	X	X	
3	0900	3	A	X						X
4	1800	E	A	X						X
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

9 + EVENT

SYNC PHASES

		PHASE 1	2	3	4	5	6	7	8
	0								
SYNC 1	1		X				X		
SYNC 2	2		X				X		
SYNC 3	3		X				X		
SYNC 4	4								
SYNC 5	5								
SYNC 6	6								
SYNC 7	7								
SYNC 8	8								
SYNC 9	9								
CPEDRCL	A								
NEMA HLD	B								
SCANMEM	C								
BADPROM	D								
TODFN E	E								
TODFN F	F								

C + E + FUNCTION

PHASE SEQUENCES

		PHASE 1	2	3	4	5	6	7	8
	0								
LAG 1	1	X	X		X		X		
LAG 2	2	X	X		X		X		
LAG 3	3	X	X		X		X		
LAG 4	4								
LAG 5	5								
LAG 6	6								
LAG 7	7								
LAG 8	8								
LAG 9	9								
COOR MAX RCL	A								
COOR LAG RCL	B								
SYNC PHASES	C								
HOLD	D								
NEXT PHASE	E								
FORCE OFF	F								

C + F + FUNCTION

Date: 01/05/2000 DRH

LOCATION: La Media Rd & Otay Mesa Rd

INTERSECTION: CUSTOMHOUSE PZ/HARVEST RD @ SIEMPRE VIVA RD

223 Program

#29

Group Assignment:
Field Master Assignment:

N/S Street Name: CUSTOMHOUSE/HA
E/W Street Name: SIEMPRE VIVA

Row	Column # → / Phase # →	1 SIEMPRE VIVA	2	3	4 HARVEST	5	6 SIEMPRE VIVA	7	8 CUSTOMHOUSE
0	Ped Walk		7		7		7		7
1	Ped FDW		16		26		13		24
2	Min Green	4	10		4	4	10		4
3	Type 3 Limit								
4	Add/Veh								
5	Veh Extn	2.0	6.1		2.0	2.0	5.1		2.0
6	Max Gap	2.0	6.1		2.0	2.0	5.1		2.0
7	Min Gap	2.0	0.2		2.0	2.0	0.2		2.0
8	Max Limit	30	60		40	30	60		40
9	Max Limit 2								
A	Bus Adv								
B	Call to Phs								
C	Reduce By		0.1				0.1		
D	Every		0.5				0.6		
E	Yellow	3.4	3.9		3.9	3.4	3.9		3.9
F	Red Clear	1.0	1.0		1.0	1.0	1.0		1.0

Phase Timing - Bank 1
F + Phase + Row

<F Page>

Row	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	0
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

F + E + Row

Row	F
Permit	12_456_8
Red Lock	
Yellow Lock	
Min Recall	
Ped Recall	
Peds (View)	_2_4_6_8
Rest In Walk	
Red Rest	
Dbl Entry	___4___8
Max Recall	
Soft Recall	_2___6__
Max 2	
Cond Serv	
Ped Lock	12345678
Yellow Start	_2___6__
1st Phases	___4___8

F + F + Row

Max Initial	0
Red Revert	5.0
All Red Start	0.0

F + 0 + E
F + 0 + F
F + C + O

Start / Revert Times

Drop Number	
Zone Number	
Area Number	
Area Address	
QuicNet Channel	

C + 0 + 0
C + 0 + 1
C + 0 + 2
C + 0 + 3
(QuicNet)

Communication Addresses

C + F + O

	F	Row
Free Lag	2 4 6 8	0

Lag Phases <C Page>

Overlap Timing

Row	9 Green Clear	C Yellow Change	D Red Clear	0 Load-Switch #
Overlap A	A			
Overlap B	B			
Overlap C	C			
Overlap D	D			

<F Page>
F + COLOR +

<D Page>
D + 0 + OVERLAP

Manual Plan	14
Manual Offset	0

C + A + 1
C + B + 1

Manual Selection

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Downtime Flash	255 (minutes)

Downtime Before Auto Manual Flash
F + 0 + 8

Disable Ports	_234___

Disable Communication Ports
D + D + 9

Timing Sheet By: M2S
Approved By: FLG
Drawing Number: 28313-D
Timing Implemented On:

Printed on 10/24/2013 1:19 PM

City of San Diego

#29

Row	1 Delay	3 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	1I1	14
	2I2U	1
	2I2L	5
	2I3U	21
	2I3L	25
	2I4	9
	3I5	16
	4I6U	3
	4I6L	7
	4I7U	23
	4I7L	27
	4I8	11
	1I9U	18
	3I9L	20
---	---	---
---	---	---

Row	2 Delay	4 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7	5.0	
8		
9	10.0	
A		
B		
C		
D		
E	---	---
F	---	---

Detector Delay & Carryover <D Page>

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
---	---	---
---	---	---

D + X (across) + ROW

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 – – – –	1234
C	13 14 15 16 17 18 19 20	12345678
D	– – – – 21 22 23 24	5678
E	– – – – – – – –	1234
F	– 25 26 27 28 – – –	2345

Active Detectors <D Page>

Row		0 Detector #
0		
1	System Det. # 1	
2	System Det. # 2	
3	System Det. # 3	
4	System Det. # 4	
5	System Det. # 5	
6	System Det. # 6	
7	System Det. # 7	
8	System Det. # 8	

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number		F+C+1
Time Before Yellow		F+C+3

Advance Warning Beacon - Sign 1

Phase Number		F+D+1
Time Before Yellow		F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

Row	Time	Function	Day of Week	Column F Phases/Bits
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function

7 + ROW

<D Page>

D + F + ROW

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest in Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	2
6	Ped 6P	6
7	Ped 4P	4
8	Ped 8P	8
9	Yellow Flash Phases	
A	Overlap A - Phases	
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	

Configuration

E + F + ROW

<E Page>

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	
6	Overlap B - Green Omit	
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4
C	EV-C Phases	1 6
D	EV-D Phases	8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

For access, set F + 9 + E = 1

Configuration

E + E + ROW

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Remote Download
6 = Special Event
7 = Pretimed Operation
8 = Split Ring Operation

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Day of Week

1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

Assign 5 Outputs
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 = Bus Advance

Time and Date

8-0 Hour, Minute, Day-of-Week
8-1 Day-of-Month, Year, Month
8-F Seconds

Disable Parity	0	D+B+0

Dial-Up Telephone Communications
(If set to a non-zero value, parity will be disabled)

Program Information

C + C + 0 = program
C + C + F = version

Remote Download

C + 0 + 4 = 1-255
w/ E + E + E bit 5 on

INTERSECTION: OTAY CENTER DRIVE @ SIEMPRE VIVA ROAD

223 Program

#30

Group Assignment:
Field Master Assignment:

N/S Street Name: OTAY CENTER
E/W Street Name: SIEMPRE VIVA

Column # →		SIEMPRE VIVA			OTAY CENTER		SIEMPRE VIVA		OTAY CENTER
Phase # →		1	2	3	4	5	6	7	8
Row		Phase							
0	Ped Walk		7		7		7		7
1	Ped FDW		19		33		19		32
2	Min Green	4	10		10	4	10		10
3	Type 3 Limit								
4	Add/Veh								
5	Veh Extn	2.0	8.2		4.4	2.0	6.7		4.4
6	Max Gap	2.0	8.2		4.4	2.0	6.7		4.4
7	Min Gap	2.0	0.2		0.2	2.0	0.2		0.2
8	Max Limit	30	60		40	30	60		40
9	Max Limit 2								
A	Bus Adv								
B	Call to Phs								
C	Reduce By		0.1		0.1		0.1		0.1
D	Every		0.4		0.7		0.5		0.7
E	Yellow	3.4	3.9		3.9	3.4	4.5		3.9
F	Red Clear	1.0	1.0		1.0	1.0	1.0		1.0

Phase Timing - Bank 1
F + Phase + Row

<F Page>

Row		E
	RR-1 Delay	
	RR-1 Clear	
	EV-A Delay	0
	EV-A Clear	0
	EV-B Delay	0
	EV-B Clear	0
	EV-C Delay	0
	EV-C Clear	0
	EV-D Delay	0
	EV-D Clear	0
	RR-2 Delay	
	RR-2 Clear	
	View EV Delay	---
	View EV Clear	---
	View RR Delay	---
	View RR Clear	---

F + E + Row

Row		F
0	Permit	12_456_8
1	Red Lock	
2	Yellow Lock	
3	Min Recall	
4	Ped Recall	
5	Peds (View)	_2_4_6_8
6	Rest In Walk	
7	Red Rest	
8	Dbl Entry	___4___8
9	Max Recall	
A	Soft Recall	_2___6__
B	Max 2	
C	Cond Serv	
D	Ped Lock	12345678
E	Yellow Start	_2___6__
F	1st Phases	___4___8

F + F + Row

Max Initial	0	F + 0 + E
Red Revert	5.0	F + 0 + F
All Red Start	0.0	F + C + O

Start / Revert Times

Drop Number		C + 0 + 0
Zone Number		C + 0 + 1
Area Number		C + 0 + 2
Area Address		C + 0 + 3
QuicNet Channel		(QuicNet)

Communication Addresses

Overlap Timing

	Row	9 Green Clear	C Yellow Change	D Red Clear	0 Load-Switch #
Overlap A	A				
Overlap B	B				
Overlap C	C				
Overlap D	D				

<F Page>
F + COLOR +

<D Page>
D + 0 + OVERLAP

Manual Plan	14	C + A + 1
Manual Offset	0	C + B + 1

Manual Selection

Manual Plan
0 = Automatic
1-8 = Plan 1-8
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

C + F + O	F	Row
Free Lag	2 4 6 8	0

Lag Phases <C Page>

Downtime Flash	255	(minutes)

Downtime Before Auto Manual Flash
F + 0 + 8

Disable Ports	234

Disable Communication Ports
D + D + 9

Timing Sheet By: M2S
Approved By: FLG
Drawing Number: 23777-18-D
Timing Implemented On: 09/07/10

Row	Time	Function	Day of Week	Column F Phases/Bits
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function

7 + ROW

<D Page>

D + F + ROW

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest in Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	2
6	Ped 6P	6
7	Ped 4P	4
8	Ped 8P	8
9	Yellow Flash Phases	
A	Overlap A - Phases	
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	

Configuration

E + F + ROW

<E Page>

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	
6	Overlap B - Green Omit	
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4
C	EV-C Phases	1 6
D	EV-D Phases	8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration

For access, set F + 9 + E = 1

E + E + ROW

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Remote Download
6 = Special Event
7 = Prelimed Operation
8 = Split Ring Operation

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
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6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Day of Week
1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

Assign 5 Outputs
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 = Bus Advance

Time and Date
8-0 Hour, Minute, Day-of-Week
8-1 Day-of-Month, Year, Month
8-F Seconds

Disable Parity	0	D+B+0

Dial-Up Telephone Communications
(If set to a non-zero value, parity will be disabled)

Program Information
C + C + 0 = program
C + C + F = version

Remote Download
C + 0 + 4 = 1 -255
w/ E + E + E bit 5 on

#30

Row	1 Delay	3 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		1.8
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	1I1	14
	2I2U	1
	2I2L	5
	2I3U	21
	2I3L	25
	2I4	9
	3I5	16
	4I6U	3
	4I6L	7
	4I7U	23
	4I7L	27
	4I8	11
	1I9U	18
	3I9L	20
---	---	---
---	---	---

Row	2 Delay	4 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		1.8
8	5.0	
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
---	---	---
---	---	---

Detector Delay & Carryover <D Page>

D + X (across) + ROW

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 – – – –	1234____
C	13 14 15 16 17 18 19 20	12345678
D	– – – – 21 22 23 24	____5678
E	– – – – – – – –	1234____
F	– 25 26 27 28 – – –	_2345___

Active Detectors <D Page>

Row	0 Detector #
0	
1	System Det. # 1
2	System Det. # 2
3	System Det. # 3
4	System Det. # 4
5	System Det. # 5
6	System Det. # 6
7	System Det. # 7
8	System Det. # 8

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number		F+C+1
Time Before Yellow		F+C+3

Advance Warning Beacon - Sign 1

Phase Number		F+D+1
Time Before Yellow		F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

LOCATION: RTE 905 @ SB SIEMPRE VIVA ROAD

CALTRANS C8 Version 3

F PAGE

DATE: 03/09/15

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	INTERVAL	PHASE TIMING 1	2	3	4	5	6	7	8
0	WALK	1	7	1	1	1	1	1	1
1	DONT WALK	1	28	1	1	1	1	1	1
2	MIN GREEN	5	5	1	1	1	1	1	1
3	TYPE 3 DET	0	0	0	0	0	0	0	0
4	ADD/VEH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	PASSAGE	2.0	3.9	0.9	0.9	0.9	0.9	0.9	0.9
6	MAX GAP	2.0	5.9	0.9	0.9	0.9	0.9	0.9	0.9
7	MIN GAP	2.0	3.0	0.9	0.9	0.9	0.9	0.9	0.9
8	MAX EXT	25	35	9	9	9	9	9	9
9	MAX 2								
A	MAX 3								
B									
C	REDUCE BY	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
D	EVERY	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0
E	YELLOW	4.1	4.1	3.0	3.0	3.0	3.0	3.0	3.0
F	RED	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
	PED XING FT		98'						
			99'						

NOTES: 35 Mph

9	
CLK RST	
YR	
MO	
DAY	
DOW	
HR	
MIN	
SEC	

PRE-EMPTION E	
EV SEL	0
RR1 CLR	5
EVA DLY	0
EVA CLR	5
EVB DLY	0
EVB CLR	5
EVC DLY	0
EVC CLR	5
EVD DLY	0
EVD CLR	5
MAX EV	255
RR2 CLR	5

F FLAGS	1	2	3	4	5	6	7	8	
PERMIT	1	2				6			0
RED LOCK									1
YEL LOCK									2
V RECALL		2				6			3
P RECALL									4
PED PHASES		2							5
RT OLA									6
RT OLB									7
DBL ENTRY									8
MAX 2 PHASES									9
LAG PHASES	READ ONLY								A
RED REST									B
REST-IN-WALK									C
MAX 3 PHASES									D
YEL START UP		2				6			E
FIRST PHASE	1								F
	1	2	3	4	5	6	7	8	

FOC LONG FAILURE	
FOD SHORT FAILURE	
FOE	0
FOF	5

FC0	3
FC1	3
FC2	10
FCA	3.0
FCB	0.0
FCC	0.0
FCD	0.0

FD0 TB SELECT	1
FD3 PED SELECT	1
FD4 7 WIRE	0
FD5 PERMISSIVE	0
FD8 OS SEEKING	1

C05 FLASH TYPE	1
CC2 DOWNLOAD	1

ENTRIES IN THESE LOCATIONS CAN BE CHANGED IN CC1 FLASH ONLY ▒

Cycle Length In "Free"	80 seconds							
Phases	1	2	3	4	5	6	7	8
Phase Total Green Time	30	40	10	10	10	10	10	10
Phase Yellow/Red	5.1	5.1	3.0	3.0	3.0	3.0	3.0	3.0
Total Phase Time	35.1	45.1	13.0	13.0	13.0	13.0	13.0	13.0
% of cycle	44%	56%	16%	16%	16%	16%	16%	16%

LOCATION: RTE 905 @ SB SIEMPRE VIVA ROAD

CALTRANS C8 Version 3 DATE: 02/12/09

C PAGE

		CONTROL PLANS									Y-COORD			LAG PHASE	FLAGS									
		1	2	3	4	5	6	7	8	9		C	D	E	F	1	2	3	4	5	6	7	8	
0	CYCLE LENGTH														LAG FZ FREE		2		4		6		8	0
1	FZ1 GRN FCTR													GAPOUT CP1	LAG FZ CP 1									1
2														GAPOUT CP2	LAG FZ CP 2									2
3	FZ3 GRN FCTR													GAPOUT CP3	LAG FZ CP 3									3
4	FZ4 GRN FCTR										PERM TIME			GAPOUT CP4	LAG FZ CP 4									4
5	FZ5 GRN FCTR										LAG OFFSET			GAPOUT CP5	LAG FZ CP 5									5
6											FORCE OFF			GAPOUT CP6	LAG FZ CP 6									6
7	FZ7 GRN FCTR										LONG GRN			GAPOUT CP7	LAG FZ CP 7									7
8	FZ8 GRN FCTR										NO GREEN			GAPOUT CP8	LAG FZ CP 8									8
9	MULTI CYCLE													GAPOUT CP9	LAG FZ CP 9									9
A	OFFSET A										OFFSET				LAG C COORD									A
B	OFFSET B														LAG D COORD									B
C	OFFSET C														COORD FAZES		2				6			C
D	FZ 3 EXT																							D
E	FZ 7 EXT																							E
F	OFFSET INTRPT																							F
																1	2	3	4	5	6	7	8	

CO1 MANUAL CP
CO2 MASTER CP
CO3 CURRENT CP
CO4 LAST CP
CO7 TRNSMT CP
COD MANUAL OFFSET
CAO LOCAL CYCLE TIMER
CBO MASTER CYCLE TIMER
CAA LOCAL OFFSET
CBA MASTER OFFSET

SYSTEM MASTER:
NB SEMPRE VIVA

FEATURE	OFF	ON
1		
2		
3		
4		
5		
6		
7		
8		

LOCATION	OFF	ON
1		
2		X
3		
4		
5		
6		
7		
8		

COO = 2

CCB/CDB OFFSET TIMER
CCC/CDC LAG GREEN TIMER
CCD/CDD FORCE OFF TIMER
CCE/CDE LONG GREEN TIMER
CCF/CDF NO GREEN TIMER

LOCATION: RTE 905 @ SB SIEMPRE VIVA ROAD
CALTRANS C8 Version 3
D PAGE

DATE: 02/12/09

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	D	FLAGS								E	FLAGS								F	FLAGS							
	MAX	1	2	3	4	5	6	7	8	MIN	1	2	3	4	5	6	7	8	PED	1	2	3	4	5	6	7	8
0	RCL									RCL									RCL								
1	CP 1									CP 1									CP 1								
2	CP 2									CP 2									CP 2								
3	CP 3									CP 3									CP 3								
4	CP 4									CP 4									CP 4								
5	CP 5									CP 5									CP 5								
6	CP 6									CP 6									CP 6								
7	CP 7									CP 7									CP 7								
8	CP 8									CP 8									CP 8								
9	CP 9									CP 9									CP 9								
A																			RCL 1								
B																			RCL 2								
C																											
D																											
E																											
F																											
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8

E PAGE

	E	FLAGS								F	FLAGS								
	FUNCTION	1	2	3	4	5	6	7	8	FUNCTION	1	2	3	4	5	6	7	8	
0										CODE 4									0
1										CODE 5									1
2										C-RECALL									2
3										D-RECALL									3
4										EXCLUSIVE									4
5										2 END		2							5
6										6 END						6			6
7										4 END				4					7
8										8 END								8	8
9																			9
A	OLA NOT									OLA ON									A
B	OLB NOT									OLB ON									B
C	OLC NOT									OLC ON									C
D	OLD NOT									OLD ON									D
E																			E
F																			F
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	

LAST POWER FAILURE REGISTER

HOUR = D-A-E
MINUTE = D-B-E
DAY = D-C-E

LAST FLASH TIME REGISTER

HOUR = D-A-F
MINUTE = D-B-F
DAY = D-C-F

RCL 1 = TIME OF DAY MAX RECALL (1ST SELECT) PHASES
(CALL ACTIVE LIGHTS)

RCL 2 = TIME OF DAY MAX RECALL (2ND SELECT) PHASES
(CALL ACTIVE LIGHTS)

D-E-E = C8 VERSION NUMBER

D-E-F = LITHIUM BATTERY CONDITION
84 = BAD
85 = GOOD

LOCATION: RTE 905 @ SB SIEMPRE VIVA ROAD

CALTRANS C8 Version 3 DATE: 02/12/09

7 PAGE

TIME OF DAY ACTIVITY TABLE											
7+EVENT+HR+MIN+ACT+"E"+ON/OFF+DOW LTS											
	HR	MIN	ACT	ON/ OFF	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

ACTIVITY CODE

1 TYPE OF MAX TERMINATION
2 MAX 2
3 MAX 3
4 COND SERV (1ST SELECT)
5 COND SERV (2ND SELECT)
6 ENERGIZE AUX OUTPUT-RED

7 ENERGIZE AUX OUTPUT-GREEN

9 PAGE C09 = 0 or 1

CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

8 ENERGIZE AUX OUTPUT-YELLOW

9 TIME OF DAY MAX RECALL (1ST SELECT)
A TRAFFIC ACT. MAX 2 OPERATION
B TIME OF DAY MAX RECALL (2ND SELECT)
C YELLOW YIELD COORDINATION
D YELLOW YIELD COORDINATION
E TIME OF DAY FREE OPERATION
F FLASHING OPERATION

9 PAGE C09 = 2

CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

#31

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	905,805	VARIOUS	123	180

Enrique P Bernal 3/28/03
REGISTERED ELECTRICAL ENGINEER — DATE

E.P. BERNAL No. 15675 Exp. 6-30-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

Caltrans now has a web site! To get to the web site, go to: http://www.dot.ca.gov.

Caltrans Metric

NOTES

1 - SIGNAL AND LIGHTING(LOCATION 1) IS PART OF THE PROJECT PLANS PHASE IV.

2 - IS DETAIL "U", ES-7T REQUIRED.

3 - TERMINATE EVC IN RED SECTION OF MAS. LEAVE 0.3 m OF SLACK.

4 - EXTEND END OF TERMINATION CONDUIT.

5 - VEH SIGNAL FACE(ONE-SECTION) WITH UP GREEN ARROW.

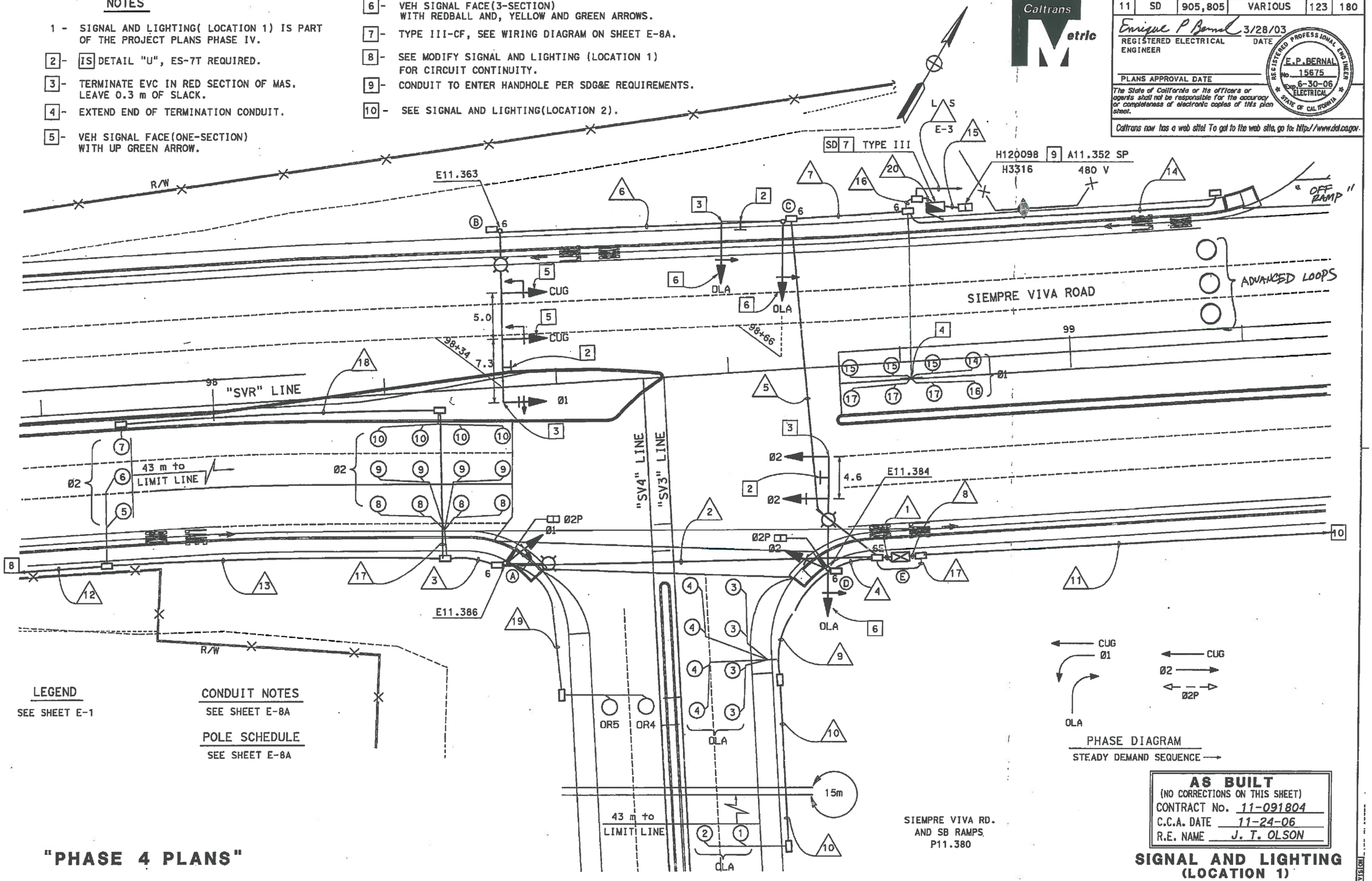
6 - VEH SIGNAL FACE(3-SECTION) WITH REDBALL AND, YELLOW AND GREEN ARROWS.

7 - TYPE III-CF, SEE WIRING DIAGRAM ON SHEET E-8A.

8 - SEE MODIFY SIGNAL AND LIGHTING (LOCATION 1) FOR CIRCUIT CONTINUITY.

9 - CONDUIT TO ENTER HANDHOLE PER SDG&E REQUIREMENTS.

10 - SEE SIGNAL AND LIGHTING(LOCATION 2).



LEGEND
SEE SHEET E-1

CONDUIT NOTES
SEE SHEET E-8A

POLE SCHEDULE
SEE SHEET E-8A

PHASE DIAGRAM
STEADY DEMAND SEQUENCE →

CUG Ø1 — CUG Ø2 — Ø2P — OLA

SIEMPRE VIVA RD. AND SB RAMPS P11.380

AS BUILT
(NO CORRECTIONS ON THIS SHEET)
CONTRACT No. 11-091804
C.C.A. DATE 11-24-06
R.E. NAME J. T. OLSON

"PHASE 4 PLANS"

THIS SHEET ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

SIGNAL AND LIGHTING (LOCATION 1)

SCALE 1:200

E-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC ELECTRICAL
PROJECT ENGINEER E. P. BERNAL
CALCULATED/DESIGNED BY
CHECKED BY
A.RODRIGUEZ
DATE 2/03
REVISED BY
DATE REVISED
LAST REVISION

FOR REPRINT PLANS ORIGINAL 0 20 40 60 80 USERNAME => s109748

LOCATION: RTE 905 @ NB SIEMPRE VIVA ROAD

CALTRANS C8 Version 3 DATE: 03/04/15 PAGE 1 #33

F PAGE

	INTERVAL	PHASE TIMING 1	2	3	4	5	6	7	8	9
0	WALK	1	7	1	1	1	7	1	1	CLK RST
1	DONT WALK	1	14	1	1	1	14	1	1	
2	MIN GREEN	1	5	1	1	10	5	1	5	
3	TYPE 3 DET	0	0	0	0	0	0	0	0	
4	ADD/VEH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	PASSAGE	0.9	3.9	0.9	0.9	2.0	3.9	0.9	3.0	
6	MAX GAP	0.9	5.9	0.9	0.9	2.0	5.9	0.9	3.0	
7	MIN GAP	0.9	3.0	0.9	0.9	2.0	3.0	0.9	3.0	
8	MAX EXT	9	35	9	9	25	35	9	35	
9	MAX 2									YR
A	MAX 3									MO
B										DAY
C	REDUCE BY	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	DOW
D	EVERY	1.0	0.9	1.0	1.0	1.0	0.9	1.0	1.0	HR
E	YELLOW	3.0	4.1	3.0	3.0	3.7	4.1	3.0	4.1	MIN
F	RED	0.0	1.0	0.0	0.0	1.0	1.0	0.0	1.0	SEC
	PED XING FT		50'				49'			
			71'				68'			

NOTES: 35 MPH

PRE-EMPTION E		F FLAGS	1	2	3	4	5	6	7	8	
EV SEL	0	PERMIT		2			5	6		8	0
RR1 CLR	5	RED LOCK					5				1
EVA DLY	0	YEL LOCK									2
EVA CLR	5	V RECALL		2				6			3
EVB DLY	0	P RECALL									4
EVB CLR	5	PED PHASE		2				6			5
EVC DLY	0	RT OLA									6
EVC CLR	5	RT OLB									7
EVD DLY	0	DBL ENTRY									8
EVD CLR	5	MAX 2 PHASES									9
MAX EV	255	LAG PHASES	READ ONLY								A
RR2 CLR	5	RED REST									B
		REST-IN-WALK									C
		MAX 3 PHASES									D
		YEL START UP		2				6			E
		FIRST PHASE								8	F
			1	2	3	4	5	6	7	8	

FOC LONG FAILURE	
FOD SHORT FAILURE	
FOE	0
FOF	5

FC0	3
FC1	3
FC2	10
FCA	0.0
FCB	0.0
FCC	0.0
FCD	0.0

FD0 TB SELECT	1
FD3 PED SELECT	1
FD4 7 WIRE	0
FD5 PERMISSIVE	0
FD8 OS SEEKING	1

CO5 FLASH TYPE	1
CC2 DOWNLOAD	1

ENTRIES IN THESE LOCATIONS CAN BE CHANGED IN CC1 FLASH ONLY

Cycle Length in "Free" 130 seconds								
Phases	1	2	3	4	5	6	7	8
Phase Total Green Time	10	40	10	10	35	40	10	40
Phase Yellow/Red	3.0	5.1	3.0	3.0	4.7	5.1	3.0	5.1
Total Phase Time	13.0	45.1	13.0	13.0	39.7	45.1	13.0	45.1
% of cycle	10%	35%	10%	10%	31%	35%	10%	35%

		CONTROL PLANS									Y-COORD			LAG PHASE	FLAGS									
		1	2	3	4	5	6	7	8	9		C	D	E	F	1	2	3	4	5	6	7	8	
0	CYCLE LENGTH														LAG FZ FREE		2		4		6		8	0
1	FZ1 GRN FCTR													GAPOUT CP1	LAG FZ CP 1									1
2														GAPOUT CP2	LAG FZ CP 2									2
3	FZ3 GRN FCTR													GAPOUT CP3	LAG FZ CP 3									3
4	FZ4 GRN FCTR										PERM TIME			GAPOUT CP4	LAG FZ CP 4									4
5	FZ5 GRN FCTR										LAG OFFSET			GAPOUT CP5	LAG FZ CP 5									5
6											FORCE OFF			GAPOUT CP6	LAG FZ CP 6									6
7	FZ7 GRN FCTR										LONG GRN			GAPOUT CP7	LAG FZ CP 7									7
8	FZ8 GRN FCTR										NO GREEN			GAPOUT CP8	LAG FZ CP 8									8
9	MULTI CYCLE													GAPOUT CP9	LAG FZ CP 9									9
A	OFFSET A										OFFSET				LAG C COORD									A
B	OFFSET B														LAG D COORD									B
C	OFFSET C														COORD FAZES		2				6			C
D	FZ 3 EXT																							D
E	FZ 7 EXT																							E
F	OFFSET INTRPT																							F
																1	2	3	4	5	6	7	8	

CO1 MANUAL CP
CO2 MASTER CP
CO3 CURRENT CP
CO4 LAST CP
CO7 TRNSMT CP
COD MANUAL OFFSET
CAO LOCAL CYCLE TIMER
CBO MASTER CYCLE TIMER
CAA LOCAL OFFSET
CBA MASTER OFFSET

SYSTEM MASTER:
NB SIEMPRE VIVA

FEATURE	OFF	ON
1		
2		
3		
4		
5		
6		
7		
8		

LOCATION	OFF	ON
1		
2		
3		
4		
5		
6		
7		
8		

COO = 1

CCB/CDB OFFSET TIMER
CCC/CDC LAG GREEN TIMER
CCD/CDD FORCE OFF TIMER
CCE/CDE LONG GREEN TIMER
CCF/CDF NO GREEN TIMER

LOCATION: RTE 905 @ NB SIEMPRE VIVA ROAD
CALTRANS C8 Version 3
D PAGE

DATE: 02/12/09

PAGE 3 #33

E PAGE

	D	FLAGS								E	FLAGS								F	FLAGS							
	MAX	1	2	3	4	5	6	7	8	MIN	1	2	3	4	5	6	7	8	PED	1	2	3	4	5	6	7	8
0	RCL									RCL									RCL								
1	CP 1									CP 1									CP 1								
2	CP 2									CP 2									CP 2								
3	CP 3									CP 3									CP 3								
4	CP 4									CP 4									CP 4								
5	CP 5									CP 5									CP 5								
6	CP 6									CP 6									CP 6								
7	CP 7									CP 7									CP 7								
8	CP 8									CP 8									CP 8								
9	CP 9									CP 9									CP 9								
A																			RCL 1								
B																			RCL 2								
C																											
D																											
E																											
F																											
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8

	E	FLAGS								F	FLAGS								
	FUNCTION	1	2	3	4	5	6	7	8	FUNCTION	1	2	3	4	5	6	7	8	
0										CODE 4									0
1										CODE 5									1
2										C-RECALL									2
3										D-RECALL									3
4										EXTEND VI									4
5										2 PED		2							5
6										6 PED						6			6
7										4 PED				4					7
8										8 PED								8	8
9																			9
A	OLA NOT									OLA ON									A
B	OLB NOT									OLB ON									B
C	OLC NOT									OLC ON									C
D	OLD NOT									OLD ON									D
E																			E
F																			F
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	

LAST POWER FAILURE REGISTER

HOUR = D-A-E
MINUTE = D-B-E
DAY = D-C-E

RCL 1 = TIME OF DAY MAX RECALL (1ST SELECT) PHASES
(CALL ACTIVE LIGHTS)
RCL 2 = TIME OF DAY MAX RECALL (2ND SELECT) PHASES
(CALL ACTIVE LIGHTS)

LAST FLASH TIME REGISTER

HOUR = D-A-F
MINUTE = D-B-F
DAY = D-C-F

D-E-E = C8 VERSION NUMBER
D-E-F = LITHIUM BATTERY CONDITION
84 = BAD
85 = GOOD

LOCATION: RTE 905 @ NB SIEMPRE VIVA ROAD
CALTRANS C8 Version 3 DATE: 02/12/09
7 PAGE

9 PAGE C09 = 0 or 1

9 PAGE C09 = 2

TIME OF DAY ACTIVITY TABLE											
7+EVENT+HR+MIN+ACT+"E"+ON/OFF+DOW LTS											
	HR	MIN	ACT	ON/ OFF	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	S 1	M 2	T 3	W 4	T 5	F 6	S 7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

ACTIVITY CODE

1 TYPE OF MAX TERMINATION
2 MAX 2
3 MAX 3
4 COND SERV (1ST SELECT)
5 COND SERV (2ND SELECT)
6 ENERGIZE AUX OUTPUT-RED
7 ENERGIZE AUX OUTPUT-GREEN
8 ENERGIZE AUX OUTPUT-YELLOW
9 TIME OF DAY MAX RECALL (1ST SELECT)
A TRAFFIC ACT. MAX 2 OPERATION
B TIME OF DAY MAX RECALL (2ND SELECT)
C YELLOW YIELD COORDINATION
D YELLOW YIELD COORDINATION
E TIME OF DAY FREE OPERATION
F FLASHING OPERATION

#33

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	905,805	VARIOUS	124	180

Enrique P Bernal 3/28/03
REGISTERED ELECTRICAL ENGINEER — DATE

E.P. BERNAL No. 15675 Exp. 6-30-06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

Caltrans now has a web site! To get to the web site, go to: http://www.dot.ca.gov

Caltrans Metric

NOTES

1 - SIGNAL AND LIGHTING (LOCATION 2) IS PART OF THE PROJECT PLANS PHASE IV.

2 - IS DETAIL "U", ES-6T REQUIRED.

3 - EXTEND END OF TERMINATION CONDUIT.

4 - PREFORMED LOOPS SEE BRIDGE ELECTRICAL PLANS.

5 - TYPE III-BF, SEE WIRING DIAGRAM ON SHEET E-9A.

6 - CONDUIT TO ENTER PER SDG&E REQUIREMENTS.

7 - CONDUIT TO ENTER PER SBC REQUIREMENTS.

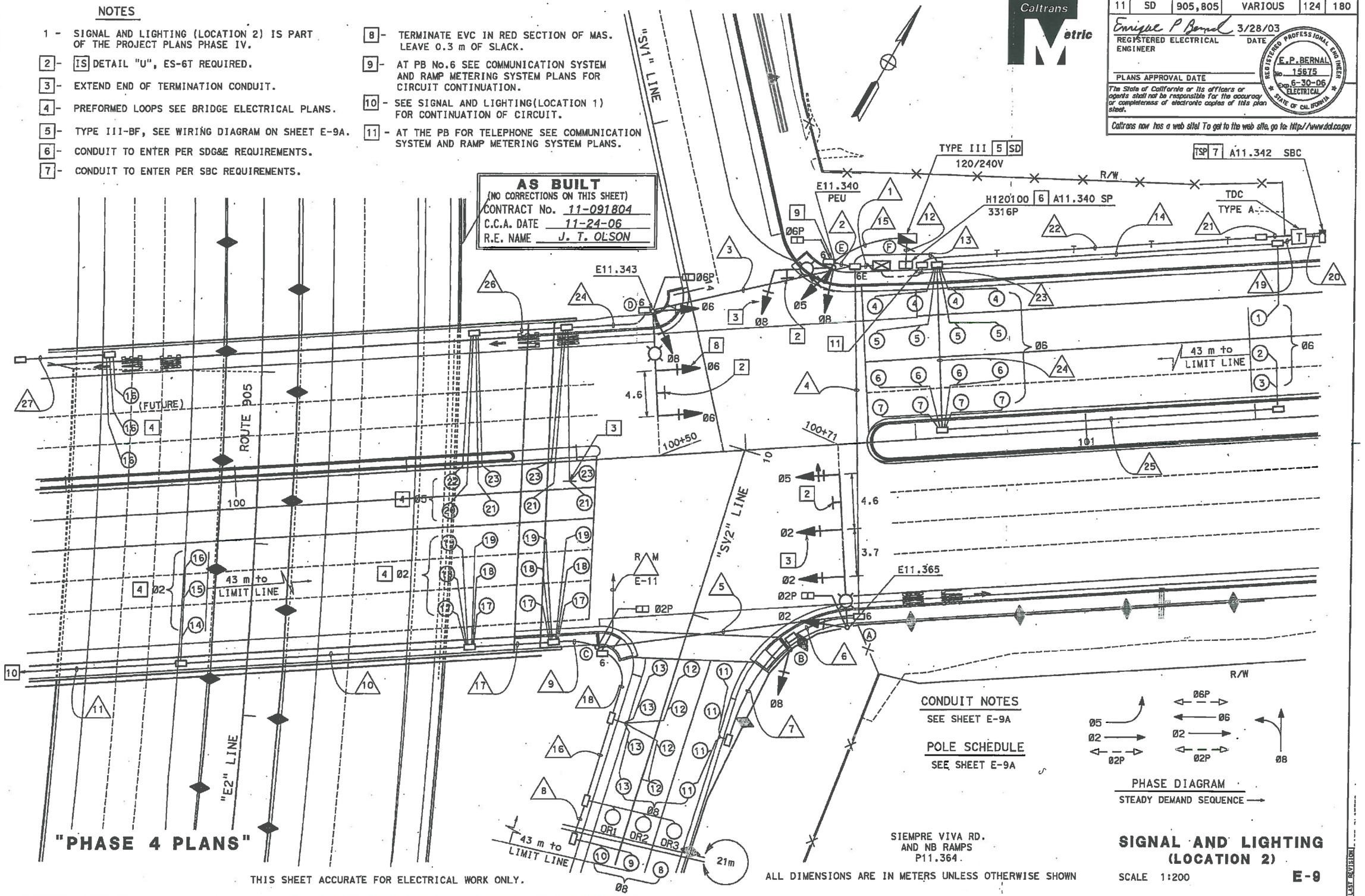
8 - TERMINATE EVC IN RED SECTION OF MAS. LEAVE 0.3 m OF SLACK.

9 - AT PB No.6 SEE COMMUNICATION SYSTEM AND RAMP METERING SYSTEM PLANS FOR CIRCUIT CONTINUATION.

10 - SEE SIGNAL AND LIGHTING(LOCATION 1) FOR CONTINUATION OF CIRCUIT.

11 - AT THE PB FOR TELEPHONE SEE COMMUNICATION SYSTEM AND RAMP METERING SYSTEM PLANS.

AS BUILT
(NO CORRECTIONS ON THIS SHEET)
CONTRACT No. 11-091804
C.C.A. DATE 11-24-06
R.E. NAME J. T. OLSON



CONDUIT NOTES
SEE SHEET E-9A

POLE SCHEDULE
SEE SHEET E-9A

PHASE DIAGRAM
STEADY DEMAND SEQUENCE

THIS SHEET ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

SIGNAL AND LIGHTING (LOCATION 2)

SCALE 1:200

E-9

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC ELECTRICAL
PROJECT ENGINEER E. P. BERNAL
CALCULATED/DESIGNED BY A.RODRIGUEZ
CHECKED BY
DATE REVISED 3/03
REVISED BY
DATE REVISED
LAST REVISION

FOR REPRINT PLANS ORIGINAL 0 20 40 60 80 USERNAME =>s109748

Appendix B
SANDAG Select Zone Assignments

Trip Distribution Calculation Memo and Select Zone Analysis Results

CHEN RYAN

MEMORANDUM

TO:	Ann Gonsalves, City of San Diego Jim Lundquist, City of San Diego
FROM:	Phuong Nguyen, PE; Chen Ryan Associates Jonathan Sanchez; Chen Ryan Associates
DATE:	April 13, 2016
RE:	Otay Mesa Central Village Specific Plan – Trip Distribution

The purpose of this memo is to document the steps taken when conducting trip distribution for the proposed Otay Mesa Central Village Specific Plan project (Proposed Project).

Proposed Project (previously submitted in the scoping letter)

The Proposed Project site contains the entire Otay Mesa Central Village Specific Plan Area, located within the City of San Diego Otay Mesa Community Planning Area (CPA). The recently adopted Otay Mesa Community Plan Update (March 2014) assumes the following land uses within Otay Mesa Central Village Specific Plan Area:

- 5,246 multi-family dwelling units (<20 ac/du)
- 32.7 ksf of community commercial
- 32.3 acres of active park space
- 1 elementary school

However, the project is proposing to change the land uses within the Otay Mesa Central Village Specific Plan Area to the following:

- 425 multi-family dwelling units (<20 du/ac)
- 4,060 multi-family dwelling units (>20 du/ac)
- 139.7 ksf of community commercial
- 16.1 acres of active park space
- 1 elementary school

Transportation Modeling (previously submitted in the scoping letter)

The City of San Diego recently completed the Otay Mesa Community Plan Update (CPU) on March 11, 2014. As part of the CPU process, a subarea model was developed by the City of San Diego. Unfortunately, this subarea model is no longer available. Based on our review of the Otay Mesa CPU subarea model, both the SANDAG Series 11 and 12 Regional Models, daily traffic generated by Traffic Analysis Zones (TAZs) within the Otay Mesa Community boundaries are shown below:

- Otay Mesa CPU: 1,045,025 daily trips
- Series 11 Regional 2030: 365,082 daily trips
- Series 12 Regional 2035: 478,223 daily trips
- Series 12 Regional 2050: 577,919 daily trips

As shown, the buildout of the Otay Mesa CPU land uses is anticipated to generate significantly more traffic than both the Series 11 and Series 12 Regional Models. To ensure the reasonableness of the project trip distribution patterns, we recommended that SANDAG replaced the Series 12 2035 land uses with the Otay Mesa CPU land uses within the community boundaries. This approach was approved by City staff.

Series 12 2035 model is updated with the Otay Mesa CPU land uses, we replaced land uses within the TAZs (4623 and 4683) which the Otay Mesa Central Village Specific Plan occupies with the proposed project land uses. To estimate Horizon Year 2035 traffic volumes and establish the project study area, two (2) select zone assignments were conducted using the SANDAG Series 12 Year 2035 model:

- *Select Zone A* - Assumes the currently Adopted CPU land uses within the project site.
- *Select Zone B* - Assumes the Proposed Project land uses within the project site.

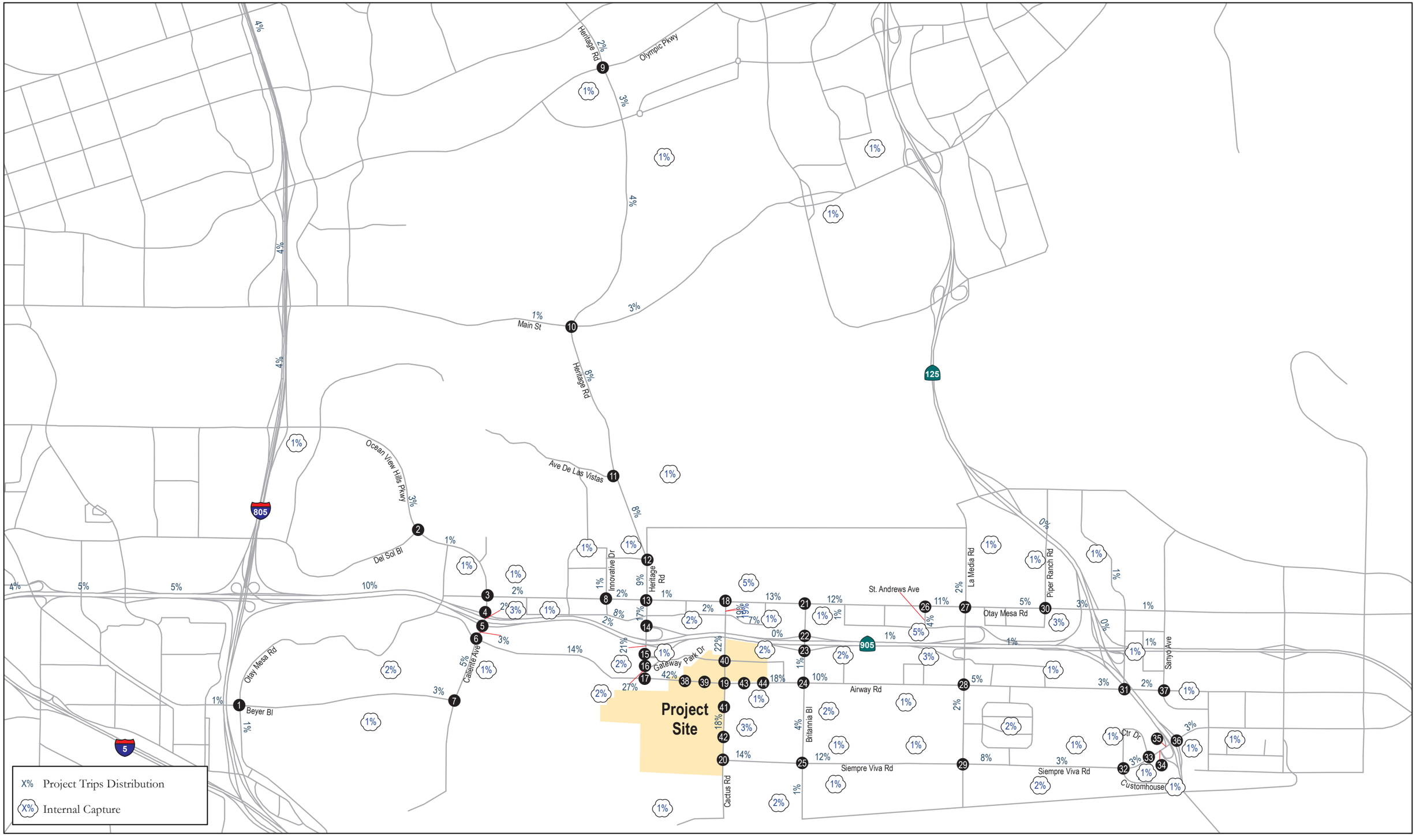
Project trip distribution pattern was developed for the proposed project using both the Adopted CPU land uses and the Proposed Project land uses.

Figure 1 displays the assumed trip distribution pattern for the Adopted CPU land uses, while **Figure 2** displays the assumed trip distribution pattern for the Proposed Project.

Otay Mesa Central Village Specific Plan

Figure 1
Year 2035 Project Trips Distribution - Proposed Project

CHEN RYAN



Otay Mesa Central Village Specific Plan

Figure 2
Year 2035 Project Trips Distribution - Adopted Community Plan

CHEN RYAN

Roadway network within the Otay Mesa CPU was also updated to match the buildout Year 2030 Mobility Element of the CPU. *Select Zone A* was used to establish the *Horizon Year Base (without Project)* volumes, by subtracting the select zone trip assignment volumes from the volumes contained in the Otay Mesa Adopted Community Plan Scenario 3B Without La Media Road ADT (Section 7 of the Otay Mesa CPU TIS). While *Select Zone B* was used to determine the project distribution, assignment and study area utilizing the City of San Diego Traffic Impact Study Guidelines.

Trip Distribution Development (previously submitted in the scoping letter)

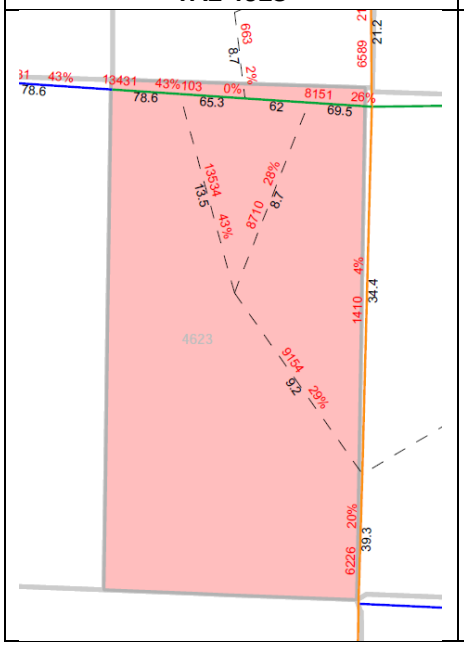
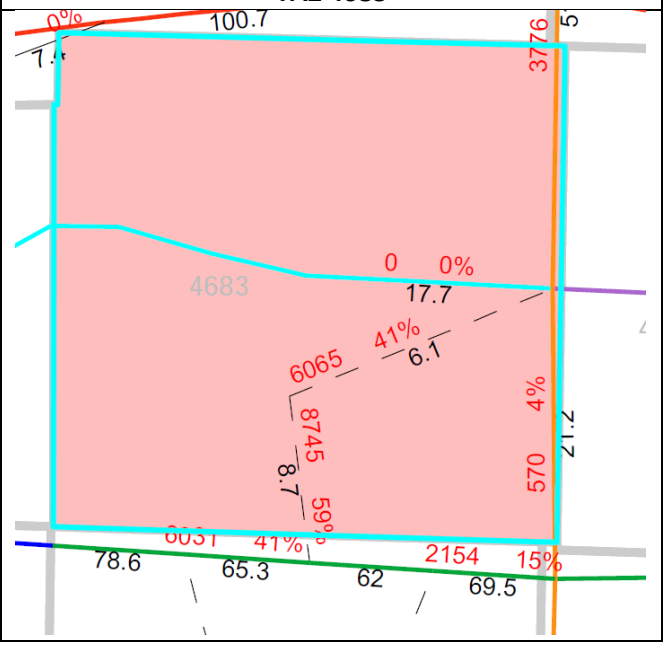
In order to determine the project trip assignment, 2 select zone analysis was conducted, one for the Adopted CPU land use and one for the Proposed Project Land use. Each select zone analysis consist of two individual TAZ (4623 & 4683). TAZ 4623 contain project's land uses south of Airway Road, whereas TAZ 4683 contain project's land uses located north of Airway Road. Select zone analysis results are provided as **Attachment A**.

Project trip distribution was determined by combining the project trip assignment from TAZ 4623 and TAZ 4683 and divided by the total external trips. A breakdown of each calculation steps is provided below:

Step 1: Determine external project trips from the SANDAG Select Zone Analysis results.

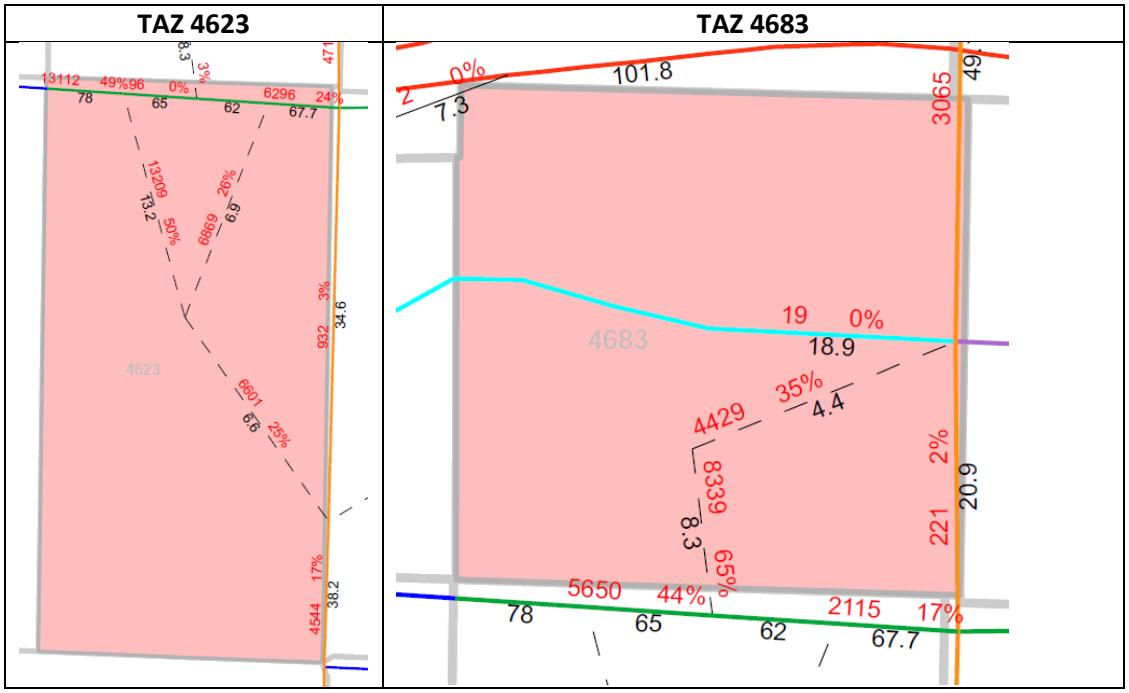
The total external project trips for the Adopted CPU land use and the Proposed Project land use was determined by adding the project trip assignment at the zone connector of each TAZ. A screen shot of the Select Zone Assignment output for each land use scenario is provided below

Select Zone A – Adopted CPU land use

TAZ 4623	TAZ 4683
	

As shown above the Adopted CPU land use would generate a total of 46,208 external trips, with 31,398 trips from TAZ 4623 (13,534+8,710+9,154) and 14,810 from TAZ 4683 (6,065+8,745).

Select Zone B – Proposed Project land use



As shown above the Proposed Project land use would generate a total of 39,447 external trips, with 26,679 trips from TAZ 4623 (13,209+6,869+6,601) and 12,768 from TAZ 4683 (4,429+8,339).

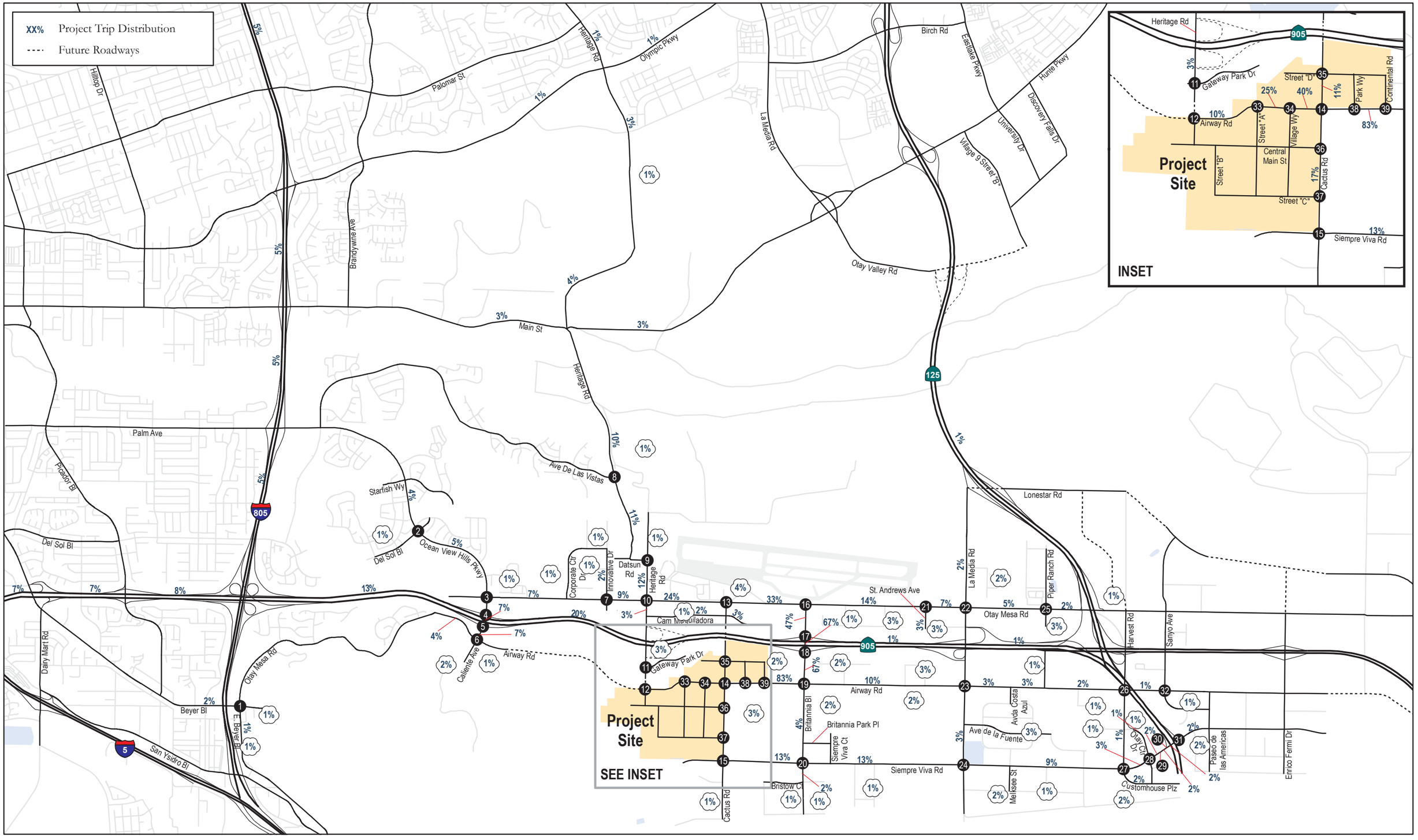
Step 2: Determine project trip distribution

The sum of the project trip assignment from both TAZs were divided by the total external trips to determine the project trip distribution. Table 1 displays the project trip distribution calculation for the Adopted CPU land use and Table 2 displays the project trip distribution calculation for the Proposed Project land use.

Cumulative Conditions (new)

Since the Series 12 Select Zone B model assumed full buildout of the Otay Mesa Community Plan street network, the trip distribution developed for the aforementioned model was manually adjusted to reflect the network and land uses under the Cumulative conditions. Roadway volumes as well as intersection volumes derived from the most recent City of Chula Vista and County of San Diego approved model (developed for the Otay Ranch Resort Village 13 project) was employed since it includes all of the cumulative projects identified in the traffic technical report. The approach was approved by staff at the City of San Diego.

Figure 3 displays assumed trip distribution pattern for the Proposed Project under the Cumulative conditions.



Otay Mesa Central Village Specific Plan

CHEN RYAN

Figure 3-2
Project Trip Distribution

Attachment A

SANDAG Select Zone Assignment Outputs

OTAY MESA CPU SELECT ZONE OUTPUT

SANDAG
Series 12
2035rc11

Otay Mesa Village
Modeling

Select Zone Plot

TAZ 4623

Functional Classifications

- Freeway
- Prime
- Major
- Collector
- Light Collector
- Rural Collector
- Local
- Freeway Ramp
- Local Ramp
- Zone Connector

Traffic Analysis Zones

\# Selz Volumes & Percentage

\# Unadjusted ADT(x1000)

SAN DIEGO ASSOCIATION OF GOVERNMENTS
401 B STREET, SUITE 800
SAN DIEGO, CALIFORNIA 92101 USA
(619) 699-1900
E-mail: sandag@sandag.org
Web site: www.sandag.org

N

0 0.2 0.4 0.6
Miles

SANDAG

servicebureau

September 21, 2015

SANDAG
Series 12
2035rc11

Otay Mesa Village
Modeling

Select Zone Plot

TAZ 4683

Functional Classifications

- Freeway
- Prime
- Major
- Collector
- Light Collector
- Rural Collector
- Local
- Freeway Ramp
- Local Ramp
- Zone Connector

Traffic Analysis Zones

\# Selz Volumes & Percentage

\# Unadjusted ADT(x1000)

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N

0 0.02 0.04 0.06
Miles

SANDAG

servicebureau

September 21, 2015

PROPOSED PROJECT SELECT ZONE OUTPUT

SANDAG
Series 12
2035rc11

Otay Mesa Village
Modeling

Run II

Select Zone Plot

TAZ 4623

Functional Classifications

- Freeway
- Prime
- Major
- Collector
- Light Collector
- Rural Collector
- Local
- Freeway Ramp
- Local Ramp
- Zone Connector

Traffic Analysis Zones

\# Selz Volumes & Percentage

\# Unadjusted ADT(x1000)

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0 0.2 0.4 0.6
Miles

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September 22, 2015

SANDAG
Series 12
2035rc11

Otay Mesa Village Modeling

Run II

Select Zone Plot

TAZ 4683

Functional Classifications

- Freeway
- Prime
- Major
- Collector
- Light Collector
- Rural Collector
- Local
- Freeway Ramp
- Local Ramp
- Zone Connector

Traffic Analysis Zones

\# Selz Volumes & Percentage

\# Unadjusted ADT(x1000)

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N

0 0.2 0.4 0.6
Miles

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September 22, 2015

Otay Mesa Central Village Specific Plan – MXD Analysis

MIXED USE TRIP GENERATION MODEL V4 - RESULTS

MODEL APPLICATION - ALL TRIPS

		Daily				AM Peak Hour				PM Peak Hour			
		HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" SANDAG Rate Trips Subject to Model		7232	25667	7216	40115	1255	1656	135	3045	904	2095	758	3756
Predicted Probabilities:													
	Internal Capture	2.60%	5.31%	7.53%	5.22%	2.60%	5.31%	7.53%	4.29%	2.60%	5.31%	7.53%	5.11%
	Walking External	2.08%	6.28%	2.52%	4.84%	2.08%	6.28%	2.52%	4.36%	2.08%	6.28%	2.52%	4.51%
	Transit External	0.57%	1.58%	2.44%	1.55%	0.57%	1.58%	2.44%	1.19%	0.57%	1.58%	2.44%	1.50%
Number of Trips:													
	Internal Capture	188	1363	543	2094	33	88	10	131	24	111	57	192
	Walking External	147	1527	168	1842	25	98	3	127	18	125	18	161
	Transit External	40	385	163	588	7	25	3	35	5	31	17	53
Net Number of IXXI Vehicle Trips		**6858**	**22393**	**6341**	**35592**	**1190**	**1444**	**118**	**2753**	**857**	**1827**	**666**	**3350**

	External Vehicle Trips			VMT		
Results	Raw	Net	Reduction %	Raw	Net	Reduction %
Daily	40,920	35,592	13%	155,518	139,897	10%
AM Peak Hour	3,150	2,753	13%	14,008	12,871	8%
PM Peak Hour	3,829	3,350	12%	15,287	13,844	9%

NOTE: External trips are attributed half to project site uses, internal trips all to site uses for purposes of VMT allocation.

MODEL APPLICATION - TRIP ENDS TO/FROM RESIDENCES IN THE PROJECT ONLY

		Daily				AM Peak Hour				PM Peak Hour			
		HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model		5706	18047	4008	27760	998	1146	77	2221	711	1421	400	2532
Predicted Probabilities:													
	Internal Capture	2.60%	5.31%	7.53%	5.07%	2.60%	5.31%	7.53%	4.17%	2.60%	5.31%	7.53%	4.90%
	Walking External	2.08%	6.28%	2.52%	4.87%	2.08%	6.28%	2.52%	4.24%	2.08%	6.28%	2.52%	4.50%
	Transit External	0.57%	1.58%	2.44%	1.49%	0.57%	1.58%	2.44%	1.15%	0.57%	1.58%	2.44%	1.42%
Number of Trips:													
	Internal Capture	148	958	302	1408	26	61	6	93	19	75	30	124
	Walking External	116	1074	94	1283	20	68	2	90	14	85	9	108
	Transit External	32	270	90	392	6	17	2	24	4	21	9	34
Net Number of IXXI Vehicle Trips generated by Project Residences		**5410**	**15744**	**3522**	**24677**	**946**	**1000**	**67**	**2014**	**674**	**1240**	**352**	**2266**

	External Vehicle Trips			VMT		
Results	Raw	Net	Reduction %	Raw	Net	Reduction %
Daily	27,760	24,677	11%	219,517	222,657	-1%
AM Peak Hour	2,221	2,014	9%	20,951	19,674	6%
PM Peak Hour	2,532	2,266	11%	21,240	21,587	-2%

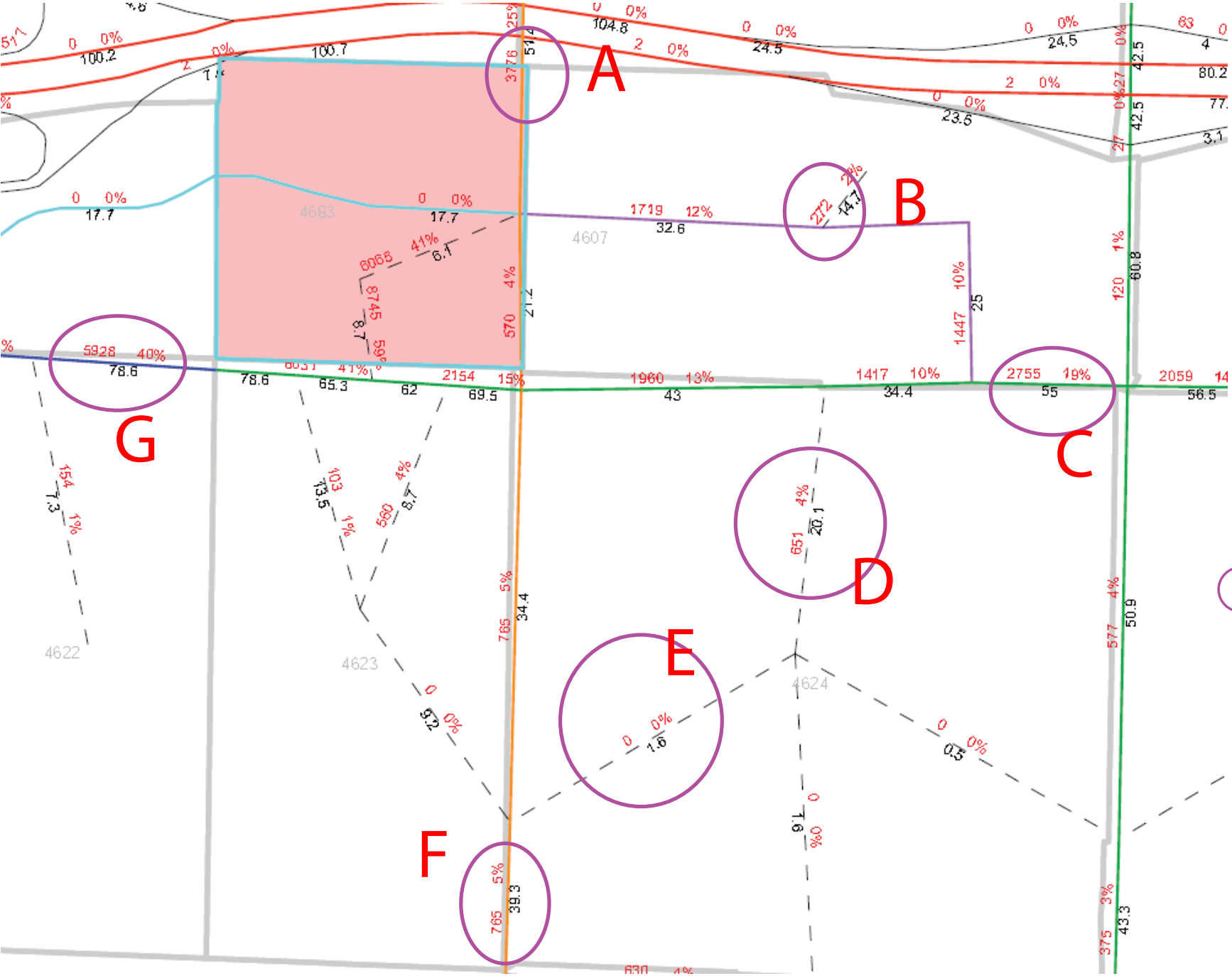
NOTE: all trips generated by project households (either produced or attracted or both) are counted 100%. This cannot be compared directly to the VMT in the section above.

Otay Mesa Central Village Specific Plan – Otay Mesa CPU Land Use Internal Capture Calculation

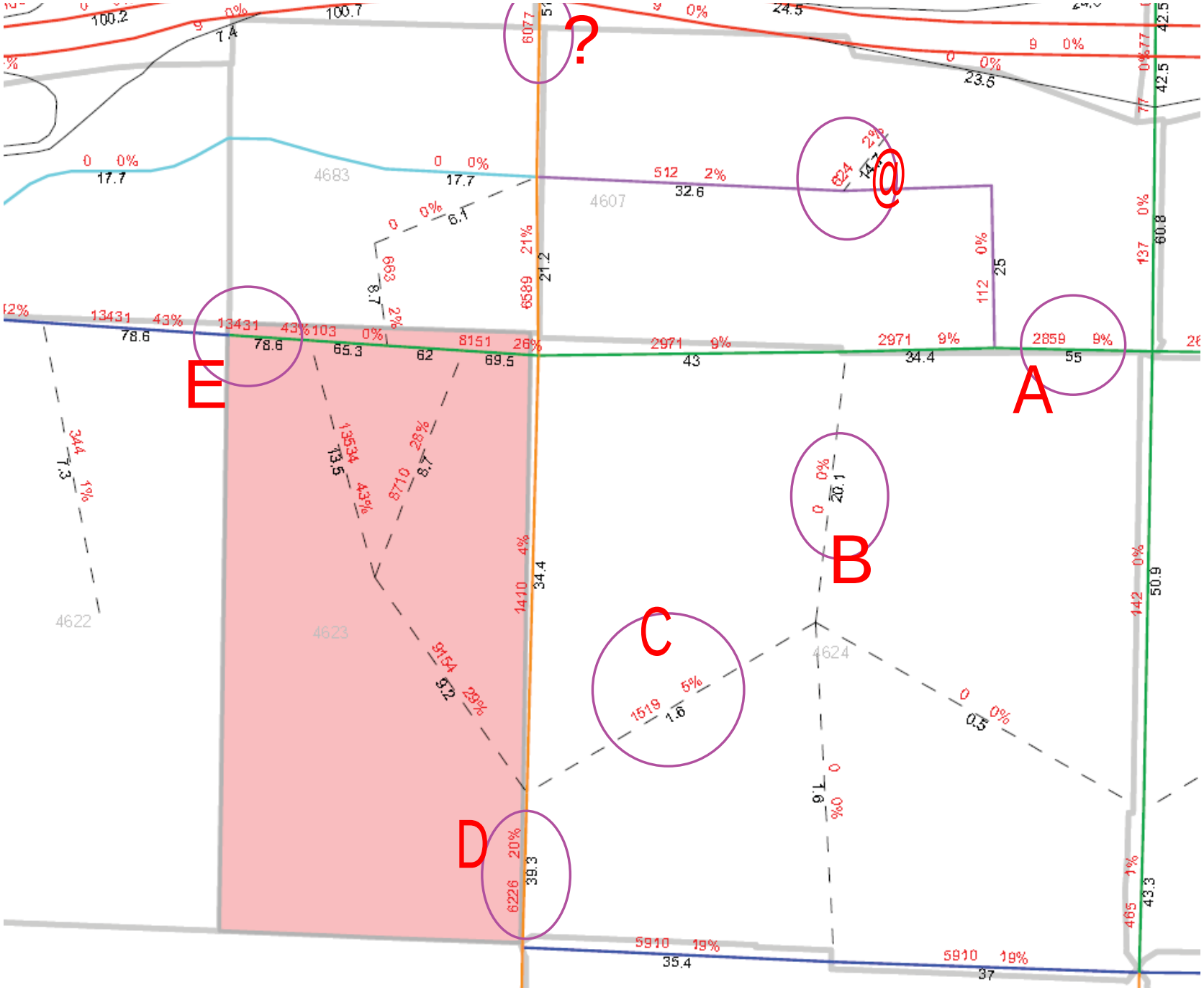
Otay Mesa CPU Land Use Internal Capture Calculation

Location	ADT
TAZ 4683 - Location A	3,776
TAZ 4683 - Location B	272
TAZ 4683 - Location C	2,755
TAZ 4683 - Location D	651
TAZ 4683 - Location F	765
TAZ 4683 - Location G	5,928
TAZ 4623 - Location A	6,077
TAZ 4626 - Location B	624
TAZ 4623 - Location C	2,859
TAZ 4623 - Location E	1,519
TAZ 4623 - Location F	6,226
TAZ 4623 - Location G	13,431
Sum of all External ADT	**44,883**
Daily Trip Generation from Model land use file Sum of TAZ 4683 + TAZ 4623	**47,079**
Number of trips remaining within the project's site	**2,196**
Internal Capture (Internal Trips / Total Trips)	**4.665%**

Otay Mesa CPU Land Use – Model Results – TAZ 4683


A
B
C
D
E
F
G
4683
4607
4622
4623
4624
= External Trip General Capture Point

Otay Mesa CPU Land Use – Model Results – TAZ 4623


?
@
A
B
C
D
E
4683
4607
4622
4623
4624
= External Trip General Capture Point

Otay Mesa CPU Land Use – Land Use output

Note: Reported person and vehicle trips are only estimates. The difference between generated and loaded vehicle trips can be attributed to regional trip balancing, the mode choice model, and/or intrazonal trips.

Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4494	101	SINGLE FAMILY	du	800.0	11653.	8134.
4494	107	MULTI-FAMILY	du	820.0	9348.	6563.
4494	7601	ACTIVE PARK	acre	6.0	399.	263.
4494		TOTAL			21400.	14959.
4503	5012	COMMUNITY COMMERCIAL	ksf	770.9	83180.	58861.
4503	5014	GAS STATION	other	12.0	2476.	1803.
4503	6102	CHURCH	acre	5.0	264.	203.
4503	6510	OTHER HEALTH CARE	ksf	292.7	19699.	14627.
4503	7601	ACTIVE PARK	acre	11.0	732.	481.
4503		TOTAL			106350.	75975.
4525	101	SINGLE FAMILY	du	387.0	5637.	3935.
4525	107	MULTI-FAMILY	du	216.0	2462.	1729.
4525	7601	ACTIVE PARK	acre	7.0	466.	306.
4525		TOTAL			8565.	5970.
4526	107	MULTI-FAMILY	du	145.0	1653.	1160.
4526	2002	HEAVY INDUSTRY	ksf	1420.9	6820.	5754.
4526	2107	LIGHT INDUSTRIAL LRG	ksf	108.5	1052.	874.
4526	5013	NEIGHBORHOOD COMMERCIAL	ksf	35.9	6085.	4307.
4526		TOTAL			15611.	12095.
4531	1504	HOTEL	room	270.0	4401.	2709.
4531	2107	LIGHT INDUSTRIAL LRG	ksf	725.0	7032.	5842.
4531	2109	INDUSTRIAL PARK	ksf	777.0	15152.	12588.
4531	2111	SOLAR FIELD	site	1.0	6.	5.
4531	4121	PARK & RIDE	other	1.0	517.	396.
4531	5005	SPECIALTY COMMERCIAL	ksf	14.3	17632.	12479.
4531	5011	HIGH T/O REST	ksf	15.8	87.	63.
4531	5012	COMMUNITY COMMERCIAL	ksf	182.9	19735.	13965.
4531	5016	GAS STATION	other	1.0	1345.	979.
4531	5019	TRUCK & SOTRAGE	other	1.0	1265.	921.
4531	6021	COMMERCIAL OFFICE	other	1.0	3202.	2466.
4531	6111	AIR&SPACE MUSEUM	other	1.0	1078.	731.
4531		TOTAL			71452.	53145.
4535	101	SINGLE FAMILY	du	1069.0	15572.	10869.
4535	107	MULTI-FAMILY	du	330.0	3762.	2641.
4535	7601	ACTIVE PARK	acre	5.3	352.	232.
4535		TOTAL			19686.	13742.
4537	107	MULTI-FAMILY	du	1016.0	11582.	8131.
4537	5013	NEIGHBORHOOD COMMERCIAL	ksf	33.2	5627.	3983.
4537		TOTAL			17210.	12114.
4540	2002	HEAVY INDUSTRY	ksf	1960.2	9409.	7937.
4540	2107	LIGHT INDUSTRIAL LRG	ksf	1960.2	19014.	15796.
4540		TOTAL			28423.	23734.
4544	2107	LIGHT INDUSTRIAL LRG	ksf	1916.6	18591.	15445.
4544		TOTAL			18591.	15445.

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Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4558	101	SINGLE FAMILY	du	123.0	1792.	1251.
4558	107	MULTI-FAMILY	du	630.0	7182.	5042.
4558	2113	WAREHOUSING	other	1.0	384.	322.
4558	7601	ACTIVE PARK	acre	4.9	326.	214.
4558		TOTAL			9684.	6829.
4564	107	MULTI-FAMILY	du	1578.0	17989.	12629.
4564	6806	ELEMENTARY SCHOOL	site	1.0	2117.	1183.
4564	7601	ACTIVE PARK	acre	15.0	998.	656.
4564		TOTAL			21104.	14469.
4573	5012	COMMUNITY COMMERCIAL	ksf	234.7	25324.	17920.
4573	6806	ELEMENTARY SCHOOL	site	2.0	4234.	2366.
4573		TOTAL			29558.	20286.
4579	101	SINGLE FAMILY	du	435.0	6337.	4423.
4579		TOTAL			6337.	4423.
4582	107	MULTI-FAMILY	du	110.0	1254.	880.
4582	6811	SENIOR HIGH SCHOOL	other	2400.0	9120.	4103.
4582		TOTAL			10374.	4984.
4583	101	SINGLE FAMILY	du	75.0	1093.	763.
4583	107	MULTI-FAMILY	du	340.0	3876.	2721.
4583	5012	COMMUNITY COMMERCIAL	ksf	248.3	26792.	18959.
4583		TOTAL			31760.	22442.
4584	5012	COMMUNITY COMMERCIAL	ksf	326.7	35251.	24945.
4584		TOTAL			35251.	24945.
4585	5012	COMMUNITY COMMERCIAL	ksf	271.7	29316.	20745.
4585		TOTAL			29316.	20745.
4586	2003	IBT-MANUFACTURE	ksf	53.9	259.	218.
4586	2106	IBT-INDUST PARK	ksf	161.6	1568.	1302.
4586	2108	IBT-BUSINESS PARK	ksf	107.7	2100.	1745.
4586	2110	IBT-WAREHOUSE	ksf	161.6	986.	827.
4586	6010	IBT- OFFICE	ksf	53.9	1369.	1054.
4586		TOTAL			6281.	5146.
4588	2003	IBT-MANUFACTURE	ksf	126.5	607.	512.
4588	2106	IBT-INDUST PARK	ksf	379.4	3680.	3057.
4588	2108	IBT-BUSINESS PARK	ksf	252.9	4932.	4097.
4588	2110	IBT-WAREHOUSE	ksf	379.4	2314.	1941.
4588	6020	ibt- OFFICE	ksf	126.5	2619.	2016.
4588		TOTAL			14152.	11624.
4589	2003	IBT-MANUFACTURE	ksf	123.5	593.	500.
4589	2106	IBT-INDUST PARK	ksf	370.5	3594.	2986.
4589	2108	IBT-BUSINESS PARK	ksf	247.0	4816.	4001.
4589	2110	IBT-WAREHOUSE	ksf	370.5	2260.	1895.
4589	6020	ibt- OFFICE	ksf	123.5	2556.	1969.
4589		TOTAL			13820.	11351.

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Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4590	2003	IBT-MANUFACTURE	ksf	141.1	677.	571.
4590	2106	IBT-INDUST PARK	ksf	423.4	4107.	3412.
4590	2108	IBT-BUSINESS PARK	ksf	282.3	5505.	4573.
4590	2110	IBT-WAREHOUSE	ksf	423.4	2583.	2166.
4590	6019	ibt- OFFICE	ksf	141.1	2836.	2184.
4590		TOTAL			15708.	12906.
4591	2109	INDUSTRIAL PARK	ksf	199.6	3892.	3234.
4591	5012	COMMUNITY COMMERCIAL	ksf	478.9	51673.	36566.
4591		TOTAL			55566.	39799.
4592	2003	IBT-MANUFACTURE	ksf	39.5	190.	160.
4592	2106	IBT-INDUST PARK	ksf	118.7	1151.	957.
4592	2108	IBT-BUSINESS PARK	ksf	79.1	1542.	1281.
4592	2110	IBT-WAREHOUSE	ksf	118.7	724.	607.
4592	6011	IBT- OFFICE	ksf	39.5	1007.	776.
4592		TOTAL			4615.	3781.
4593	2109	INDUSTRIAL PARK	ksf	217.4	4239.	3522.
4593	5012	COMMUNITY COMMERCIAL	ksf	521.7	56291.	39834.
4593		TOTAL			60531.	43356.
4594	2002	HEAVY INDUSTRY	ksf	149.9	720.	607.
4594	2107	LIGHT INDUSTRIAL LRG	ksf	1128.0	10942.	9090.
4594	4113	COMMUNICATION OR UTILITY	acre	2.1	7.	5.
4594		TOTAL			11668.	9702.
4595	2107	LIGHT INDUSTRIAL LRG	ksf	1337.1	12970.	10775.
4595		TOTAL			12970.	10775.
4604	101	SINGLE FAMILY	du	125.0	1821.	1271.
4604	107	MULTI-FAMILY	du	590.0	6726.	4722.
4604	6806	ELEMENTARY SCHOOL	site	1.0	2117.	1183.
4604	7601	ACTIVE PARK	acre	5.2	346.	228.
4604		TOTAL			11010.	7404.
4605	101	SINGLE FAMILY	du	59.0	859.	600.
4605	107	MULTI-FAMILY	du	40.0	456.	320.
4605	4113	COMMUNICATION OR UTILITY	acre	3.9	12.	10.
4605		TOTAL			1328.	930.
4606	2109	INDUSTRIAL PARK	ksf	778.2	15175.	12607.
4606		TOTAL			15175.	12607.
4607	2109	INDUSTRIAL PARK	ksf	991.9	19342.	16069.
4607		TOTAL			19342.	16069.
4608	2109	INDUSTRIAL PARK	ksf	179.2	3494.	2903.
4608	6810	JUNIOR COLLEGE	other	5000.0	11500.	9095.
4608		TOTAL			14994.	11998.
4609	2003	IBT-MANUFACTURE	ksf	66.7	320.	270.

Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4609	2106	IBT-INDUST PARK	ksf	200.1	1941.	1613.
4609	2108	IBT-BUSINESS PARK	ksf	133.4	2601.	2161.
4609	2110	IBT-WAREHOUSE	ksf	200.1	1221.	1024.
4609	6007	IBT- OFFICE	ksf	66.7	1607.	1238.
4609		TOTAL			7691.	6305.
4610	2003	IBT-MANUFACTURE	ksf	167.4	804.	678.
4610	2106	IBT-INDUST PARK	ksf	502.3	4872.	4048.
4610	2108	IBT-BUSINESS PARK	ksf	334.9	6531.	5425.
4610	2110	IBT-WAREHOUSE	ksf	502.3	3064.	2569.
4610	6018	ibt- OFFICE	ksf	167.4	3231.	2488.
4610		TOTAL			18501.	15208.
4611	2109	INDUSTRIAL PARK	ksf	1417.9	27649.	22970.
4611		TOTAL			27649.	22970.
4617	101	SINGLE FAMILY	du	765.0	11144.	7778.
4617	107	MULTI-FAMILY	du	2025.0	23085.	16207.
4617	5012	COMMUNITY COMMERCIAL	ksf	47.0	5071.	3589.
4617	6005	LOW RISE OFFICE	ksf	98.0	2038.	1570.
4617	6806	ELEMENTARY SCHOOL	site	2.0	4234.	2366.
4617	7601	ACTIVE PARK	acre	20.7	1377.	906.
4617		TOTAL			46949.	32415.
4618	107	MULTI-FAMILY	du	265.0	3021.	2121.
4618	7601	ACTIVE PARK	acre	5.8	386.	254.
4618		TOTAL			3407.	2375.
4623	107	MULTI-FAMILY	du	3754.0	42796.	30045.
4623	6806	ELEMENTARY SCHOOL	site	1.0	2117.	1183.
4623	7601	ACTIVE PARK	acre	24.2	1609.	1059.
4623		TOTAL			46522.	32287.
4624	2109	INDUSTRIAL PARK	ksf	1178.9	22989.	19098.
4624	6811	SENIOR HIGH SCHOOL	other	2400.0	9120.	4103.
4624	7601	ACTIVE PARK	acre	39.4	2620.	1724.
4624		TOTAL			34729.	24926.
4625	2003	IBT-MANUFACTURE	ksf	234.3	1125.	949.
4625	2106	IBT-INDUST PARK	ksf	702.9	6818.	5664.
4625	2108	IBT-BUSINESS PARK	ksf	468.6	9138.	7591.
4625	2110	IBT-WAREHOUSE	ksf	702.9	4288.	3596.
4625	6017	ibt- OFFICE	ksf	234.3	4147.	3194.
4625		TOTAL			25515.	20994.
4626	2003	IBT-MANUFACTURE	ksf	333.8	1602.	1352.
4626	2106	IBT-INDUST PARK	ksf	1001.5	9715.	8071.
4626	2108	IBT-BUSINESS PARK	ksf	667.6	13018.	10815.
4626	2110	IBT-WAREHOUSE	ksf	1001.5	6109.	5123.
4626	6014	ibt- OFFICE	ksf	333.8	5441.	4190.
4626		TOTAL			35885.	29550.

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Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4627	2003	IBT-MANUFACTURE	ksf	345.2	1657.	1398.
4627	2106	IBT-INDUST PARK	ksf	1035.5	10044.	8345.
4627	2108	IBT-BUSINESS PARK	ksf	690.3	13461.	11183.
4627	2110	IBT-WAREHOUSE	ksf	1035.5	6317.	5297.
4627	6013	ibt- OFFICE	ksf	345.2	5592.	4306.
4627		TOTAL			37071.	30529.
4628	2003	IBT-MANUFACTURE	ksf	281.4	1351.	1139.
4628	2106	IBT-INDUST PARK	ksf	844.2	8189.	6803.
4628	2108	IBT-BUSINESS PARK	ksf	562.8	10975.	9117.
4628	2110	IBT-WAREHOUSE	ksf	844.2	5150.	4318.
4628	6015	ibt- OFFICE	ksf	281.4	4756.	3662.
4628		TOTAL			30419.	25040.
4629	2107	LIGHT INDUSTRIAL LRG	ksf	1086.8	10542.	8758.
4629		TOTAL			10542.	8758.
4630	2003	IBT-MANUFACTURE	ksf	69.6	334.	282.
4630	2106	IBT-INDUST PARK	ksf	208.9	2026.	1683.
4630	2108	IBT-BUSINESS PARK	ksf	139.3	2716.	2257.
4630	2110	IBT-WAREHOUSE	ksf	208.9	1274.	1069.
4630	5012	COMMUNITY COMMERCIAL	ksf	95.4	10294.	7284.
4630	6008	IBT- OFFICE	ksf	69.6	1684.	1297.
4630		TOTAL			18329.	13872.
4631	2107	LIGHT INDUSTRIAL LRG	ksf	1287.4	12488.	10375.
4631		TOTAL			12488.	10375.
4639	101	SINGLE FAMILY	du	435.0	6337.	4423.
4639	107	MULTI-FAMILY	du	1150.0	13110.	9204.
4639	5012	COMMUNITY COMMERCIAL	ksf	47.0	5071.	3589.
4639	6005	LOW RISE OFFICE	ksf	98.0	2038.	1570.
4639	7601	ACTIVE PARK	acre	13.6	904.	595.
4639		TOTAL			27461.	19380.
4643	2107	LIGHT INDUSTRIAL LRG	ksf	83.0	805.	669.
4643	5012	COMMUNITY COMMERCIAL	ksf	352.2	38002.	26892.
4643		TOTAL			38807.	27561.
4644	2107	LIGHT INDUSTRIAL LRG	ksf	2156.4	20917.	17377.
4644		TOTAL			20917.	17377.
4647	2003	IBT-MANUFACTURE	ksf	59.0	283.	239.
4647	2106	IBT-INDUST PARK	ksf	177.1	1718.	1427.
4647	2107	LIGHT INDUSTRIAL LRG	ksf	65.3	633.	526.
4647	2108	IBT-BUSINESS PARK	ksf	118.1	2303.	1913.
4647	2110	IBT-WAREHOUSE	ksf	177.1	1080.	906.
4647	5012	COMMUNITY COMMERCIAL	ksf	158.5	17102.	12102.
4647	6009	IBT- OFFICE	ksf	59.0	1469.	1131.
4647		TOTAL			24589.	18245.
4649	2002	HEAVY INDUSTRY	ksf	1887.7	9061.	7644.
4649		TOTAL			9061.	7644.

Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4650	2002	HEAVY INDUSTRY	ksf	3039.0	14587.	12306.
4650		TOTAL			14587.	12306.
4652	1505	CORSS BORDER FAC-HOTEL	other	1.0	4893.	3012.
4652	2003	IBT-MANUFACTURE	ksf	176.7	848.	716.
4652	2106	IBT-INDUST PARK	ksf	530.0	5141.	4271.
4652	2108	IBT-BUSINESS PARK	ksf	353.4	6891.	5725.
4652	2110	IBT-WAREHOUSE	ksf	530.0	3233.	2711.
4652	2112	CROSS BORDER FAC-INDRK	other	1.0	4063.	3375.
4652	4101	COMMERCIAL AIRPORT	unique	0.0	42907.	27761.
4652	5017	CROSS BORDER GAS STATION	other	1.0	2462.	1793.
4652	5018	CROSS BORDER RETAIL	other	1.0	4302.	3132.
4652	6016	ibt- OFFICE	ksf	269.9	4642.	3575.
4652		TOTAL			79383.	56071.
4653	2003	IBT-MANUFACTURE	ksf	100.1	480.	405.
4653	2106	IBT-INDUST PARK	ksf	300.2	2912.	2419.
4653	2108	IBT-BUSINESS PARK	ksf	200.2	3904.	3243.
4653	2110	IBT-WAREHOUSE	ksf	300.2	1831.	1536.
4653	6006	IBT- OFFICE	ksf	100.1	2192.	1688.
4653	6110	FIRE OR POLICE STATION	acre	10.9	295.	218.
4653		TOTAL			11615.	9509.
4654	2003	IBT-MANUFACTURE	ksf	359.4	1725.	1455.
4654	2106	IBT-INDUST PARK	ksf	1078.1	10458.	8688.
4654	2108	IBT-BUSINESS PARK	ksf	718.7	14015.	11643.
4654	2110	IBT-WAREHOUSE	ksf	1078.1	6576.	5515.
4654	6012	ibt- OFFICE	ksf	359.4	5750.	4428.
4654		TOTAL			38524.	31729.
4659	2004	OMPOE IN/OUT	ksf	6000.0	28800.	24296.
4659		TOTAL			28800.	24296.
4683	107	MULTI-FAMILY	du	1492.0	17009.	11941.
4683	5012	COMMUNITY COMMERCIAL	ksf	32.7	3528.	2497.
4683	7601	ACTIVE PARK	acre	8.1	539.	354.
4683		TOTAL			21076.	14792.

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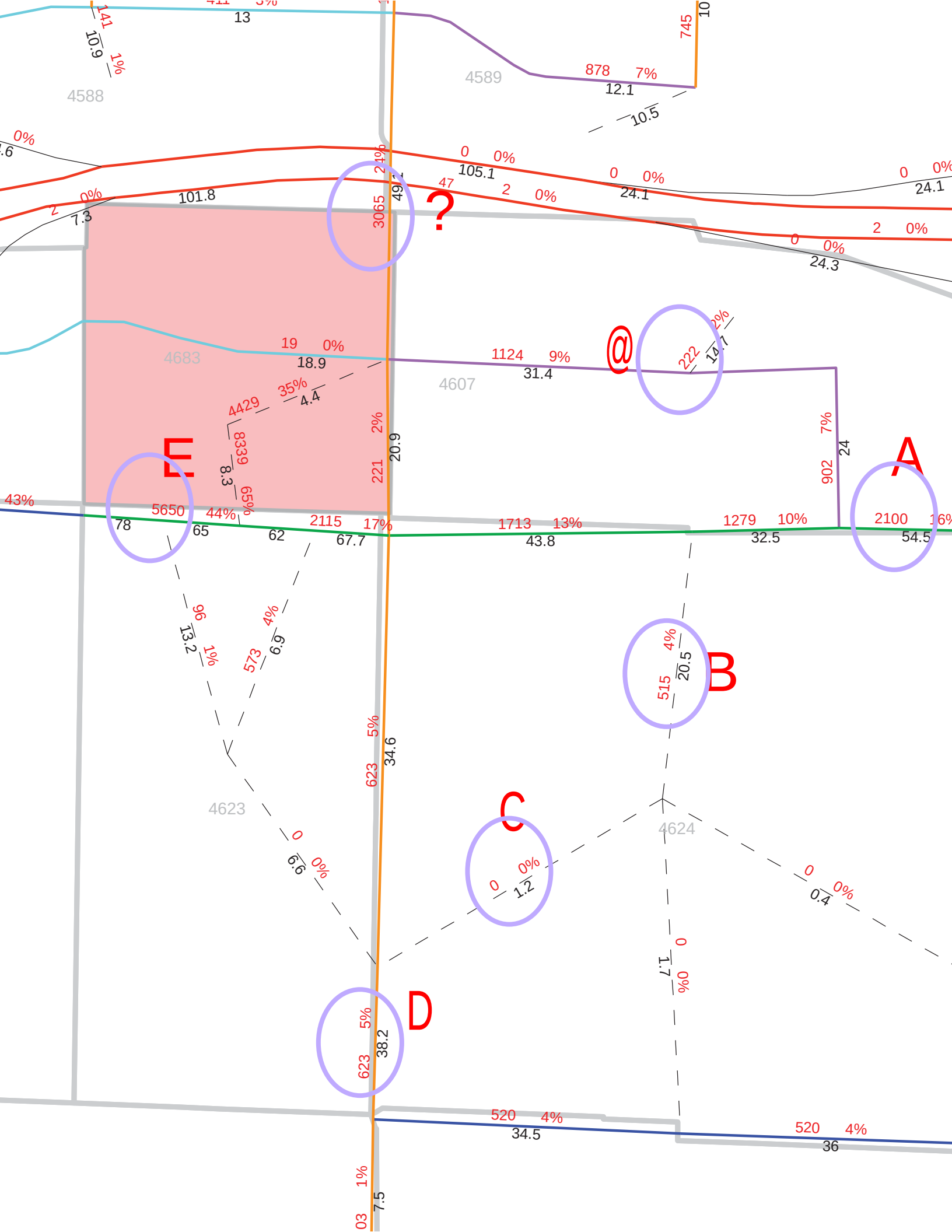
Otay Mesa Central Village Specific Plan – Proposed Project Land Use Internal Capture Calculation

Proposed Project Land Use Internal Capture Calculation

Location	ADT
TAZ 4683 - Location A	3,065
TAZ 4683 - Location B	222
TAZ 4683 - Location C	2,100
TAZ 4683 - Location D	515
TAZ 4683 - Location F	623
TAZ 4683 - Location G	5,554
TAZ 4623 - Location A	4,341
TAZ 4626 - Location B	490
TAZ 4623 - Location C	2,397
TAZ 4623 - Location E	1,125
TAZ 4623 - Location F	4,544
TAZ 4623 - Location G	13,112
Sum of all External ADT	**38,088**
Daily Trip Generation from Model land use file Sum of TAZ 4683 + TAZ 4623	**42,041**
Number of trips remaining within the project's site	**3,953**
Internal Capture (Internal Trips / Total Trips)	**9.403%**

Proposed Project Land Use – Model Results – TAZ 4683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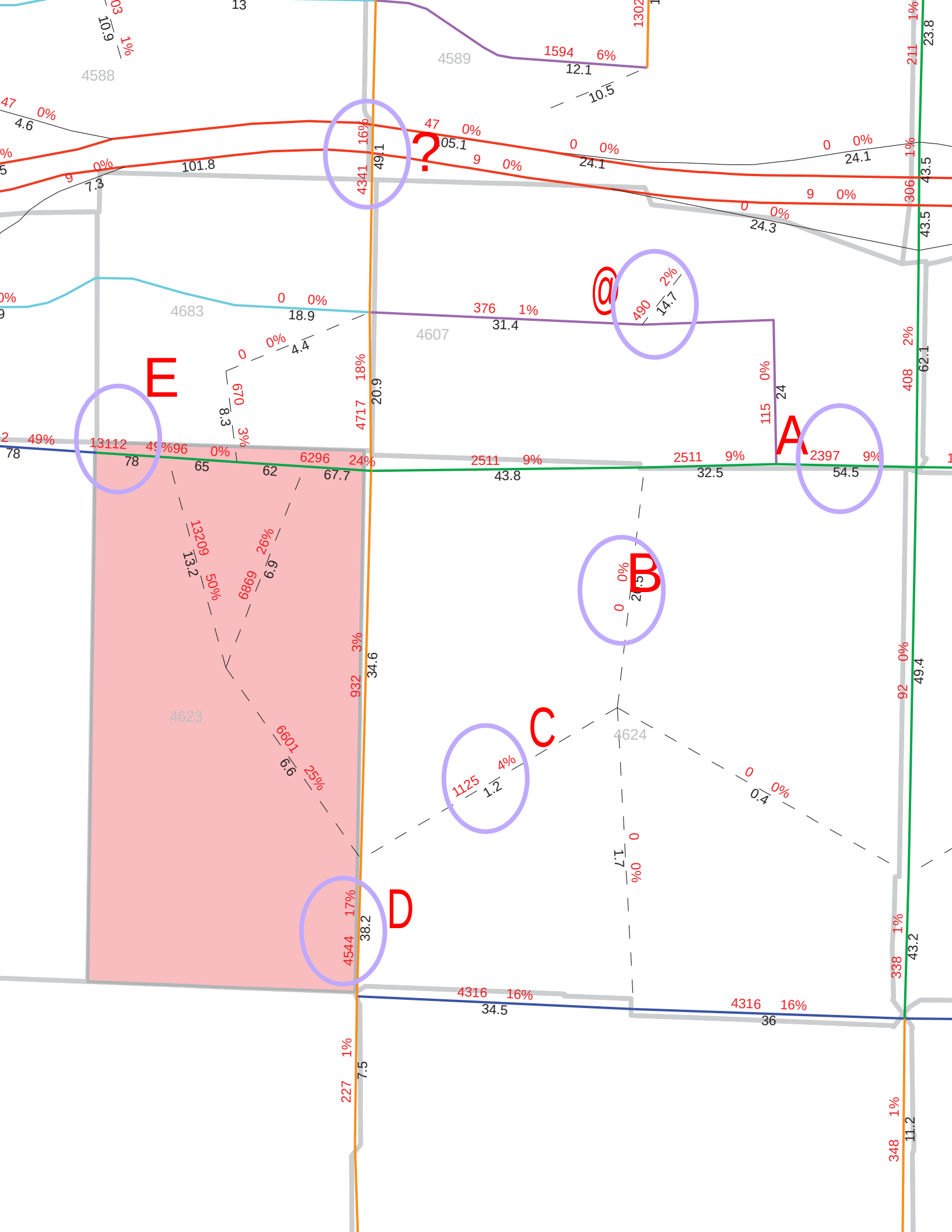
Proposed Project Land Use – Model Results – TAZ 4623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Proposed Project Land Use – Land Use output

Note: Reported person and vehicle trips are only estimates. The difference between generated and loaded vehicle trips can be attributed to regional trip balancing, the mode choice model, and/or intrazonal trips.

Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4494	101	SINGLE FAMILY	du	800.0	11653.	8134.
4494	107	MULTI-FAMILY	du	820.0	9348.	6563.
4494	7601	ACTIVE PARK	acre	6.0	399.	263.
4494		TOTAL			21400.	14959.
4503	5012	COMMUNITY COMMERCIAL	ksf	770.9	83180.	58861.
4503	5014	GAS STATION	other	12.0	2476.	1803.
4503	6102	CHURCH	acre	5.0	264.	203.
4503	6510	OTHER HEALTH CARE	ksf	292.7	19699.	14627.
4503	7601	ACTIVE PARK	acre	11.0	732.	481.
4503		TOTAL			106350.	75975.
4525	101	SINGLE FAMILY	du	387.0	5637.	3935.
4525	107	MULTI-FAMILY	du	216.0	2462.	1729.
4525	7601	ACTIVE PARK	acre	7.0	466.	306.
4525		TOTAL			8565.	5970.
4526	107	MULTI-FAMILY	du	145.0	1653.	1160.
4526	2002	HEAVY INDUSTRY	ksf	1420.9	6820.	5754.
4526	2107	LIGHT INDUSTRIAL LRG	ksf	108.5	1052.	874.
4526	5013	NEIGHBORHOOD COMMERCIAL	ksf	35.9	6085.	4307.
4526		TOTAL			15611.	12095.
4531	1504	HOTEL	room	270.0	4401.	2709.
4531	2107	LIGHT INDUSTRIAL LRG	ksf	725.0	7032.	5842.
4531	2109	INDUSTRIAL PARK	ksf	777.0	15152.	12588.
4531	2111	SOLAR FIELD	site	1.0	6.	5.
4531	4121	PARK & RIDE	other	1.0	517.	396.
4531	5005	SPECIALTY COMMERCIAL	ksf	14.3	17632.	12479.
4531	5011	HIGH T/O REST	ksf	15.8	87.	63.
4531	5012	COMMUNITY COMMERCIAL	ksf	182.9	19735.	13965.
4531	5016	GAS STATION	other	1.0	1345.	979.
4531	5019	TRUCK & SOTRAGE	other	1.0	1265.	921.
4531	6021	COMMERCIAL OFFICE	other	1.0	3202.	2466.
4531	6111	AIR&SPACE MUSEUM	other	1.0	1078.	731.
4531		TOTAL			71452.	53145.
4535	101	SINGLE FAMILY	du	1069.0	15572.	10869.
4535	107	MULTI-FAMILY	du	330.0	3762.	2641.
4535	7601	ACTIVE PARK	acre	5.3	352.	232.
4535		TOTAL			19686.	13742.
4537	107	MULTI-FAMILY	du	1016.0	11582.	8131.
4537	5013	NEIGHBORHOOD COMMERCIAL	ksf	33.2	5627.	3983.
4537		TOTAL			17210.	12114.
4540	2002	HEAVY INDUSTRY	ksf	1960.2	9409.	7937.
4540	2107	LIGHT INDUSTRIAL LRG	ksf	1960.2	19014.	15796.
4540		TOTAL			28423.	23734.
4544	2107	LIGHT INDUSTRIAL LRG	ksf	1916.6	18591.	15445.
4544		TOTAL			18591.	15445.

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Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4558	101	SINGLE FAMILY	du	123.0	1792.	1251.
4558	107	MULTI-FAMILY	du	630.0	7182.	5042.
4558	2113	WAREHOUSING	other	1.0	384.	322.
4558	7601	ACTIVE PARK	acre	4.9	326.	214.
4558		TOTAL			9684.	6829.
4564	107	MULTI-FAMILY	du	1578.0	17989.	12629.
4564	6806	ELEMENTARY SCHOOL	site	1.0	2117.	1183.
4564	7601	ACTIVE PARK	acre	15.0	998.	656.
4564		TOTAL			21104.	14469.
4573	5012	COMMUNITY COMMERCIAL	ksf	234.7	25324.	17920.
4573	6806	ELEMENTARY SCHOOL	site	2.0	4234.	2366.
4573		TOTAL			29558.	20286.
4579	101	SINGLE FAMILY	du	435.0	6337.	4423.
4579		TOTAL			6337.	4423.
4582	107	MULTI-FAMILY	du	110.0	1254.	880.
4582	6811	SENIOR HIGH SCHOOL	other	2400.0	9120.	4103.
4582		TOTAL			10374.	4984.
4583	101	SINGLE FAMILY	du	75.0	1093.	763.
4583	107	MULTI-FAMILY	du	340.0	3876.	2721.
4583	5012	COMMUNITY COMMERCIAL	ksf	248.3	26792.	18959.
4583		TOTAL			31760.	22442.
4584	5012	COMMUNITY COMMERCIAL	ksf	326.7	35251.	24945.
4584		TOTAL			35251.	24945.
4585	5012	COMMUNITY COMMERCIAL	ksf	271.7	29316.	20745.
4585		TOTAL			29316.	20745.
4586	2003	IBT-MANUFACTURE	ksf	53.9	259.	218.
4586	2106	IBT-INDUST PARK	ksf	161.6	1568.	1302.
4586	2108	IBT-BUSINESS PARK	ksf	107.7	2100.	1745.
4586	2110	IBT-WAREHOUSE	ksf	161.6	986.	827.
4586	6010	IBT- OFFICE	ksf	53.9	1369.	1054.
4586		TOTAL			6281.	5146.
4588	2003	IBT-MANUFACTURE	ksf	126.5	607.	512.
4588	2106	IBT-INDUST PARK	ksf	379.4	3680.	3057.
4588	2108	IBT-BUSINESS PARK	ksf	252.9	4932.	4097.
4588	2110	IBT-WAREHOUSE	ksf	379.4	2314.	1941.
4588	6020	ibt- OFFICE	ksf	126.5	2619.	2016.
4588		TOTAL			14152.	11624.
4589	2003	IBT-MANUFACTURE	ksf	123.5	593.	500.
4589	2106	IBT-INDUST PARK	ksf	370.5	3594.	2986.
4589	2108	IBT-BUSINESS PARK	ksf	247.0	4816.	4001.
4589	2110	IBT-WAREHOUSE	ksf	370.5	2260.	1895.
4589	6020	ibt- OFFICE	ksf	123.5	2556.	1969.
4589		TOTAL			13820.	11351.

Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4590	2003	IBT-MANUFACTURE	ksf	141.1	677.	571.
4590	2106	IBT-INDUST PARK	ksf	423.4	4107.	3412.
4590	2108	IBT-BUSINESS PARK	ksf	282.3	5505.	4573.
4590	2110	IBT-WAREHOUSE	ksf	423.4	2583.	2166.
4590	6019	ibt- OFFICE	ksf	141.1	2836.	2184.
4590		TOTAL			15708.	12906.
4591	2109	INDUSTRIAL PARK	ksf	199.6	3892.	3234.
4591	5012	COMMUNITY COMMERCIAL	ksf	478.9	51673.	36566.
4591		TOTAL			55566.	39799.
4592	2003	IBT-MANUFACTURE	ksf	39.5	190.	160.
4592	2106	IBT-INDUST PARK	ksf	118.7	1151.	957.
4592	2108	IBT-BUSINESS PARK	ksf	79.1	1542.	1281.
4592	2110	IBT-WAREHOUSE	ksf	118.7	724.	607.
4592	6011	IBT- OFFICE	ksf	39.5	1007.	776.
4592		TOTAL			4615.	3781.
4593	2109	INDUSTRIAL PARK	ksf	217.4	4239.	3522.
4593	5012	COMMUNITY COMMERCIAL	ksf	521.7	56291.	39834.
4593		TOTAL			60531.	43356.
4594	2002	HEAVY INDUSTRY	ksf	149.9	720.	607.
4594	2107	LIGHT INDUSTRIAL LRG	ksf	1128.0	10942.	9090.
4594	4113	COMMUNICATION OR UTILITY	acre	2.1	7.	5.
4594		TOTAL			11668.	9702.
4595	2107	LIGHT INDUSTRIAL LRG	ksf	1337.1	12970.	10775.
4595		TOTAL			12970.	10775.
4604	101	SINGLE FAMILY	du	125.0	1821.	1271.
4604	107	MULTI-FAMILY	du	590.0	6726.	4722.
4604	6806	ELEMENTARY SCHOOL	site	1.0	2117.	1183.
4604	7601	ACTIVE PARK	acre	5.2	346.	228.
4604		TOTAL			11010.	7404.
4605	101	SINGLE FAMILY	du	59.0	859.	600.
4605	107	MULTI-FAMILY	du	40.0	456.	320.
4605	4113	COMMUNICATION OR UTILITY	acre	3.9	12.	10.
4605		TOTAL			1328.	930.
4606	2109	INDUSTRIAL PARK	ksf	778.2	15175.	12607.
4606		TOTAL			15175.	12607.
4607	2109	INDUSTRIAL PARK	ksf	991.9	19342.	16069.
4607		TOTAL			19342.	16069.
4608	2109	INDUSTRIAL PARK	ksf	179.2	3494.	2903.
4608	6810	JUNIOR COLLEGE	other	5000.0	11500.	9095.
4608		TOTAL			14994.	11998.
4609	2003	IBT-MANUFACTURE	ksf	66.7	320.	270.

Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4609	2106	IBT-INDUST PARK	ksf	200.1	1941.	1613.
4609	2108	IBT-BUSINESS PARK	ksf	133.4	2601.	2161.
4609	2110	IBT-WAREHOUSE	ksf	200.1	1221.	1024.
4609	6007	IBT- OFFICE	ksf	66.7	1607.	1238.
4609		TOTAL			7691.	6305.
4610	2003	IBT-MANUFACTURE	ksf	167.4	804.	678.
4610	2106	IBT-INDUST PARK	ksf	502.3	4872.	4048.
4610	2108	IBT-BUSINESS PARK	ksf	334.9	6531.	5425.
4610	2110	IBT-WAREHOUSE	ksf	502.3	3064.	2569.
4610	6018	ibt- OFFICE	ksf	167.4	3231.	2488.
4610		TOTAL			18501.	15208.
4611	2109	INDUSTRIAL PARK	ksf	1417.9	27649.	22970.
4611		TOTAL			27649.	22970.
4617	101	SINGLE FAMILY	du	765.0	11144.	7778.
4617	107	MULTI-FAMILY	du	2025.0	23085.	16207.
4617	5012	COMMUNITY COMMERCIAL	ksf	47.0	5071.	3589.
4617	6005	LOW RISE OFFICE	ksf	98.0	2038.	1570.
4617	6806	ELEMENTARY SCHOOL	site	2.0	4234.	2366.
4617	7601	ACTIVE PARK	acre	20.7	1377.	906.
4617		TOTAL			46949.	32415.
4618	107	MULTI-FAMILY	du	265.0	3021.	2121.
4618	7601	ACTIVE PARK	acre	5.8	386.	254.
4618		TOTAL			3407.	2375.
4623	107	MULTI-FAMILY	du	344.0	3922.	2753.
4623	108	MULTI-FAMILY	du	2741.0	23573.	17041.
4623	5012	COMMUNITY COMMERCIAL	ksf	85.7	9247.	7036.
4623	6806	ELEMENTARY SCHOOL	site	1.0	2117.	1183.
4623	7601	ACTIVE PARK	acre	12.6	838.	551.
4623		TOTAL			39696.	28254.
4624	2109	INDUSTRIAL PARK	ksf	1178.9	22989.	19098.
4624	6811	SENIOR HIGH SCHOOL	other	2400.0	9120.	4103.
4624	7601	ACTIVE PARK	acre	39.4	2620.	1724.
4624		TOTAL			34729.	24926.
4625	2003	IBT-MANUFACTURE	ksf	234.3	1125.	949.
4625	2106	IBT-INDUST PARK	ksf	702.9	6818.	5664.
4625	2108	IBT-BUSINESS PARK	ksf	468.6	9138.	7591.
4625	2110	IBT-WAREHOUSE	ksf	702.9	4288.	3596.
4625	6017	ibt- OFFICE	ksf	234.3	4147.	3194.
4625		TOTAL			25515.	20994.
4626	2003	IBT-MANUFACTURE	ksf	333.8	1602.	1352.
4626	2106	IBT-INDUST PARK	ksf	1001.5	9715.	8071.
4626	2108	IBT-BUSINESS PARK	ksf	667.6	13018.	10815.
4626	2110	IBT-WAREHOUSE	ksf	1001.5	6109.	5123.
4626	6014	ibt- OFFICE	ksf	333.8	5441.	4190.
4626		TOTAL			35885.	29550.

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Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4627	2003	IBT-MANUFACTURE	ksf	345.2	1657.	1398.
4627	2106	IBT-INDUST PARK	ksf	1035.5	10044.	8345.
4627	2108	IBT-BUSINESS PARK	ksf	690.3	13461.	11183.
4627	2110	IBT-WAREHOUSE	ksf	1035.5	6317.	5297.
4627	6013	ibt- OFFICE	ksf	345.2	5592.	4306.
4627		TOTAL			37071.	30529.
4628	2003	IBT-MANUFACTURE	ksf	281.4	1351.	1139.
4628	2106	IBT-INDUST PARK	ksf	844.2	8189.	6803.
4628	2108	IBT-BUSINESS PARK	ksf	562.8	10975.	9117.
4628	2110	IBT-WAREHOUSE	ksf	844.2	5150.	4318.
4628	6015	ibt- OFFICE	ksf	281.4	4756.	3662.
4628		TOTAL			30419.	25040.
4629	2107	LIGHT INDUSTRIAL LRG	ksf	1086.8	10542.	8758.
4629		TOTAL			10542.	8758.
4630	2003	IBT-MANUFACTURE	ksf	69.6	334.	282.
4630	2106	IBT-INDUST PARK	ksf	208.9	2026.	1683.
4630	2108	IBT-BUSINESS PARK	ksf	139.3	2716.	2257.
4630	2110	IBT-WAREHOUSE	ksf	208.9	1274.	1069.
4630	5012	COMMUNITY COMMERCIAL	ksf	95.4	10294.	7284.
4630	6008	IBT- OFFICE	ksf	69.6	1684.	1297.
4630		TOTAL			18329.	13872.
4631	2107	LIGHT INDUSTRIAL LRG	ksf	1287.4	12488.	10375.
4631		TOTAL			12488.	10375.
4639	101	SINGLE FAMILY	du	435.0	6337.	4423.
4639	107	MULTI-FAMILY	du	1150.0	13110.	9204.
4639	5012	COMMUNITY COMMERCIAL	ksf	47.0	5071.	3589.
4639	6005	LOW RISE OFFICE	ksf	98.0	2038.	1570.
4639	7601	ACTIVE PARK	acre	13.6	904.	595.
4639		TOTAL			27461.	19380.
4643	2107	LIGHT INDUSTRIAL LRG	ksf	83.0	805.	669.
4643	5012	COMMUNITY COMMERCIAL	ksf	352.2	38002.	26892.
4643		TOTAL			38807.	27561.
4644	2107	LIGHT INDUSTRIAL LRG	ksf	2156.4	20917.	17377.
4644		TOTAL			20917.	17377.
4647	2003	IBT-MANUFACTURE	ksf	59.0	283.	239.
4647	2106	IBT-INDUST PARK	ksf	177.1	1718.	1427.
4647	2107	LIGHT INDUSTRIAL LRG	ksf	65.3	633.	526.
4647	2108	IBT-BUSINESS PARK	ksf	118.1	2303.	1913.
4647	2110	IBT-WAREHOUSE	ksf	177.1	1080.	906.
4647	5012	COMMUNITY COMMERCIAL	ksf	158.5	17102.	12102.
4647	6009	IBT- OFFICE	ksf	59.0	1469.	1131.
4647		TOTAL			24589.	18245.
4649	2002	HEAVY INDUSTRY	ksf	1887.7	9061.	7644.
4649		TOTAL			9061.	7644.

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4650	2002	HEAVY INDUSTRY	ksf	3039.0	14587.	12306.
4650		TOTAL			14587.	12306.
4652	1505	CORSS BORDER FAC-HOTEL	other	1.0	4893.	3012.
4652	2003	IBT-MANUFACTURE	ksf	176.7	848.	716.
4652	2106	IBT-INDUST PARK	ksf	530.0	5141.	4271.
4652	2108	IBT-BUSINESS PARK	ksf	353.4	6891.	5725.
4652	2110	IBT-WAREHOUSE	ksf	530.0	3233.	2711.
4652	2112	CROSS BORDER FAC-INDRK	other	1.0	4063.	3375.
4652	4101	COMMERCIAL AIRPORT	unique	0.0	42907.	27761.
4652	5017	CROSS BORDER GAS STATION	other	1.0	2462.	1793.
4652	5018	CROSS BORDER RETAIL	other	1.0	4302.	3132.
4652	6016	ibt- OFFICE	ksf	269.9	4642.	3575.
4652		TOTAL			79383.	56071.
4653	2003	IBT-MANUFACTURE	ksf	100.1	480.	405.
4653	2106	IBT-INDUST PARK	ksf	300.2	2912.	2419.
4653	2108	IBT-BUSINESS PARK	ksf	200.2	3904.	3243.
4653	2110	IBT-WAREHOUSE	ksf	300.2	1831.	1536.
4653	6006	IBT- OFFICE	ksf	100.1	2192.	1688.
4653	6110	FIRE OR POLICE STATION	acre	10.9	295.	218.
4653		TOTAL			11615.	9509.
4654	2003	IBT-MANUFACTURE	ksf	359.4	1725.	1455.
4654	2106	IBT-INDUST PARK	ksf	1078.1	10458.	8688.
4654	2108	IBT-BUSINESS PARK	ksf	718.7	14015.	11643.
4654	2110	IBT-WAREHOUSE	ksf	1078.1	6576.	5515.
4654	6012	ibt- OFFICE	ksf	359.4	5750.	4428.
4654		TOTAL			38524.	31729.
4659	2004	OMPOE IN/OUT	ksf	6000.0	28800.	24296.
4659		TOTAL			28800.	24296.
4683	108	MULTI-FAMILY	du	1408.0	12109.	8501.
4683	5012	COMMUNITY COMMERCIAL	ksf	54.0	5827.	4823.
4683	7601	ACTIVE PARK	acre	3.5	233.	153.
4683		TOTAL			18168.	13477.

Appendix C
Traffic Count Data

CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 46. Otay Mesa Road South of Beyer Blvd

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

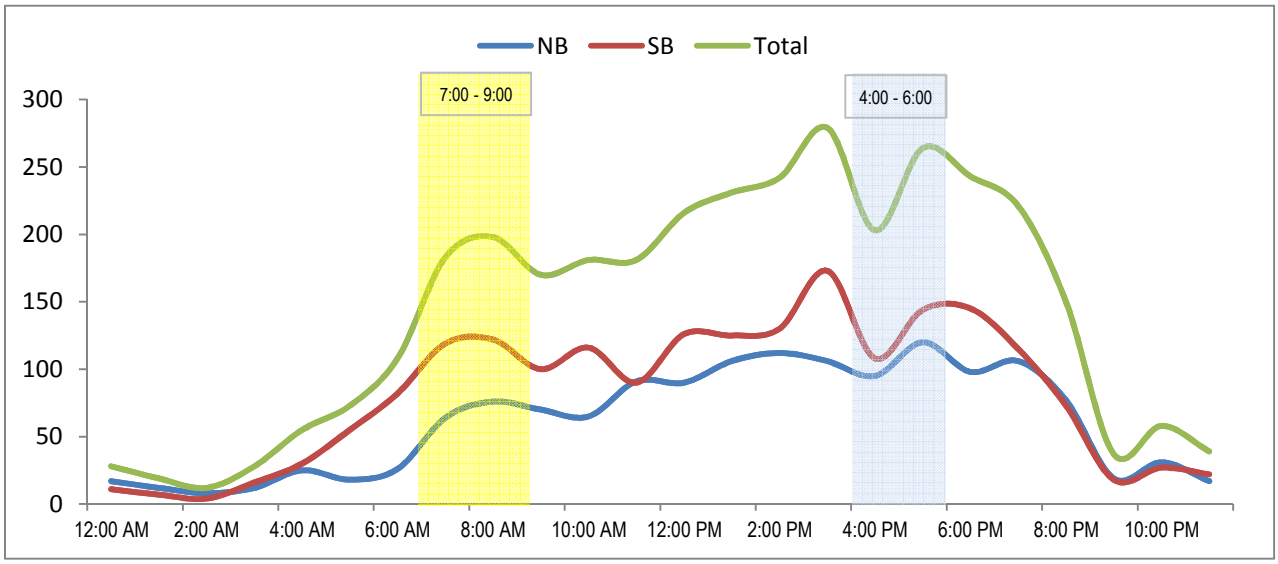
AVC Proj. No: *15-0415*

24 Hour Segment Volume			3,419

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	17	11	28
1:00 AM - 2:00 AM	12	7	19
2:00 AM - 3:00 AM	8	4	12
3:00 AM - 4:00 AM	12	16	28
4:00 AM - 5:00 AM	25	30	55
5:00 AM - 6:00 AM	18	55	73
6:00 AM - 7:00 AM	26	82	108
7:00 AM - 8:00 AM	64	119	183
8:00 AM - 9:00 AM	76	122	198
9:00 AM - 10:00 AM	70	100	170
10:00 AM - 11:00 AM	65	116	181
11:00 AM - 12:00 PM	91	90	181
Total	**484**	**752**	**1,236**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	90	126	216
1:00 PM - 2:00 PM	106	125	231
2:00 PM - 3:00 PM	112	130	242
3:00 PM - 4:00 PM	106	173	279
4:00 PM - 5:00 PM	95	108	203
5:00 PM - 6:00 PM	120	144	264
6:00 PM - 7:00 PM	98	145	243
7:00 PM - 8:00 PM	106	115	221
8:00 PM - 9:00 PM	77	73	150
9:00 PM - 10:00 PM	19	18	37
10:00 PM - 11:00 PM	31	27	58
11:00 PM - 12:00 AM	17	22	39
Total	**977**	**1,206**	**2,183**

24-Hour NB Volume	1,461	24-Hour SB Volume	1,958



24 Hour Segment Count

CHEN RYAN

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

AVC

Location: 9. Ocean View Hills Parkway Between Starfish Way and Del Sol Bvld

Orientation: *North-South*

Date of Count: *Thursday, October 08, 2015*

Analysts: *DASH*

Weather: *Sunny*

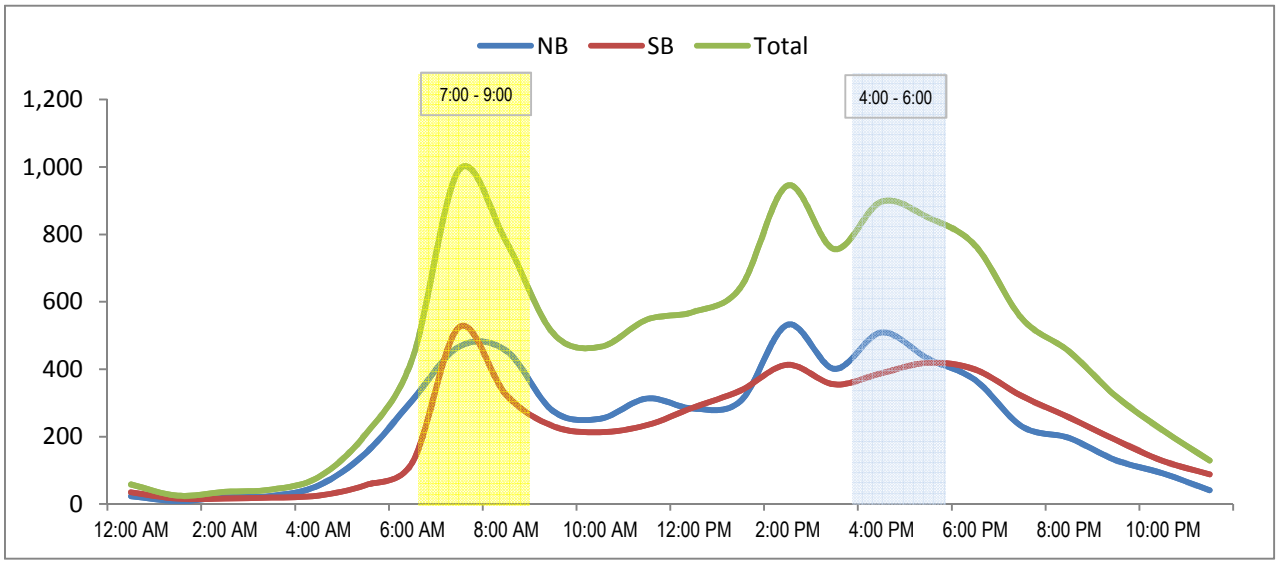
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*11,269*

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	23	35	58
1:00 AM - 2:00 AM	9	16	25
2:00 AM - 3:00 AM	20	16	36
3:00 AM - 4:00 AM	24	19	43
4:00 AM - 5:00 AM	55	25	80
5:00 AM - 6:00 AM	150	56	206
6:00 AM - 7:00 AM	308	123	431
7:00 AM - 8:00 AM	467	525	992
8:00 AM - 9:00 AM	455	324	779
9:00 AM - 10:00 AM	276	231	507
10:00 AM - 11:00 AM	253	213	466
11:00 AM - 12:00 PM	313	234	547
Total	**2,353**	**1,817**	**4,170**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	283	287	570
1:00 PM - 2:00 PM	306	337	643
2:00 PM - 3:00 PM	532	413	945
3:00 PM - 4:00 PM	401	355	756
4:00 PM - 5:00 PM	509	388	897
5:00 PM - 6:00 PM	431	419	850
6:00 PM - 7:00 PM	368	399	767
7:00 PM - 8:00 PM	230	320	550
8:00 PM - 9:00 PM	196	257	453
9:00 PM - 10:00 PM	130	190	320
10:00 PM - 11:00 PM	91	128	219
11:00 PM - 12:00 AM	41	88	129
Total	**3,518**	**3,581**	**7,099**

24-Hour	*NB*	*Volume*	*5,871*	*24-Hour*	*SB*	*Volume*	*5,398*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 10. Ocean View Hills Parkway Between Del Sol Blvd and Otay Mesa Road

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

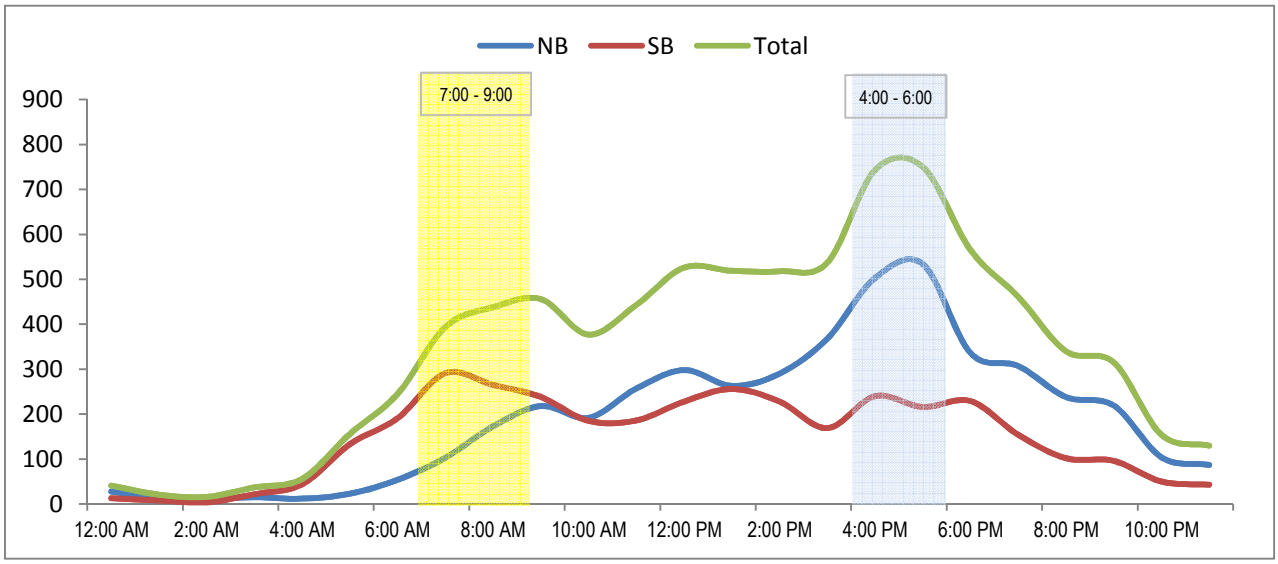
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*8,238*

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	28	13	41
1:00 AM - 2:00 AM	13	8	21
2:00 AM - 3:00 AM	12	4	16
3:00 AM - 4:00 AM	15	22	37
4:00 AM - 5:00 AM	12	44	56
5:00 AM - 6:00 AM	23	133	156
6:00 AM - 7:00 AM	54	191	245
7:00 AM - 8:00 AM	103	291	394
8:00 AM - 9:00 AM	173	265	438
9:00 AM - 10:00 AM	218	238	456
10:00 AM - 11:00 AM	192	185	377
11:00 AM - 12:00 PM	257	186	443
Total	**1,100**	**1,580**	**2,680**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	298	228	526
1:00 PM - 2:00 PM	263	256	519
2:00 PM - 3:00 PM	290	228	518
3:00 PM - 4:00 PM	368	169	537
4:00 PM - 5:00 PM	503	240	743
5:00 PM - 6:00 PM	534	216	750
6:00 PM - 7:00 PM	336	229	565
7:00 PM - 8:00 PM	307	154	461
8:00 PM - 9:00 PM	238	102	340
9:00 PM - 10:00 PM	219	96	315
10:00 PM - 11:00 PM	104	50	154
11:00 PM - 12:00 AM	87	43	130
Total	**3,547**	**2,011**	**5,558**

24-Hour	*NB*	*Volume*	*4,647*	*24-Hour*	*SB*	*Volume*	*3,591*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 23. Caliente Avenue Between I905 Ramps

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

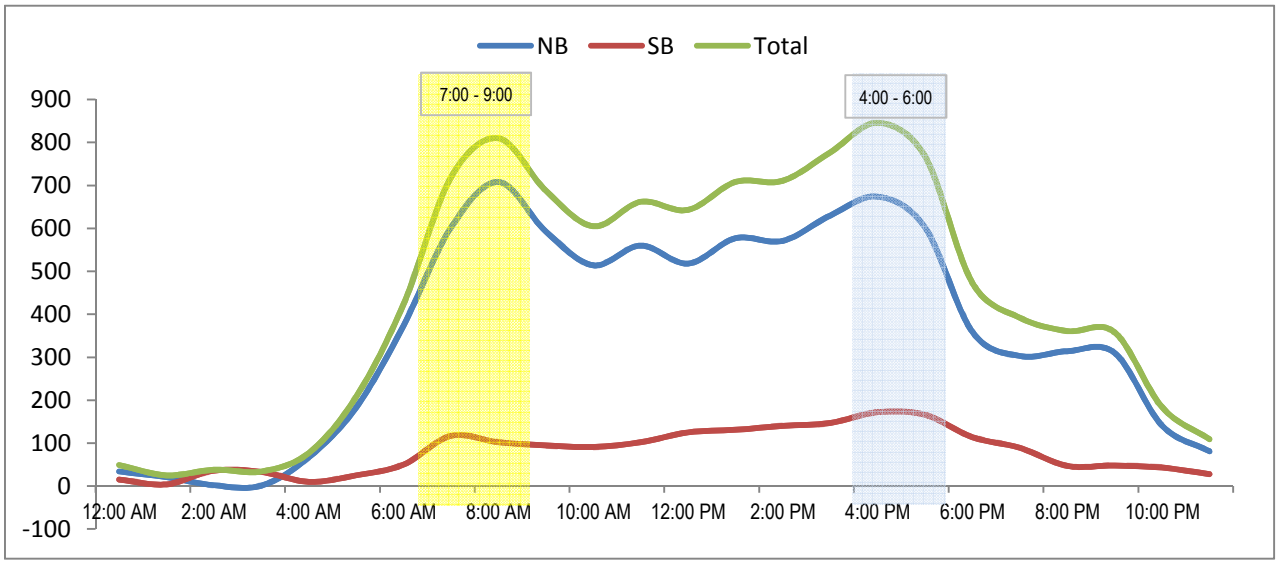
AVC Proj. No: *15-0415*

24 Hour Segment Volume			10,669

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	34	15	49
1:00 AM - 2:00 AM	21	4	25
2:00 AM - 3:00 AM	2	36	38
3:00 AM - 4:00 AM	1	33	34
4:00 AM - 5:00 AM	67	10	77
5:00 AM - 6:00 AM	183	25	208
6:00 AM - 7:00 AM	374	50	424
7:00 AM - 8:00 AM	602	117	719
8:00 AM - 9:00 AM	708	102	810
9:00 AM - 10:00 AM	593	95	688
10:00 AM - 11:00 AM	514	91	605
11:00 AM - 12:00 PM	560	102	662
Total	**3,659**	**680**	**4,339**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	518	125	643
1:00 PM - 2:00 PM	577	131	708
2:00 PM - 3:00 PM	571	140	711
3:00 PM - 4:00 PM	630	147	777
4:00 PM - 5:00 PM	674	172	846
5:00 PM - 6:00 PM	602	166	768
6:00 PM - 7:00 PM	359	114	473
7:00 PM - 8:00 PM	303	89	392
8:00 PM - 9:00 PM	314	47	361
9:00 PM - 10:00 PM	310	48	358
10:00 PM - 11:00 PM	141	43	184
11:00 PM - 12:00 AM	81	28	109
Total	**5,080**	**1,250**	**6,330**

24-Hour NB Volume	8,739	24-Hour SB Volume	1,930



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 24. Caliente Avenue Between I905 EB Ramps and Airway Road

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

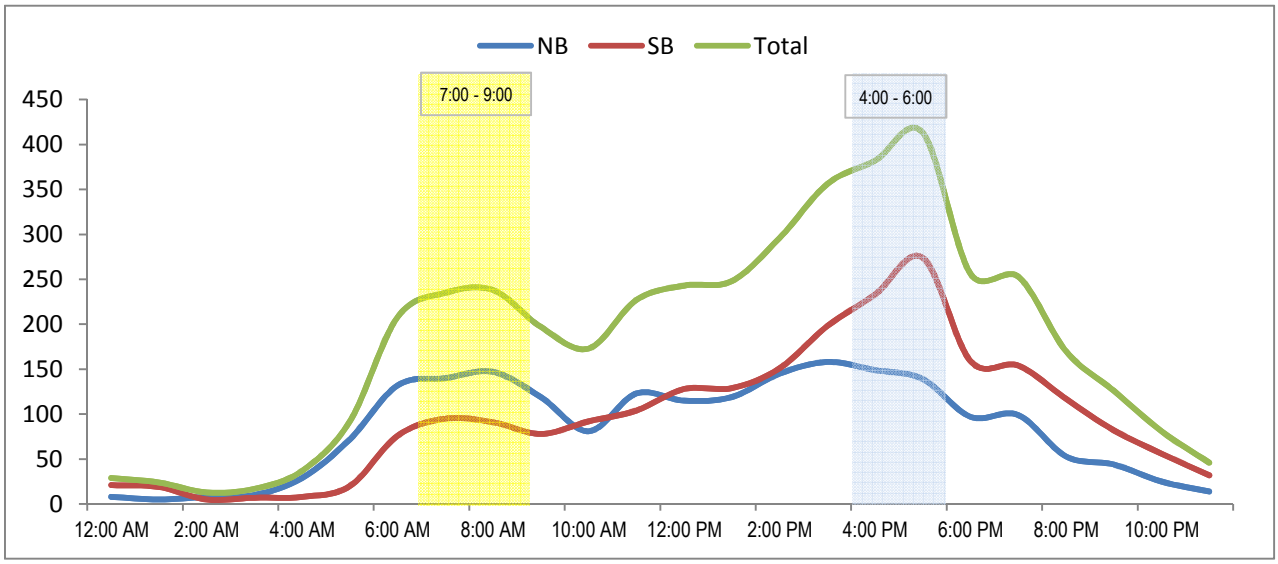
AVC Proj. No: *15-0415*

24 Hour Segment Volume			4,360

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	8	21	29
1:00 AM - 2:00 AM	5	19	24
2:00 AM - 3:00 AM	8	5	13
3:00 AM - 4:00 AM	10	7	17
4:00 AM - 5:00 AM	29	8	37
5:00 AM - 6:00 AM	72	20	92
6:00 AM - 7:00 AM	132	76	208
7:00 AM - 8:00 AM	140	95	235
8:00 AM - 9:00 AM	147	91	238
9:00 AM - 10:00 AM	119	78	197
10:00 AM - 11:00 AM	81	92	173
11:00 AM - 12:00 PM	123	104	227
Total	**874**	**616**	**1,490**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	115	128	243
1:00 PM - 2:00 PM	119	129	248
2:00 PM - 3:00 PM	145	151	296
3:00 PM - 4:00 PM	158	198	356
4:00 PM - 5:00 PM	149	233	382
5:00 PM - 6:00 PM	139	274	413
6:00 PM - 7:00 PM	97	159	256
7:00 PM - 8:00 PM	99	154	253
8:00 PM - 9:00 PM	53	117	170
9:00 PM - 10:00 PM	44	82	126
10:00 PM - 11:00 PM	25	56	81
11:00 PM - 12:00 AM	14	32	46
Total	**1,157**	**1,713**	**2,870**

24-Hour NB Volume	2,031	24-Hour SB Volume	2,329



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 25. Caliente Avenue South of Airway Road

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

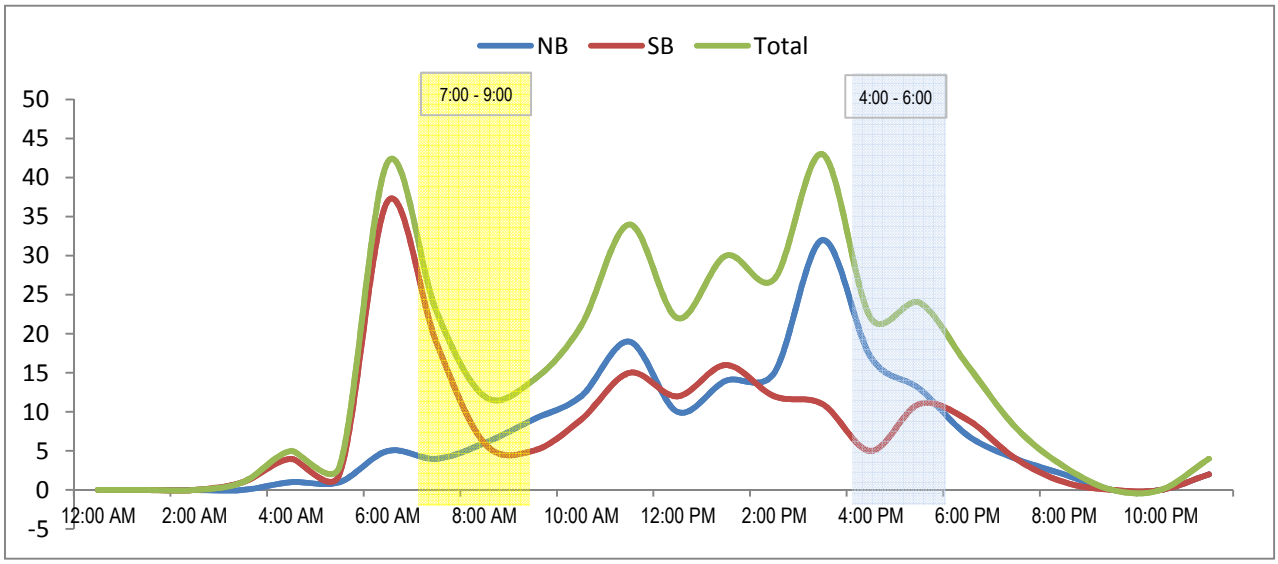
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*354*

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	0	0	0
1:00 AM - 2:00 AM	0	0	0
2:00 AM - 3:00 AM	0	0	0
3:00 AM - 4:00 AM	0	1	1
4:00 AM - 5:00 AM	1	4	5
5:00 AM - 6:00 AM	1	2	3
6:00 AM - 7:00 AM	5	37	42
7:00 AM - 8:00 AM	4	19	23
8:00 AM - 9:00 AM	6	6	12
9:00 AM - 10:00 AM	9	5	14
10:00 AM - 11:00 AM	12	9	21
11:00 AM - 12:00 PM	19	15	34
Total	**57**	**98**	**155**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	10	12	22
1:00 PM - 2:00 PM	14	16	30
2:00 PM - 3:00 PM	15	12	27
3:00 PM - 4:00 PM	32	11	43
4:00 PM - 5:00 PM	17	5	22
5:00 PM - 6:00 PM	13	11	24
6:00 PM - 7:00 PM	7	9	16
7:00 PM - 8:00 PM	4	4	8
8:00 PM - 9:00 PM	2	1	3
9:00 PM - 10:00 PM	0	0	0
10:00 PM - 11:00 PM	0	0	0
11:00 PM - 12:00 AM	2	2	4
Total	**116**	**83**	**199**

24-Hour	*NB*	*Volume*	*173*	*24-Hour*	*SB*	*Volume*	*181*



24 Hour Segment Count

CHEN RYAN

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 47. Innovative Drive Between Progressive and Otay Mesa

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

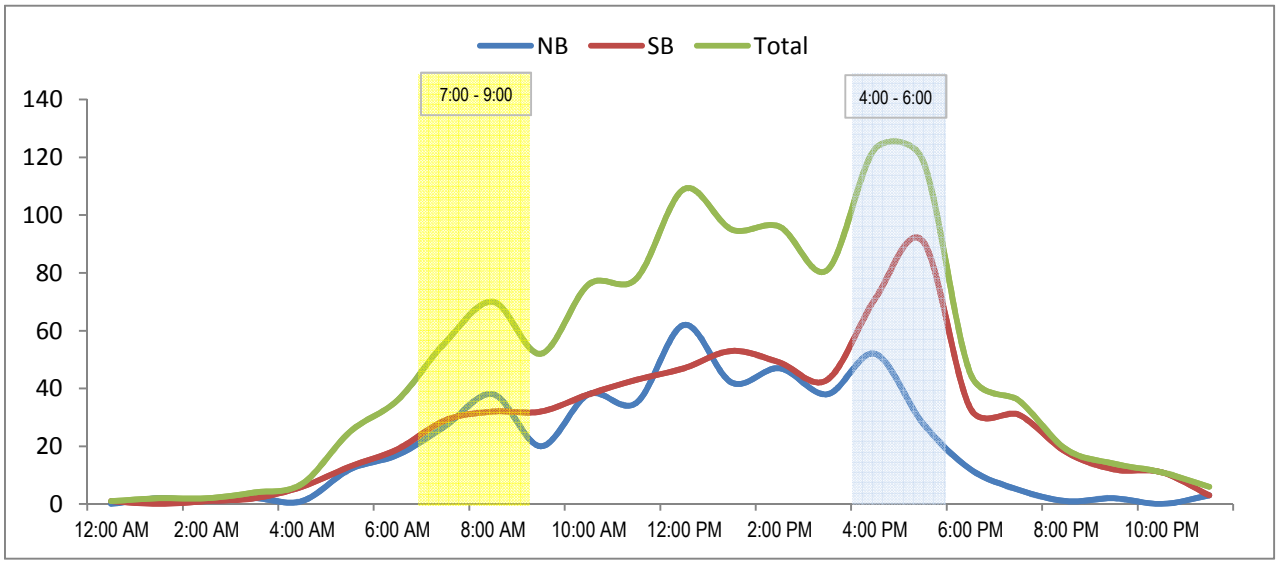
AVC Proj. No: *15-0415*

24 Hour Segment Volume			1,163

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	0	1	1
1:00 AM - 2:00 AM	2	0	2
2:00 AM - 3:00 AM	1	1	2
3:00 AM - 4:00 AM	2	2	4
4:00 AM - 5:00 AM	1	6	7
5:00 AM - 6:00 AM	12	13	25
6:00 AM - 7:00 AM	17	19	36
7:00 AM - 8:00 AM	27	29	56
8:00 AM - 9:00 AM	38	32	70
9:00 AM - 10:00 AM	20	32	52
10:00 AM - 11:00 AM	38	38	76
11:00 AM - 12:00 PM	35	43	78
Total	**193**	**216**	**409**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	62	47	109
1:00 PM - 2:00 PM	42	53	95
2:00 PM - 3:00 PM	47	49	96
3:00 PM - 4:00 PM	38	43	81
4:00 PM - 5:00 PM	52	71	123
5:00 PM - 6:00 PM	28	91	119
6:00 PM - 7:00 PM	12	33	45
7:00 PM - 8:00 PM	5	31	36
8:00 PM - 9:00 PM	1	18	19
9:00 PM - 10:00 PM	2	12	14
10:00 PM - 11:00 PM	0	11	11
11:00 PM - 12:00 AM	3	3	6
Total	**292**	**462**	**754**

24-Hour NB Volume	485	24-Hour SB Volume	678



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 4. Heritage Road Between Avenida de las Vistas and Datsun Street

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

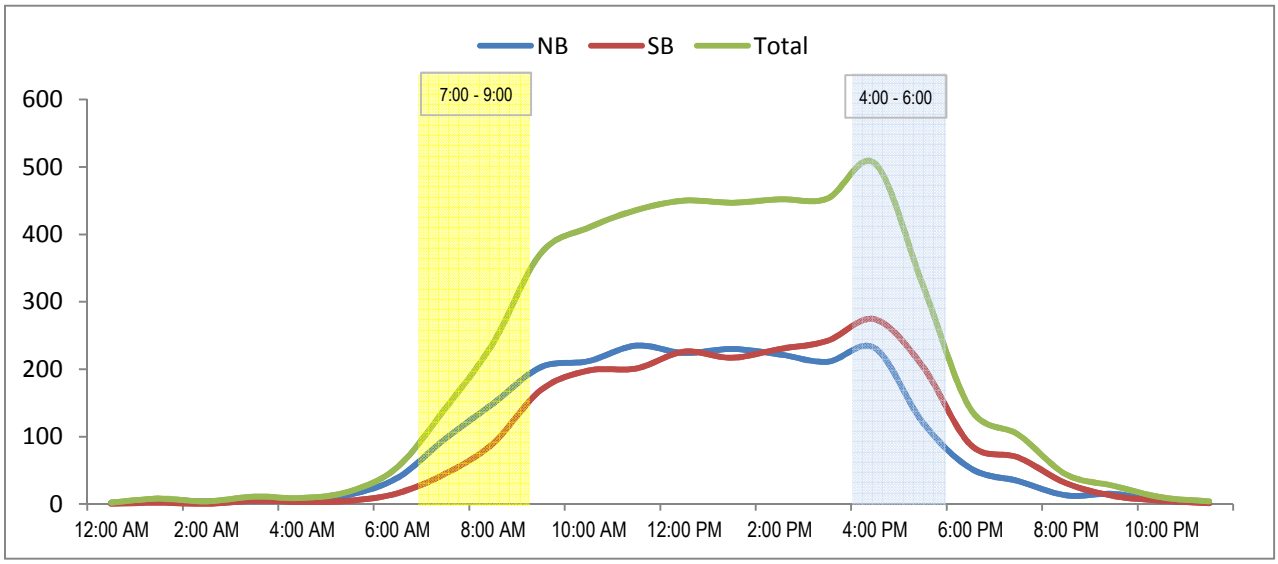
AVC Proj. No: *15-0415*

24 Hour Segment Volume			4,668

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	2	0	2
1:00 AM - 2:00 AM	6	2	8
2:00 AM - 3:00 AM	4	0	4
3:00 AM - 4:00 AM	6	5	11
4:00 AM - 5:00 AM	6	3	9
5:00 AM - 6:00 AM	14	5	19
6:00 AM - 7:00 AM	39	16	55
7:00 AM - 8:00 AM	97	45	142
8:00 AM - 9:00 AM	149	90	239
9:00 AM - 10:00 AM	203	169	372
10:00 AM - 11:00 AM	212	198	410
11:00 AM - 12:00 PM	235	201	436
Total	**973**	**734**	**1,707**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	224	226	450
1:00 PM - 2:00 PM	230	217	447
2:00 PM - 3:00 PM	222	230	452
3:00 PM - 4:00 PM	211	242	453
4:00 PM - 5:00 PM	231	274	505
5:00 PM - 6:00 PM	121	204	325
6:00 PM - 7:00 PM	53	88	141
7:00 PM - 8:00 PM	34	69	103
8:00 PM - 9:00 PM	13	31	44
9:00 PM - 10:00 PM	15	12	27
10:00 PM - 11:00 PM	5	5	10
11:00 PM - 12:00 AM	3	1	4
Total	**1,362**	**1,599**	**2,961**

24-Hour NB Volume	2,335	24-Hour SB Volume	2,333



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 5. Heritage Road Between Datsun Street and Otay Mesa Road

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

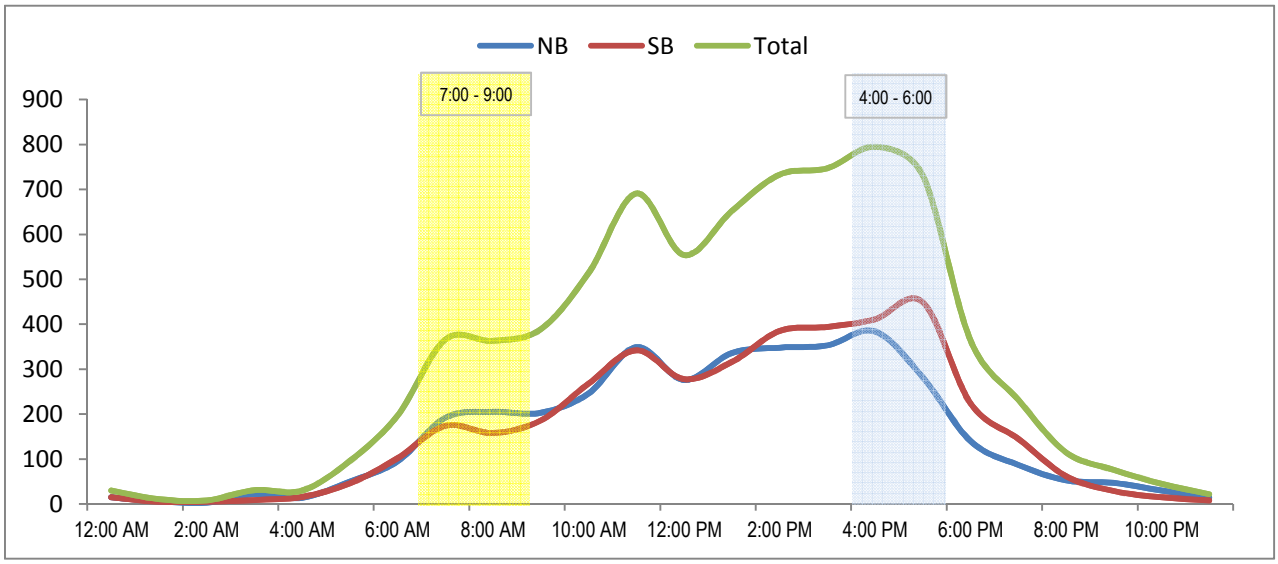
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*7,792*

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	15	15	30
1:00 AM - 2:00 AM	6	5	11
2:00 AM - 3:00 AM	3	5	8
3:00 AM - 4:00 AM	22	9	31
4:00 AM - 5:00 AM	14	16	30
5:00 AM - 6:00 AM	50	46	96
6:00 AM - 7:00 AM	95	102	197
7:00 AM - 8:00 AM	192	174	366
8:00 AM - 9:00 AM	205	158	363
9:00 AM - 10:00 AM	203	186	389
10:00 AM - 11:00 AM	246	268	514
11:00 AM - 12:00 PM	349	342	691
Total	**1,400**	**1,326**	**2,726**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	276	278	554
1:00 PM - 2:00 PM	336	316	652
2:00 PM - 3:00 PM	348	385	733
3:00 PM - 4:00 PM	353	394	747
4:00 PM - 5:00 PM	384	411	795
5:00 PM - 6:00 PM	282	449	731
6:00 PM - 7:00 PM	140	224	364
7:00 PM - 8:00 PM	87	145	232
8:00 PM - 9:00 PM	53	62	115
9:00 PM - 10:00 PM	47	29	76
10:00 PM - 11:00 PM	30	15	45
11:00 PM - 12:00 AM	14	8	22
Total	**2,350**	**2,716**	**5,066**

24-Hour	*NB*	*Volume*	*3,750*	*24-Hour*	*SB*	*Volume*	*4,042*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 6. Heritage Road Between Otay Mesa Road and Camino Maquiladora

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

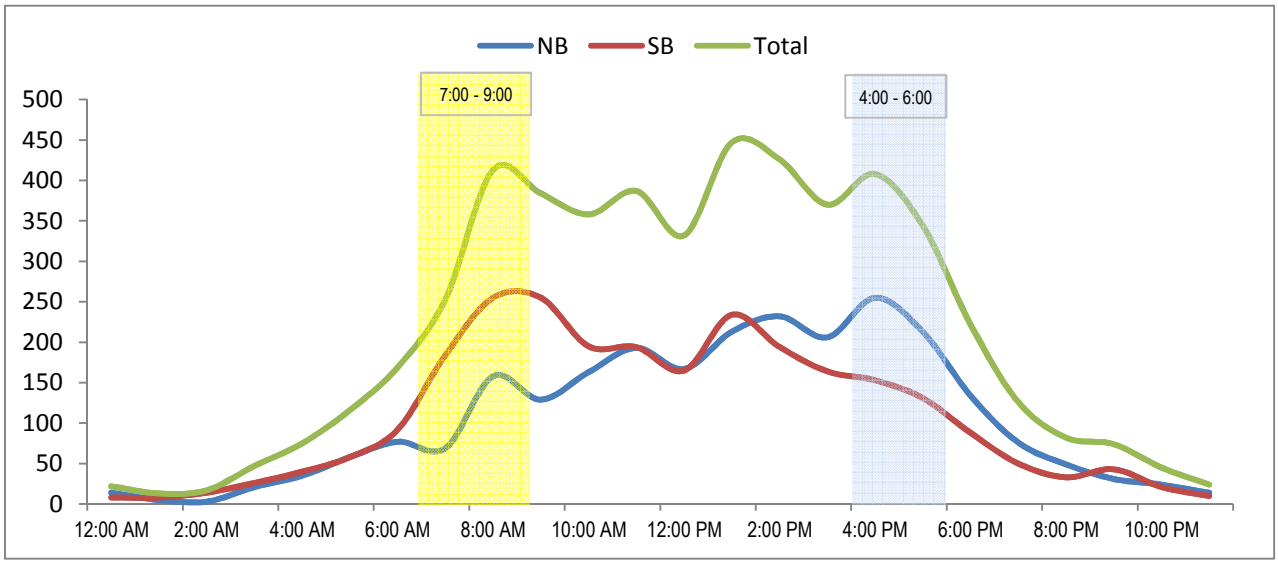
AVC Proj. No: *15-0415*

24 Hour Segment Volume			5,154

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	14	8	22
1:00 AM - 2:00 AM	5	8	13
2:00 AM - 3:00 AM	3	14	17
3:00 AM - 4:00 AM	21	26	47
4:00 AM - 5:00 AM	35	40	75
5:00 AM - 6:00 AM	58	58	116
6:00 AM - 7:00 AM	77	92	169
7:00 AM - 8:00 AM	69	184	253
8:00 AM - 9:00 AM	158	255	413
9:00 AM - 10:00 AM	129	255	384
10:00 AM - 11:00 AM	163	195	358
11:00 AM - 12:00 PM	193	194	387
Total	**925**	**1,329**	**2,254**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	167	165	332
1:00 PM - 2:00 PM	213	234	447
2:00 PM - 3:00 PM	232	194	426
3:00 PM - 4:00 PM	206	164	370
4:00 PM - 5:00 PM	255	153	408
5:00 PM - 6:00 PM	213	131	344
6:00 PM - 7:00 PM	134	88	222
7:00 PM - 8:00 PM	76	50	126
8:00 PM - 9:00 PM	49	33	82
9:00 PM - 10:00 PM	31	43	74
10:00 PM - 11:00 PM	24	21	45
11:00 PM - 12:00 AM	14	10	24
Total	**1,614**	**1,286**	**2,900**

24-Hour NB Volume	2,539	24-Hour SB Volume	2,615



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 7. Heritage Road Between Camino Maquiladora and Gateway Park Drive

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

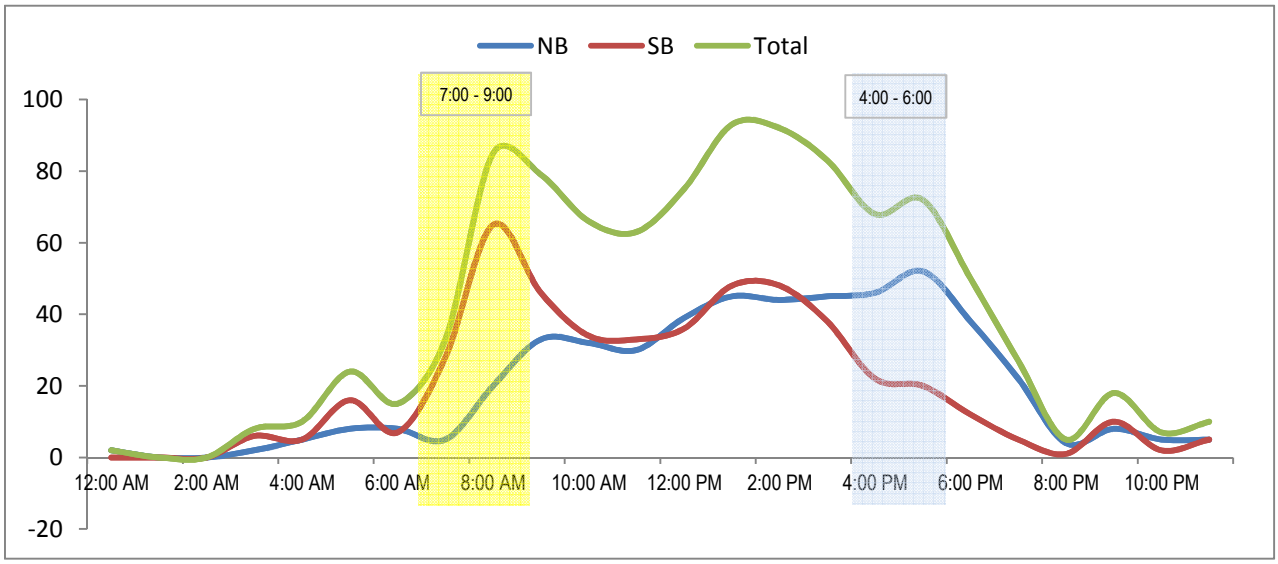
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*985*

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	2	0	2
1:00 AM - 2:00 AM	0	0	0
2:00 AM - 3:00 AM	0	0	0
3:00 AM - 4:00 AM	2	6	8
4:00 AM - 5:00 AM	5	5	10
5:00 AM - 6:00 AM	8	16	24
6:00 AM - 7:00 AM	8	7	15
7:00 AM - 8:00 AM	5	28	33
8:00 AM - 9:00 AM	20	65	85
9:00 AM - 10:00 AM	33	46	79
10:00 AM - 11:00 AM	32	34	66
11:00 AM - 12:00 PM	30	33	63
Total	**145**	**240**	**385**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	39	36	75
1:00 PM - 2:00 PM	45	48	93
2:00 PM - 3:00 PM	44	48	92
3:00 PM - 4:00 PM	45	38	83
4:00 PM - 5:00 PM	46	22	68
5:00 PM - 6:00 PM	52	20	72
6:00 PM - 7:00 PM	38	12	50
7:00 PM - 8:00 PM	22	5	27
8:00 PM - 9:00 PM	4	1	5
9:00 PM - 10:00 PM	8	10	18
10:00 PM - 11:00 PM	5	2	7
11:00 PM - 12:00 AM	5	5	10
Total	**353**	**247**	**600**

24-Hour	*NB*	*Volume*	*498*	*24-Hour*	*SB*	*Volume*	*487*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 8. Heritage Road South of Gateway Park Drive

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

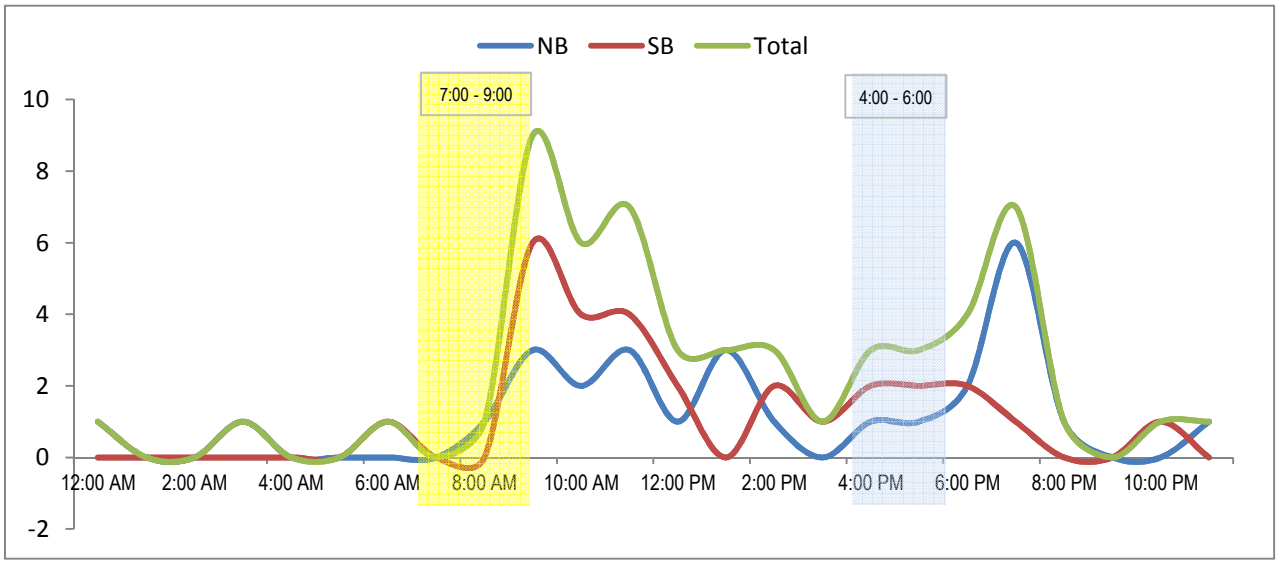
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*56*

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	1	0	1
1:00 AM - 2:00 AM	0	0	0
2:00 AM - 3:00 AM	0	0	0
3:00 AM - 4:00 AM	1	0	1
4:00 AM - 5:00 AM	0	0	0
5:00 AM - 6:00 AM	0	0	0
6:00 AM - 7:00 AM	0	1	1
7:00 AM - 8:00 AM	0	0	0
8:00 AM - 9:00 AM	1	0	1
9:00 AM - 10:00 AM	3	6	9
10:00 AM - 11:00 AM	2	4	6
11:00 AM - 12:00 PM	3	4	7
Total	**11**	**15**	**26**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	1	2	3
1:00 PM - 2:00 PM	3	0	3
2:00 PM - 3:00 PM	1	2	3
3:00 PM - 4:00 PM	0	1	1
4:00 PM - 5:00 PM	1	2	3
5:00 PM - 6:00 PM	1	2	3
6:00 PM - 7:00 PM	2	2	4
7:00 PM - 8:00 PM	6	1	7
8:00 PM - 9:00 PM	1	0	1
9:00 PM - 10:00 PM	0	0	0
10:00 PM - 11:00 PM	0	1	1
11:00 PM - 12:00 AM	1	0	1
Total	**17**	**13**	**30**

24-Hour	*NB*	*Volume*	*28*	*24-Hour*	*SB*	*Volume*	*28*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 33. Cactus Road Between Otay Mesa Road and Airway Road

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

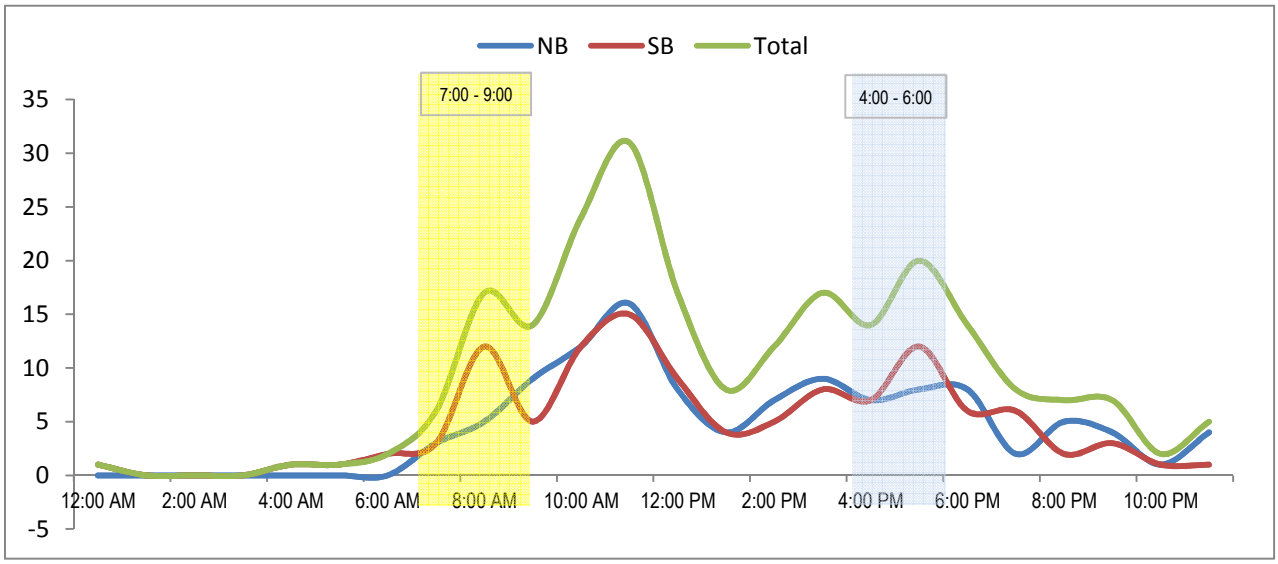
AVC Proj. No: *15-0415*

24 Hour Segment Volume			228

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	0	1	1
1:00 AM - 2:00 AM	0	0	0
2:00 AM - 3:00 AM	0	0	0
3:00 AM - 4:00 AM	0	0	0
4:00 AM - 5:00 AM	0	1	1
5:00 AM - 6:00 AM	0	1	1
6:00 AM - 7:00 AM	0	2	2
7:00 AM - 8:00 AM	3	3	6
8:00 AM - 9:00 AM	5	12	17
9:00 AM - 10:00 AM	9	5	14
10:00 AM - 11:00 AM	12	12	24
11:00 AM - 12:00 PM	16	15	31
Total	**45**	**52**	**97**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	8	9	17
1:00 PM - 2:00 PM	4	4	8
2:00 PM - 3:00 PM	7	5	12
3:00 PM - 4:00 PM	9	8	17
4:00 PM - 5:00 PM	7	7	14
5:00 PM - 6:00 PM	8	12	20
6:00 PM - 7:00 PM	8	6	14
7:00 PM - 8:00 PM	2	6	8
8:00 PM - 9:00 PM	5	2	7
9:00 PM - 10:00 PM	4	3	7
10:00 PM - 11:00 PM	1	1	2
11:00 PM - 12:00 AM	4	1	5
Total	**67**	**64**	**131**

24-Hour NB Volume	112	24-Hour SB Volume	116



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 34. Cactus Road Between Airway Road and Siempre Viva Road

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

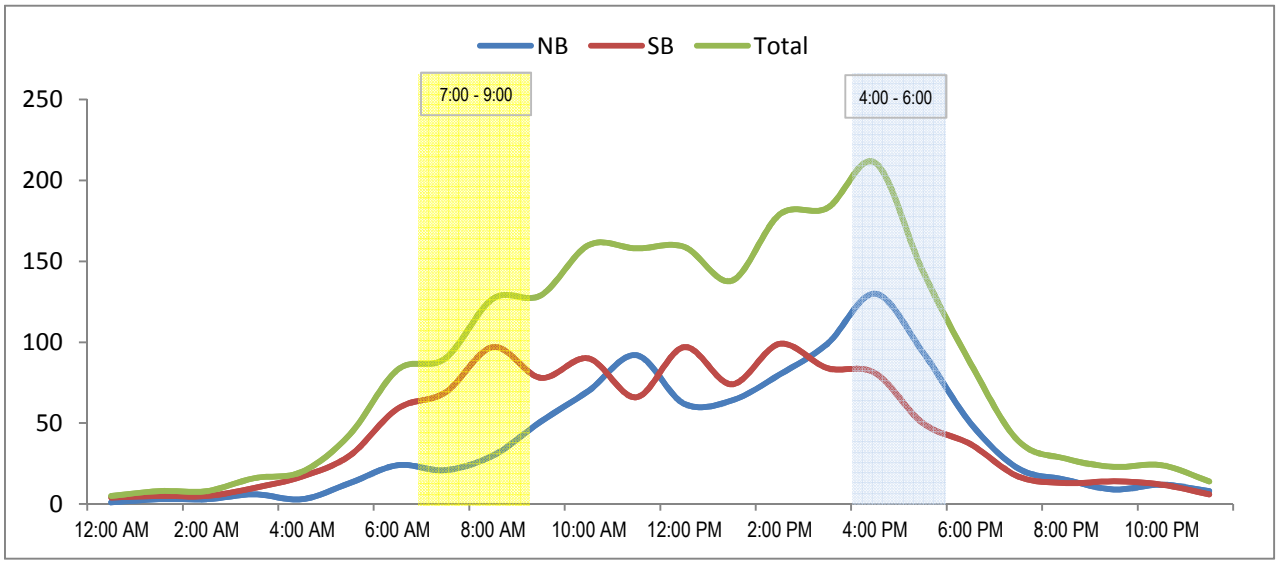
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*2,076*

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	1	4	5
1:00 AM - 2:00 AM	3	5	8
2:00 AM - 3:00 AM	3	5	8
3:00 AM - 4:00 AM	6	10	16
4:00 AM - 5:00 AM	3	17	20
5:00 AM - 6:00 AM	13	30	43
6:00 AM - 7:00 AM	24	59	83
7:00 AM - 8:00 AM	21	69	90
8:00 AM - 9:00 AM	30	97	127
9:00 AM - 10:00 AM	51	78	129
10:00 AM - 11:00 AM	70	90	160
11:00 AM - 12:00 PM	92	66	158
Total	**317**	**530**	**847**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	62	97	159
1:00 PM - 2:00 PM	64	74	138
2:00 PM - 3:00 PM	80	99	179
3:00 PM - 4:00 PM	99	84	183
4:00 PM - 5:00 PM	130	81	211
5:00 PM - 6:00 PM	94	50	144
6:00 PM - 7:00 PM	50	37	87
7:00 PM - 8:00 PM	22	17	39
8:00 PM - 9:00 PM	15	13	28
9:00 PM - 10:00 PM	9	14	23
10:00 PM - 11:00 PM	12	12	24
11:00 PM - 12:00 AM	8	6	14
Total	**645**	**584**	**1,229**

24-Hour	*NB*	*Volume*	*962*	*24-Hour*	*SB*	*Volume*	*1,114*



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 1. Britannia Blvd - Between Otay Mesa Road and SR-905 WB Ramps

Orientation: *North-South*

Date of Count: *Tuesday, February 02, 2016*

Analysts: *DASH*

Weather: *Sunny*

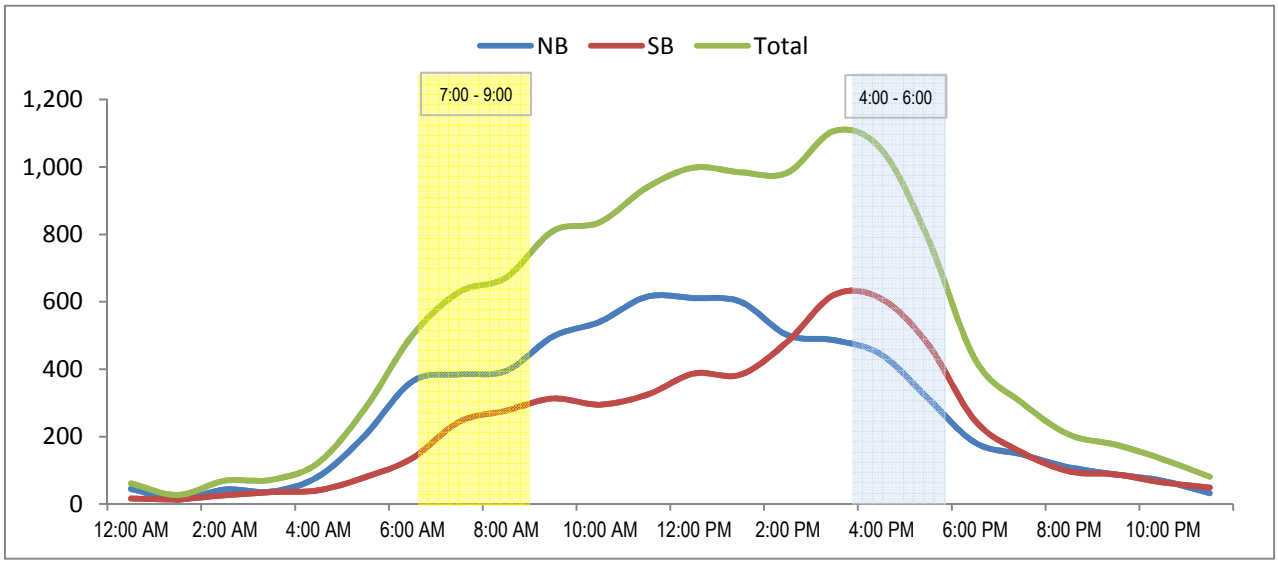
AVC Proj. No: *16-0477*

24 Hour Segment Volume			12,258

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	45	16	61
1:00 AM - 2:00 AM	13	14	27
2:00 AM - 3:00 AM	43	26	69
3:00 AM - 4:00 AM	37	35	72
4:00 AM - 5:00 AM	82	41	123
5:00 AM - 6:00 AM	205	80	285
6:00 AM - 7:00 AM	364	136	500
7:00 AM - 8:00 AM	385	244	629
8:00 AM - 9:00 AM	395	277	672
9:00 AM - 10:00 AM	497	313	810
10:00 AM - 11:00 AM	541	295	836
11:00 AM - 12:00 PM	615	324	939
Total	**3,222**	**1,801**	**5,023**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	611	387	998
1:00 PM - 2:00 PM	600	384	984
2:00 PM - 3:00 PM	501	482	983
3:00 PM - 4:00 PM	486	621	1,107
4:00 PM - 5:00 PM	443	609	1,052
5:00 PM - 6:00 PM	313	473	786
6:00 PM - 7:00 PM	182	247	429
7:00 PM - 8:00 PM	147	153	300
8:00 PM - 9:00 PM	109	97	206
9:00 PM - 10:00 PM	88	88	176
10:00 PM - 11:00 PM	69	64	133
11:00 PM - 12:00 AM	32	49	81
Total	**3,581**	**3,654**	**7,235**

24-Hour NB Volume	6,803	24-Hour SB Volume	5,455



24 Hour Segment Count

CHEN RYAN

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 2. Britannia Blvd - Between SR-905 WB Ramps and SR-905 EB Ramps

Orientation: *North-South*

Date of Count: *Tuesday, February 02, 2016*

Analysts: *DASH*

Weather: *Sunny*

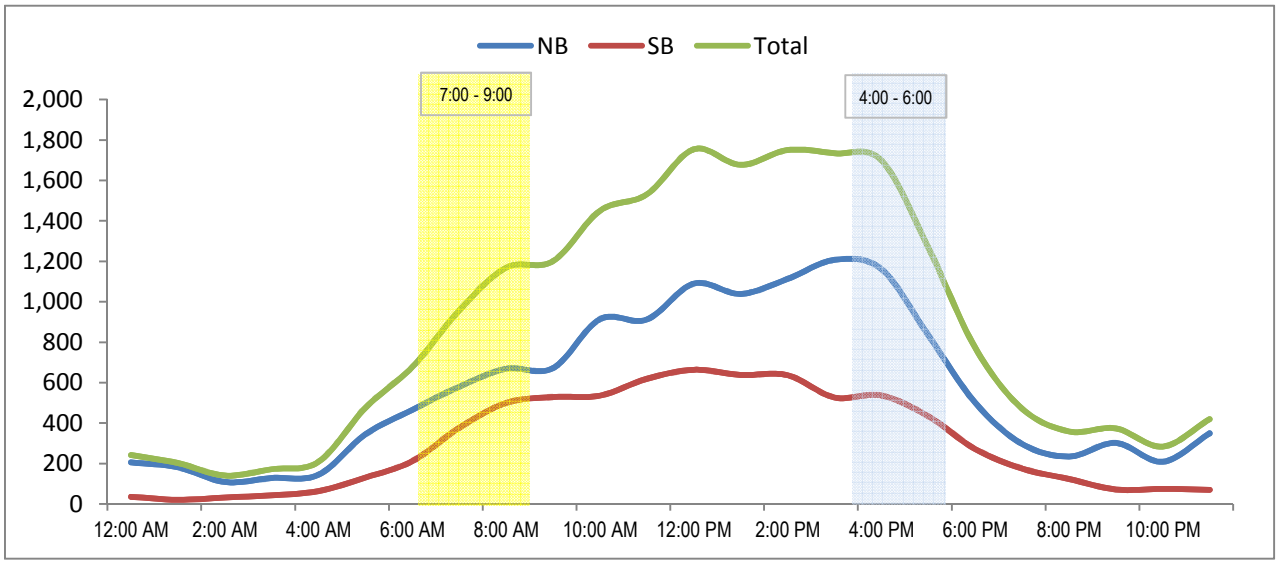
AVC Proj. No: *16-0477*

24 Hour Segment Volume			20,994

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	206	36	242
1:00 AM - 2:00 AM	182	21	203
2:00 AM - 3:00 AM	109	32	141
3:00 AM - 4:00 AM	129	43	172
4:00 AM - 5:00 AM	145	64	209
5:00 AM - 6:00 AM	345	131	476
6:00 AM - 7:00 AM	466	212	678
7:00 AM - 8:00 AM	580	377	957
8:00 AM - 9:00 AM	669	500	1,169
9:00 AM - 10:00 AM	672	529	1,201
10:00 AM - 11:00 AM	914	536	1,450
11:00 AM - 12:00 PM	912	619	1531
Total	**5,329**	**3,100**	**8,429**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	1,090	664	1,754
1:00 PM - 2:00 PM	1,039	638	1,677
2:00 PM - 3:00 PM	1,113	637	1,750
3:00 PM - 4:00 PM	1,207	527	1,734
4:00 PM - 5:00 PM	1,162	537	1,699
5:00 PM - 6:00 PM	835	434	1,269
6:00 PM - 7:00 PM	501	272	773
7:00 PM - 8:00 PM	297	175	472
8:00 PM - 9:00 PM	235	124	359
9:00 PM - 10:00 PM	302	72	374
10:00 PM - 11:00 PM	209	75	284
11:00 PM - 12:00 AM	350	70	420
Total	**8,340**	**4,225**	**12,565**

24-Hour NB Volume	13,669	24-Hour SB Volume	7,325



24 Hour Segment Count

CHEN RYAN

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 3. Britannia Blvd - Between SR-905 EB Ramps and Airway Road

Orientation: *North-South*

Date of Count: *Tuesday, February 02, 2016*

Analysts: *DASH*

Weather: *Sunny*

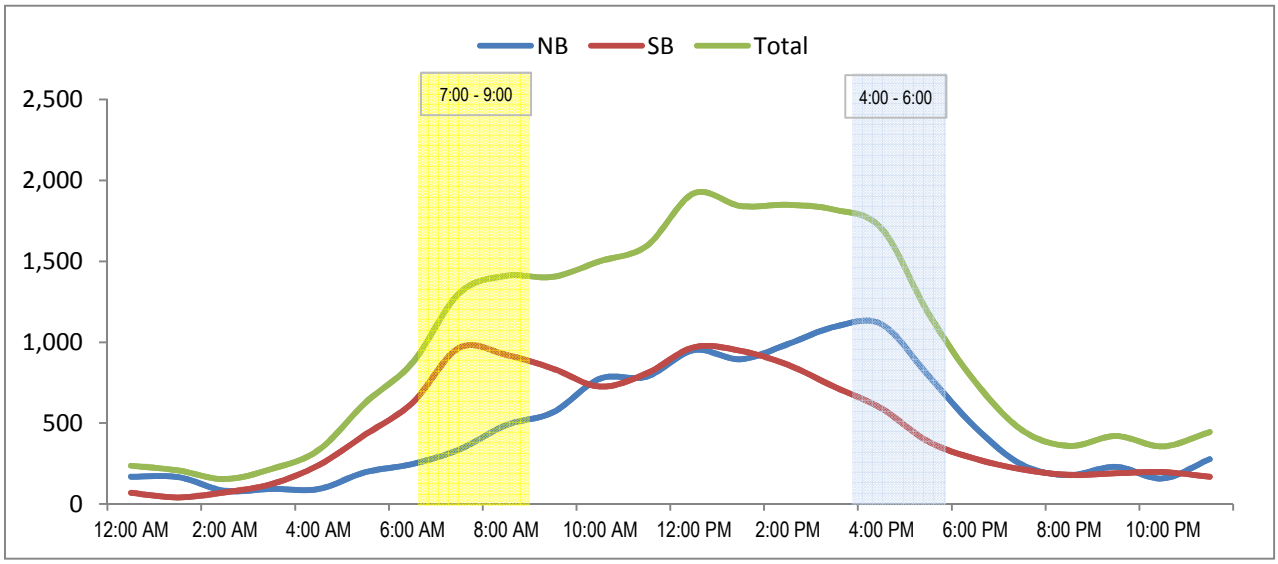
AVC Proj. No: *16-0477*

24 Hour Segment Volume			22,969

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	168	69	237
1:00 AM - 2:00 AM	167	41	208
2:00 AM - 3:00 AM	82	72	154
3:00 AM - 4:00 AM	93	124	217
4:00 AM - 5:00 AM	93	240	333
5:00 AM - 6:00 AM	197	430	627
6:00 AM - 7:00 AM	247	625	872
7:00 AM - 8:00 AM	337	966	1,303
8:00 AM - 9:00 AM	488	922	1,410
9:00 AM - 10:00 AM	567	837	1,404
10:00 AM - 11:00 AM	775	726	1,501
11:00 AM - 12:00 PM	788	808	1596
Total	**4,002**	**5,860**	**9,862**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	951	969	1,920
1:00 PM - 2:00 PM	895	947	1,842
2:00 PM - 3:00 PM	988	861	1,849
3:00 PM - 4:00 PM	1,095	724	1,819
4:00 PM - 5:00 PM	1,112	592	1,704
5:00 PM - 6:00 PM	795	386	1,181
6:00 PM - 7:00 PM	475	280	755
7:00 PM - 8:00 PM	243	214	457
8:00 PM - 9:00 PM	179	180	359
9:00 PM - 10:00 PM	230	190	420
10:00 PM - 11:00 PM	158	198	356
11:00 PM - 12:00 AM	277	168	445
Total	**7,398**	**5,709**	**13,107**

24-Hour NB Volume	11,400	24-Hour SB Volume	11,569



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 4. Britannia Blvd - Between Airway Road and Siempre Viva Road

Orientation: *North-South*

Date of Count: *Tuesday, February 02, 2016*

Analysts: *DASH*

Weather: *Sunny*

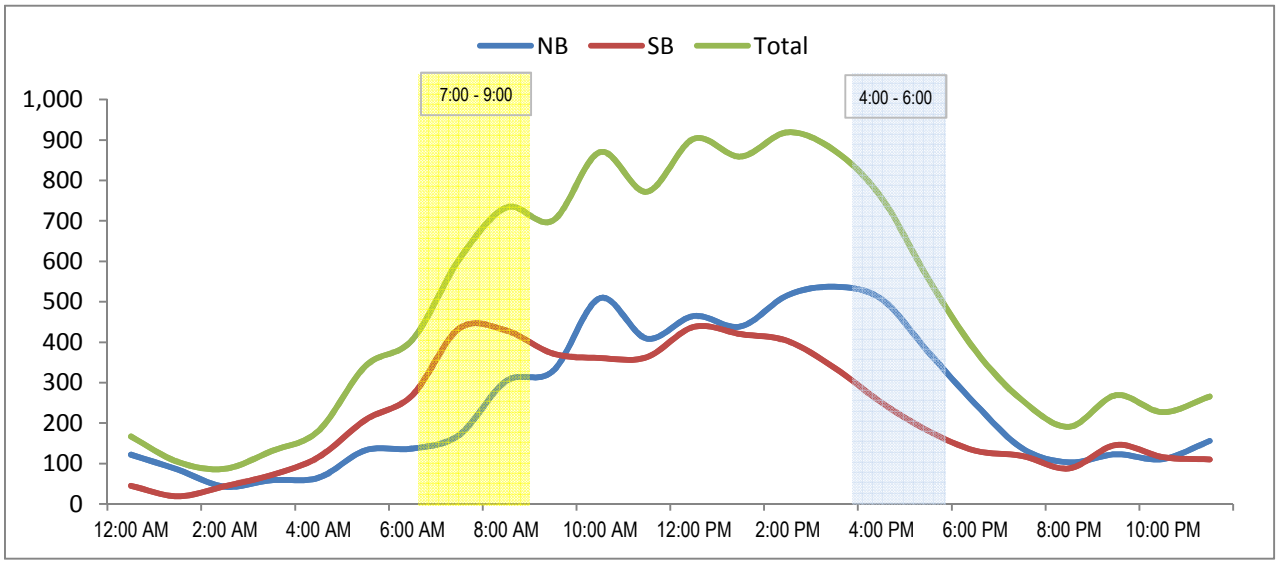
AVC Proj. No: *16-0477*

24 Hour Segment Volume			11,558

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	122	45	167
1:00 AM - 2:00 AM	85	19	104
2:00 AM - 3:00 AM	43	44	87
3:00 AM - 4:00 AM	59	72	131
4:00 AM - 5:00 AM	65	116	181
5:00 AM - 6:00 AM	133	208	341
6:00 AM - 7:00 AM	137	269	406
7:00 AM - 8:00 AM	171	434	605
8:00 AM - 9:00 AM	304	429	733
9:00 AM - 10:00 AM	329	372	701
10:00 AM - 11:00 AM	509	361	870
11:00 AM - 12:00 PM	409	363	772
Total	**2,366**	**2,732**	**5,098**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	465	438	903
1:00 PM - 2:00 PM	439	420	859
2:00 PM - 3:00 PM	516	403	919
3:00 PM - 4:00 PM	537	337	874
4:00 PM - 5:00 PM	507	251	758
5:00 PM - 6:00 PM	376	181	557
6:00 PM - 7:00 PM	248	132	380
7:00 PM - 8:00 PM	138	119	257
8:00 PM - 9:00 PM	103	88	191
9:00 PM - 10:00 PM	123	146	269
10:00 PM - 11:00 PM	111	116	227
11:00 PM - 12:00 AM	156	110	266
Total	**3,719**	**2,741**	**6,460**

24-Hour NB Volume	6,085	24-Hour SB Volume	5,473



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 5. Britannia Blvd - Between Siempre Viva Road and Bristown Ct.

Orientation: *North-South*

Date of Count: *Tuesday, February 02, 2016*

Analysts: *DASH*

Weather: *Sunny*

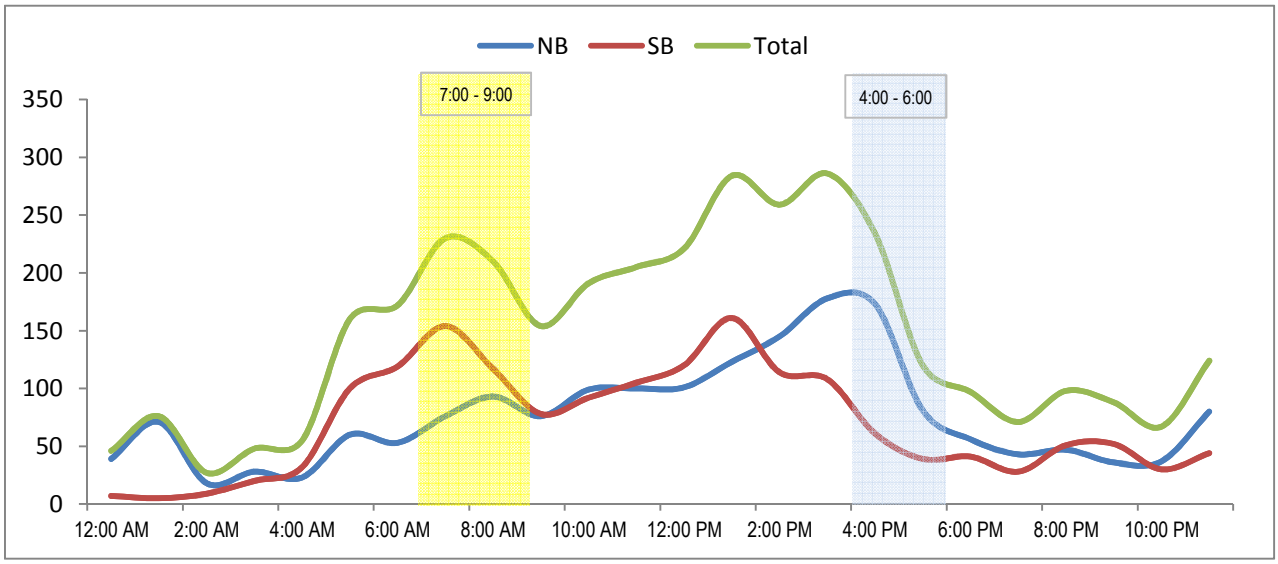
AVC Proj. No: *16-0477*

24 Hour Segment Volume			3,523

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	39	7	46
1:00 AM - 2:00 AM	71	5	76
2:00 AM - 3:00 AM	18	9	27
3:00 AM - 4:00 AM	28	20	48
4:00 AM - 5:00 AM	23	32	55
5:00 AM - 6:00 AM	60	100	160
6:00 AM - 7:00 AM	53	119	172
7:00 AM - 8:00 AM	76	154	230
8:00 AM - 9:00 AM	93	117	210
9:00 AM - 10:00 AM	76	78	154
10:00 AM - 11:00 AM	99	92	191
11:00 AM - 12:00 PM	100	105	205
Total	**736**	**838**	**1,574**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	101	120	221
1:00 PM - 2:00 PM	123	161	284
2:00 PM - 3:00 PM	145	114	259
3:00 PM - 4:00 PM	178	108	286
4:00 PM - 5:00 PM	173	61	234
5:00 PM - 6:00 PM	81	39	120
6:00 PM - 7:00 PM	56	41	97
7:00 PM - 8:00 PM	43	28	71
8:00 PM - 9:00 PM	47	51	98
9:00 PM - 10:00 PM	36	52	88
10:00 PM - 11:00 PM	37	30	67
11:00 PM - 12:00 AM	80	44	124
Total	**1,100**	**849**	**1,949**

24-Hour NB Volume	1,836	24-Hour SB Volume	1,687



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 20. St Andrews Avenue between Otay Mesa Road and Otay Mesa Center Road

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

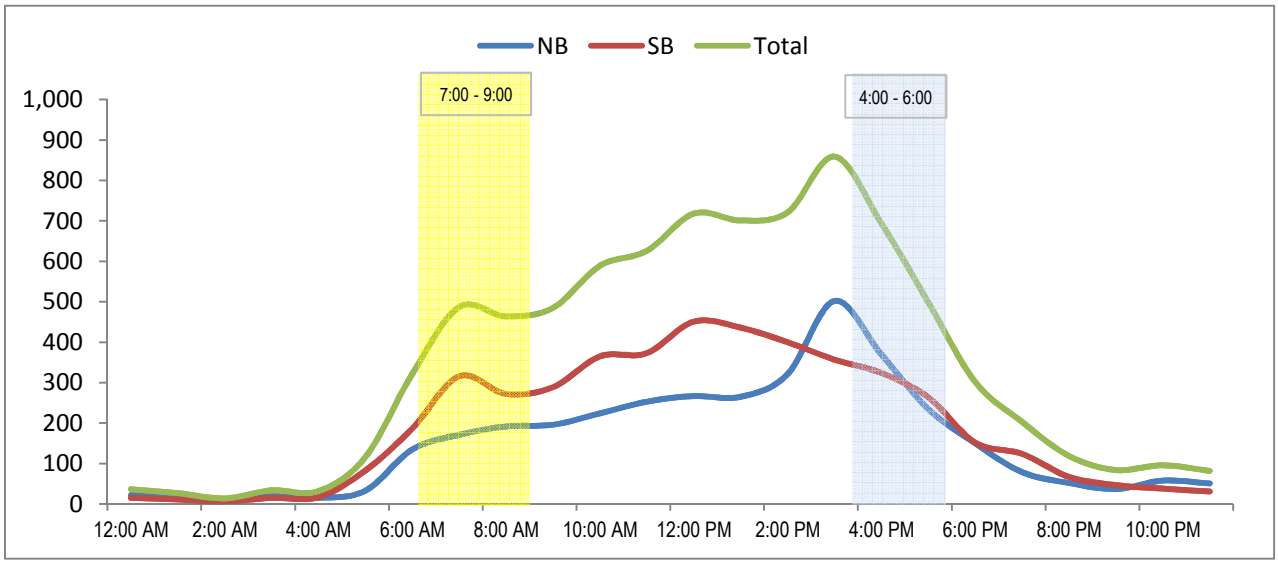
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*8,311*

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	22	15	37
1:00 AM - 2:00 AM	16	11	27
2:00 AM - 3:00 AM	7	7	14
3:00 AM - 4:00 AM	19	15	34
4:00 AM - 5:00 AM	15	17	32
5:00 AM - 6:00 AM	33	83	116
6:00 AM - 7:00 AM	135	187	322
7:00 AM - 8:00 AM	171	316	487
8:00 AM - 9:00 AM	192	272	464
9:00 AM - 10:00 AM	196	289	485
10:00 AM - 11:00 AM	224	365	589
11:00 AM - 12:00 PM	253	373	626
Total	**1,283**	**1,950**	**3,233**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	267	451	718
1:00 PM - 2:00 PM	265	436	701
2:00 PM - 3:00 PM	321	400	721
3:00 PM - 4:00 PM	502	357	859
4:00 PM - 5:00 PM	370	324	694
5:00 PM - 6:00 PM	235	264	499
6:00 PM - 7:00 PM	150	152	302
7:00 PM - 8:00 PM	79	124	203
8:00 PM - 9:00 PM	52	67	119
9:00 PM - 10:00 PM	37	47	84
10:00 PM - 11:00 PM	58	38	96
11:00 PM - 12:00 AM	51	31	82
Total	**2,387**	**2,691**	**5,078**

24-Hour	*NB*	*Volume*	*3,670*	*24-Hour*	*SB*	*Volume*	*4,641*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 21. La Media Road, North of Otay Mesa Road

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

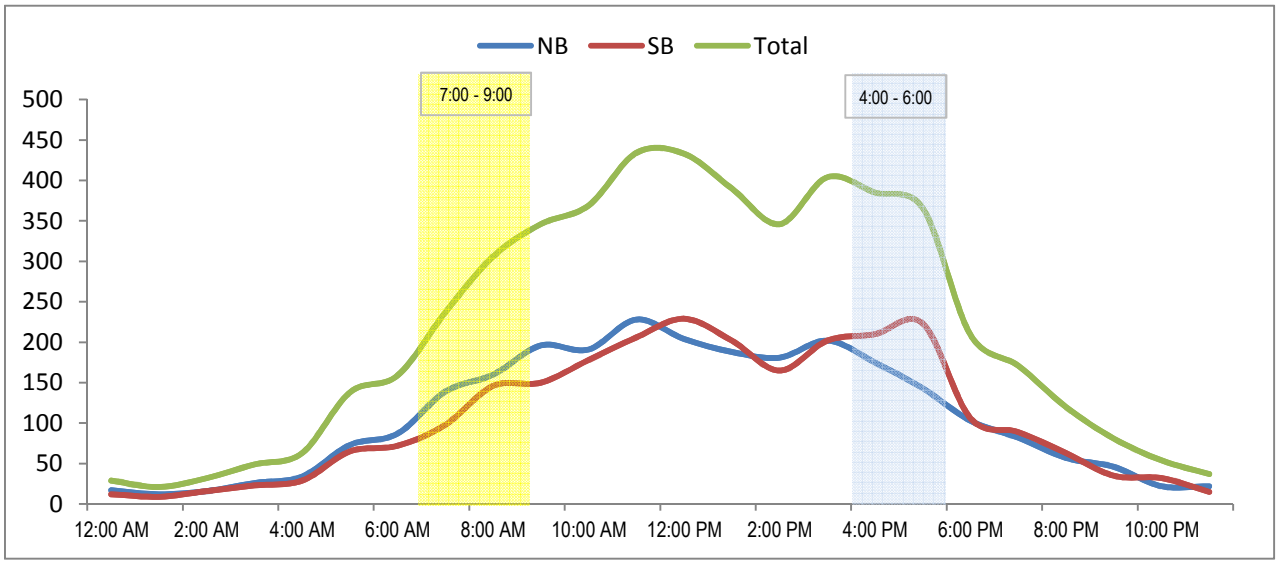
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*5,179*

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	17	12	29
1:00 AM - 2:00 AM	12	9	21
2:00 AM - 3:00 AM	16	16	32
3:00 AM - 4:00 AM	26	23	49
4:00 AM - 5:00 AM	34	29	63
5:00 AM - 6:00 AM	73	65	138
6:00 AM - 7:00 AM	87	72	159
7:00 AM - 8:00 AM	139	98	237
8:00 AM - 9:00 AM	160	146	306
9:00 AM - 10:00 AM	196	150	346
10:00 AM - 11:00 AM	191	178	369
11:00 AM - 12:00 PM	228	206	434
Total	**1,179**	**1,004**	**2,183**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	204	229	433
1:00 PM - 2:00 PM	188	202	390
2:00 PM - 3:00 PM	181	165	346
3:00 PM - 4:00 PM	202	202	404
4:00 PM - 5:00 PM	175	210	385
5:00 PM - 6:00 PM	143	223	366
6:00 PM - 7:00 PM	103	106	209
7:00 PM - 8:00 PM	82	89	171
8:00 PM - 9:00 PM	57	63	120
9:00 PM - 10:00 PM	46	35	81
10:00 PM - 11:00 PM	22	32	54
11:00 PM - 12:00 AM	22	15	37
Total	**1,425**	**1,571**	**2,996**

24-Hour	*NB*	*Volume*	*2,604*	*24-Hour*	*SB*	*Volume*	*2,575*



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 22. La Media Road Between Avenida de la fuente and Siempre Viva Road

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

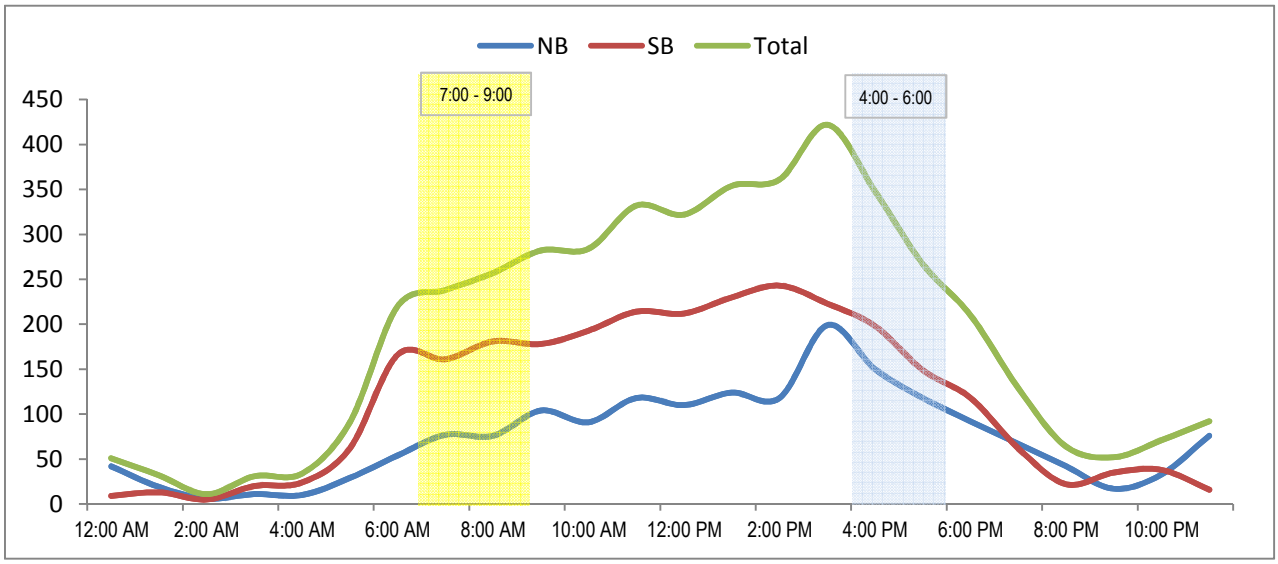
AVC Proj. No: *15-0415*

24 Hour Segment Volume			4,555

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	42	9	51
1:00 AM - 2:00 AM	19	13	32
2:00 AM - 3:00 AM	6	5	11
3:00 AM - 4:00 AM	11	20	31
4:00 AM - 5:00 AM	10	24	34
5:00 AM - 6:00 AM	29	62	91
6:00 AM - 7:00 AM	54	166	220
7:00 AM - 8:00 AM	77	161	238
8:00 AM - 9:00 AM	76	181	257
9:00 AM - 10:00 AM	104	178	282
10:00 AM - 11:00 AM	91	193	284
11:00 AM - 12:00 PM	118	214	332
Total	**637**	**1,226**	**1,863**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	110	212	322
1:00 PM - 2:00 PM	124	230	354
2:00 PM - 3:00 PM	118	243	361
3:00 PM - 4:00 PM	199	223	422
4:00 PM - 5:00 PM	150	198	348
5:00 PM - 6:00 PM	118	149	267
6:00 PM - 7:00 PM	92	118	210
7:00 PM - 8:00 PM	67	62	129
8:00 PM - 9:00 PM	42	22	64
9:00 PM - 10:00 PM	17	35	52
10:00 PM - 11:00 PM	33	38	71
11:00 PM - 12:00 AM	76	16	92
Total	**1,146**	**1,546**	**2,692**

24-Hour NB Volume	1,783	24-Hour SB Volume	2,772



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 11. Otay Mesa Road Between Ocean View Hills Parkway and Corporate Center Drive

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

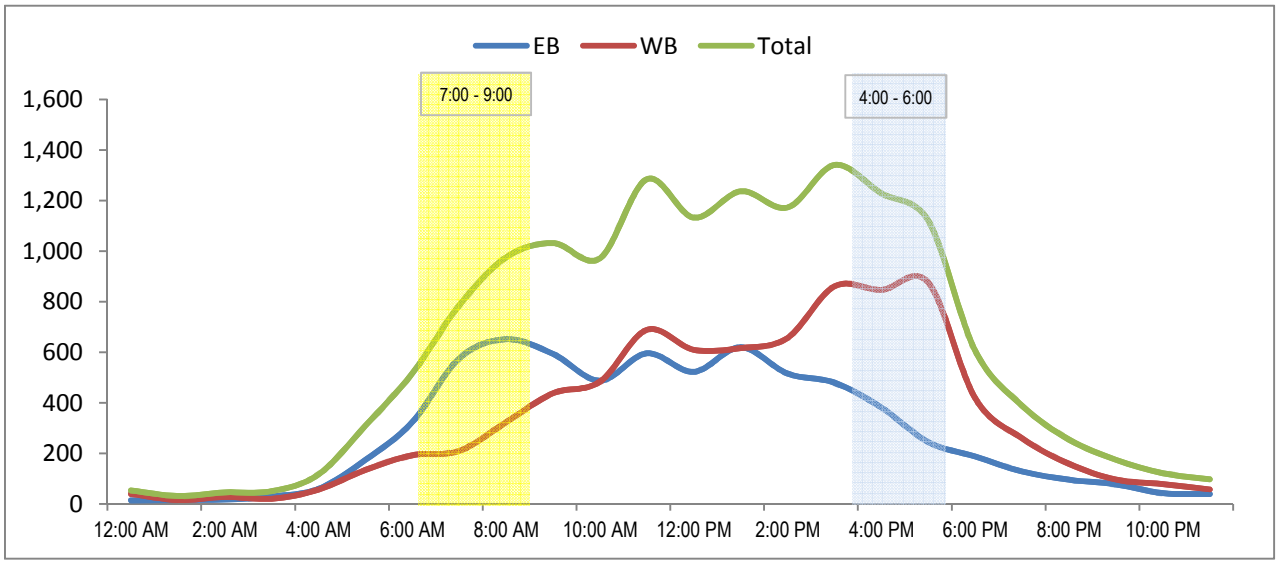
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*15,058*

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	14	40	54
1:00 AM - 2:00 AM	16	16	32
2:00 AM - 3:00 AM	18	28	46
3:00 AM - 4:00 AM	30	21	51
4:00 AM - 5:00 AM	60	57	117
5:00 AM - 6:00 AM	175	135	310
6:00 AM - 7:00 AM	324	193	517
7:00 AM - 8:00 AM	576	210	786
8:00 AM - 9:00 AM	652	324	976
9:00 AM - 10:00 AM	594	438	1,032
10:00 AM - 11:00 AM	488	484	972
11:00 AM - 12:00 PM	596	689	1285
Total	**3,543**	**2,635**	**6,178**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	523	610	1,133
1:00 PM - 2:00 PM	620	617	1,237
2:00 PM - 3:00 PM	516	657	1,173
3:00 PM - 4:00 PM	480	861	1,341
4:00 PM - 5:00 PM	382	847	1,229
5:00 PM - 6:00 PM	245	876	1,121
6:00 PM - 7:00 PM	188	419	607
7:00 PM - 8:00 PM	129	260	389
8:00 PM - 9:00 PM	96	159	255
9:00 PM - 10:00 PM	78	97	175
10:00 PM - 11:00 PM	43	79	122
11:00 PM - 12:00 AM	40	58	98
Total	**3,340**	**5,540**	**8,880**

24-Hour	*EB*	*Volume*	*6,883*	*24-Hour*	*WB*	*Volume*	*8,175*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 12. Otay Mesa Road Between Corporate Center Drive and Heritage Road

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

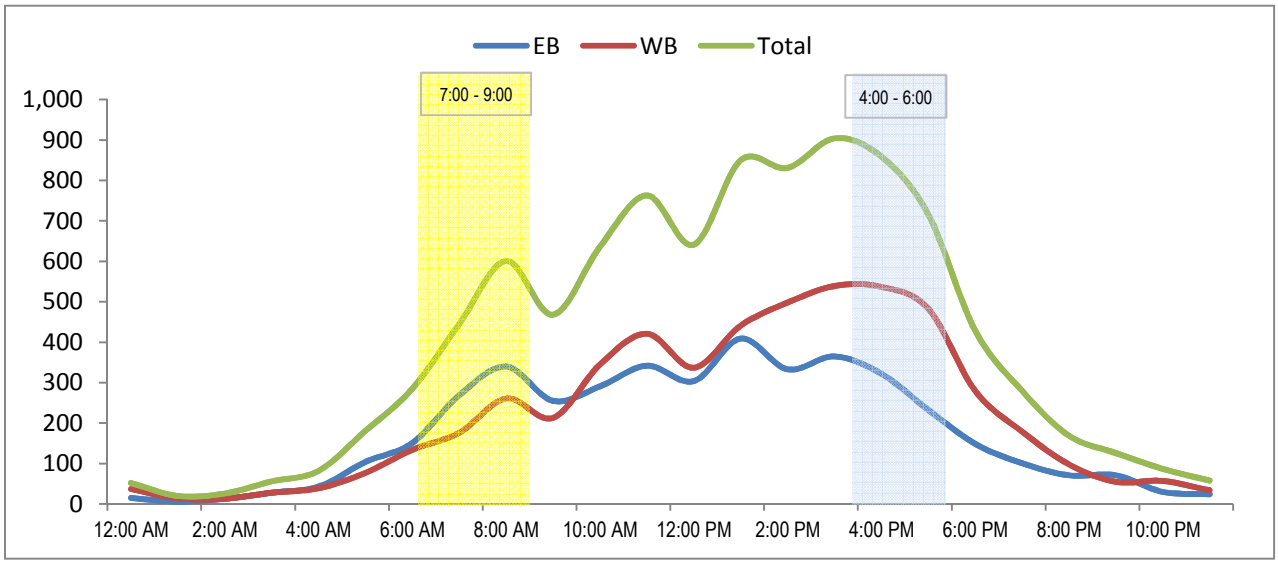
AVC Proj. No: *15-0415*

24 Hour Segment Volume			9,565

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	15	37	52
1:00 AM - 2:00 AM	6	14	20
2:00 AM - 3:00 AM	13	13	26
3:00 AM - 4:00 AM	28	28	56
4:00 AM - 5:00 AM	43	39	82
5:00 AM - 6:00 AM	104	77	181
6:00 AM - 7:00 AM	151	134	285
7:00 AM - 8:00 AM	269	176	445
8:00 AM - 9:00 AM	340	261	601
9:00 AM - 10:00 AM	255	213	468
10:00 AM - 11:00 AM	291	345	636
11:00 AM - 12:00 PM	342	421	763
Total	**1,857**	**1,758**	**3,615**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	304	337	641
1:00 PM - 2:00 PM	409	441	850
2:00 PM - 3:00 PM	333	498	831
3:00 PM - 4:00 PM	365	539	904
4:00 PM - 5:00 PM	322	537	859
5:00 PM - 6:00 PM	233	483	716
6:00 PM - 7:00 PM	149	280	429
7:00 PM - 8:00 PM	101	179	280
8:00 PM - 9:00 PM	71	98	169
9:00 PM - 10:00 PM	71	55	126
10:00 PM - 11:00 PM	30	57	87
11:00 PM - 12:00 AM	24	34	58
Total	**2,412**	**3,538**	**5,950**

24-Hour EB Volume	4,269	24-Hour WB Volume	5,296



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 13. Otay Mesa Road Between Heritage Road and Cactus Road

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

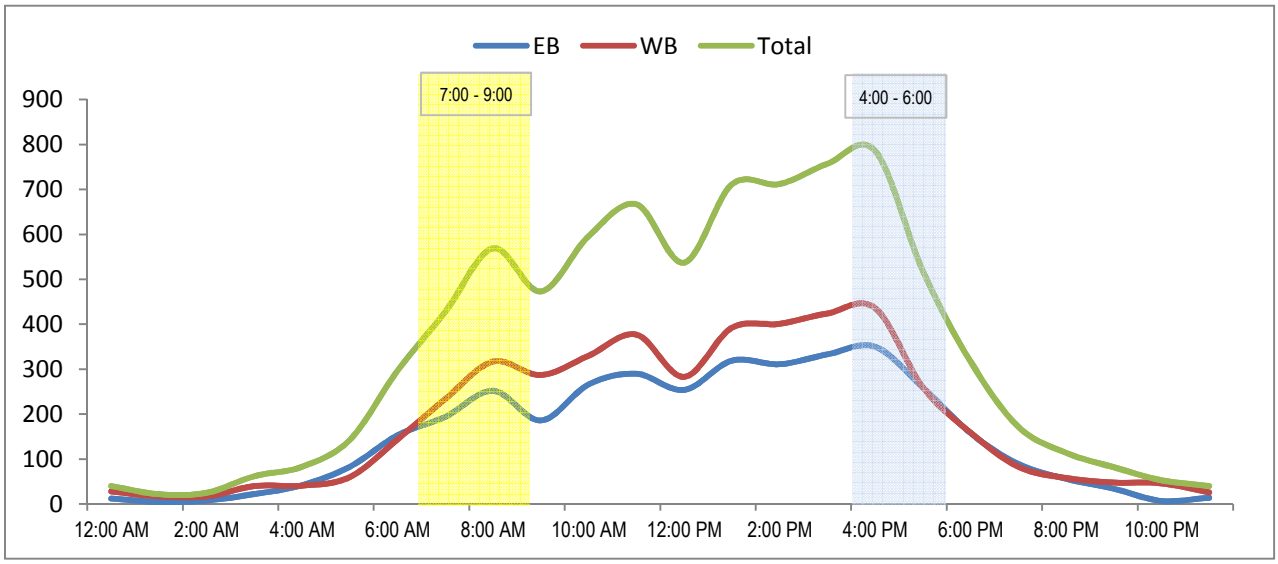
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*8,205*

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	12	28	40
1:00 AM - 2:00 AM	5	17	22
2:00 AM - 3:00 AM	8	17	25
3:00 AM - 4:00 AM	22	40	62
4:00 AM - 5:00 AM	42	41	83
5:00 AM - 6:00 AM	83	60	143
6:00 AM - 7:00 AM	153	144	297
7:00 AM - 8:00 AM	194	234	428
8:00 AM - 9:00 AM	252	317	569
9:00 AM - 10:00 AM	186	287	473
10:00 AM - 11:00 AM	266	330	596
11:00 AM - 12:00 PM	290	377	667
Total	**1,513**	**1,892**	**3,405**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	254	283	537
1:00 PM - 2:00 PM	319	392	711
2:00 PM - 3:00 PM	311	401	712
3:00 PM - 4:00 PM	333	424	757
4:00 PM - 5:00 PM	350	436	786
5:00 PM - 6:00 PM	259	260	519
6:00 PM - 7:00 PM	158	159	317
7:00 PM - 8:00 PM	89	83	172
8:00 PM - 9:00 PM	56	58	114
9:00 PM - 10:00 PM	34	48	82
10:00 PM - 11:00 PM	7	46	53
11:00 PM - 12:00 AM	14	26	40
Total	**2,184**	**2,616**	**4,800**

24-Hour	*EB*	*Volume*	*3,697*	*24-Hour*	*WB*	*Volume*	*4,508*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 14. Otay Mesa Road Between Cactus Road and Brittania Blvd

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

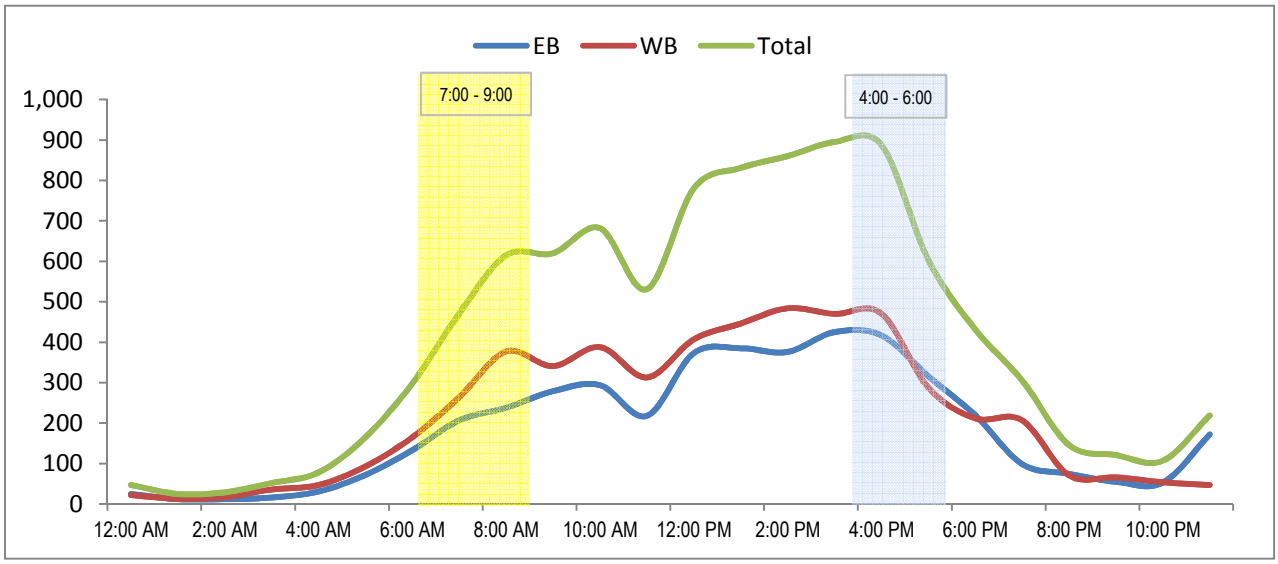
AVC Proj. No: *15-0415*

24 Hour Segment Volume			9,802

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	25	22	47
1:00 AM - 2:00 AM	12	13	25
2:00 AM - 3:00 AM	12	17	29
3:00 AM - 4:00 AM	16	36	52
4:00 AM - 5:00 AM	31	47	78
5:00 AM - 6:00 AM	72	93	165
6:00 AM - 7:00 AM	133	165	298
7:00 AM - 8:00 AM	207	264	471
8:00 AM - 9:00 AM	238	377	615
9:00 AM - 10:00 AM	279	341	620
10:00 AM - 11:00 AM	294	388	682
11:00 AM - 12:00 PM	218	313	531
Total	**1,537**	**2,076**	**3,613**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	373	407	780
1:00 PM - 2:00 PM	385	446	831
2:00 PM - 3:00 PM	376	484	860
3:00 PM - 4:00 PM	425	470	895
4:00 PM - 5:00 PM	417	471	888
5:00 PM - 6:00 PM	316	288	604
6:00 PM - 7:00 PM	220	212	432
7:00 PM - 8:00 PM	99	207	306
8:00 PM - 9:00 PM	75	71	146
9:00 PM - 10:00 PM	55	66	121
10:00 PM - 11:00 PM	53	54	107
11:00 PM - 12:00 AM	172	47	219
Total	**2,966**	**3,223**	**6,189**

24-Hour EB Volume	4,503	24-Hour WB Volume	5,299



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 15. Otay Mesa Road Between Brittania Blvd and St Andrews Avenue

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

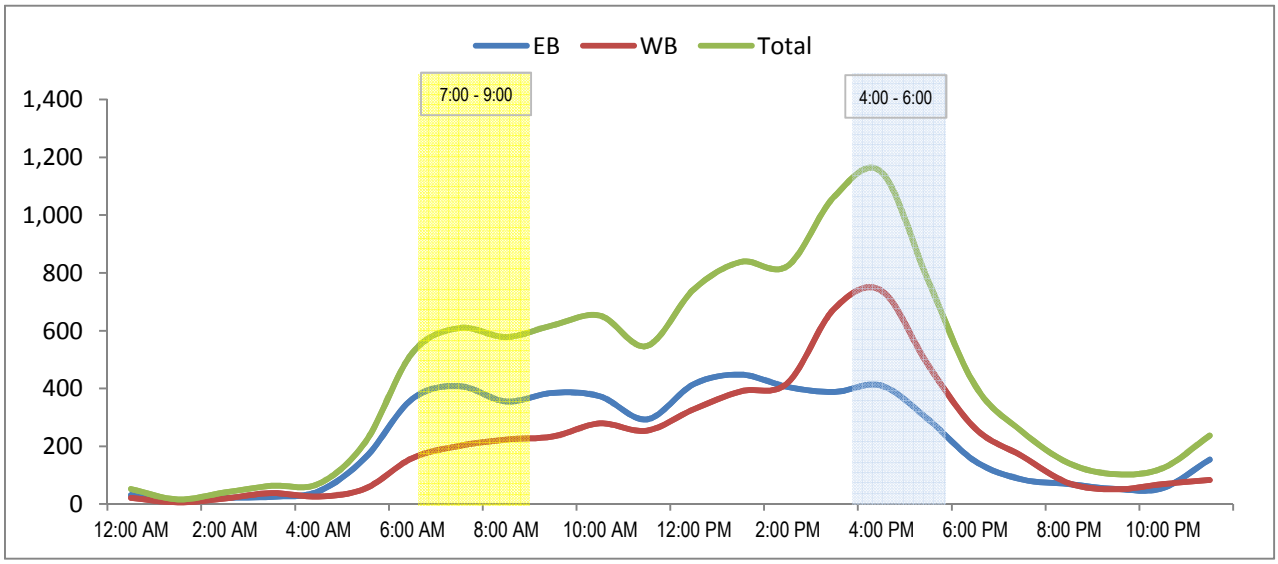
AVC Proj. No: *15-0415*

24 Hour Segment Volume			10,642

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	31	21	52
1:00 AM - 2:00 AM	10	6	16
2:00 AM - 3:00 AM	21	19	40
3:00 AM - 4:00 AM	25	38	63
4:00 AM - 5:00 AM	44	26	70
5:00 AM - 6:00 AM	161	54	215
6:00 AM - 7:00 AM	364	159	523
7:00 AM - 8:00 AM	408	201	609
8:00 AM - 9:00 AM	355	223	578
9:00 AM - 10:00 AM	385	234	619
10:00 AM - 11:00 AM	373	279	652
11:00 AM - 12:00 PM	293	254	547
Total	**2,470**	**1,514**	**3,984**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	415	328	743
1:00 PM - 2:00 PM	448	390	838
2:00 PM - 3:00 PM	405	419	824
3:00 PM - 4:00 PM	388	677	1,065
4:00 PM - 5:00 PM	410	739	1,149
5:00 PM - 6:00 PM	293	480	773
6:00 PM - 7:00 PM	148	262	410
7:00 PM - 8:00 PM	85	166	251
8:00 PM - 9:00 PM	69	72	141
9:00 PM - 10:00 PM	52	51	103
10:00 PM - 11:00 PM	55	69	124
11:00 PM - 12:00 AM	154	83	237
Total	**2,922**	**3,736**	**6,658**

24-Hour EB Volume	5,392	24-Hour WB Volume	5,250



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 16. Otay Mesa Road Between St Andrews Avenue and La Media Road

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

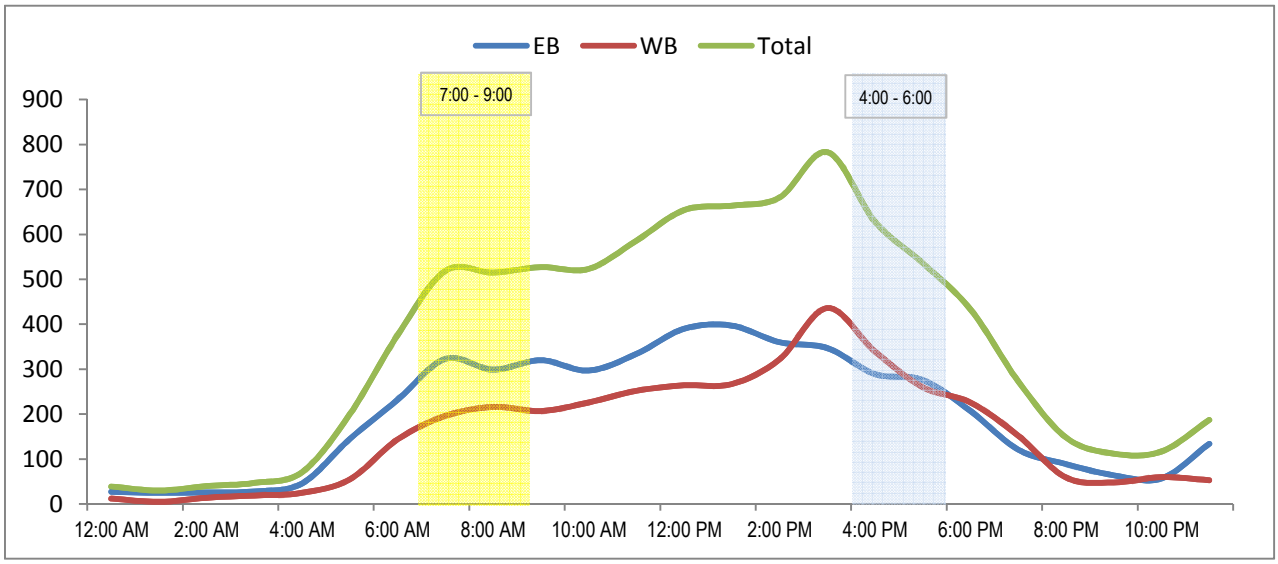
AVC Proj. No: *15-0415*

24 Hour Segment Volume			8,690

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	27	12	39
1:00 AM - 2:00 AM	25	5	30
2:00 AM - 3:00 AM	26	14	40
3:00 AM - 4:00 AM	28	19	47
4:00 AM - 5:00 AM	46	25	71
5:00 AM - 6:00 AM	145	55	200
6:00 AM - 7:00 AM	232	144	376
7:00 AM - 8:00 AM	323	196	519
8:00 AM - 9:00 AM	299	216	515
9:00 AM - 10:00 AM	320	207	527
10:00 AM - 11:00 AM	297	226	523
11:00 AM - 12:00 PM	334	252	586
Total	**2,102**	**1,371**	**3,473**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	390	264	654
1:00 PM - 2:00 PM	397	267	664
2:00 PM - 3:00 PM	360	322	682
3:00 PM - 4:00 PM	347	436	783
4:00 PM - 5:00 PM	289	339	628
5:00 PM - 6:00 PM	276	260	536
6:00 PM - 7:00 PM	207	226	433
7:00 PM - 8:00 PM	121	152	273
8:00 PM - 9:00 PM	89	59	148
9:00 PM - 10:00 PM	64	48	112
10:00 PM - 11:00 PM	57	60	117
11:00 PM - 12:00 AM	134	53	187
Total	**2,731**	**2,486**	**5,217**

24-Hour EB Volume	4,833	24-Hour WB Volume	3,857



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 17. Otay Mesa Road Between La Media Road and Pipers Ranch Road

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

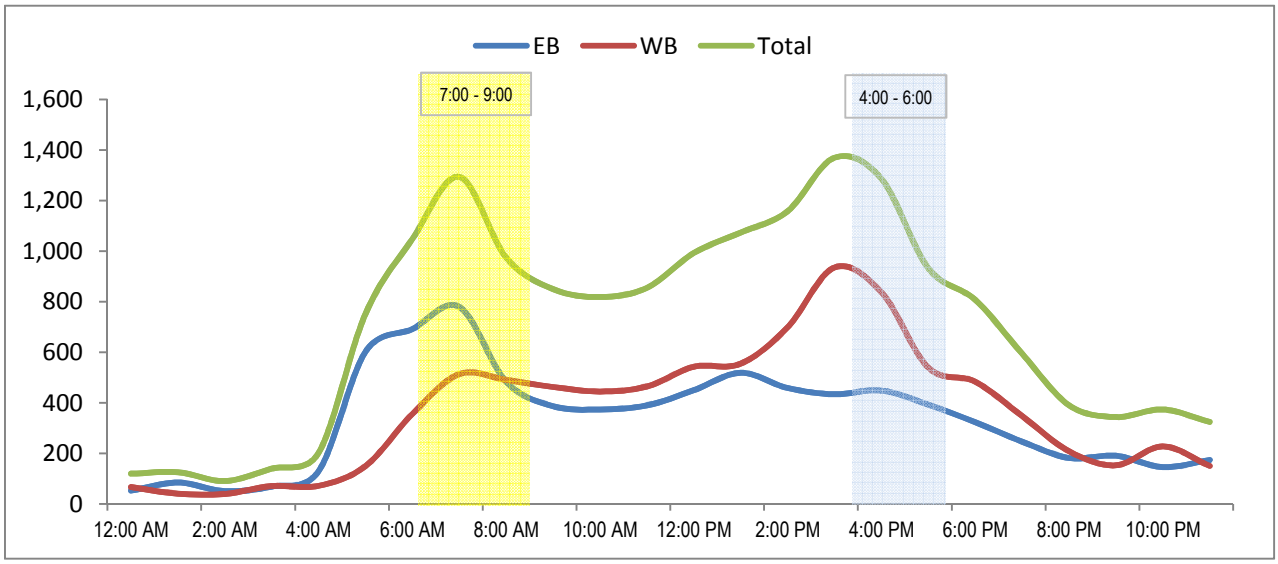
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*16,924*

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	53	67	120
1:00 AM - 2:00 AM	85	41	126
2:00 AM - 3:00 AM	51	40	91
3:00 AM - 4:00 AM	69	71	140
4:00 AM - 5:00 AM	130	72	202
5:00 AM - 6:00 AM	602	150	752
6:00 AM - 7:00 AM	692	356	1,048
7:00 AM - 8:00 AM	780	514	1,294
8:00 AM - 9:00 AM	484	491	975
9:00 AM - 10:00 AM	387	463	850
10:00 AM - 11:00 AM	374	445	819
11:00 AM - 12:00 PM	390	465	855
Total	**4,097**	**3,175**	**7,272**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	450	543	993
1:00 PM - 2:00 PM	519	555	1,074
2:00 PM - 3:00 PM	459	699	1,158
3:00 PM - 4:00 PM	434	936	1,370
4:00 PM - 5:00 PM	449	838	1,287
5:00 PM - 6:00 PM	393	540	933
6:00 PM - 7:00 PM	324	484	808
7:00 PM - 8:00 PM	247	348	595
8:00 PM - 9:00 PM	182	209	391
9:00 PM - 10:00 PM	191	153	344
10:00 PM - 11:00 PM	146	228	374
11:00 PM - 12:00 AM	174	151	325
Total	**3,968**	**5,684**	**9,652**

24-Hour	*EB*	*Volume*	*8,065*	*24-Hour*	*WB*	*Volume*	*8,859*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 18. Camino Maquiladora Between Pacific Rim and Cactus Road

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

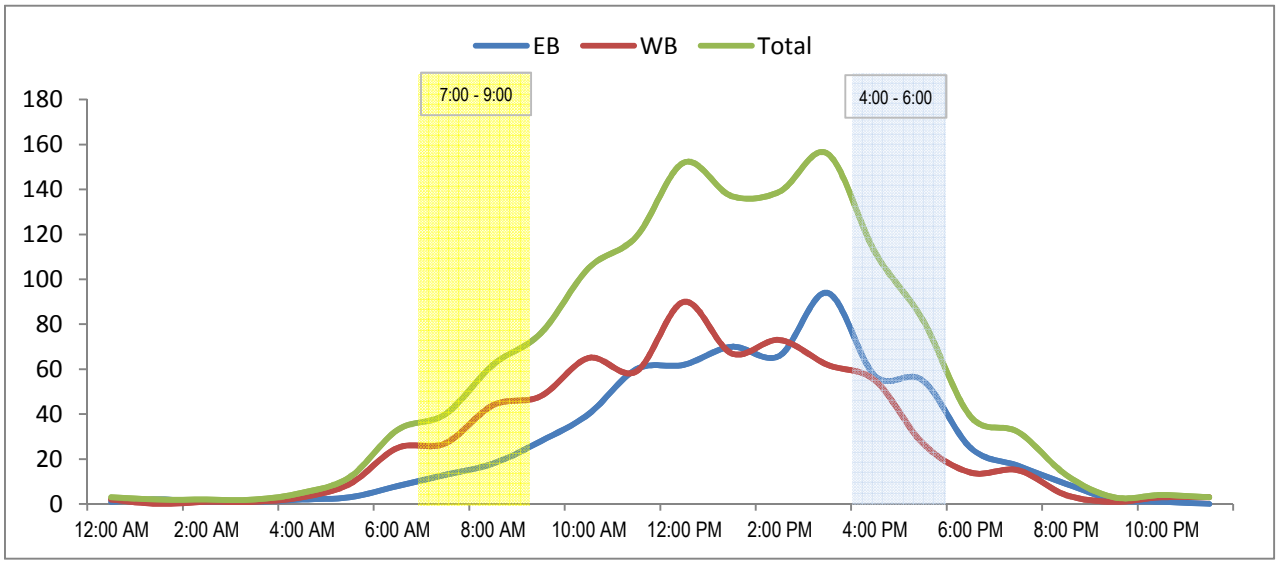
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*1,333*

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	1	2	3
1:00 AM - 2:00 AM	2	0	2
2:00 AM - 3:00 AM	1	1	2
3:00 AM - 4:00 AM	1	1	2
4:00 AM - 5:00 AM	2	3	5
5:00 AM - 6:00 AM	3	9	12
6:00 AM - 7:00 AM	8	25	33
7:00 AM - 8:00 AM	13	27	40
8:00 AM - 9:00 AM	18	44	62
9:00 AM - 10:00 AM	28	48	76
10:00 AM - 11:00 AM	40	65	105
11:00 AM - 12:00 PM	60	59	119
Total	**177**	**284**	**461**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	62	90	152
1:00 PM - 2:00 PM	70	67	137
2:00 PM - 3:00 PM	66	73	139
3:00 PM - 4:00 PM	94	62	156
4:00 PM - 5:00 PM	57	55	112
5:00 PM - 6:00 PM	55	27	82
6:00 PM - 7:00 PM	25	14	39
7:00 PM - 8:00 PM	17	15	32
8:00 PM - 9:00 PM	9	4	13
9:00 PM - 10:00 PM	2	1	3
10:00 PM - 11:00 PM	1	3	4
11:00 PM - 12:00 AM	0	3	3
Total	**458**	**414**	**872**

24-Hour	*EB*	*Volume*	*635*	*24-Hour*	*WB*	*Volume*	*698*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 19. Camino Maquiladora Between Cactus Road and Otay Heights Court

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

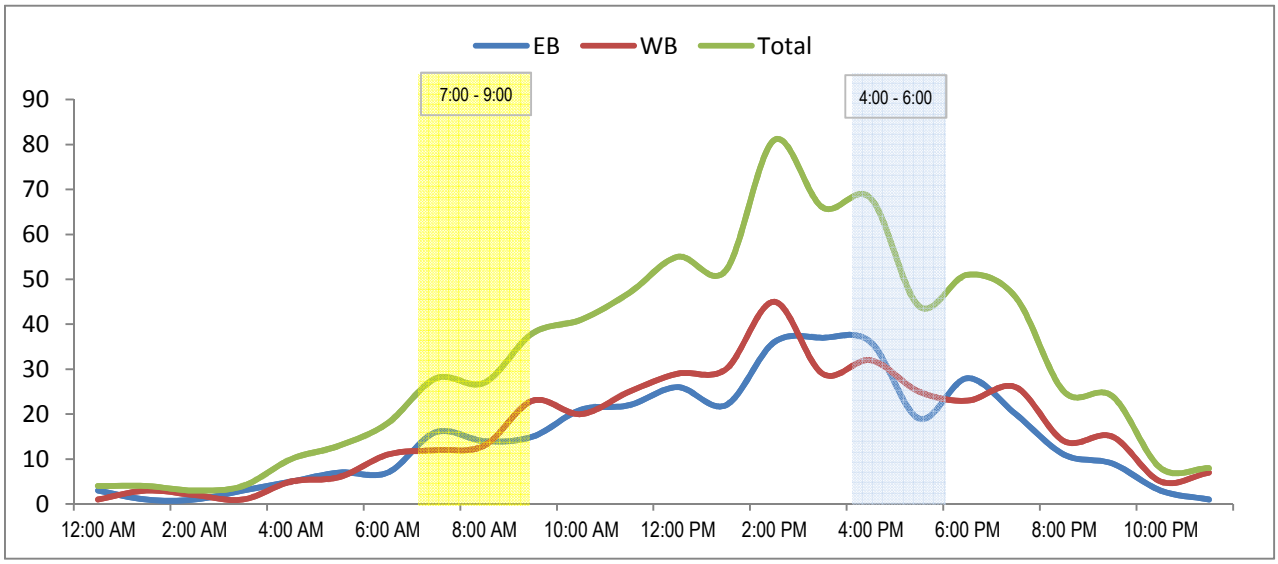
AVC Proj. No: *15-0415*

24 Hour Segment Volume			765

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	3	1	4
1:00 AM - 2:00 AM	1	3	4
2:00 AM - 3:00 AM	1	2	3
3:00 AM - 4:00 AM	3	1	4
4:00 AM - 5:00 AM	5	5	10
5:00 AM - 6:00 AM	7	6	13
6:00 AM - 7:00 AM	7	11	18
7:00 AM - 8:00 AM	16	12	28
8:00 AM - 9:00 AM	14	13	27
9:00 AM - 10:00 AM	15	23	38
10:00 AM - 11:00 AM	21	20	41
11:00 AM - 12:00 PM	22	25	47
Total	**115**	**122**	**237**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	26	29	55
1:00 PM - 2:00 PM	22	30	52
2:00 PM - 3:00 PM	36	45	81
3:00 PM - 4:00 PM	37	29	66
4:00 PM - 5:00 PM	36	32	68
5:00 PM - 6:00 PM	19	25	44
6:00 PM - 7:00 PM	28	23	51
7:00 PM - 8:00 PM	20	26	46
8:00 PM - 9:00 PM	11	14	25
9:00 PM - 10:00 PM	9	15	24
10:00 PM - 11:00 PM	3	5	8
11:00 PM - 12:00 AM	1	7	8
Total	**248**	**280**	**528**

24-Hour EB Volume	363	24-Hour WB Volume	402



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 26. Airway Road Between Otay Mesa Road and Caliente Avenue

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

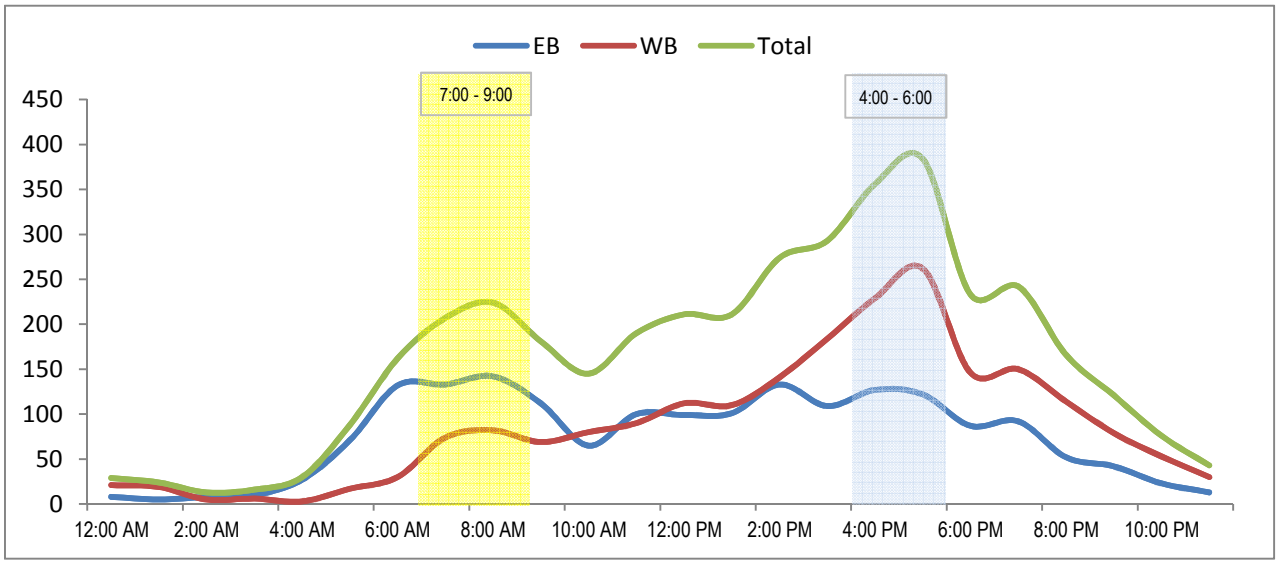
AVC Proj. No: *15-0415*

24 Hour Segment Volume			***3,919***

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	8	21	29
1:00 AM - 2:00 AM	5	19	24
2:00 AM - 3:00 AM	8	5	13
3:00 AM - 4:00 AM	10	6	16
4:00 AM - 5:00 AM	27	3	30
5:00 AM - 6:00 AM	71	17	88
6:00 AM - 7:00 AM	132	30	162
7:00 AM - 8:00 AM	133	74	207
8:00 AM - 9:00 AM	142	82	224
9:00 AM - 10:00 AM	112	69	181
10:00 AM - 11:00 AM	65	80	145
11:00 AM - 12:00 PM	100	90	190
Total	**813**	**496**	**1,309**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	99	112	211
1:00 PM - 2:00 PM	101	110	211
2:00 PM - 3:00 PM	133	141	274
3:00 PM - 4:00 PM	109	184	293
4:00 PM - 5:00 PM	127	229	356
5:00 PM - 6:00 PM	122	262	384
6:00 PM - 7:00 PM	87	146	233
7:00 PM - 8:00 PM	92	150	242
8:00 PM - 9:00 PM	52	114	166
9:00 PM - 10:00 PM	42	79	121
10:00 PM - 11:00 PM	23	53	76
11:00 PM - 12:00 AM	13	30	43
Total	**1,000**	**1,610**	**2,610**

24-Hour	***EB***	***Volume***	***1,813***	***24-Hour***	***WB***	***Volume***	***2,106***



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 27. Airway Road East of Caliente Avenue

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

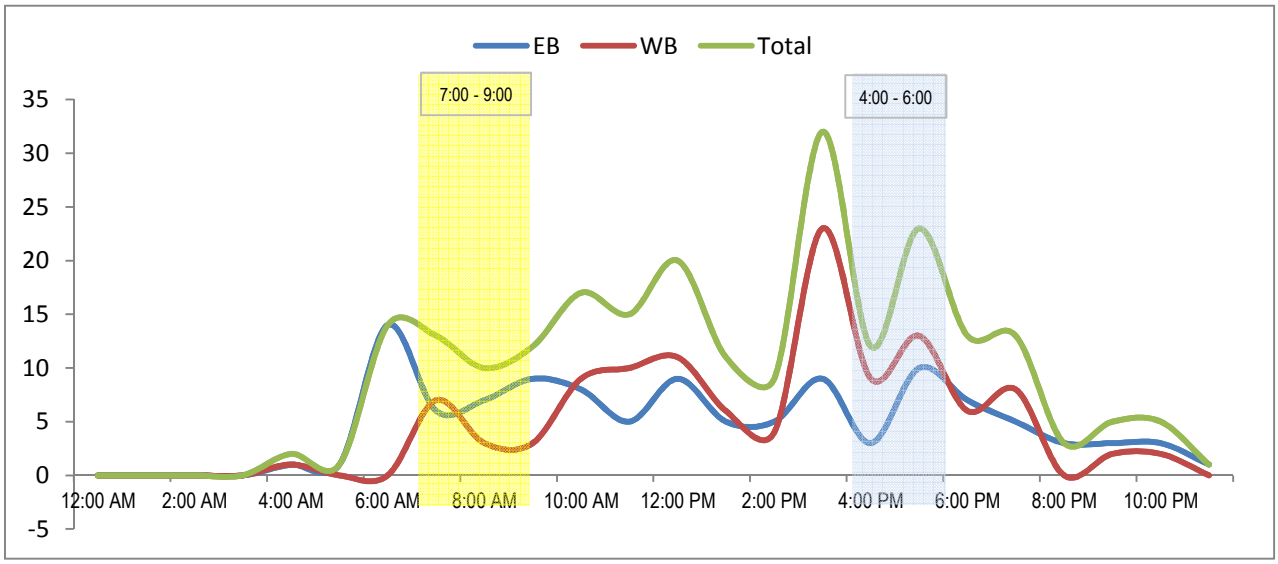
AVC Proj. No: *15-0415*

24 Hour Segment Volume			231

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	0	0	0
1:00 AM - 2:00 AM	0	0	0
2:00 AM - 3:00 AM	0	0	0
3:00 AM - 4:00 AM	0	0	0
4:00 AM - 5:00 AM	1	1	2
5:00 AM - 6:00 AM	1	0	1
6:00 AM - 7:00 AM	14	0	14
7:00 AM - 8:00 AM	6	7	13
8:00 AM - 9:00 AM	7	3	10
9:00 AM - 10:00 AM	9	3	12
10:00 AM - 11:00 AM	8	9	17
11:00 AM - 12:00 PM	5	10	15
Total	**51**	**33**	**84**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	9	11	20
1:00 PM - 2:00 PM	5	6	11
2:00 PM - 3:00 PM	5	4	9
3:00 PM - 4:00 PM	9	23	32
4:00 PM - 5:00 PM	3	9	12
5:00 PM - 6:00 PM	10	13	23
6:00 PM - 7:00 PM	7	6	13
7:00 PM - 8:00 PM	5	8	13
8:00 PM - 9:00 PM	3	0	3
9:00 PM - 10:00 PM	3	2	5
10:00 PM - 11:00 PM	3	2	5
11:00 PM - 12:00 AM	1	0	1
Total	**63**	**84**	**147**

24-Hour EB Volume	114	24-Hour WB Volume	117



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 28. Airway Road Between Cactus Road and Britannia Blvd

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

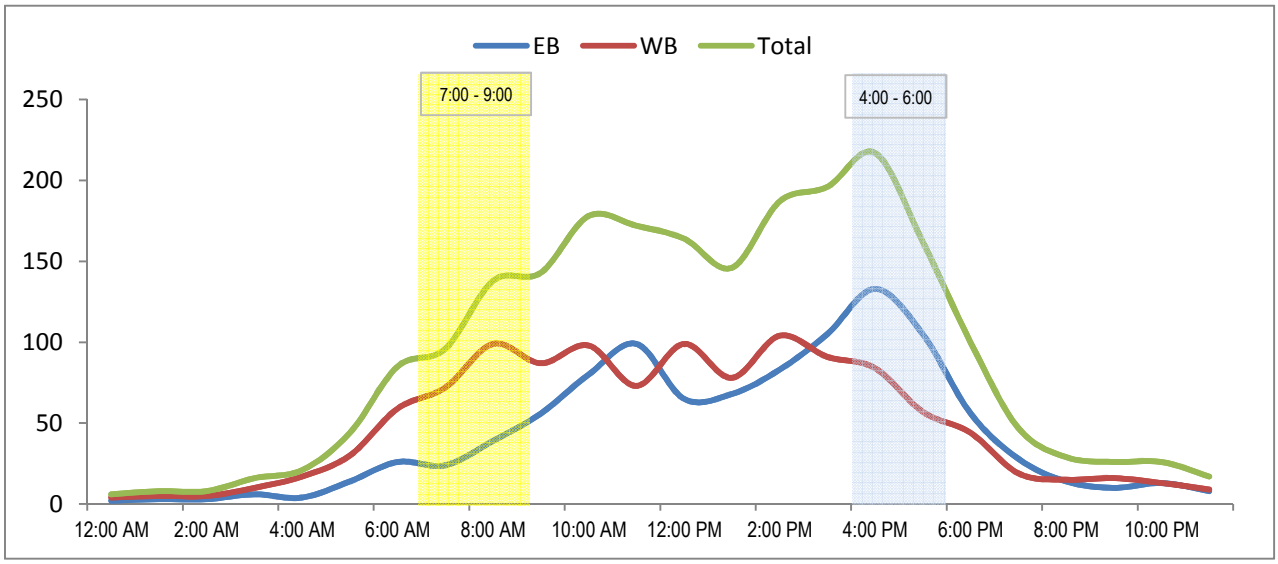
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*2,232*

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	2	4	6
1:00 AM - 2:00 AM	3	5	8
2:00 AM - 3:00 AM	3	5	8
3:00 AM - 4:00 AM	6	10	16
4:00 AM - 5:00 AM	4	17	21
5:00 AM - 6:00 AM	14	30	44
6:00 AM - 7:00 AM	26	59	85
7:00 AM - 8:00 AM	24	72	96
8:00 AM - 9:00 AM	39	99	138
9:00 AM - 10:00 AM	56	87	143
10:00 AM - 11:00 AM	80	98	178
11:00 AM - 12:00 PM	99	73	172
Total	**356**	**559**	**915**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	65	99	164
1:00 PM - 2:00 PM	68	78	146
2:00 PM - 3:00 PM	83	104	187
3:00 PM - 4:00 PM	105	91	196
4:00 PM - 5:00 PM	133	84	217
5:00 PM - 6:00 PM	105	57	162
6:00 PM - 7:00 PM	56	44	100
7:00 PM - 8:00 PM	28	19	47
8:00 PM - 9:00 PM	14	15	29
9:00 PM - 10:00 PM	10	16	26
10:00 PM - 11:00 PM	13	13	26
11:00 PM - 12:00 AM	8	9	17
Total	**688**	**629**	**1,317**

24-Hour	*EB*	*Volume*	*1,044*	*24-Hour*	*WB*	*Volume*	*1,188*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 29. Airway Road Between Brittania Blvd and La Media Road

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

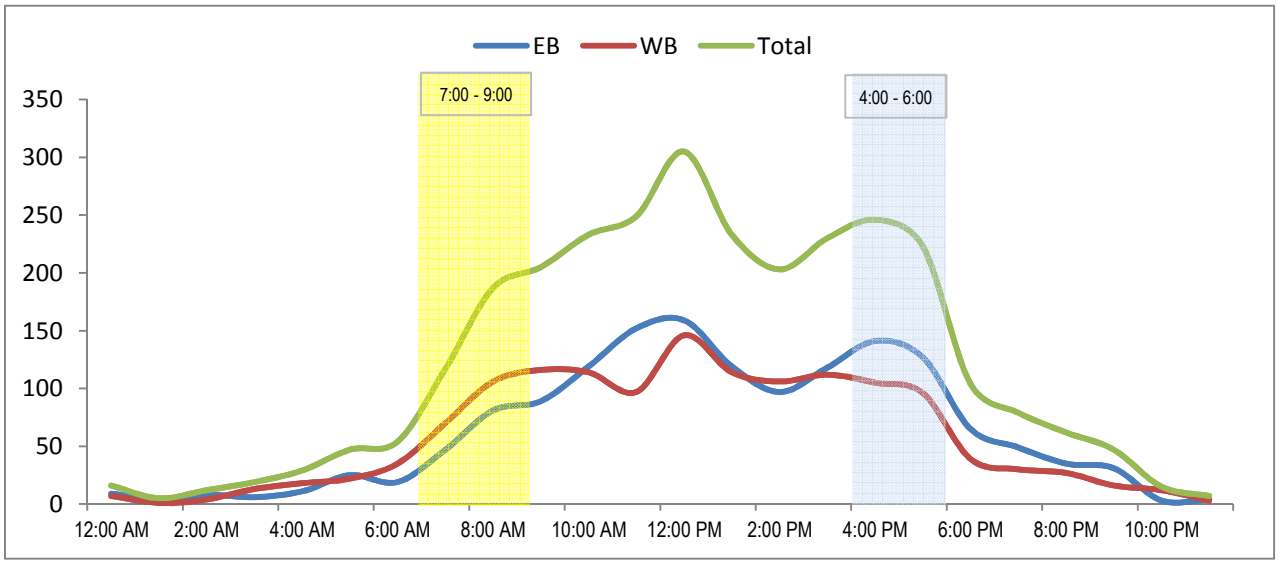
AVC Proj. No: *15-0415*

24 Hour Segment Volume			2,927

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	9	7	16
1:00 AM - 2:00 AM	4	1	5
2:00 AM - 3:00 AM	8	4	12
3:00 AM - 4:00 AM	6	13	19
4:00 AM - 5:00 AM	11	18	29
5:00 AM - 6:00 AM	25	22	47
6:00 AM - 7:00 AM	19	35	54
7:00 AM - 8:00 AM	47	70	117
8:00 AM - 9:00 AM	81	106	187
9:00 AM - 10:00 AM	89	116	205
10:00 AM - 11:00 AM	119	114	233
11:00 AM - 12:00 PM	152	97	249
Total	**570**	**603**	**1,173**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	159	146	305
1:00 PM - 2:00 PM	119	114	233
2:00 PM - 3:00 PM	97	106	203
3:00 PM - 4:00 PM	118	112	230
4:00 PM - 5:00 PM	141	105	246
5:00 PM - 6:00 PM	127	96	223
6:00 PM - 7:00 PM	65	39	104
7:00 PM - 8:00 PM	49	30	79
8:00 PM - 9:00 PM	35	27	62
9:00 PM - 10:00 PM	31	16	47
10:00 PM - 11:00 PM	3	12	15
11:00 PM - 12:00 AM	4	3	7
Total	**948**	**806**	**1,754**

24-Hour EB Volume	1,518	24-Hour WB Volume	1,409



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 30. Airway Road Between La Media Road and Pipers Ranch Road

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

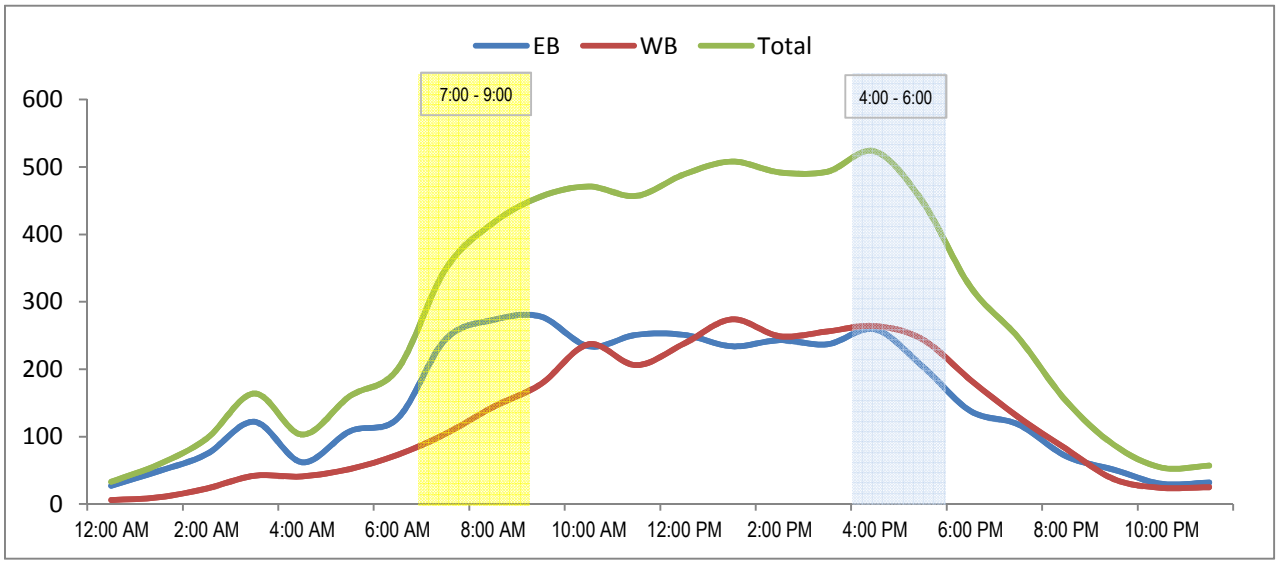
AVC Proj. No: *15-0415*

24 Hour Segment Volume			6,839

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	27	6	33
1:00 AM - 2:00 AM	49	10	59
2:00 AM - 3:00 AM	74	23	97
3:00 AM - 4:00 AM	122	42	164
4:00 AM - 5:00 AM	62	41	103
5:00 AM - 6:00 AM	108	52	160
6:00 AM - 7:00 AM	127	73	200
7:00 AM - 8:00 AM	244	104	348
8:00 AM - 9:00 AM	273	144	417
9:00 AM - 10:00 AM	278	178	456
10:00 AM - 11:00 AM	234	237	471
11:00 AM - 12:00 PM	251	206	457
Total	**1,849**	**1,116**	**2,965**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	251	238	489
1:00 PM - 2:00 PM	234	274	508
2:00 PM - 3:00 PM	243	249	492
3:00 PM - 4:00 PM	237	256	493
4:00 PM - 5:00 PM	259	264	523
5:00 PM - 6:00 PM	204	244	448
6:00 PM - 7:00 PM	138	184	322
7:00 PM - 8:00 PM	118	129	247
8:00 PM - 9:00 PM	71	82	153
9:00 PM - 10:00 PM	51	37	88
10:00 PM - 11:00 PM	30	24	54
11:00 PM - 12:00 AM	32	25	57
Total	**1,868**	**2,006**	**3,874**

24-Hour EB Volume	3,717	24-Hour WB Volume	3,122



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 31. Airway Road Between Pipers Ranch Road and Harvest Road

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

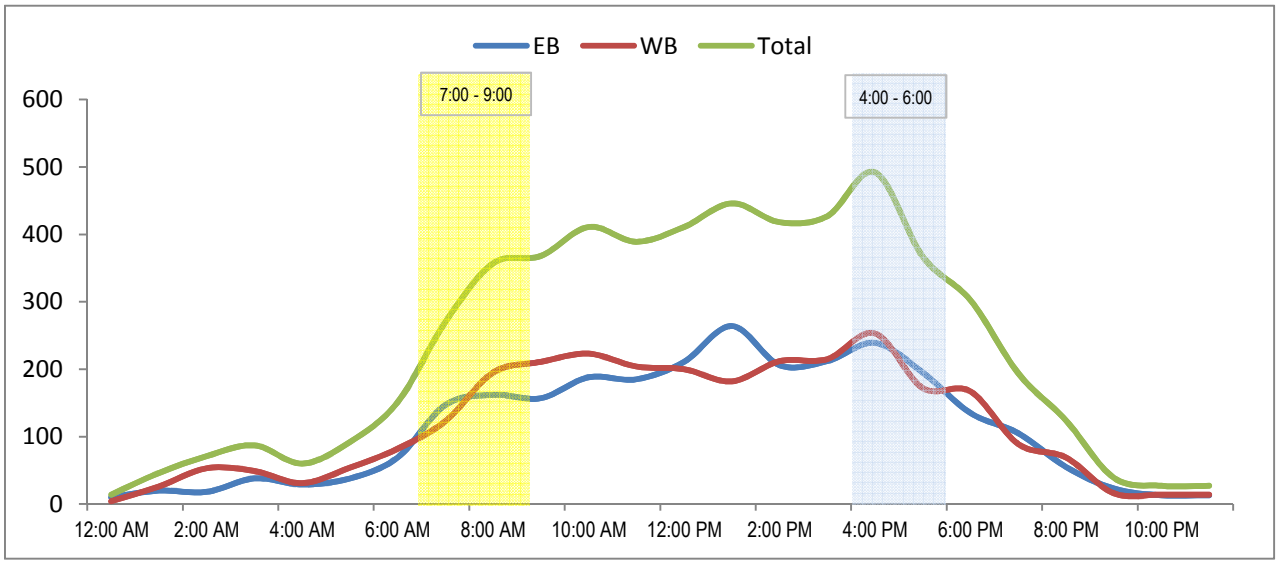
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*5,590*

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	10	4	14
1:00 AM - 2:00 AM	20	26	46
2:00 AM - 3:00 AM	18	53	71
3:00 AM - 4:00 AM	38	49	87
4:00 AM - 5:00 AM	29	31	60
5:00 AM - 6:00 AM	38	54	92
6:00 AM - 7:00 AM	69	82	151
7:00 AM - 8:00 AM	147	123	270
8:00 AM - 9:00 AM	162	195	357
9:00 AM - 10:00 AM	157	211	368
10:00 AM - 11:00 AM	188	223	411
11:00 AM - 12:00 PM	185	204	389
Total	**1,061**	**1,255**	**2,316**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	211	200	411
1:00 PM - 2:00 PM	264	182	446
2:00 PM - 3:00 PM	206	212	418
3:00 PM - 4:00 PM	212	215	427
4:00 PM - 5:00 PM	239	253	492
5:00 PM - 6:00 PM	195	172	367
6:00 PM - 7:00 PM	135	167	302
7:00 PM - 8:00 PM	105	89	194
8:00 PM - 9:00 PM	55	69	124
9:00 PM - 10:00 PM	23	16	39
10:00 PM - 11:00 PM	13	14	27
11:00 PM - 12:00 AM	13	14	27
Total	**1,671**	**1,603**	**3,274**

24-Hour	*EB*	*Volume*	*2,732*	*24-Hour*	*WB*	*Volume*	*2,858*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 32. Airway Road Between Harvest Road and Sanyo Avenue

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

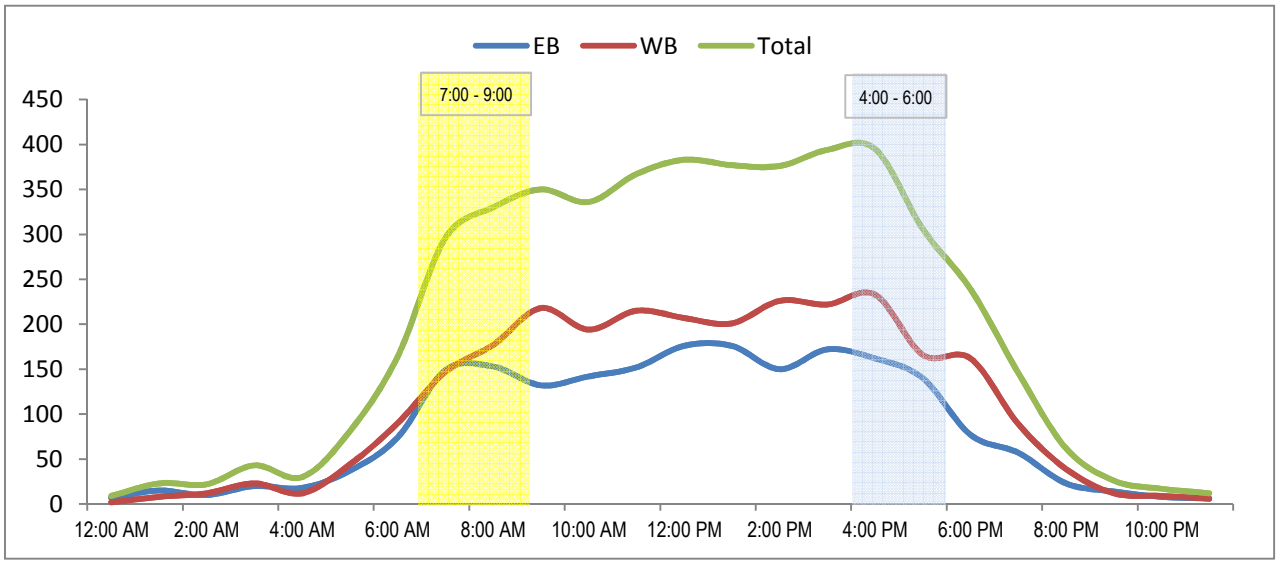
AVC Proj. No: *15-0415*

24 Hour Segment Volume			***4,784***

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	7	2	9
1:00 AM - 2:00 AM	15	8	23
2:00 AM - 3:00 AM	10	12	22
3:00 AM - 4:00 AM	20	23	43
4:00 AM - 5:00 AM	18	12	30
5:00 AM - 6:00 AM	37	44	81
6:00 AM - 7:00 AM	74	90	164
7:00 AM - 8:00 AM	149	147	296
8:00 AM - 9:00 AM	153	177	330
9:00 AM - 10:00 AM	132	218	350
10:00 AM - 11:00 AM	142	194	336
11:00 AM - 12:00 PM	152	215	367
Total	**909**	**1,142**	**2,051**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	176	207	383
1:00 PM - 2:00 PM	176	201	377
2:00 PM - 3:00 PM	150	226	376
3:00 PM - 4:00 PM	172	222	394
4:00 PM - 5:00 PM	162	233	395
5:00 PM - 6:00 PM	140	166	306
6:00 PM - 7:00 PM	77	162	239
7:00 PM - 8:00 PM	57	89	146
8:00 PM - 9:00 PM	23	39	62
9:00 PM - 10:00 PM	14	12	26
10:00 PM - 11:00 PM	8	9	17
11:00 PM - 12:00 AM	6	6	12
Total	**1,161**	**1,572**	**2,733**

24-Hour	***EB***	***Volume***	***2,070***	***24-Hour***	***WB***	***Volume***	***2,714***



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 44. Beyer Blvd Between Park Avenue and Otay Mesa Road

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

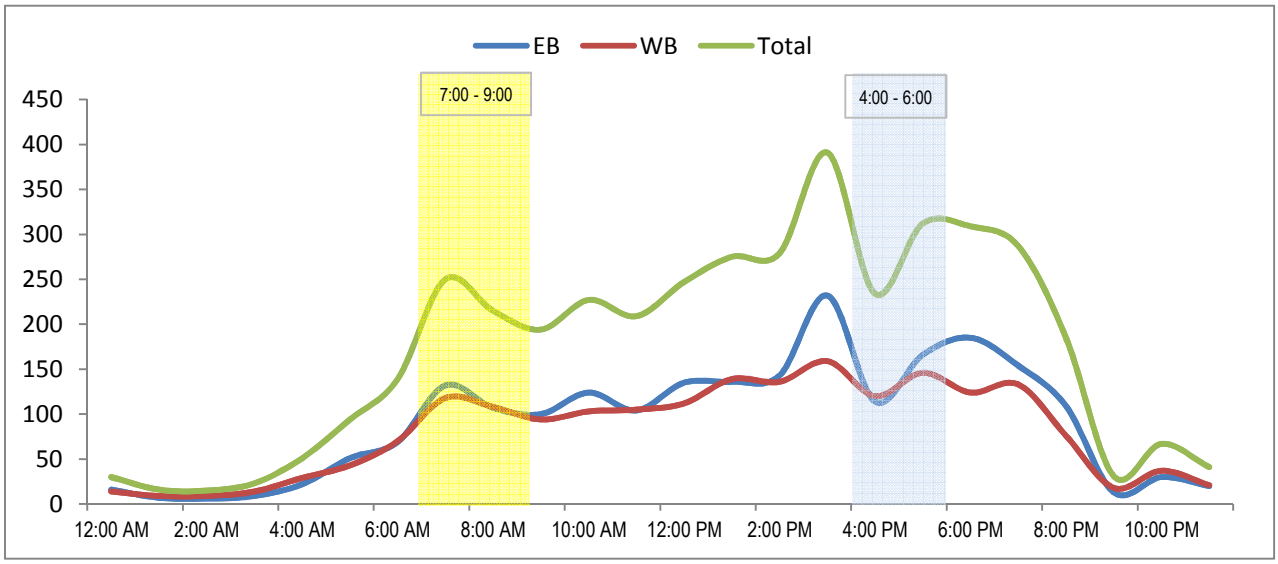
AVC Proj. No: *15-0415*

24 Hour Segment Volume			4,121

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	16	14	30
1:00 AM - 2:00 AM	7	9	16
2:00 AM - 3:00 AM	6	9	15
3:00 AM - 4:00 AM	9	14	23
4:00 AM - 5:00 AM	22	29	51
5:00 AM - 6:00 AM	51	43	94
6:00 AM - 7:00 AM	69	70	139
7:00 AM - 8:00 AM	132	118	250
8:00 AM - 9:00 AM	107	108	215
9:00 AM - 10:00 AM	100	94	194
10:00 AM - 11:00 AM	124	103	227
11:00 AM - 12:00 PM	104	105	209
Total	**747**	**716**	**1,463**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	135	112	247
1:00 PM - 2:00 PM	136	139	275
2:00 PM - 3:00 PM	143	136	279
3:00 PM - 4:00 PM	232	159	391
4:00 PM - 5:00 PM	114	120	234
5:00 PM - 6:00 PM	166	146	312
6:00 PM - 7:00 PM	185	124	309
7:00 PM - 8:00 PM	154	133	287
8:00 PM - 9:00 PM	109	76	185
9:00 PM - 10:00 PM	13	18	31
10:00 PM - 11:00 PM	30	37	67
11:00 PM - 12:00 AM	20	21	41
Total	**1,437**	**1,221**	**2,658**

24-Hour EB Volume	2,184	24-Hour WB Volume	1,937



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 45. Beyer Blvd East of Otay Mesa Road

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

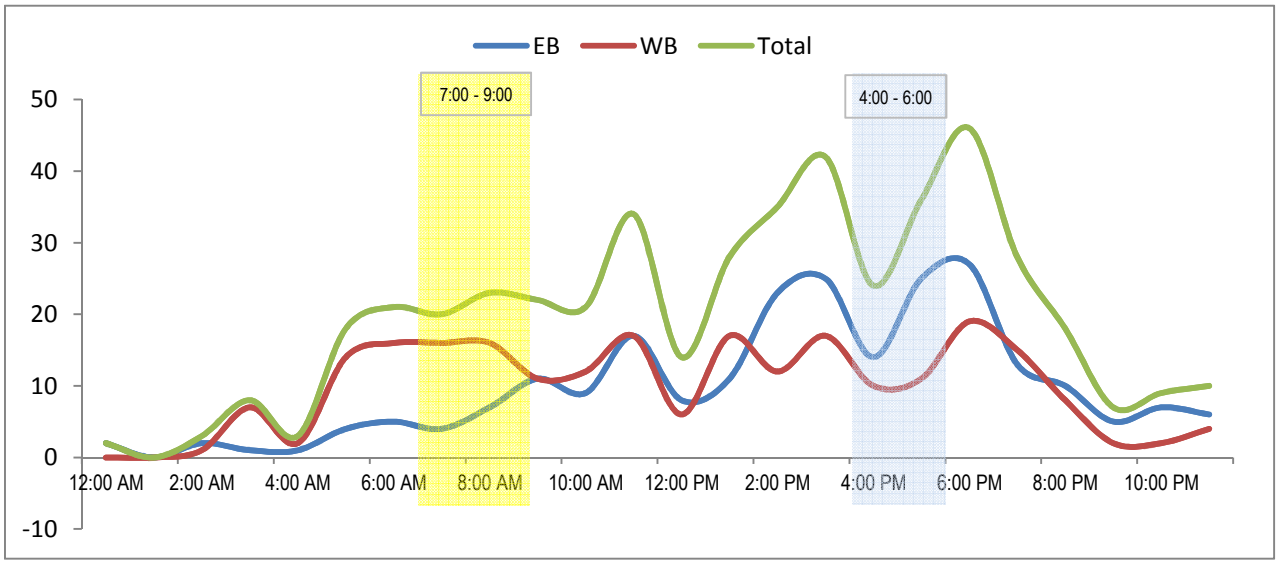
AVC Proj. No: *15-0415*

24 Hour Segment Volume			472

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	2	0	2
1:00 AM - 2:00 AM	0	0	0
2:00 AM - 3:00 AM	2	1	3
3:00 AM - 4:00 AM	1	7	8
4:00 AM - 5:00 AM	1	2	3
5:00 AM - 6:00 AM	4	14	18
6:00 AM - 7:00 AM	5	16	21
7:00 AM - 8:00 AM	4	16	20
8:00 AM - 9:00 AM	7	16	23
9:00 AM - 10:00 AM	11	11	22
10:00 AM - 11:00 AM	9	12	21
11:00 AM - 12:00 PM	17	17	34
Total	**63**	**112**	**175**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	8	6	14
1:00 PM - 2:00 PM	11	17	28
2:00 PM - 3:00 PM	23	12	35
3:00 PM - 4:00 PM	25	17	42
4:00 PM - 5:00 PM	14	10	24
5:00 PM - 6:00 PM	25	11	36
6:00 PM - 7:00 PM	27	19	46
7:00 PM - 8:00 PM	13	15	28
8:00 PM - 9:00 PM	10	8	18
9:00 PM - 10:00 PM	5	2	7
10:00 PM - 11:00 PM	7	2	9
11:00 PM - 12:00 AM	6	4	10
Total	**174**	**123**	**297**

24-Hour EB Volume	237	24-Hour WB Volume	235



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 35. Siempre Viva Road Between Cactus Road and Britannia Blvd

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

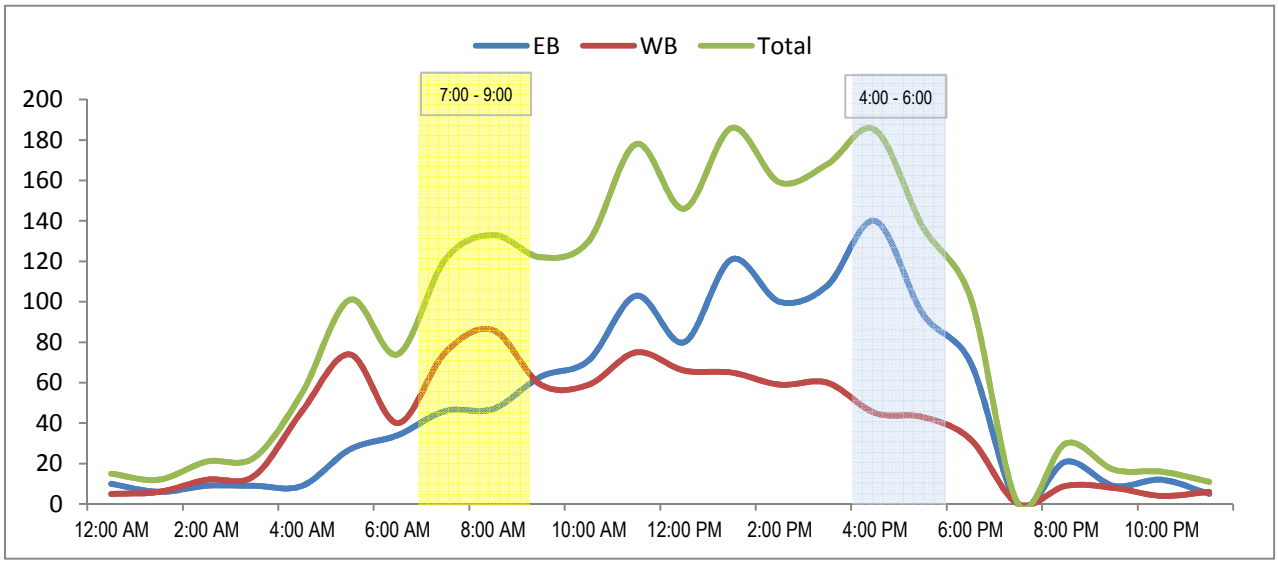
AVC Proj. No: *15-0415*

24 Hour Segment Volume			2,142

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	10	5	15
1:00 AM - 2:00 AM	6	6	12
2:00 AM - 3:00 AM	9	12	21
3:00 AM - 4:00 AM	9	14	23
4:00 AM - 5:00 AM	9	46	55
5:00 AM - 6:00 AM	27	74	101
6:00 AM - 7:00 AM	34	40	74
7:00 AM - 8:00 AM	46	75	121
8:00 AM - 9:00 AM	47	86	133
9:00 AM - 10:00 AM	63	59	122
10:00 AM - 11:00 AM	71	59	130
11:00 AM - 12:00 PM	103	75	178
Total	**434**	**551**	**985**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	80	66	146
1:00 PM - 2:00 PM	121	65	186
2:00 PM - 3:00 PM	100	59	159
3:00 PM - 4:00 PM	108	60	168
4:00 PM - 5:00 PM	140	45	185
5:00 PM - 6:00 PM	94	43	137
6:00 PM - 7:00 PM	70	32	102
7:00 PM - 8:00 PM	0	0	0
8:00 PM - 9:00 PM	21	9	30
9:00 PM - 10:00 PM	9	8	17
10:00 PM - 11:00 PM	12	4	16
11:00 PM - 12:00 AM	5	6	11
Total	**760**	**397**	**1,157**

24-Hour EB Volume	1,194	24-Hour WB Volume	948



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 36. Siempre Viva Road Between Brittania Blvd and La Media Road

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

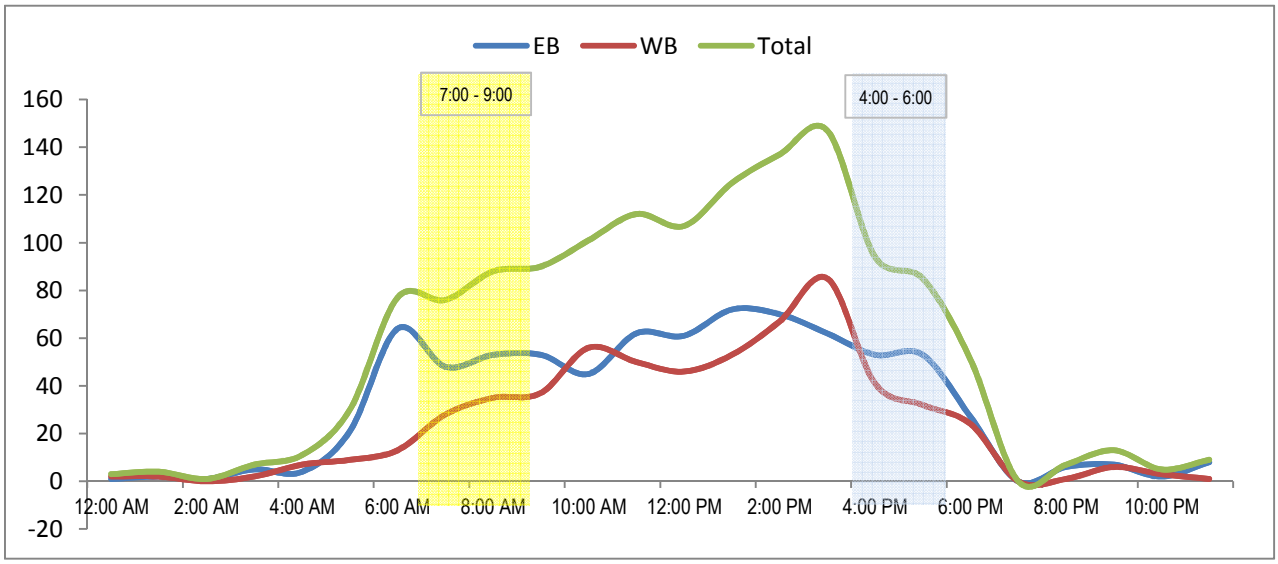
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*1,380*

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	1	2	3
1:00 AM - 2:00 AM	2	2	4
2:00 AM - 3:00 AM	1	0	1
3:00 AM - 4:00 AM	5	2	7
4:00 AM - 5:00 AM	4	7	11
5:00 AM - 6:00 AM	21	9	30
6:00 AM - 7:00 AM	64	13	77
7:00 AM - 8:00 AM	48	28	76
8:00 AM - 9:00 AM	53	35	88
9:00 AM - 10:00 AM	53	37	90
10:00 AM - 11:00 AM	45	56	101
11:00 AM - 12:00 PM	62	50	112
Total	**359**	**241**	**600**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	61	46	107
1:00 PM - 2:00 PM	72	53	125
2:00 PM - 3:00 PM	70	67	137
3:00 PM - 4:00 PM	62	85	147
4:00 PM - 5:00 PM	53	41	94
5:00 PM - 6:00 PM	53	32	85
6:00 PM - 7:00 PM	27	24	51
7:00 PM - 8:00 PM	0	0	0
8:00 PM - 9:00 PM	6	1	7
9:00 PM - 10:00 PM	7	6	13
10:00 PM - 11:00 PM	2	3	5
11:00 PM - 12:00 AM	8	1	9
Total	**421**	**359**	**780**

24-Hour	*EB*	*Volume*	*780*	*24-Hour*	*WB*	*Volume*	*600*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 37. Siempre Viva Road Between La Media Road and Customhouse Plaza

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

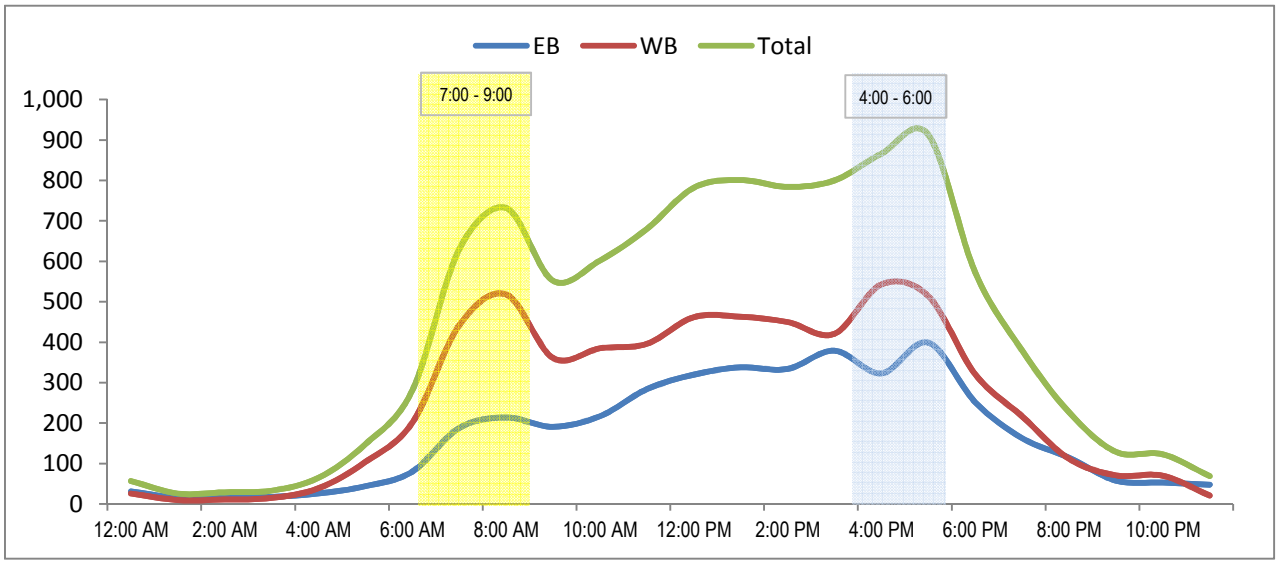
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*10,282*

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	31	26	57
1:00 AM - 2:00 AM	16	10	26
2:00 AM - 3:00 AM	18	11	29
3:00 AM - 4:00 AM	18	15	33
4:00 AM - 5:00 AM	26	39	65
5:00 AM - 6:00 AM	44	104	148
6:00 AM - 7:00 AM	80	201	281
7:00 AM - 8:00 AM	188	442	630
8:00 AM - 9:00 AM	214	518	732
9:00 AM - 10:00 AM	191	361	552
10:00 AM - 11:00 AM	217	385	602
11:00 AM - 12:00 PM	284	396	680
Total	**1,327**	**2,508**	**3,835**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	320	462	782
1:00 PM - 2:00 PM	338	463	801
2:00 PM - 3:00 PM	334	450	784
3:00 PM - 4:00 PM	379	421	800
4:00 PM - 5:00 PM	323	543	866
5:00 PM - 6:00 PM	399	514	913
6:00 PM - 7:00 PM	252	321	573
7:00 PM - 8:00 PM	163	217	380
8:00 PM - 9:00 PM	115	112	227
9:00 PM - 10:00 PM	58	71	129
10:00 PM - 11:00 PM	53	70	123
11:00 PM - 12:00 AM	48	21	69
Total	**2,782**	**3,665**	**6,447**

24-Hour	*EB*	*Volume*	*4,109*	*24-Hour*	*WB*	*Volume*	*6,173*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 38. Siempre Viva Road Between Customhouse Plaza and Otay Center Drive

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

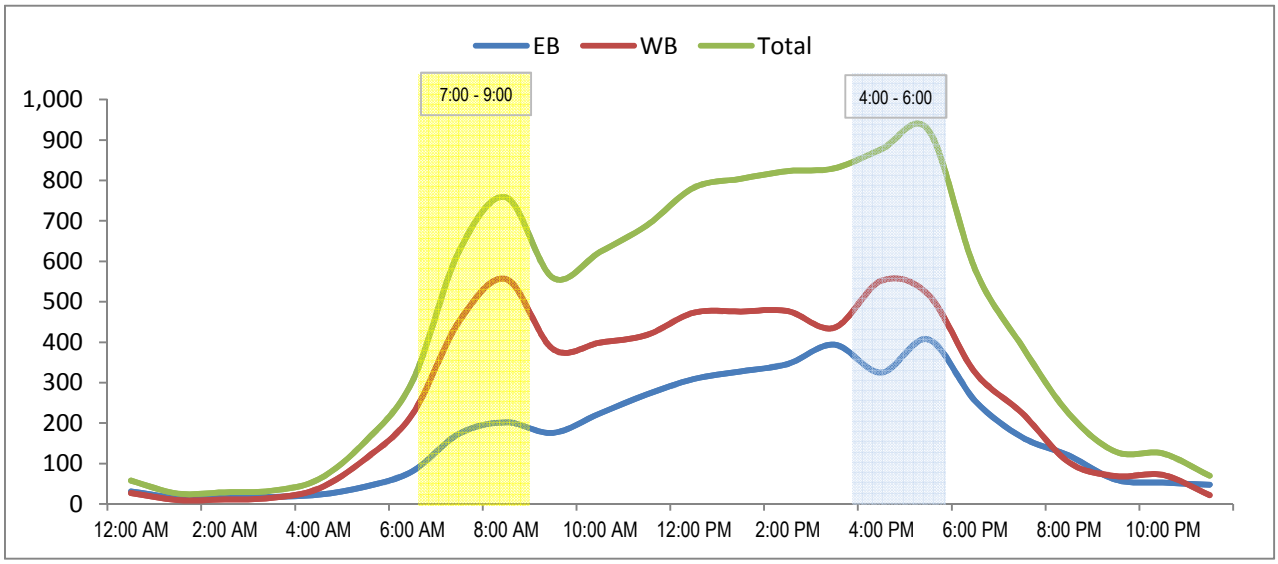
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*10,478*

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	31	27	58
1:00 AM - 2:00 AM	16	10	26
2:00 AM - 3:00 AM	18	11	29
3:00 AM - 4:00 AM	18	15	33
4:00 AM - 5:00 AM	23	38	61
5:00 AM - 6:00 AM	43	112	155
6:00 AM - 7:00 AM	81	222	303
7:00 AM - 8:00 AM	174	452	626
8:00 AM - 9:00 AM	202	556	758
9:00 AM - 10:00 AM	176	383	559
10:00 AM - 11:00 AM	224	399	623
11:00 AM - 12:00 PM	271	418	689
Total	**1,277**	**2,643**	**3,920**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	309	473	782
1:00 PM - 2:00 PM	328	476	804
2:00 PM - 3:00 PM	346	477	823
3:00 PM - 4:00 PM	394	436	830
4:00 PM - 5:00 PM	325	552	877
5:00 PM - 6:00 PM	407	518	925
6:00 PM - 7:00 PM	255	325	580
7:00 PM - 8:00 PM	165	225	390
8:00 PM - 9:00 PM	120	103	223
9:00 PM - 10:00 PM	60	69	129
10:00 PM - 11:00 PM	53	72	125
11:00 PM - 12:00 AM	48	22	70
Total	**2,810**	**3,748**	**6,558**

24-Hour	*EB*	*Volume*	*4,087*	*24-Hour*	*WB*	*Volume*	*6,391*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 39. Siempre Viva Road Between Otay Center Drive and SB Off Ramp

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

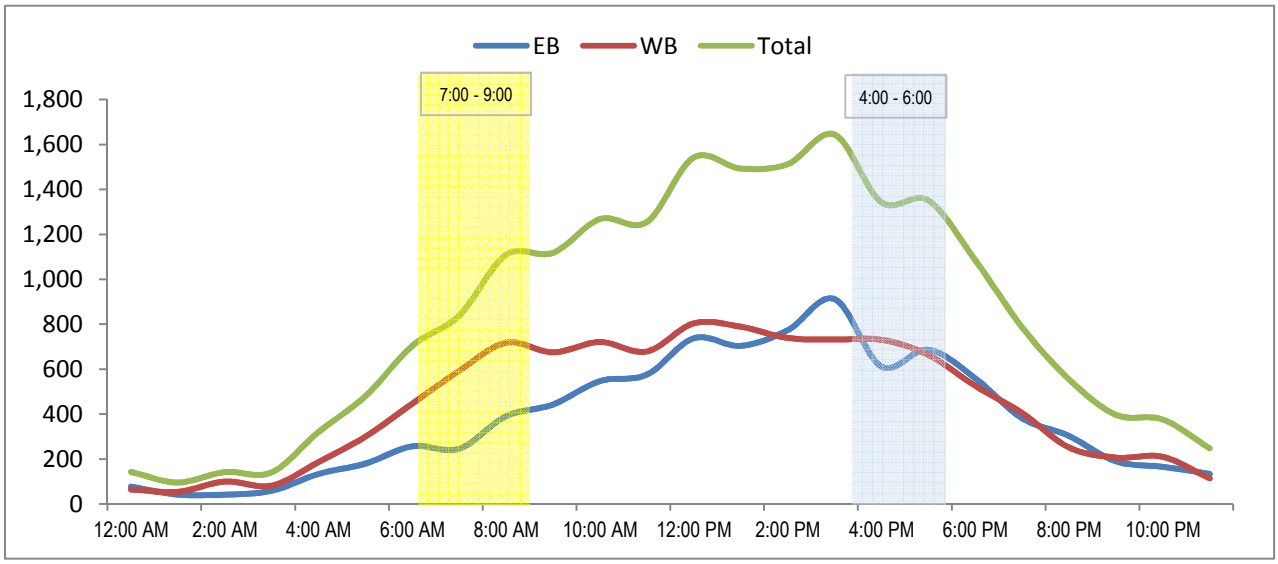
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*19,950*

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	78	65	143
1:00 AM - 2:00 AM	42	54	96
2:00 AM - 3:00 AM	42	100	142
3:00 AM - 4:00 AM	59	82	141
4:00 AM - 5:00 AM	134	187	321
5:00 AM - 6:00 AM	180	300	480
6:00 AM - 7:00 AM	257	447	704
7:00 AM - 8:00 AM	246	593	839
8:00 AM - 9:00 AM	391	718	1,109
9:00 AM - 10:00 AM	443	675	1,118
10:00 AM - 11:00 AM	547	721	1,268
11:00 AM - 12:00 PM	576	679	1255
Total	**2,995**	**4,621**	**7,616**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	738	804	1,542
1:00 PM - 2:00 PM	704	789	1,493
2:00 PM - 3:00 PM	773	739	1,512
3:00 PM - 4:00 PM	912	732	1,644
4:00 PM - 5:00 PM	612	731	1,343
5:00 PM - 6:00 PM	687	664	1,351
6:00 PM - 7:00 PM	560	526	1,086
7:00 PM - 8:00 PM	382	405	787
8:00 PM - 9:00 PM	303	252	555
9:00 PM - 10:00 PM	190	207	397
10:00 PM - 11:00 PM	166	210	376
11:00 PM - 12:00 AM	134	114	248
Total	**6,161**	**6,173**	**12,334**

24-Hour	*EB*	*Volume*	*9,156*	*24-Hour*	*WB*	*Volume*	*10,794*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 40. Siempre Viva Road Between SB Off Ramp and SB Off Ramp

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

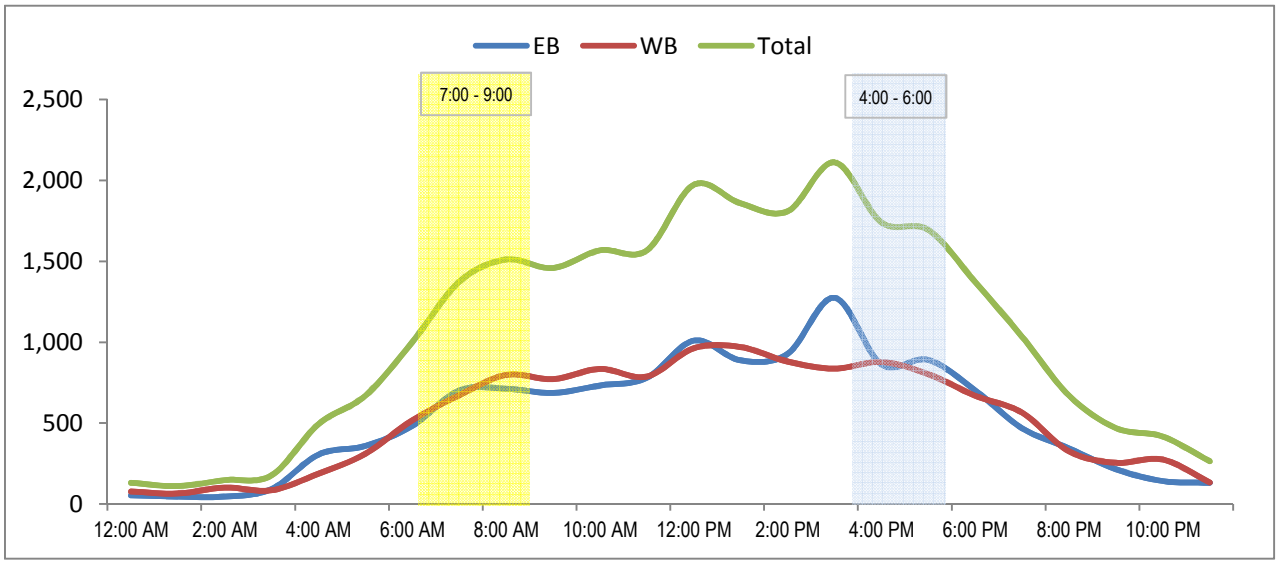
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*25,629*

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	54	77	131
1:00 AM - 2:00 AM	46	65	111
2:00 AM - 3:00 AM	46	102	148
3:00 AM - 4:00 AM	93	85	178
4:00 AM - 5:00 AM	306	188	494
5:00 AM - 6:00 AM	359	311	670
6:00 AM - 7:00 AM	483	518	1,001
7:00 AM - 8:00 AM	702	672	1,374
8:00 AM - 9:00 AM	713	798	1,511
9:00 AM - 10:00 AM	687	772	1,459
10:00 AM - 11:00 AM	733	835	1,568
11:00 AM - 12:00 PM	780	788	1568
Total	**5,002**	**5,211**	**10,213**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	1,010	963	1,973
1:00 PM - 2:00 PM	888	970	1,858
2:00 PM - 3:00 PM	928	881	1,809
3:00 PM - 4:00 PM	1,275	837	2,112
4:00 PM - 5:00 PM	863	878	1,741
5:00 PM - 6:00 PM	891	803	1,694
6:00 PM - 7:00 PM	703	669	1,372
7:00 PM - 8:00 PM	469	565	1,034
8:00 PM - 9:00 PM	345	326	671
9:00 PM - 10:00 PM	215	255	470
10:00 PM - 11:00 PM	142	275	417
11:00 PM - 12:00 AM	131	134	265
Total	**7,860**	**7,556**	**15,416**

24-Hour	*EB*	*Volume*	*12,862*	*24-Hour*	*WB*	*Volume*	*12,767*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 41. Siempre Viva Road Between SB Off Ramp and NB Off Ramp

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

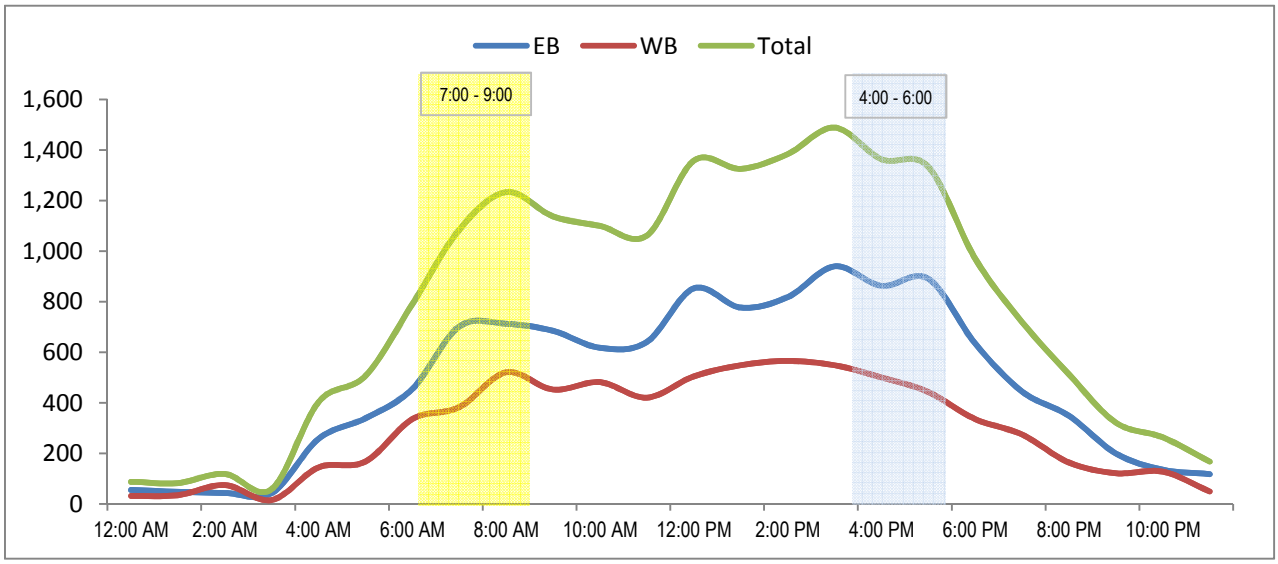
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*18,882*

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	56	32	88
1:00 AM - 2:00 AM	48	35	83
2:00 AM - 3:00 AM	44	75	119
3:00 AM - 4:00 AM	43	16	59
4:00 AM - 5:00 AM	258	145	403
5:00 AM - 6:00 AM	339	168	507
6:00 AM - 7:00 AM	455	336	791
7:00 AM - 8:00 AM	702	383	1,085
8:00 AM - 9:00 AM	713	521	1,234
9:00 AM - 10:00 AM	685	453	1,138
10:00 AM - 11:00 AM	618	482	1,100
11:00 AM - 12:00 PM	641	421	1062
Total	**4,602**	**3,067**	**7,669**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	853	505	1,358
1:00 PM - 2:00 PM	777	549	1,326
2:00 PM - 3:00 PM	818	566	1,384
3:00 PM - 4:00 PM	940	549	1,489
4:00 PM - 5:00 PM	863	501	1,364
5:00 PM - 6:00 PM	891	443	1,334
6:00 PM - 7:00 PM	635	336	971
7:00 PM - 8:00 PM	445	275	720
8:00 PM - 9:00 PM	349	164	513
9:00 PM - 10:00 PM	200	122	322
10:00 PM - 11:00 PM	136	128	264
11:00 PM - 12:00 AM	118	50	168
Total	**7,025**	**4,188**	**11,213**

24-Hour	*EB*	*Volume*	*11,627*	*24-Hour*	*WB*	*Volume*	*7,255*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 42. Siempre Viva Road East of NB Off Ramp

Orientation: *East-West*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

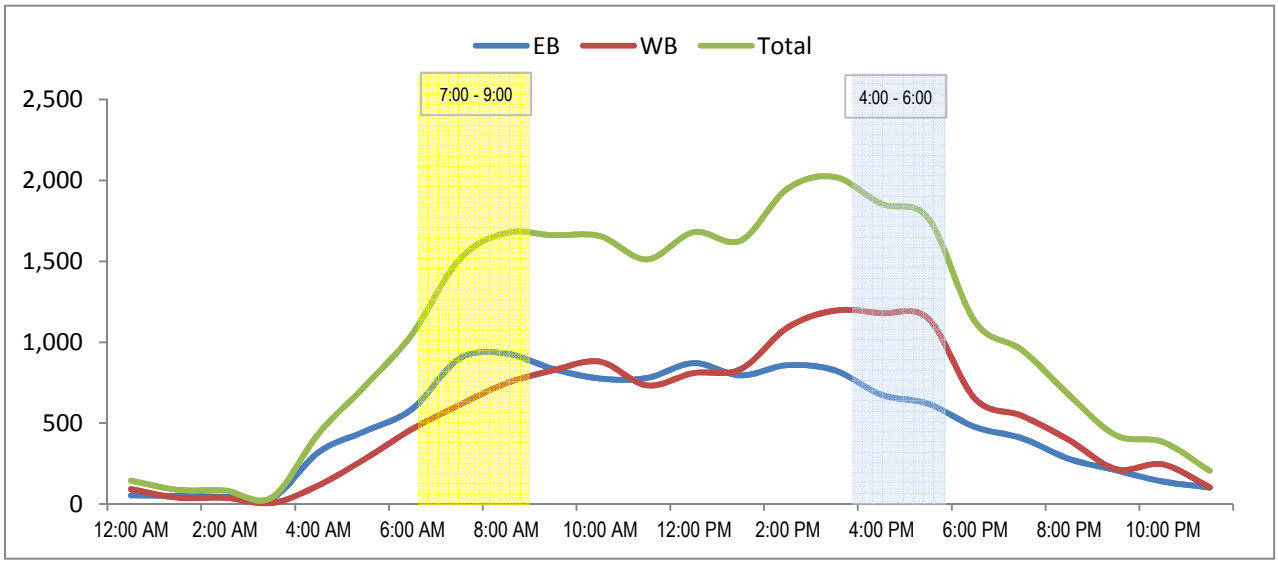
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*25,260*

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	53	92	145
1:00 AM - 2:00 AM	49	39	88
2:00 AM - 3:00 AM	45	39	84
3:00 AM - 4:00 AM	34	6	40
4:00 AM - 5:00 AM	320	115	435
5:00 AM - 6:00 AM	451	281	732
6:00 AM - 7:00 AM	588	464	1,052
7:00 AM - 8:00 AM	898	612	1,510
8:00 AM - 9:00 AM	930	746	1,676
9:00 AM - 10:00 AM	835	826	1,661
10:00 AM - 11:00 AM	776	880	1,656
11:00 AM - 12:00 PM	779	733	1512
Total	**5,758**	**4,833**	**10,591**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	871	810	1,681
1:00 PM - 2:00 PM	795	833	1,628
2:00 PM - 3:00 PM	858	1,091	1,949
3:00 PM - 4:00 PM	827	1,195	2,022
4:00 PM - 5:00 PM	676	1,180	1,856
5:00 PM - 6:00 PM	620	1,146	1,766
6:00 PM - 7:00 PM	476	650	1,126
7:00 PM - 8:00 PM	406	545	951
8:00 PM - 9:00 PM	279	396	675
9:00 PM - 10:00 PM	209	216	425
10:00 PM - 11:00 PM	139	245	384
11:00 PM - 12:00 AM	102	104	206
Total	**6,258**	**8,411**	**14,669**

24-Hour	*EB*	*Volume*	*12,016*	*24-Hour*	*WB*	*Volume*	*13,244*



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 43. Customhouse Plaza South of Siempre Viva Road

Orientation: *North-South*

Date of Count: *Thursday, October 01, 2015*

Analysts: *DASH*

Weather: *Sunny*

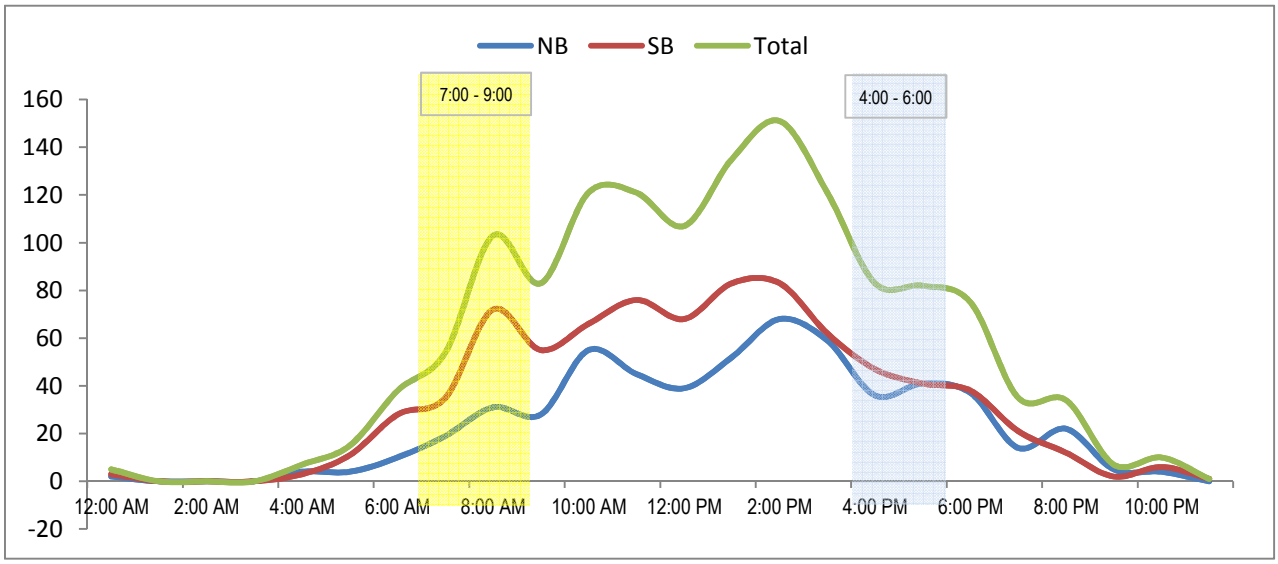
AVC Proj. No: *15-0415*

24 Hour Segment Volume			*1,388*

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	2	3	5
1:00 AM - 2:00 AM	0	0	0
2:00 AM - 3:00 AM	0	0	0
3:00 AM - 4:00 AM	0	0	0
4:00 AM - 5:00 AM	4	3	7
5:00 AM - 6:00 AM	4	11	15
6:00 AM - 7:00 AM	10	28	38
7:00 AM - 8:00 AM	19	35	54
8:00 AM - 9:00 AM	31	72	103
9:00 AM - 10:00 AM	28	55	83
10:00 AM - 11:00 AM	55	66	121
11:00 AM - 12:00 PM	45	76	121
Total	**198**	**349**	**547**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	39	68	107
1:00 PM - 2:00 PM	52	83	135
2:00 PM - 3:00 PM	68	83	151
3:00 PM - 4:00 PM	59	62	121
4:00 PM - 5:00 PM	36	47	83
5:00 PM - 6:00 PM	41	41	82
6:00 PM - 7:00 PM	37	38	75
7:00 PM - 8:00 PM	14	21	35
8:00 PM - 9:00 PM	22	12	34
9:00 PM - 10:00 PM	5	2	7
10:00 PM - 11:00 PM	4	6	10
11:00 PM - 12:00 AM	0	1	1
Total	**377**	**464**	**841**

24-Hour	*NB*	*Volume*	*575*	*24-Hour*	*SB*	*Volume*	*813*



Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Beyer Blvd @ Otay Mesa Road

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Beyer Blvd @ Otay Mesa Road

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	10	9	0	0	3	2	1	6	12	10	0	6	59
7:15 AM	10	8	0	0	1	0	0	2	9	10	0	8	48
7:30 AM	24	12	1	0	2	2	1	9	11	19	0	7	88
7:45 AM	27	6	0	1	2	3	0	6	7	38	1	33	124
8:00 AM	15	11	0	0	1	2	1	6	5	17	0	11	69
8:15 AM	16	14	0	1	0	2	1	5	13	18	0	9	79
8:30 AM	16	7	0	0	0	2	1	7	11	19	0	8	71
8:45 AM	16	14	0	1	1	6	3	9	14	10	1	14	89
Total	134	81	1	3	10	19	8	50	82	141	2	96	627

AM Intersection Peak Hour : **7:30 AM - 8:30 AM** Intersection PHF : **0.73**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	82	43	1	2	5	9	3	26	36	92	1	60	360
PHF	0.76	0.77	0.25	0.50	0.63	0.75	0.75	0.72	0.69	0.61	0.25	0.45	0.73
Movement PHF		0.85			0.67			0.77			0.53		0.73

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	10	5	0	0	0	1	1	6	14	21	1	5	64
4:15 PM	12	6	1	0	1	1	2	7	15	19	2	9	75
4:30 PM	15	6	0	1	1	1	3	7	16	21	1	11	83
4:45 PM	18	7	0	0	2	2	2	6	16	18	1	5	77
5:00 PM	13	5	0	0	0	0	2	8	17	19	2	5	71
5:15 PM	12	9	0	0	0	3	2	11	19	24	1	9	90
5:30 PM	16	11	0	1	0	1	4	7	14	28	3	17	102
5:45 PM	25	13	1	0	5	1	3	8	25	30	7	21	139
Total	121	62	2	2	9	10	19	60	136	180	18	82	701

PM Intersection Peak Hour : **5:00 PM - 6:00 PM** Intersection PHF : **0.72**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	66	38	1	1	5	5	11	34	75	101	13	52	402
PHF	0.66	0.731	0.25	0.25	0.25	0.417	0.688	0.773	0.75	0.842	0.464	0.619	0.72
Movement PHF		0.67			0.46			0.83			0.72		0.72

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Ocean View Hills Parkway @ Del Sol Blvd

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Ocean View Hills Parkway @ Del Sol Blvd

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	6	0	0	1	27	3	9	0	6	3	40	2	97
7:15 AM	5	0	1	1	37	3	7	0	9	2	26	2	93
7:30 AM	8	0	0	2	39	2	10	0	21	4	38	5	129
7:45 AM	6	0	2	1	31	3	12	0	12	4	42	3	116
8:00 AM	6	0	2	3	37	3	7	0	13	6	46	4	127
8:15 AM	6	0	1	1	46	3	9	0	9	2	34	6	117
8:30 AM	4	0	0	1	31	3	12	0	9	4	39	3	106
8:45 AM	9	0	1	2	40	3	10	0	14	4	29	2	114
Total	50	0	7	12	288	23	76	0	93	29	294	27	899

AM Intersection Peak Hour : **7:30 AM - 8:30 AM** Intersection PHF : **0.95**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	26	0	5	7	153	11	38	0	55	16	160	18	489
PHF	0.81	#####	0.63	0.58	0.83	0.92	0.79	#####	0.65	0.67	0.87	0.75	0.95
Movement PHF		0.97			0.86			0.75			0.87		0.95

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	3	0	1	1	77	11	7	1	10	10	57	6	184
4:15 PM	7	0	1	2	79	9	7	0	9	21	51	13	199
4:30 PM	8	0	0	5	85	18	14	0	12	16	45	9	212
4:45 PM	9	0	1	3	71	18	3	0	8	17	60	8	198
5:00 PM	5	0	1	2	93	18	9	0	4	20	56	12	220
5:15 PM	7	0	1	4	74	34	6	0	13	28	49	11	227
5:30 PM	3	2	0	4	88	15	10	0	7	28	51	6	214
5:45 PM	7	0	0	1	65	9	3	0	18	25	38	8	174
Total	49	2	5	22	632	132	59	1	81	165	407	73	1,628

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** Intersection PHF : **0.95**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	24	2	3	13	326	85	28	0	32	93	216	37	859
PHF	0.67	0.25	0.75	0.813	0.876	0.625	0.7	#####	0.615	0.83	0.9	0.771	0.95
Movement PHF		0.73			0.94			0.79			0.98		0.95

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Otay Mesa Road @ Ocean View Hills Parkway

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Otay Mesa Road @ Ocean View Hills Parkway

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	0	40	13	8	0	37	58	14	0	0	0	0	170
7:15 AM	0	35	23	5	1	49	95	13	0	1	1	0	223
7:30 AM	1	50	24	12	1	38	104	20	0	2	0	0	252
7:45 AM	0	61	44	13	0	46	213	18	0	0	1	0	396
8:00 AM	1	54	33	13	0	37	130	23	0	0	0	0	291
8:15 AM	0	36	25	14	2	60	135	31	0	2	0	0	305
8:30 AM	0	22	28	17	2	78	120	33	0	2	0	0	302
8:45 AM	1	38	27	23	0	78	154	19	0	0	0	0	340
Total	3	336	217	105	6	423	1,009	171	0	7	2	0	2,279

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.82**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	1	173	130	57	4	221	598	105	0	4	1	0	1,294
PHF	0.25	0.71	0.74	0.84	0.50	0.71	0.70	0.80	#####	0.50	0.25	#####	0.82
Movement PHF		0.72			0.73			0.76			0.63		0.82

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	0	37	21	25	1	158	72	79	0	2	1	0	396
4:15 PM	0	44	18	48	2	169	65	106	1	1	2	1	457
4:30 PM	0	39	26	54	2	177	79	78	1	3	1	0	460
4:45 PM	1	34	20	32	3	176	76	79	0	1	1	1	424
5:00 PM	0	47	17	49	4	238	41	97	0	4	0	0	497
5:15 PM	1	41	9	41	1	217	63	103	0	0	1	0	477
5:30 PM	1	35	12	39	0	134	47	96	1	1	1	0	367
5:45 PM	0	38	15	34	0	119	38	75	0	0	1	0	320
Total	3	315	138	322	13	1,388	481	713	3	12	8	2	3,398

PM Intersection Peak Hour : **4:30 PM - 5:30 PM** Intersection PHF : **0.93**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	2	161	72	176	10	808	259	357	1	8	3	1	1858
PHF	0.50	0.856	0.692	0.815	0.625	0.849	0.82	0.867	0.25	0.5	0.75	0.25	0.93
Movement PHF		0.90			0.85			0.93			0.75		0.93

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: I-905 WB Ramps @ Caliente Avenue

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: I-905 WB Ramps @ Caliente Avenue

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	64	13	0	4	0	0	0	68	30	0	0	0	179
7:15 AM	61	24	0	4	0	4	0	104	19	0	0	0	216
7:30 AM	61	29	0	7	0	3	0	117	22	0	0	0	239
7:45 AM	67	40	0	9	0	4	0	222	20	0	0	0	362
8:00 AM	65	26	0	8	0	3	0	145	30	0	0	0	277
8:15 AM	81	17	0	15	1	3	0	151	19	0	0	0	287
8:30 AM	83	19	0	8	0	5	0	145	29	0	0	0	289
8:45 AM	93	23	0	6	0	6	0	167	22	0	0	0	317
Total	575	191	0	61	1	28	0	1,119	191	0	0	0	2,166

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.84**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	296	102	0	40	1	15	0	663	98	0	0	0	1,215
PHF	0.89	0.64	#####	0.67	0.25	0.75	#####	0.75	0.82	#####	#####	#####	0.84
Movement PHF		0.93			0.74			0.79			#DIV/0!		0.84

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	166	31	0	21	1	7	0	130	34	0	0	0	390
4:15 PM	173	41	0	16	0	9	0	156	22	0	0	0	417
4:30 PM	187	32	0	21	1	14	0	137	27	0	0	0	419
4:45 PM	178	33	0	14	0	5	0	141	27	0	0	0	398
5:00 PM	245	44	0	20	0	15	0	118	31	0	0	0	473
5:15 PM	222	36	0	18	1	6	0	148	29	0	0	0	460
5:30 PM	136	34	0	17	0	6	0	127	31	0	0	0	351
5:45 PM	138	19	0	15	1	6	0	98	20	0	0	0	297
Total	1445	270	0	142	4	68	0	1,055	221	0	0	0	3,205

PM Intersection Peak Hour : **4:30 PM - 5:30 PM** Intersection PHF : **0.92**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	832	145	0	73	2	40	0	544	114	0	0	0	1750
PHF	0.85	0.824	#####	0.869	0.5	0.667	#####	0.919	0.919	#####	#####	#####	0.92
Movement PHF		0.85			0.80			0.93			#DIV/0!		0.92

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

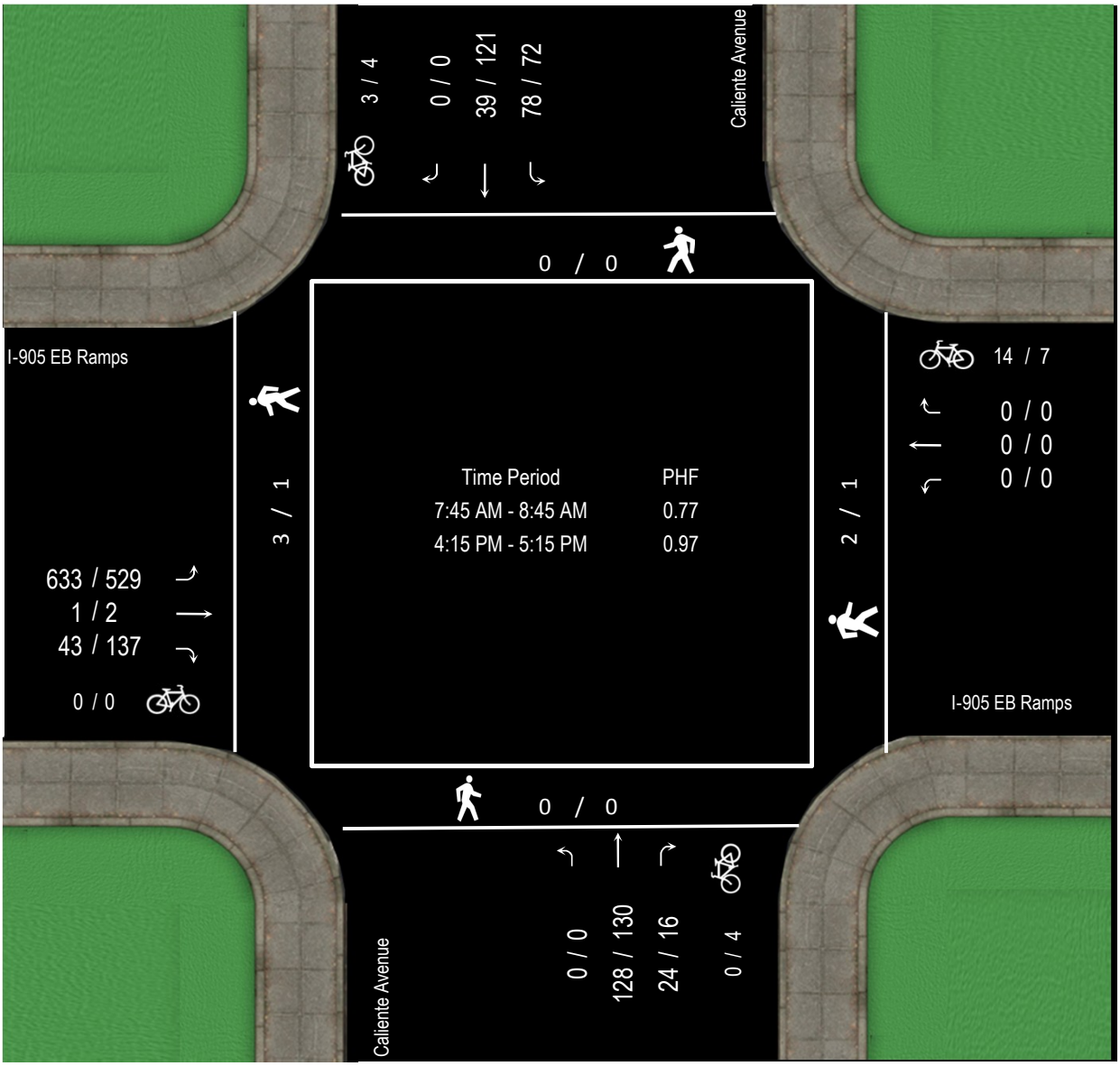
Location: I-905 EB Ramps @ Caliente Avenue

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*



CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: I-905 EB Ramps @ Caliente Avenue

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	0	3	10	0	0	0	6	33	0	17	0	65	134
7:15 AM	0	9	19	0	0	0	5	22	0	16	0	101	172
7:30 AM	0	20	12	0	0	0	11	22	0	12	0	117	194
7:45 AM	0	7	37	0	0	0	10	31	0	11	1	211	308
8:00 AM	0	14	15	0	0	0	5	47	0	14	0	128	223
8:15 AM	0	6	14	0	0	0	7	24	0	10	0	146	207
8:30 AM	0	12	12	0	0	0	2	26	0	8	0	148	208
8:45 AM	0	14	15	0	0	0	7	29	0	13	0	160	238
Total	0	85	134	0	0	0	53	234	0	101	1	1,076	1,684

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.77**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	0	39	78	0	0	0	24	128	0	43	1	633	946
PHF	#####	0.70	0.53	#####	#####	#####	0.60	0.68	#####	0.77	0.25	0.75	0.77
Movement PHF		0.66			#DIV/0!			0.73			0.76		0.77

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	0	21	17	0	0	0	1	32	0	32	0	132	235
4:15 PM	0	22	28	0	0	0	3	30	0	27	1	148	259
4:30 PM	0	33	13	0	0	0	5	32	0	28	0	132	243
4:45 PM	0	27	11	0	0	0	4	42	0	43	1	126	254
5:00 PM	0	39	20	0	0	0	4	26	0	39	0	123	251
5:15 PM	0	31	11	0	0	0	2	40	0	33	0	137	254
5:30 PM	0	27	13	0	0	0	0	37	0	46	0	121	244
5:45 PM	0	16	9	0	0	0	3	27	0	43	0	91	189
Total	0	216	122	0	0	0	22	266	0	291	2	1,010	1,929

PM Intersection Peak Hour : **4:15 PM - 5:15 PM** Intersection PHF : **0.97**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	0	121	72	0	0	0	16	130	0	137	2	529	1007
PHF	#####	0.776	0.643	#####	#####	#####	0.8	0.774	#####	0.797	0.5	0.894	0.97
Movement PHF		0.82			#DIV/0!			0.79			0.95		0.97

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Airway Road @ Caliente Avenue

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Airway Road @ Caliente Avenue

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	11	7	2	2	0	0	0	0	1	0	0	37	60
7:15 AM	17	5	3	3	0	0	1	0	0	0	0	24	53
7:30 AM	29	3	0	0	0	1	0	1	0	1	0	32	67
7:45 AM	16	2	0	1	0	0	0	1	0	0	0	39	59
8:00 AM	24	2	2	1	0	0	1	2	0	0	0	49	81
8:15 AM	13	1	2	2	0	0	0	0	0	0	0	29	47
8:30 AM	19	0	1	0	0	0	0	0	0	0	1	28	49
8:45 AM	25	2	0	0	0	0	0	2	1	1	0	34	65
Total	154	22	10	9	0	1	2	6	2	2	1	272	481

AM Intersection Peak Hour : **7:15 AM - 8:15 AM** Intersection PHF : **0.80**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	86	12	5	5	0	1	2	4	0	1	0	144	260
PHF	0.74	0.60	0.42	0.42	#####	0.25	0.50	0.50	#####	0.25	#####	0.73	0.80
Movement PHF		0.80			0.50			0.50			0.74		0.80

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	52	1	0	3	0	0	0	8	0	0	0	22	86
4:15 PM	47	0	2	1	0	1	0	1	1	1	0	31	85
4:30 PM	59	1	1	3	1	0	0	1	0	0	0	33	99
4:45 PM	69	1	0	0	0	0	0	6	0	0	0	40	116
5:00 PM	70	4	4	3	0	0	1	4	1	0	0	23	110
5:15 PM	61	3	0	3	0	0	1	2	1	0	0	37	108
5:30 PM	71	1	1	2	0	0	0	1	0	0	0	34	110
5:45 PM	57	1	1	4	0	1	1	0	1	1	1	26	94
Total	486	12	9	19	1	2	3	23	4	2	1	246	808

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** Intersection PHF : **0.96**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	271	9	5	8	0	0	2	13	2	0	0	134	444
PHF	0.95	0.563	0.313	0.667	#####	#####	0.5	0.542	0.5	#####	#####	0.838	0.96
Movement PHF		0.91			0.67			0.71			0.84		0.96

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Otay Mesa Road @ Innovative Drive

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Otay Mesa Road @ Innovative Drive

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	8	0	0	4	24	0	0	0	0	0	35	0	71
7:15 AM	6	0	0	7	33	0	0	0	0	0	63	0	109
7:30 AM	6	0	0	7	47	0	1	0	0	0	69	0	130
7:45 AM	9	0	0	9	45	0	0	0	0	0	101	0	164
8:00 AM	4	0	0	11	47	0	1	0	0	1	88	0	152
8:15 AM	11	0	0	6	59	0	0	0	0	0	78	0	154
8:30 AM	10	0	0	7	63	0	0	0	0	0	76	0	156
8:45 AM	7	0	0	14	54	0	0	0	0	0	97	0	172
Total	61	0	0	65	372	0	2	0	0	1	607	0	1,108

AM Intersection Peak Hour : **8:00 AM - 9:00 AM** Intersection PHF : **0.92**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	32	0	0	38	223	0	1	0	0	1	339	0	634
PHF	0.73	#####	#####	0.68	0.88	#####	0.25	#####	#####	0.25	0.87	#####	0.92
Movement PHF		0.73			0.93			0.25			0.88		0.92

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	12	0	0	6	118	0	1	0	0	0	84	0	221
4:15 PM	19	0	0	20	130	0	0	0	0	1	88	0	258
4:30 PM	15	0	0	7	134	0	0	0	0	0	70	0	226
4:45 PM	25	0	0	19	103	0	0	0	0	1	79	0	227
5:00 PM	40	0	0	11	143	0	1	0	0	0	72	0	267
5:15 PM	27	0	0	6	130	0	0	0	0	0	59	0	222
5:30 PM	14	0	0	5	94	0	0	0	0	2	54	0	169
5:45 PM	10	0	0	6	88	0	0	0	0	0	47	0	151
Total	162	0	0	80	940	0	2	0	0	4	553	0	1,741

PM Intersection Peak Hour : **4:15 PM - 5:15 PM** Intersection PHF : **0.92**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	99	0	0	57	510	0	1	0	0	2	309	0	978
PHF	0.62	#####	#####	0.713	0.892	#####	0.25	#####	#####	0.5	0.878	#####	0.92
Movement PHF		0.62			0.92			0.25			0.87		0.92

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Avenida de las Vista @ Otay Valley Road

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

LINSCOTT LAW & GREENSPAN engineers

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

AVC

Location: Avenida de las Vista @ Otay Valley Road

AM Period (7:00 AM - 9:00 AM)								
	Southbound			Northbound		Eastbound		
	Right	Thru		Thru	Left	Right	Left	TOTAL
7:00 AM	6	18		6	2	11	35	78
7:15 AM	8	22		7	1	18	30	86
7:30 AM	9	35		10	3	18	43	118
7:45 AM	8	41		10	1	19	32	111
8:00 AM	14	43		8	2	15	27	109
8:15 AM	12	24		10	4	15	29	94
8:30 AM	10	20		13	5	14	28	90
8:45 AM	15	22		16	3	8	17	81
Total	82	225		80	21	118	241	767

AM Intersection Peak Hour : **7:30 AM - 8:30 AM** Intersection PHF : **0.92**

	Southbound			Northbound		Eastbound		TOTAL
	Right	Thru		Thru	Left	Right	Left	
Volume	43	143		38	10	67	131	432
PHF	0.77	0.83		0.95	0.63	0.88	0.76	0.92
Movement PHF		0.82		0.86		0.81		0.92

PM Period (4:00 PM - 6:00 PM)								
	Southbound			Northbound		Eastbound		
	Right	Thru		Thru	Left	Right	Left	TOTAL
4:00 PM	41	38		37	12	3	17	148
4:15 PM	51	26		27	17	15	24	160
4:30 PM	42	26		33	22	13	16	152
4:45 PM	47	29		26	19	11	17	149
5:00 PM	49	30		55	16	15	41	206
5:15 PM	51	11		33	19	10	21	145
5:30 PM	50	15		33	12	12	33	155
5:45 PM	49	9		19	14	13	24	128
Total	380	184		263	131	92	193	1,243

PM Intersection Peak Hour : **4:15 PM - 5:15 PM** Intersection PHF : **0.81**

	Southbound			Northbound		Eastbound		TOTAL
	Right	Thru		Thru	Left	Right	Left	
Volume	189	111		141	74	54	98	667
PHF	0.93	0.925		0.641	0.841	0.9	0.598	0.81
Movement PHF		0.95		0.76		0.68		0.81

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Datsun Street @ Heritage Road

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

LINSCOTT LAW & GREENSPAN engineers

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

AVC

Location: Datsun Street @ Heritage Road

AM Period (7:00 AM - 9:00 AM)								
	Southbound			Northbound		Eastbound		
	Right	Thru		Thru	Left	Right	Left	TOTAL
7:00 AM	1	4		9	12	18	1	45
7:15 AM	2	11		16	17	35	3	84
7:30 AM	5	9		22	25	35	6	102
7:45 AM	7	6		36	31	50	4	134
8:00 AM	12	11		37	31	29	8	128
8:15 AM	5	20		18	12	32	5	92
8:30 AM	6	13		31	17	35	6	108
8:45 AM	7	16		33	20	33	11	120
Total	45	90		202	165	267	44	813

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.86**

	Southbound			Northbound		Eastbound		TOTAL
	Right	Thru		Thru	Left	Right	Left	
Volume	30	50		122	91	146	23	462
PHF	0.63	0.63		0.82	0.73	0.73	0.72	0.86
Movement PHF		0.80		0.78		0.78		0.86

PM Period (4:00 PM - 6:00 PM)								
	Southbound			Northbound		Eastbound		
	Right	Thru		Thru	Left	Right	Left	TOTAL
4:00 PM	24	45		54	53	49	17	242
4:15 PM	24	57		40	53	39	22	235
4:30 PM	16	51		37	47	36	16	203
4:45 PM	17	40		30	40	37	15	179
5:00 PM	14	71		33	57	56	12	243
5:15 PM	8	48		20	44	42	8	170
5:30 PM	8	29		25	27	37	2	128
5:45 PM	1	25		19	37	19	2	103
Total	112	366		258	358	315	94	1,503

PM Intersection Peak Hour : **4:15 PM - 5:15 PM** Intersection PHF : **0.88**

	Southbound			Northbound		Eastbound		TOTAL
	Right	Thru		Thru	Left	Right	Left	
Volume	71	219		140	197	168	65	860
PHF	0.74	0.771		0.875	0.864	0.75	0.739	0.88
Movement PHF		0.85		0.91		0.86		0.88

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Otay Mesa Road @ Heritage Road

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Otay Mesa Road @ Heritage Road

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	5	1	12	15	16	6	1	3	7	20	6	9	101
7:15 AM	16	4	26	23	19	7	4	2	5	31	17	15	169
7:30 AM	14	13	24	24	30	11	4	12	10	31	21	18	212
7:45 AM	12	12	35	44	30	9	3	6	12	39	41	21	264
8:00 AM	15	9	21	31	29	16	4	8	14	41	11	37	236
8:15 AM	13	11	23	14	28	13	9	10	24	26	28	24	223
8:30 AM	5	7	15	22	44	25	15	7	21	31	38	7	237
8:45 AM	4	12	23	26	34	35	9	7	30	29	56	12	277
Total	84	69	179	199	230	122	49	55	123	248	218	143	1,719

AM Intersection Peak Hour : **8:00 AM - 9:00 AM** Intersection PHF : **0.88**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	37	39	82	93	135	89	37	32	89	127	133	80	973
PHF	0.62	0.81	0.89	0.75	0.77	0.64	0.62	0.80	0.74	0.77	0.59	0.54	0.88
Movement PHF		0.84			0.83			0.86			0.88		0.88

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	53	14	41	63	34	11	25	14	37	24	26	35	377
4:15 PM	46	12	45	52	77	6	13	18	27	19	36	33	384
4:30 PM	58	10	46	58	43	4	10	9	40	15	27	28	348
4:45 PM	44	8	34	38	45	5	18	11	33	25	29	25	315
5:00 PM	85	21	61	48	29	7	7	19	40	15	26	32	390
5:15 PM	69	10	36	27	39	4	11	7	28	8	25	26	290
5:30 PM	53	18	26	26	29	7	11	12	17	16	17	21	253
5:45 PM	39	8	23	21	18	5	7	17	37	12	9	26	222
Total	447	101	312	333	314	49	102	107	259	134	195	226	2,579

PM Intersection Peak Hour : **4:15 PM - 5:15 PM** Intersection PHF : **0.92**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	233	51	186	196	194	22	48	57	140	74	118	118	1437
PHF	0.69	0.607	0.762	0.845	0.63	0.786	0.667	0.75	0.875	0.74	0.819	0.894	0.92
Movement PHF		0.70			0.76			0.93			0.88		0.92

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Gateway Park Drive @ Heritage Road

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Gateway Park Drive @ Heritage Road

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
7:15 AM	0	0	5	1	0	0	0	0	0	0	0	0	6
7:30 AM	2	0	8	0	0	0	0	0	0	0	0	0	10
7:45 AM	2	0	11	4	0	0	0	0	0	0	0	0	17
8:00 AM	0	0	18	3	0	0	0	1	0	0	0	0	22
8:15 AM	2	0	18	2	0	0	0	0	0	0	0	0	22
8:30 AM	2	0	13	6	0	0	0	0	0	0	0	1	22
8:45 AM	0	0	12	7	0	0	0	0	0	0	0	0	19
Total	8	0	85	23	0	0	0	1	0	0	2	1	120

AM Intersection Peak Hour : **8:00 AM - 9:00 AM** Intersection PHF : **0.97**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	4	0	61	18	0	0	0	1	0	0	0	1	85
PHF	0.50	#####	0.85	0.64	#####	#####	#####	0.25	#####	#####	#####	0.25	0.97
Movement PHF		0.81			0.64			0.25			0.25		0.97

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	0	2	5	7	0	0	0	0	0	0	0	4	18
4:15 PM	1	0	6	12	0	0	0	1	0	0	1	1	22
4:30 PM	0	0	6	8	0	0	0	0	0	0	0	0	14
4:45 PM	0	0	2	11	0	0	0	0	0	0	0	2	15
5:00 PM	0	0	3	8	0	0	0	1	0	0	0	2	14
5:15 PM	0	0	8	24	0	0	0	0	0	0	0	0	32
5:30 PM	0	0	5	7	0	0	0	0	0	0	0	0	12
5:45 PM	1	2	1	10	0	0	0	0	0	0	0	0	14
Total	2	4	36	87	0	0	0	2	0	0	1	9	141

PM Intersection Peak Hour : **4:30 PM - 5:30 PM** Intersection PHF : **0.59**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	0	0	19	51	0	0	0	1	0	0	0	4	75
PHF	#####	#####	0.594	0.531	#####	#####	#####	0.25	#####	#####	#####	0.5	0.59
Movement PHF		0.59			0.53			0.25			0.50		0.59

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Otay Mesa Road @ Cactus Road

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Otay Mesa Road @ Cactus Road

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	0	0	0	1	32	8	9	0	5	3	27	0	85
7:15 AM	1	1	0	1	45	6	8	0	3	6	44	1	116
7:30 AM	0	0	1	3	62	9	6	0	3	1	51	2	138
7:45 AM	1	0	0	6	78	13	9	0	4	12	52	2	177
8:00 AM	0	0	2	3	71	12	8	0	5	10	38	2	151
8:15 AM	0	0	2	1	53	21	13	0	2	6	50	0	148
8:30 AM	0	0	2	2	91	17	15	0	0	9	45	1	182
8:45 AM	0	0	0	0	86	20	20	0	9	18	43	3	199
Total	2	1	7	17	518	106	88	0	31	65	350	11	1,196

AM Intersection Peak Hour : **8:00 AM - 9:00 AM** Intersection PHF : **0.85**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	0	0	6	6	301	70	56	0	16	43	176	6	680
PHF	#####	#####	0.75	0.50	0.83	0.83	0.70	#####	0.44	0.60	0.88	0.50	0.85
Movement PHF		0.75			0.86			0.62			0.88		0.85

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	4	4	8	3	97	27	23	1	7	11	74	0	259
4:15 PM	2	1	2	0	120	20	23	1	13	7	96	0	285
4:30 PM	1	0	3	2	91	15	21	0	13	13	70	1	230
4:45 PM	1	0	1	5	79	12	20	0	8	6	76	1	209
5:00 PM	1	0	0	3	79	14	25	1	4	14	83	1	225
5:15 PM	0	0	1	0	62	13	23	0	8	8	68	1	184
5:30 PM	0	0	1	0	57	10	11	0	5	4	49	1	138
5:45 PM	0	0	0	0	38	12	19	0	6	2	36	1	114
Total	9	5	16	13	623	123	165	3	64	65	552	6	1,644

PM Intersection Peak Hour : **4:00 PM - 5:00 PM** Intersection PHF : **0.86**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	8	5	14	10	387	74	87	2	41	37	316	2	983
PHF	0.50	0.313	0.438	0.5	0.806	0.685	0.946	0.5	0.788	0.712	0.823	0.5	0.86
Movement PHF		0.42			0.84			0.88			0.86		0.86

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Airway Road @ Cactus Road

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Airway Road @ Cactus Road

AM Period (7:00 AM - 9:00 AM)							
	Southbound		Westbound		Northbound		
	Thru	Left	Right	Left	Right	Thru	TOTAL
7:00 AM	0	1	0	16	1	0	18
7:15 AM	0	0	0	12	5	0	17
7:30 AM	0	2	0	13	9	0	24
7:45 AM	0	0	3	28	6	0	37
8:00 AM	0	4	1	29	6	0	40
8:15 AM	0	3	2	20	9	1	35
8:30 AM	0	4	0	21	9	0	34
8:45 AM	1	0	0	26	4	1	32
Total	1	14	6	165	49	2	237

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.91**

	Southbound		Westbound		Northbound		TOTAL
	Thru	Left	Right	Left	Right	Thru	
Volume	0	11	6	98	30	1	146
PHF	#####	0.69	0.50	0.84	0.83	0.25	0.91
Movement PHF	0.69		0.84		0.78		0.91

PM Period (4:00 PM - 6:00 PM)							
	Southbound		Westbound		Northbound		
	Thru	Left	Right	Left	Right	Thru	TOTAL
4:00 PM	0	1	1	19	37	1	59
4:15 PM	1	2	1	23	25	1	53
4:30 PM	0	2	0	20	31	1	54
4:45 PM	0	1	2	18	34	0	55
5:00 PM	0	3	2	16	37	1	59
5:15 PM	0	7	3	12	27	0	49
5:30 PM	0	0	0	12	17	0	29
5:45 PM	0	2	2	10	12	0	26
Total	1	18	11	130	220	4	384

PM Intersection Peak Hour : **4:00 PM - 5:00 PM** Intersection PHF : **0.94**

	Southbound		Westbound		Northbound		TOTAL
	Thru	Left	Right	Left	Right	Thru	
Volume	1	6	4	80	127	3	221
PHF	0.25	0.75	0.5	0.87	0.858	0.75	0.94
Movement PHF	0.58		0.88		0.86		0.94

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

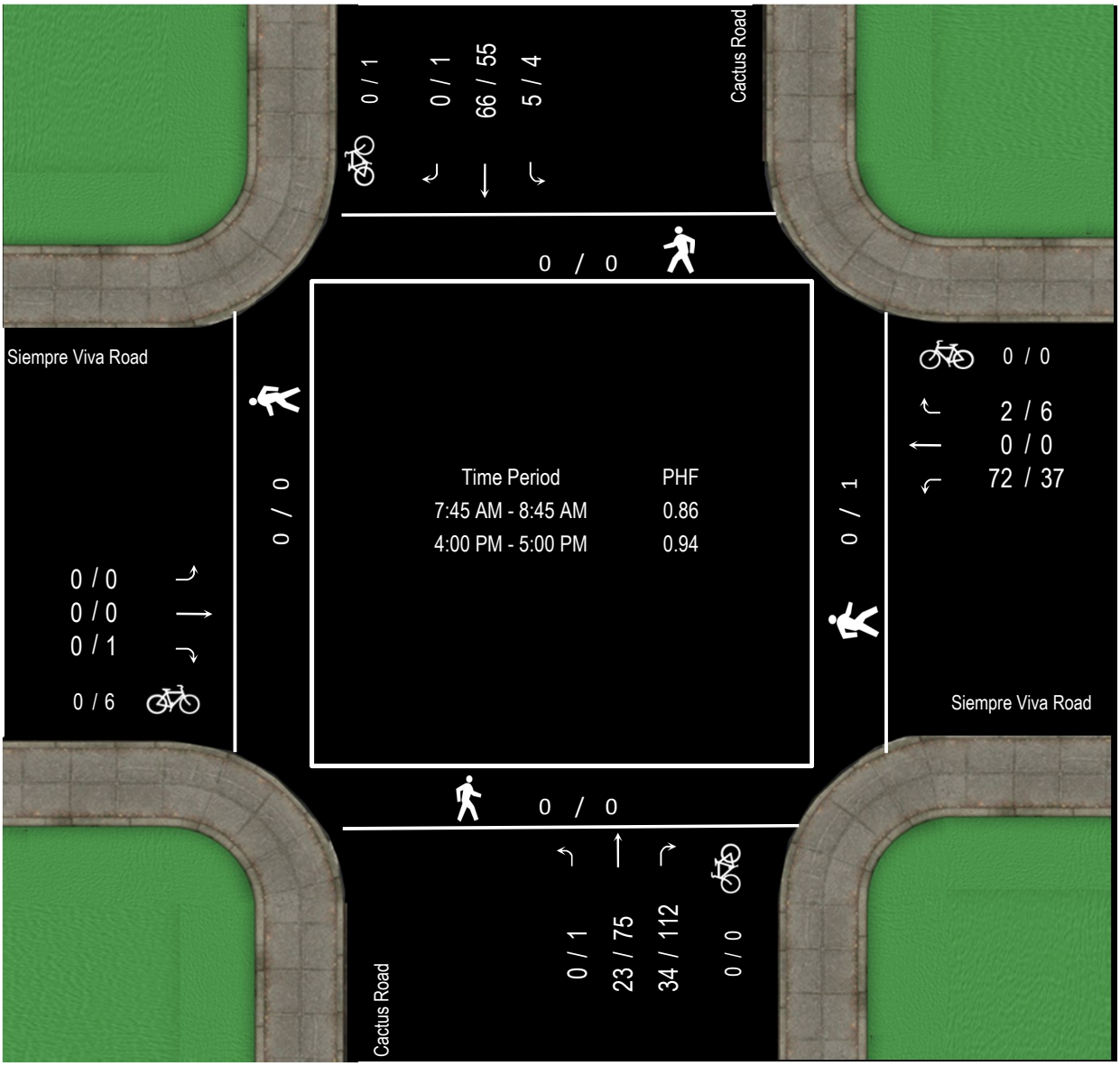
Location: Siempre Viva Road @ Cactus Road

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*



CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Siempre Viva Road @ Cactus Road

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	0	6	0	0	0	17	9	2	0	0	0	0	34
7:15 AM	0	12	1	1	0	14	8	2	0	0	0	0	38
7:30 AM	0	7	1	0	0	18	6	4	0	0	0	0	36
7:45 AM	0	22	0	1	0	21	7	8	0	0	0	0	59
8:00 AM	0	20	1	1	0	16	12	7	0	0	0	0	57
8:15 AM	0	8	4	0	0	21	9	4	0	0	0	0	46
8:30 AM	0	16	0	0	0	14	6	4	0	0	0	0	40
8:45 AM	0	14	1	0	0	14	8	8	0	0	0	0	45
Total	0	105	8	3	0	135	65	39	0	0	0	0	355

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.86**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	0	66	5	2	0	72	34	23	0	0	0	0	202
PHF	#####	0.75	0.31	0.50	#####	0.86	0.71	0.72	#####	#####	#####	#####	0.86
Movement PHF		0.81			0.84			0.75			#DIV/0!		0.86

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	0	19	3	1	0	9	32	14	0	0	0	0	78
4:15 PM	0	15	1	2	0	16	26	17	0	0	0	0	77
4:30 PM	1	7	0	2	0	12	33	21	1	1	0	0	78
4:45 PM	0	14	0	1	0	0	21	23	0	0	0	0	59
5:00 PM	0	13	1	0	0	8	33	11	0	0	0	0	66
5:15 PM	0	11	1	0	0	8	20	15	0	0	0	0	55
5:30 PM	0	11	1	0	0	3	9	12	0	0	0	0	36
5:45 PM	0	6	3	0	0	9	13	6	0	0	0	0	37
Total	1	96	10	6	0	65	187	119	1	1	0	0	486

PM Intersection Peak Hour : **4:00 PM - 5:00 PM** Intersection PHF : **0.94**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	1	55	4	6	0	37	112	75	1	1	0	0	292
PHF	0.25	0.724	0.333	0.75	#####	0.578	0.848	0.815	0.25	0.25	#####	#####	0.94
Movement PHF		0.68			0.60			0.85			0.25		0.94

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Otay Mesa Road @ Brittania Blvd

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Otay Mesa Road @ Brittania Blvd

AM Period (7:00 AM - 9:00 AM)								
		Westbound		Northbound		Eastbound		
		Thru	Left	Right	Left	Right	Thru	TOTAL
7:00 AM		16	10	59	25	18	18	146
7:15 AM		20	25	79	32	17	35	208
7:30 AM		32	17	69	42	26	32	218
7:45 AM		41	40	83	56	28	33	281
8:00 AM		38	20	75	48	12	36	229
8:15 AM		29	22	56	46	38	27	218
8:30 AM		32	14	57	78	38	24	243
8:45 AM		38	30	53	68	36	27	252
Total		246	178	531	395	213	232	1,795

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.86**

		Westbound		Northbound		Eastbound		TOTAL
		Thru	Left	Right	Left	Right	Thru	
Volume		140	96	271	228	116	120	971
PHF		0.85	0.60	0.82	0.73	0.76	0.83	0.86
Movement PHF		0.73		0.90			0.91	0.86

PM Period (4:00 PM - 6:00 PM)								
		Westbound		Northbound		Eastbound		
		Thru	Left	Right	Left	Right	Thru	TOTAL
4:00 PM		83	110	52	44	42	63	394
4:15 PM		73	165	37	67	36	85	463
4:30 PM		58	77	45	50	47	47	324
4:45 PM		73	100	38	23	54	43	331
5:00 PM		66	52	32	30	58	50	288
5:15 PM		61	108	34	14	31	61	309
5:30 PM		47	53	18	20	20	41	199
5:45 PM		42	51	18	8	16	39	174
Total		503	716	274	256	304	429	2,482

PM Intersection Peak Hour : **4:00 PM - 5:00 PM** Intersection PHF : **0.82**

		Westbound		Northbound		Eastbound		TOTAL
		Thru	Left	Right	Left	Right	Thru	
Volume		287	452	172	184	179	238	1512
PHF		0.864	0.685	0.827	0.687	0.829	0.7	0.82
Movement PHF		0.78		0.86			0.86	0.82

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: SR-905 WB Ramps @ Britannia Blvd

Date of Count: *Thursday, November 05, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0436*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: SR-905 WB Ramps @ Britannia Blvd

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	9	40	0	35	0	22	0	49	25	0	0	0	180
7:15 AM	12	32	0	28	0	30	0	49	15	0	0	0	166
7:30 AM	16	38	0	24	0	40	0	46	39	0	0	0	203
7:45 AM	11	44	0	21	0	55	0	73	37	0	0	0	241
8:00 AM	13	42	0	28	0	56	0	52	52	0	0	0	243
8:15 AM	6	53	0	46	0	45	0	46	24	0	0	0	220
8:30 AM	15	37	0	69	0	41	0	47	30	0	0	0	239
8:45 AM	15	52	0	46	0	34	0	57	30	0	0	0	234
Total	97	338	0	297	0	323	0	419	252	0	0	0	1,726

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.97**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	45	176	0	164	0	197	0	218	143	0	0	0	943
PHF	0.75	0.83	#####	0.59	#####	0.88	#####	0.75	0.69	#####	#####	#####	0.97
Movement PHF		0.94			0.82			0.82			#DIV/0!		0.97

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	107	54	0	21	0	33	0	56	163	0	0	0	434
4:15 PM	70	47	0	26	0	28	0	60	97	0	0	0	328
4:30 PM	95	61	0	35	1	26	0	57	141	0	0	0	416
4:45 PM	50	67	0	26	0	26	0	61	95	0	0	0	325
5:00 PM	59	73	0	17	0	21	0	47	149	0	0	0	366
5:15 PM	45	71	0	20	1	21	0	33	112	0	0	0	303
5:30 PM	53	53	0	15	0	19	0	32	95	0	0	0	267
5:45 PM	26	30	0	13	0	23	0	29	64	0	0	0	185
Total	505	456	0	173	2	197	0	375	916	0	0	0	2,624

PM Intersection Peak Hour : **4:00 PM - 5:00 PM** Intersection PHF : **0.87**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	322	229	0	108	1	113	0	234	496	0	0	0	1503
PHF	0.75	0.854	#####	0.771	0.25	0.856	#####	0.959	0.761	#####	#####	#####	0.87
Movement PHF		0.86			0.90			0.83			#DIV/0!		0.87

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: SR-905 EB Ramps @ Britannia Blvd

Date of Count: *Thursday, November 05, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0436*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: SR-905 EB Ramps @ Britannia Blvd

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	0	52	10	0	0	0	11	38	0	121	0	36	268
7:15 AM	0	56	6	0	0	0	22	25	0	104	0	39	252
7:30 AM	0	71	7	0	0	0	26	38	0	146	0	47	335
7:45 AM	0	96	3	0	0	0	39	60	0	183	1	50	432
8:00 AM	0	91	7	0	0	0	28	60	0	138	1	44	369
8:15 AM	0	87	11	0	0	0	23	45	0	116	1	25	308
8:30 AM	0	67	11	0	0	0	25	44	0	105	1	33	286
8:45 AM	0	53	33	0	0	0	24	54	0	125	0	33	322
Total	0	573	88	0	0	0	198	364	0	1,038	4	307	2,572

AM Intersection Peak Hour : **7:30 AM - 8:30 AM** Intersection PHF : **0.84**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	0	345	28	0	0	0	116	203	0	583	3	166	1,444
PHF	#####	0.90	0.64	#####	#####	#####	0.74	0.85	#####	0.80	0.75	0.83	0.84
Movement PHF		0.94			#DIV/0!			0.81			0.80		0.84

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	0	54	33	0	0	0	36	200	0	38	0	19	380
4:15 PM	0	41	34	0	0	0	36	134	0	52	0	23	320
4:30 PM	0	48	39	0	0	0	36	178	0	60	0	20	381
4:45 PM	0	49	44	0	0	0	30	141	0	50	1	15	330
5:00 PM	0	52	42	0	0	0	40	187	0	31	1	9	362
5:15 PM	0	48	44	0	0	0	29	137	0	35	1	8	302
5:30 PM	0	37	35	0	0	0	31	115	0	28	2	12	260
5:45 PM	0	35	18	0	0	0	28	82	0	35	0	11	209
Total	0	364	289	0	0	0	266	1,174	0	329	5	117	2,544

PM Intersection Peak Hour : **4:00 PM - 5:00 PM** Intersection PHF : **0.93**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	0	192	150	0	0	0	138	653	0	200	1	77	1411
PHF	#####	0.889	0.852	#####	#####	#####	0.958	0.816	#####	0.833	0.25	0.837	0.93
Movement PHF		0.92			#DIV/0!			0.84			0.87		0.93

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Airway Road @ Brittania Blvd

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Airway Road @ Brittania Blvd

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	14	49	58	6	0	2	0	24	0	0	0	4	157
7:15 AM	16	71	60	12	1	1	4	20	0	0	0	2	187
7:30 AM	15	66	63	27	2	3	4	25	0	0	2	7	214
7:45 AM	24	87	82	17	2	8	2	27	0	1	3	7	260
8:00 AM	25	68	69	11	4	5	6	42	0	1	0	10	241
8:15 AM	15	65	74	15	2	8	7	33	0	0	2	5	226
8:30 AM	22	52	46	22	3	12	7	30	1	3	2	7	207
8:45 AM	28	54	47	14	2	9	5	32	1	0	0	9	201
Total	159	512	499	124	16	48	35	233	2	5	9	51	1,693

AM Intersection Peak Hour : **7:30 AM - 8:30 AM** Intersection PHF : **0.90**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	79	286	288	70	10	24	19	127	0	2	7	29	941
PHF	0.79	0.82	0.88	0.65	0.63	0.75	0.68	0.76	#####	0.50	0.58	0.73	0.90
Movement PHF		0.85			0.81			0.76			0.86		0.90

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	19	45	45	94	3	6	7	98	1	0	7	36	361
4:15 PM	24	33	40	71	5	11	7	71	0	3	5	24	294
4:30 PM	22	32	37	65	3	4	9	109	0	1	7	30	319
4:45 PM	17	36	63	47	7	8	8	64	1	0	6	34	291
5:00 PM	20	26	31	81	3	4	4	103	0	1	4	40	317
5:15 PM	16	41	23	44	3	5	12	68	1	1	4	34	252
5:30 PM	11	18	33	35	0	3	8	47	0	1	3	18	177
5:45 PM	16	30	35	33	1	4	6	63	0	0	1	11	200
Total	145	261	307	470	25	45	61	623	3	7	37	227	2,211

PM Intersection Peak Hour : **4:00 PM - 5:00 PM** Intersection PHF : **0.88**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	82	146	185	277	18	29	31	342	2	4	25	124	1265
PHF	0.85	0.811	0.734	0.737	0.643	0.659	0.861	0.784	0.5	0.333	0.893	0.861	0.88
Movement PHF		0.89			0.79			0.79			0.89		0.88

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

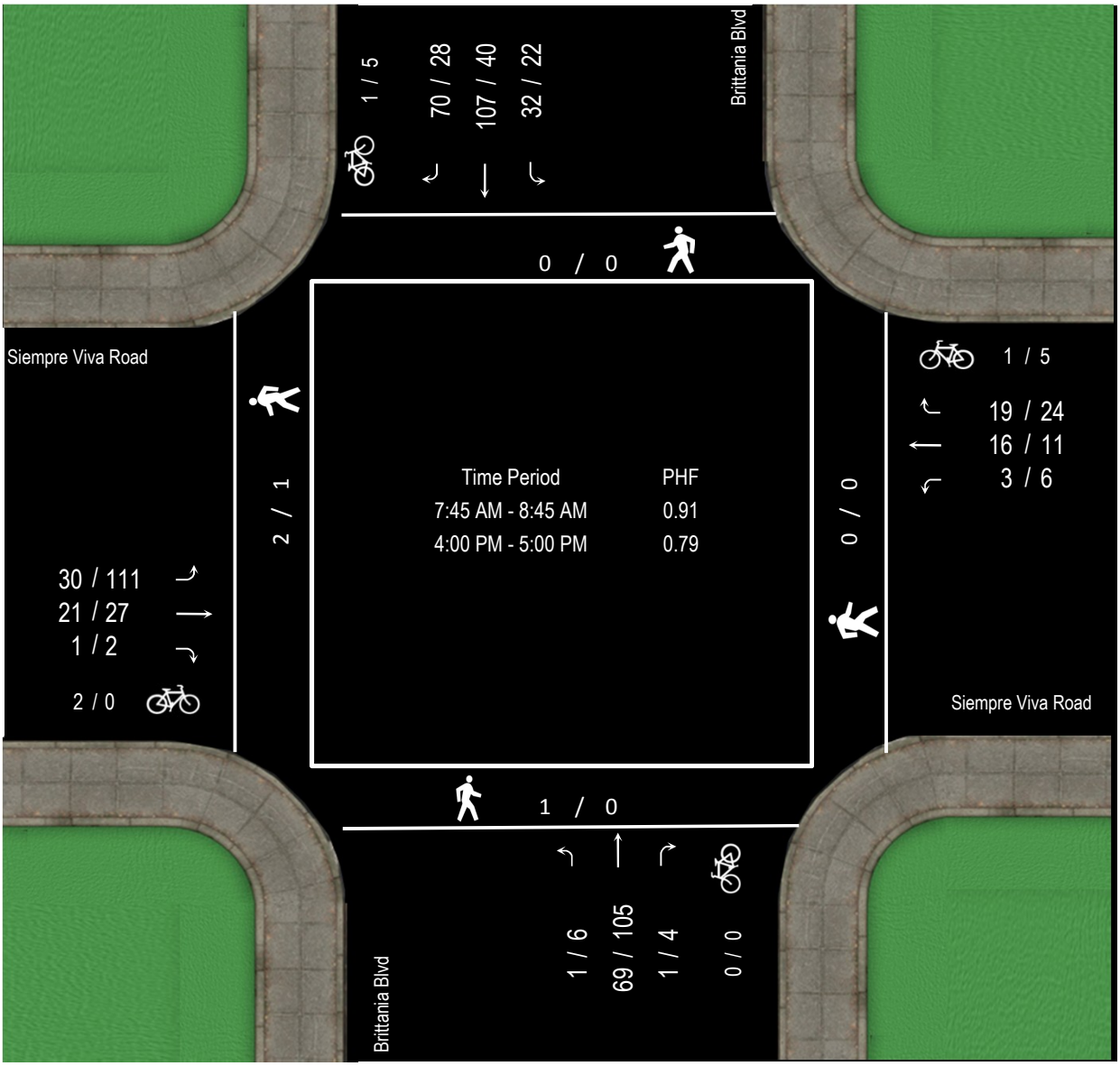
Location: Siempre Viva Road @ Brittania Blvd

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*



CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Siempre Viva Road @ Brittania Blvd

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	18	18	9	3	3	3	1	9	0	0	2	8	74
7:15 AM	17	32	7	3	2	1	0	13	1	0	5	6	87
7:30 AM	14	32	7	2	2	2	3	14	1	0	2	9	88
7:45 AM	14	45	7	2	3	2	0	15	0	0	5	9	102
8:00 AM	19	21	9	4	5	0	0	14	0	0	5	3	80
8:15 AM	21	21	7	8	1	0	1	15	0	1	6	10	91
8:30 AM	16	20	9	5	7	1	0	25	1	0	5	8	97
8:45 AM	14	14	8	3	1	0	0	16	1	0	3	6	66
Total	133	203	63	30	24	9	5	121	4	1	33	59	685

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.91**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	70	107	32	19	16	3	1	69	1	1	21	30	370
PHF	0.83	0.59	0.89	0.59	0.57	0.38	0.25	0.69	0.25	0.25	0.88	0.75	0.91
Movement PHF		0.79			0.73			0.68			0.76		0.91

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	6	11	5	5	3	2	1	34	2	0	8	32	109
4:15 PM	8	8	2	11	1	1	0	18	1	0	6	25	81
4:30 PM	5	14	10	3	3	2	2	38	2	2	11	30	122
4:45 PM	9	7	5	5	4	1	1	15	1	0	2	24	74
5:00 PM	12	10	3	6	4	1	1	24	0	0	6	22	89
5:15 PM	8	5	7	5	4	1	0	19	0	0	7	21	77
5:30 PM	5	7	7	5	2	1	5	21	0	1	5	14	73
5:45 PM	7	0	7	3	0	0	2	12	1	1	3	14	50
Total	60	62	46	43	21	9	12	181	7	4	48	182	675

PM Intersection Peak Hour : **4:00 PM - 5:00 PM** Intersection PHF : **0.79**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	28	40	22	24	11	6	4	105	6	2	27	111	386
PHF	0.78	0.714	0.55	0.545	0.688	0.75	0.5	0.691	0.75	0.25	0.614	0.867	0.79
Movement PHF		0.78			0.79			0.68			0.81		0.79

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Otay Mesa Road @ St Andrews Avenue

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Otay Mesa Road @ St Andrews Avenue

AM Period (7:00 AM - 9:00 AM)								
		Westbound		Northbound		Eastbound		
		Thru	Left	Right	Left	Right	Thru	TOTAL
7:00 AM		27	2	0	5	1	71	106
7:15 AM		49	1	1	6	2	86	145
7:30 AM		49	0	1	12	7	67	136
7:45 AM		67	1	2	5	3	88	166
8:00 AM		62	1	0	11	7	65	146
8:15 AM		44	0	0	13	4	59	120
8:30 AM		45	1	2	6	9	78	141
8:45 AM		66	0	0	13	4	68	151
Total		409	6	6	71	37	582	1,111

AM Intersection Peak Hour : **7:15 AM - 8:15 AM** Intersection PHF : **0.89**

		Westbound		Northbound		Eastbound		TOTAL
		Thru	Left	Right	Left	Right	Thru	
Volume		227	3	4	34	19	306	593
PHF		0.85	0.75	0.50	0.71	0.68	0.87	0.89
Movement PHF		0.85		0.73			0.89	0.89

PM Period (4:00 PM - 6:00 PM)								
		Westbound		Northbound		Eastbound		
		Thru	Left	Right	Left	Right	Thru	TOTAL
4:00 PM		113	1	1	11	10	87	223
4:15 PM		93	1	3	14	11	81	203
4:30 PM		84	3	3	16	7	80	193
4:45 PM		63	2	0	6	14	69	154
5:00 PM		80	2	2	9	12	89	194
5:15 PM		72	3	3	17	12	70	177
5:30 PM		51	1	1	7	2	55	117
5:45 PM		50	1	2	7	4	42	106
Total		606	14	15	87	72	573	1,367

PM Intersection Peak Hour : **4:00 PM - 5:00 PM** Intersection PHF : **0.87**

		Westbound		Northbound		Eastbound		TOTAL
		Thru	Left	Right	Left	Right	Thru	
Volume		353	7	7	47	42	317	773
PHF		0.781	0.583	0.583	0.734	0.75	0.911	0.87
Movement PHF		0.79		0.71			0.93	0.87

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

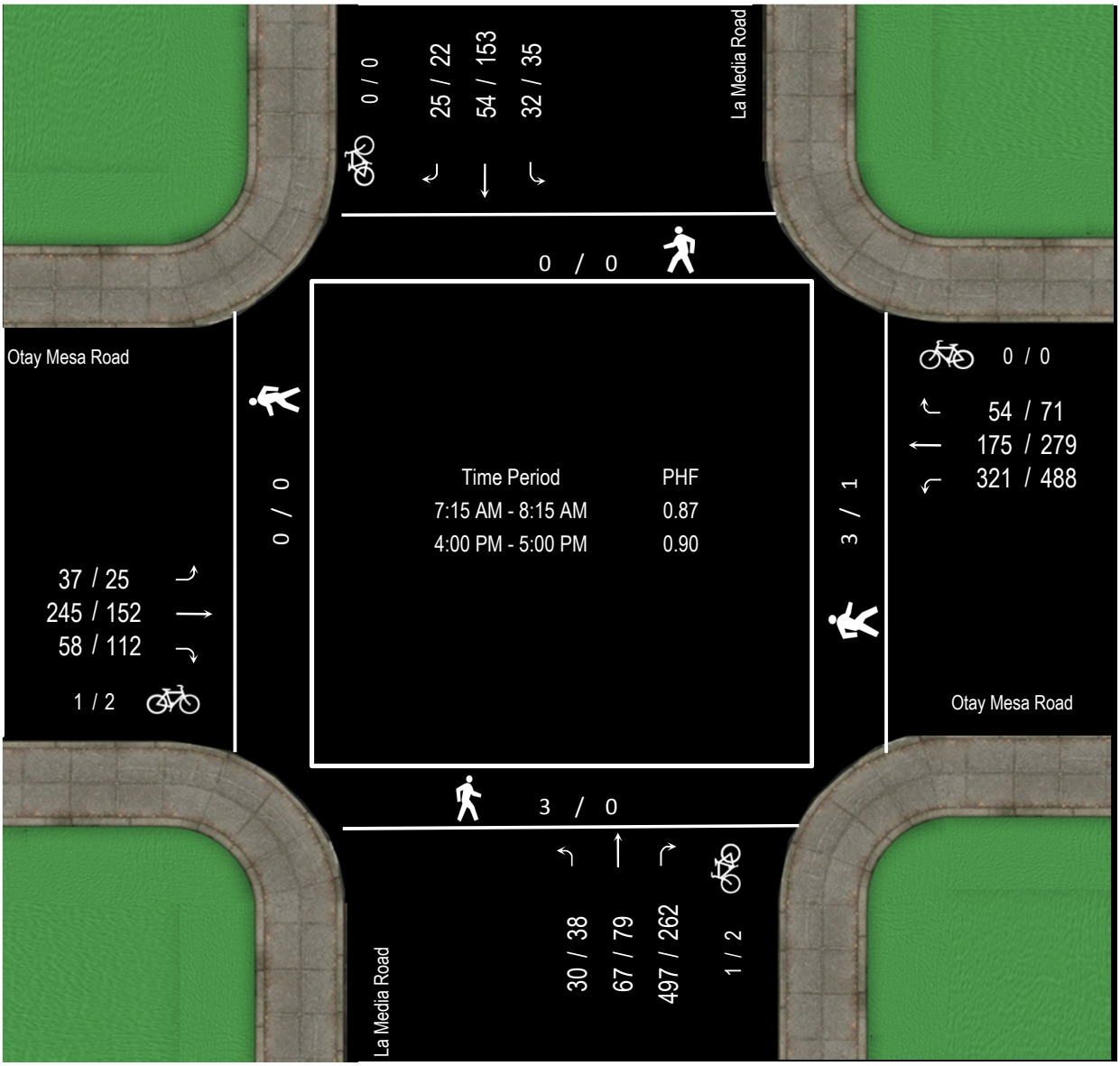
Location: Otay Mesa Road @ La Media Road

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*



CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Otay Mesa Road @ La Media Road

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	7	10	5	11	19	68	78	17	3	10	62	2	292
7:15 AM	4	15	5	5	37	88	100	14	9	8	79	6	370
7:30 AM	8	8	10	12	37	85	162	13	4	11	46	9	405
7:45 AM	6	11	9	16	56	80	161	23	6	16	63	11	458
8:00 AM	7	20	8	21	45	68	74	17	11	23	57	11	362
8:15 AM	4	32	9	11	37	61	68	14	3	13	48	8	308
8:30 AM	3	21	7	15	30	72	59	12	10	22	43	7	301
8:45 AM	5	21	9	15	49	67	72	20	12	28	30	9	337
Total	44	138	62	106	310	589	774	130	58	131	428	63	2,833

AM Intersection Peak Hour : **7:15 AM - 8:15 AM** Intersection PHF : **0.87**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	25	54	32	54	175	321	497	67	30	58	245	37	1,595
PHF	0.78	0.68	0.80	0.64	0.78	0.91	0.77	0.73	0.68	0.63	0.78	0.84	0.87
Movement PHF		0.79			0.90			0.78			0.91		0.87

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	9	43	8	35	89	153	33	15	9	29	52	3	478
4:15 PM	3	32	9	15	70	128	56	26	7	25	39	4	414
4:30 PM	8	43	8	13	63	118	97	18	16	31	37	10	462
4:45 PM	2	35	10	8	57	89	76	20	6	27	24	8	362
5:00 PM	4	49	14	11	68	103	55	17	10	31	47	8	417
5:15 PM	9	47	6	12	47	58	67	27	19	32	30	5	359
5:30 PM	4	32	6	11	37	83	51	17	11	31	38	9	330
5:45 PM	7	40	5	12	36	62	52	10	8	19	22	4	277
Total	46	321	66	117	467	794	487	150	86	225	289	51	3,099

PM Intersection Peak Hour : **4:00 PM - 5:00 PM** Intersection PHF : **0.90**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	22	153	35	71	279	488	262	79	38	112	152	25	1716
PHF	0.61	0.89	0.875	0.507	0.784	0.797	0.675	0.76	0.594	0.903	0.731	0.625	0.90
Movement PHF		0.88			0.76			0.72			0.86		0.90

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Airway Road @ La Media Road

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Airway Road @ La Media Road

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	4	45	41	18	2	1	1	37	3	1	4	5	162
7:15 AM	5	51	55	15	5	1	1	34	4	1	7	4	183
7:30 AM	6	45	51	25	6	1	1	30	6	6	3	0	180
7:45 AM	13	82	73	16	12	2	0	20	4	7	7	2	238
8:00 AM	5	42	63	21	11	3	1	20	5	6	13	1	191
8:15 AM	11	56	54	12	12	0	1	30	7	6	7	1	197
8:30 AM	7	45	57	18	13	3	2	22	9	7	10	7	200
8:45 AM	9	48	54	38	11	2	2	31	6	11	9	3	224
Total	60	414	448	163	72	13	9	224	44	45	60	23	1,575

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.87**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	36	225	247	67	48	8	4	92	25	26	37	11	826
PHF	0.69	0.69	0.85	0.80	0.92	0.67	0.50	0.77	0.69	0.93	0.71	0.39	0.87
Movement PHF		0.76			0.88			0.80			0.77		0.87

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	1	51	59	64	11	1	2	56	7	14	21	7	294
4:15 PM	11	40	46	43	11	5	0	58	2	4	24	17	261
4:30 PM	11	36	32	54	6	1	1	74	13	4	19	9	260
4:45 PM	8	32	45	46	16	6	0	57	8	5	10	7	240
5:00 PM	15	20	25	59	11	8	2	74	6	7	16	13	256
5:15 PM	2	37	40	66	8	5	1	61	7	11	17	9	264
5:30 PM	10	27	26	46	8	4	1	47	8	5	18	7	207
5:45 PM	6	24	39	19	8	2	3	38	7	5	16	3	170
Total	64	267	312	397	79	32	10	465	58	55	141	72	1,952

PM Intersection Peak Hour : **4:00 PM - 5:00 PM** Intersection PHF : **0.90**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	31	159	182	207	44	13	3	245	30	27	74	40	1055
PHF	0.70	0.779	0.771	0.809	0.688	0.542	0.375	0.828	0.577	0.482	0.771	0.588	0.90
Movement PHF		0.84			0.87			0.79			0.78		0.90

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Siempre Viva Road @ La Media Road

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Siempre Viva Road @ La Media Road

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	0	4	29	19	7	3	0	2	0	0	5	0	69
7:15 AM	0	4	33	19	4	1	1	2	0	0	4	0	68
7:30 AM	0	1	31	12	7	3	0	7	2	2	4	1	70
7:45 AM	0	5	54	12	8	2	2	3	1	1	6	0	94
8:00 AM	0	8	25	13	5	2	1	3	1	0	7	1	66
8:15 AM	1	13	41	12	6	4	0	4	0	1	7	1	90
8:30 AM	1	19	27	20	12	0	0	4	1	2	4	1	91
8:45 AM	0	23	23	16	1	4	0	1	0	1	7	0	76
Total	2	77	263	123	50	19	4	26	5	7	44	4	624

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.91**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	2	45	147	57	31	8	3	14	3	4	24	3	341
PHF	0.50	0.59	0.68	0.71	0.65	0.50	0.38	0.88	0.75	0.50	0.86	0.75	0.91
Movement PHF		0.82			0.75			0.83			0.86		0.91

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	1	35	19	31	7	6	0	8	0	9	9	0	125
4:15 PM	1	31	26	17	4	6	0	19	0	4	4	1	113
4:30 PM	2	30	11	21	8	5	1	23	0	5	14	0	120
4:45 PM	1	26	15	16	9	9	0	12	0	6	8	2	104
5:00 PM	1	32	17	20	8	5	1	15	0	2	10	2	113
5:15 PM	0	24	10	21	9	10	0	14	0	6	5	1	100
5:30 PM	0	33	7	15	4	9	1	8	0	2	10	0	89
5:45 PM	1	21	3	9	5	2	0	12	1	12	8	1	75
Total	7	232	108	150	54	52	3	111	1	46	68	7	839

PM Intersection Peak Hour : **4:00 PM - 5:00 PM** Intersection PHF : **0.92**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	5	122	71	85	28	26	1	62	0	24	35	3	462
PHF	0.63	0.871	0.683	0.685	0.778	0.722	0.25	0.674	#####	0.667	0.625	0.375	0.92
Movement PHF		0.85			0.79			0.66			0.82		0.92

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Otay Mesa Road @ Pipers Ranch Road

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Otay Mesa Road @ Pipers Ranch Road

AM Period (7:00 AM - 9:00 AM)							
	Southbound		Westbound			Eastbound	
	Right	Left	Right	Thru		Thru	Left	TOTAL
7:00 AM	16	12	23	82		109	36	278
7:15 AM	28	7	20	102		147	37	341
7:30 AM	30	21	18	104		177	41	391
7:45 AM	22	20	24	130		158	75	429
8:00 AM	28	19	25	106		94	45	317
8:15 AM	31	18	27	78		93	32	279
8:30 AM	33	12	21	84		72	37	259
8:45 AM	28	9	25	103		67	44	276
Total	216	118	183	789		917	347	2,570

AM Intersection Peak Hour : **7:15 AM - 8:15 AM** Intersection PHF : **0.86**

	Southbound		Westbound			Eastbound		TOTAL
	Right	Left	Right	Thru		Thru	Left	
Volume	108	67	87	442		576	198	1,478
PHF	0.90	0.80	0.87	0.85		0.81	0.66	0.86
Movement PHF	0.86			0.86		0.83		0.86

PM Period (4:00 PM - 6:00 PM)							
	Southbound		Westbound			Eastbound	
	Right	Left	Right	Thru		Thru	Left	TOTAL
4:00 PM	69	17	32	208		75	18	419
4:15 PM	41	13	17	172		89	15	347
4:30 PM	50	32	25	144		97	45	393
4:45 PM	33	26	20	121		76	34	310
5:00 PM	79	27	18	103		90	26	343
5:15 PM	30	24	20	87		79	24	264
5:30 PM	35	11	23	96		76	19	260
5:45 PM	33	12	18	77		67	12	219
Total	370	162	173	1,008		649	193	2,555

PM Intersection Peak Hour : **4:00 PM - 5:00 PM** Intersection PHF : **0.88**

	Southbound		Westbound			Eastbound		TOTAL
	Right	Left	Right	Thru		Thru	Left	
Volume	193	88	94	645		337	112	1469
PHF	0.70	0.688	0.734	0.775		0.869	0.622	0.88
Movement PHF	0.82			0.77		0.79		0.88

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Airway Road @ Harvest Road

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Airway Road @ Harvest Road

AM Period (7:00 AM - 9:00 AM)								
		Westbound		Northbound		Eastbound		
		Thru	Left	Right	Left	Right	Thru	TOTAL
7:00 AM		14	7	8	7	8	15	59
7:15 AM		8	11	9	11	6	33	78
7:30 AM		21	23	7	15	13	28	107
7:45 AM		24	31	15	23	15	29	137
8:00 AM		19	21	8	19	19	22	108
8:15 AM		23	19	14	21	13	18	108
8:30 AM		31	15	9	22	16	28	121
8:45 AM		30	15	21	29	21	25	141
Total		170	142	91	147	111	198	859

AM Intersection Peak Hour : **8:00 AM - 9:00 AM** Intersection PHF : **0.85**

		Westbound		Northbound		Eastbound		TOTAL
		Thru	Left	Right	Left	Right	Thru	
Volume		103	70	52	91	69	93	478
PHF		0.83	0.83	0.62	0.78	0.82	0.83	0.85
Movement PHF		0.94		0.72		0.88		0.85

PM Period (4:00 PM - 6:00 PM)								
		Westbound		Northbound		Eastbound		
		Thru	Left	Right	Left	Right	Thru	TOTAL
4:00 PM		40	14	17	27	36	38	172
4:15 PM		41	18	13	20	37	20	149
4:30 PM		44	16	15	16	28	25	144
4:45 PM		43	16	8	22	30	25	144
5:00 PM		35	15	14	12	26	27	129
5:15 PM		17	11	13	19	38	23	121
5:30 PM		32	13	10	13	21	21	110
5:45 PM		25	18	13	19	20	19	114
Total		277	121	103	148	236	198	1,083

PM Intersection Peak Hour : **4:00 PM - 5:00 PM** Intersection PHF : **0.89**

		Westbound		Northbound		Eastbound		TOTAL
		Thru	Left	Right	Left	Right	Thru	
Volume		168	64	53	85	131	108	609
PHF		0.955	0.889	0.779	0.787	0.885	0.711	0.89
Movement PHF		0.97		0.78		0.81		0.89

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Siempre Viva Road @ Customhouse Plaza

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Siempre Viva Road @ Customhouse Plaza

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	1	0	0	0	73	5	1	0	1	0	26	2	109
7:15 AM	1	0	0	0	92	10	2	0	6	3	41	4	159
7:30 AM	2	0	0	0	112	2	2	0	2	0	20	4	144
7:45 AM	0	0	0	0	147	11	0	0	5	4	82	2	251
8:00 AM	1	0	0	0	121	21	3	0	10	1	42	3	202
8:15 AM	2	0	0	0	130	10	4	0	5	3	79	4	237
8:30 AM	0	0	0	1	135	18	2	0	3	2	20	2	183
8:45 AM	2	0	0	0	106	14	1	0	3	3	51	4	184
Total	9	0	0	1	916	91	15	0	35	16	361	25	1,469

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.87**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	3	0	0	1	533	60	9	0	23	10	223	11	873
PHF	0.38	#####	#####	0.25	0.91	0.71	0.56	#####	0.58	0.63	0.68	0.69	0.87
Movement PHF		0.38			0.94			0.62			0.69		0.87

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	0	0	0	1	120	5	3	1	7	4	87	0	228
4:15 PM	4	0	0	1	122	15	3	0	4	2	54	0	205
4:30 PM	4	1	0	1	151	1	7	0	3	2	84	0	254
4:45 PM	1	0	0	0	124	11	3	2	3	6	84	0	234
5:00 PM	1	0	0	0	130	9	7	0	4	1	134	0	286
5:15 PM	5	0	0	1	137	9	9	1	3	7	79	0	251
5:30 PM	0	0	0	0	113	2	2	0	2	4	105	0	228
5:45 PM	0	0	0	0	112	5	6	0	7	4	65	0	199
Total	15	1	0	4	1,009	57	40	4	33	30	692	0	1,885

PM Intersection Peak Hour : **4:30 PM - 5:30 PM** Intersection PHF : **0.90**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	11	1	0	2	542	30	26	3	13	16	381	0	1025
PHF	0.55	0.25	#####	0.5	0.897	0.682	0.722	0.375	0.813	0.571	0.711	#####	0.90
Movement PHF		0.60			0.94			0.81			0.74		0.90

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

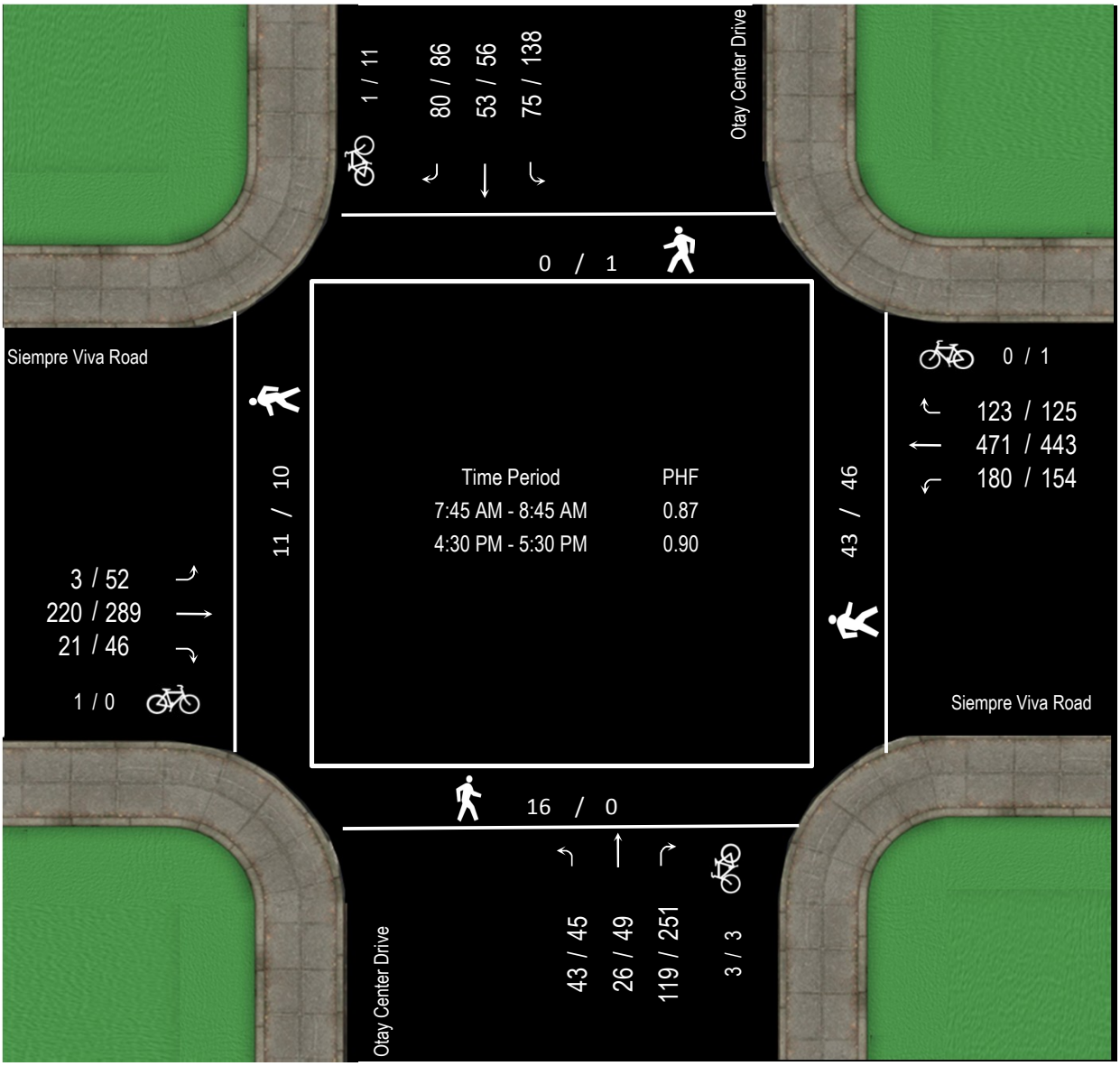
Location: Siempre Viva Road @ Otay Center Drive

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*



CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Siempre Viva Road @ Otay Center Drive

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	4	11	15	8	63	26	24	8	11	5	16	6	197
7:15 AM	13	10	8	18	74	30	10	11	15	6	19	8	222
7:30 AM	12	10	6	34	90	36	9	5	12	5	10	4	233
7:45 AM	19	13	18	33	124	57	28	8	15	7	83	2	407
8:00 AM	21	11	18	26	112	49	18	5	9	4	43	1	317
8:15 AM	18	14	22	34	115	42	26	2	7	6	80	0	366
8:30 AM	22	15	17	30	120	32	47	11	12	4	14	0	324
8:45 AM	15	13	18	28	97	33	38	12	8	5	50	0	317
Total	124	97	122	211	795	305	200	62	89	42	315	21	2,383

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.87**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	80	53	75	123	471	180	119	26	43	21	220	3	1,414
PHF	0.91	0.88	0.85	0.90	0.95	0.79	0.63	0.59	0.72	0.75	0.66	0.38	0.87
Movement PHF		0.96			0.90			0.67			0.66		0.87

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	20	14	35	42	99	35	70	14	7	8	74	9	427
4:15 PM	15	12	42	35	116	35	54	14	7	8	35	13	386
4:30 PM	25	13	44	28	122	25	61	11	6	10	70	3	418
4:45 PM	15	14	29	36	108	50	53	10	12	9	45	23	404
5:00 PM	24	9	39	33	105	43	70	10	10	16	109	15	483
5:15 PM	22	20	26	28	108	36	67	18	17	11	65	11	429
5:30 PM	18	6	38	27	87	32	47	1	10	6	91	16	379
5:45 PM	18	11	38	30	92	43	51	6	7	10	46	10	362
Total	157	99	291	259	837	299	473	84	76	78	535	100	3,288

PM Intersection Peak Hour : **4:30 PM - 5:30 PM** Intersection PHF : **0.90**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	86	56	138	125	443	154	251	49	45	46	289	52	1734
PHF	0.86	0.7	0.784	0.868	0.908	0.77	0.896	0.681	0.662	0.719	0.663	0.565	0.90
Movement PHF		0.85			0.93			0.85			0.69		0.90

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

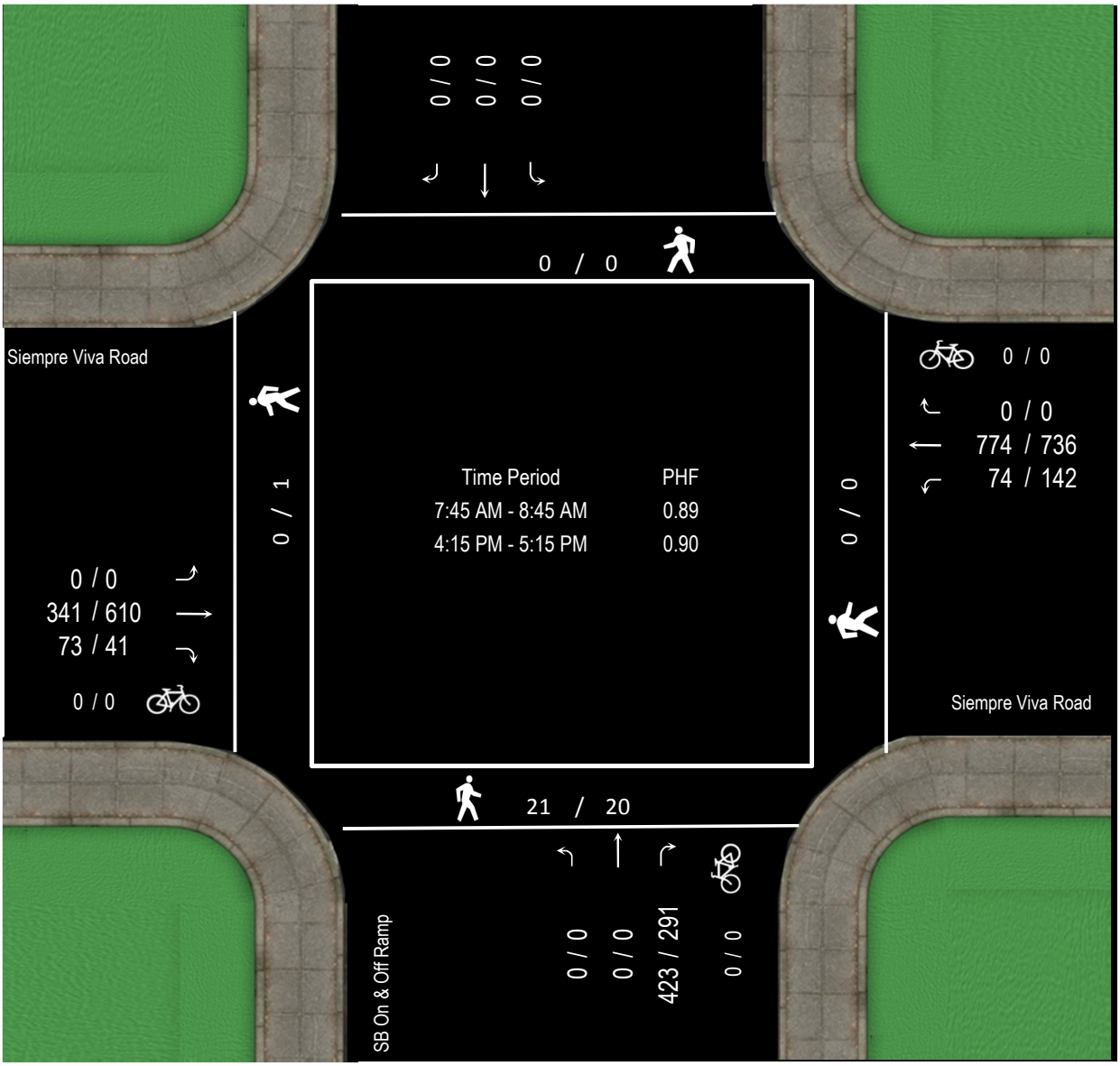
Location: Siempre Viva Road @ SB On & Off Ramp

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*



CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Siempre Viva Road @ SB On & Off Ramp

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	0	0	0	0	97	15	97	0	0	16	39	0	264
7:15 AM	0	0	0	0	122	24	136	0	0	12	25	0	319
7:30 AM	0	0	0	0	160	20	168	0	0	12	13	0	373
7:45 AM	0	0	0	0	214	20	111	0	0	16	113	0	474
8:00 AM	0	0	0	0	187	13	122	0	0	14	65	0	401
8:15 AM	0	0	0	0	191	22	90	0	0	29	99	0	431
8:30 AM	0	0	0	0	182	19	100	0	0	14	64	0	379
8:45 AM	0	0	0	0	158	26	86	0	0	19	87	0	376
Total	0	0	0	0	1,311	159	910	0	0	132	505	0	3,017

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.89**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	0	0	0	0	774	74	423	0	0	73	341	0	1,685
PHF	#####	#####	#####	#####	0.90	0.84	0.87	#####	#####	0.63	0.75	#####	0.89
Movement PHF	#DIV/0!			0.91			0.87			0.80			0.89

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	0	0	0	0	176	42	81	0	0	24	155	0	478
4:15 PM	0	0	0	0	186	41	85	0	0	8	123	0	443
4:30 PM	0	0	0	0	175	33	70	0	0	6	169	0	453
4:45 PM	0	0	0	0	194	31	65	0	0	12	115	0	417
5:00 PM	0	0	0	0	181	37	71	0	0	15	203	0	507
5:15 PM	0	0	0	0	172	28	72	0	0	19	139	0	430
5:30 PM	0	0	0	0	146	41	66	0	0	36	140	0	429
5:45 PM	0	0	0	0	165	33	75	0	0	10	125	0	408
Total	0	0	0	0	1,395	286	585	0	0	130	1,169	0	3,565

PM Intersection Peak Hour : **4:15 PM - 5:15 PM** Intersection PHF : **0.90**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	0	0	0	0	736	142	291	0	0	41	610	0	1820
PHF	#####	#####	#####	#####	0.948	0.866	0.856	#####	#####	0.683	0.751	#####	0.90
Movement PHF	#DIV/0!			0.97			0.86			0.75			0.90

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Siempre Viva Road @ SB Off Ramp

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Siempre Viva Road @ SB Off Ramp

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	33	0	0	0	79	0	0	0	0	0	136	0	248
7:15 AM	55	0	0	0	91	0	0	0	0	0	161	0	307
7:30 AM	86	0	0	0	94	0	0	0	0	0	181	0	361
7:45 AM	115	0	0	0	119	0	0	0	0	0	224	0	458
8:00 AM	75	0	0	0	125	0	0	0	0	0	187	0	387
8:15 AM	88	0	0	0	125	0	0	0	0	0	189	0	402
8:30 AM	56	0	0	0	145	0	0	0	0	0	164	0	365
8:45 AM	58	0	0	0	126	0	0	0	0	0	173	0	357
Total	566	0	0	0	904	0	0	0	0	0	1,415	0	2,885

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.88**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	334	0	0	0	514	0	0	0	0	0	764	0	1,612
PHF	0.73	#####	#####	#####	0.89	#####	#####	#####	#####	#####	0.85	#####	0.88
Movement PHF		0.73			0.89			#DIV/0!			0.85		0.88

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	91	0	0	0	127	0	0	0	0	0	236	0	454
4:15 PM	86	0	0	0	141	0	0	0	0	0	208	0	435
4:30 PM	94	0	0	0	114	0	0	0	0	0	239	0	447
4:45 PM	106	0	0	0	119	0	0	0	0	0	180	0	405
5:00 PM	101	0	0	0	117	0	0	0	0	0	274	0	492
5:15 PM	76	0	0	0	124	0	0	0	0	0	211	0	411
5:30 PM	81	0	0	0	106	0	0	0	0	0	206	0	393
5:45 PM	102	0	0	0	96	0	0	0	0	0	200	0	398
Total	737	0	0	0	944	0	0	0	0	0	1,754	0	3,435

PM Intersection Peak Hour : **4:15 PM - 5:15 PM** Intersection PHF : **0.90**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	387	0	0	0	491	0	0	0	0	0	901	0	1779
PHF	0.91	#####	#####	#####	0.871	#####	#####	#####	#####	#####	0.822	#####	0.90
Movement PHF		0.91			0.87			#DIV/0!			0.82		0.90

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Siempre Viva Road @ NB Off Ramp

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Siempre Viva Road @ NB Off Ramp

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	0	0	0	89	47	0	86	0	32	0	108	28	390
7:15 AM	0	0	0	83	45	0	91	0	46	0	125	36	426
7:30 AM	0	0	0	105	62	0	74	0	32	0	158	23	454
7:45 AM	0	0	0	108	73	0	67	0	46	0	189	35	518
8:00 AM	0	0	0	100	70	0	78	2	55	0	166	21	492
8:15 AM	0	0	0	93	74	0	89	0	51	0	160	29	496
8:30 AM	0	0	0	110	91	0	101	1	54	0	126	38	521
8:45 AM	0	0	0	120	88	0	72	0	38	0	138	35	491
Total	0	0	0	808	550	0	658	3	354	0	1,170	245	3,788

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.97**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	0	0	0	411	308	0	335	3	206	0	641	123	2,027
PHF	#####	#####	#####	0.93	0.85	#####	0.83	0.38	0.94	#####	0.85	0.81	0.97
Movement PHF	#DIV/0!			0.89			0.87			0.85			0.97

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	0	0	0	198	104	0	53	0	23	0	132	104	614
4:15 PM	0	0	0	184	120	0	69	0	21	0	114	94	602
4:30 PM	0	0	0	217	106	0	51	0	8	0	117	121	620
4:45 PM	0	0	0	144	107	0	46	1	12	0	94	86	490
5:00 PM	0	0	0	204	108	0	53	0	9	0	127	147	648
5:15 PM	0	0	0	200	113	0	52	0	11	0	97	114	587
5:30 PM	0	0	0	174	94	0	38	1	12	0	114	92	525
5:45 PM	0	0	0	170	83	0	34	0	13	0	105	95	500
Total	0	0	0	1,491	835	0	396	2	109	0	900	853	4,586

PM Intersection Peak Hour : **4:15 PM - 5:15 PM** Intersection PHF : **0.91**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	0	0	0	749	441	0	219	1	50	0	452	448	2360
PHF	#####	#####	#####	0.863	0.919	#####	0.793	0.25	0.595	#####	0.89	0.762	0.91
Movement PHF	#DIV/0!			0.92			0.75			0.82			0.91

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Airway Road @ Sanyo Avenue

Date of Count: *Thursday, October 01, 2015*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *15-0415*

CHEN RYAN

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Airway Road @ Sanyo Avenue

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	6	16	11	9	4	0	1	12	5	5	6	12	87
7:15 AM	13	17	6	10	8	1	0	20	1	8	9	16	109
7:30 AM	25	41	9	6	13	1	0	11	5	4	14	10	139
7:45 AM	23	44	13	7	15	1	0	14	9	8	13	6	153
8:00 AM	26	29	18	5	12	1	0	16	6	11	12	5	141
8:15 AM	20	32	18	13	15	1	2	17	11	16	7	1	153
8:30 AM	14	29	12	10	21	1	1	14	14	9	15	10	150
8:45 AM	23	27	11	9	12	0	0	11	11	9	20	9	142
Total	150	235	98	69	100	6	4	115	62	70	96	69	1,074

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.98**

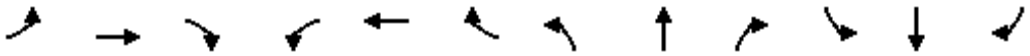
	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	83	134	61	35	63	4	3	61	40	44	47	22	597
PHF	0.80	0.76	0.85	0.67	0.75	1.00	0.38	0.90	0.71	0.69	0.78	0.55	0.98
Movement PHF		0.87			0.80			0.87			0.83		0.98

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	6	18	9	22	38	0	0	39	11	10	24	13	190
4:15 PM	9	23	8	17	30	3	0	20	20	16	19	6	171
4:30 PM	8	20	9	24	25	0	0	28	11	7	22	11	165
4:45 PM	8	12	12	26	35	0	0	21	11	11	26	7	169
5:00 PM	7	13	10	28	25	0	0	29	15	8	15	24	174
5:15 PM	5	16	5	17	26	0	0	25	10	4	16	20	144
5:30 PM	3	16	7	23	30	1	0	26	8	6	8	15	143
5:45 PM	6	8	3	12	28	1	0	21	4	10	8	12	113
Total	52	126	63	169	237	5	0	209	90	72	138	108	1,269

PM Intersection Peak Hour : **4:00 PM - 5:00 PM** Intersection PHF : **0.91**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	31	73	38	89	128	3	0	108	53	44	91	37	695
PHF	0.86	0.793	0.792	0.856	0.842	0.25	#####	0.692	0.663	0.688	0.875	0.712	0.91
Movement PHF		0.89			0.90			0.81			0.91		0.91

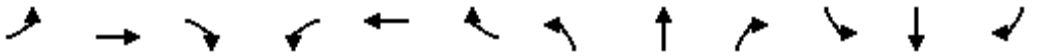
Appendix D
Peak Hour Intersection LOS & ILV Worksheets – Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	1	92	9	5	2	36	26	3	1	43	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.98		0.99		1.00	1.00			0.98	
Flpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85		0.98		1.00	0.98			0.91	
Flt Protected	0.95	0.95	1.00		0.97		0.95	1.00			1.00	
Satd. Flow (prot)	1681	1686	1549		1753		1768	1827			1662	
Flt Permitted	0.95	0.95	1.00		0.97		1.00	1.00			1.00	
Satd. Flow (perm)	1681	1686	1549		1753		1861	1827			1658	
Peak-hour factor, PHF	0.53	0.53	0.53	0.67	0.67	0.67	0.77	0.77	0.77	0.85	0.85	0.85
Adj. Flow (vph)	113	2	174	13	7	3	47	34	4	1	51	96
RTOR Reduction (vph)	0	0	107	0	3	0	0	3	0	0	82	0
Lane Group Flow (vph)	58	57	67	0	20	0	47	35	0	0	66	0
Confl. Peds. (#/hr)	1		1	1		1	2					2
Confl. Bikes (#/hr)			1			4			6			5
Heavy Vehicles (%)	2%	5%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Split	NA	Perm	Split	NA		Perm	NA		Perm	NA	
Protected Phases	2	2		1	1			8			4	
Permitted Phases			2				8			4		
Actuated Green, G (s)	13.0	13.0	13.0		0.9		5.4	5.4			5.1	
Effective Green, g (s)	13.0	13.0	13.0		0.9		5.4	5.4			5.1	
Actuated g/C Ratio	0.38	0.38	0.38		0.03		0.16	0.16			0.15	
Clearance Time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Vehicle Extension (s)	2.9	2.9	2.9		2.9		3.8	3.8			4.5	
Lane Grp Cap (vph)	642	644	592		46		295	290			248	
v/s Ratio Prot	0.03	0.03			c0.01			0.02				
v/s Ratio Perm			c0.04				0.03				c0.04	
v/c Ratio	0.09	0.09	0.11		0.44		0.16	0.12			0.27	
Uniform Delay, d1	6.7	6.7	6.8		16.3		12.3	12.3			12.8	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.1	0.1	0.1		6.2		0.3	0.2			1.0	
Delay (s)	6.8	6.8	6.9		22.5		12.7	12.5			13.8	
Level of Service	A	A	A		C		B	B			B	
Approach Delay (s)		6.8			22.5			12.6			13.8	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	10.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.17		
Actuated Cycle Length (s)	34.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	34.7%	ICU Level of Service	A
Analysis Period (min)	15		

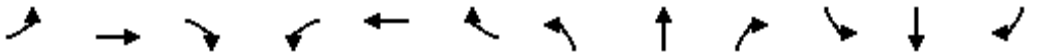
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	160	16	11	153	7	55	0	38	5	0	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	5.4		4.4	5.6		4.4		4.9	4.4	4.9	
Lane Util. Factor	1.00	0.95		0.97	0.91		1.00		1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		0.99	1.00	0.97	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		1.00	1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00		0.85	1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)	1770	3488		3433	5048		1770		1563	1768	1535	
Flt Permitted	0.95	1.00		0.95	1.00		1.00		1.00	1.00	1.00	
Satd. Flow (perm)	1770	3488		3433	5048		1863		1563	1861	1535	
Peak-hour factor, PHF	0.87	0.87	0.87	0.86	0.86	0.86	0.75	0.75	0.75	0.97	0.97	0.97
Adj. Flow (vph)	21	184	18	13	178	8	73	0	51	5	0	27
RTOR Reduction (vph)	0	7	0	0	4	0	0	0	47	0	26	0
Lane Group Flow (vph)	21	195	0	13	182	0	73	0	4	5	1	0
Confl. Peds. (#/hr)			3						2	2		
Confl. Bikes (#/hr)			1			3						2
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		pm+pt		Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	0.7	18.3		0.5	17.9		5.3		2.9	1.5	1.0	
Effective Green, g (s)	0.7	18.3		0.5	17.9		5.3		2.9	1.5	1.0	
Actuated g/C Ratio	0.02	0.44		0.01	0.43		0.13		0.07	0.04	0.02	
Clearance Time (s)	4.4	5.4		4.4	5.6		4.4		4.9	4.4	4.9	
Vehicle Extension (s)	2.0	5.4		2.0	5.4		2.0		5.6	2.0	2.0	
Lane Grp Cap (vph)	30	1545		41	2187		233		109	66	37	
v/s Ratio Prot	c0.01	c0.06		0.00	0.04		c0.02			0.00	0.00	
v/s Ratio Perm							c0.02		0.00	0.00		
v/c Ratio	0.70	0.13		0.32	0.08		0.31		0.03	0.08	0.02	
Uniform Delay, d1	20.2	6.8		20.2	6.9		16.4		17.9	19.3	19.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00		1.00	1.00	1.00	
Incremental Delay, d2	44.4	0.1		1.6	0.0		0.3		0.3	0.2	0.1	
Delay (s)	64.6	6.9		21.9	6.9		16.7		18.2	19.5	19.7	
Level of Service	E	A		C	A		B		B	B	B	
Approach Delay (s)		12.3			7.9			17.3			19.7	
Approach LOS		B			A			B			B	

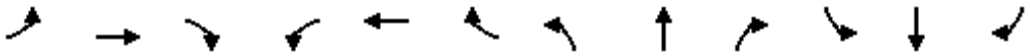
Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.20		
Actuated Cycle Length (s)	41.3	Sum of lost time (s)	19.3
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1	4	221	4	57	0	105	598	130	173	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.6	5.2	5.2	6.7	6.7		6.3	5.2	5.2	6.3	6.3
Lane Util. Factor		0.95	1.00	0.97	0.95	1.00		0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes		1.00	0.99	1.00	1.00	0.99		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00	1.00		1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1574	3335	3539	1563		3539	1538	3433	3539	1583
Flt Permitted		1.00	1.00	0.95	1.00	1.00		1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1574	3335	3539	1563		3539	1538	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1	4	240	4	62	0	114	650	141	188	1
RTOR Reduction (vph)	0	0	4	0	0	44	0	0	363	0	0	1
Lane Group Flow (vph)	0	1	0	240	4	18	0	114	287	141	188	0
Confl. Peds. (#/hr)			1			2						
Heavy Vehicles (%)	2%	2%	2%	5%	2%	2%	2%	2%	5%	2%	2%	2%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)		1.7	3.4	12.3	18.1	18.1		15.6	27.9	11.2	25.1	25.1
Effective Green, g (s)		1.7	3.4	12.3	18.1	18.1		15.6	27.9	11.2	25.1	25.1
Actuated g/C Ratio		0.03	0.05	0.19	0.29	0.29		0.25	0.44	0.18	0.40	0.40
Clearance Time (s)		5.6	5.2	5.2	6.7	6.7		6.3	5.2	5.2	6.3	6.3
Vehicle Extension (s)		2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0
Lane Grp Cap (vph)		95	84	650	1015	448		874	680	609	1407	629
v/s Ratio Prot		0.00	0.00	0.07	0.00			0.03	c0.08	c0.04	0.05	
v/s Ratio Perm			0.00			c0.01			0.10			0.00
v/c Ratio		0.01	0.00	0.37	0.00	0.04		0.13	0.42	0.23	0.13	0.00
Uniform Delay, d1		29.9	28.2	22.0	16.1	16.2		18.5	12.1	22.3	12.1	11.4
Progression Factor		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.0	0.0	0.4	0.0	0.0		0.1	0.4	0.1	0.0	0.0
Delay (s)		29.9	28.2	22.4	16.1	16.2		18.5	12.5	22.3	12.1	11.4
Level of Service		C	C	C	B	B		B	B	C	B	B
Approach Delay (s)		28.6			21.1			13.4			16.5	
Approach LOS		C			C			B			B	

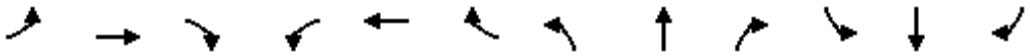
Intersection Summary			
HCM 2000 Control Delay	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	63.1	Sum of lost time (s)	23.4
Intersection Capacity Utilization	69.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	15	1	40	98	663	0	0	102	296
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.1	5.1	4.7	5.1			5.1	
Lane Util. Factor					1.00	1.00	1.00	0.91			0.91	
Frpb, ped/bikes					1.00	1.00	1.00	1.00			0.98	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.89	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1727	1538	1719	4940			4312	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1727	1538	1719	4940			4312	
Peak-hour factor, PHF	0.92	0.92	0.92	0.74	0.74	0.74	0.79	0.79	0.79	0.93	0.93	0.93
Adj. Flow (vph)	0	0	0	20	1	54	124	839	0	0	110	318
RTOR Reduction (vph)	0	0	0	0	0	51	0	0	0	0	187	0
Lane Group Flow (vph)	0	0	0	0	21	3	124	839	0	0	241	0
Confl. Peds. (#/hr)												4
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8						
Actuated Green, G (s)					2.1	2.1	4.5	24.2			15.0	
Effective Green, g (s)					2.1	2.1	4.5	24.2			15.0	
Actuated g/C Ratio					0.06	0.06	0.12	0.66			0.41	
Clearance Time (s)					5.1	5.1	4.7	5.1			5.1	
Vehicle Extension (s)					3.0	3.0	2.0	3.0			3.0	
Lane Grp Cap (vph)					99	88	211	3275			1772	
v/s Ratio Prot							c0.07	c0.17			0.06	
v/s Ratio Perm					0.01	0.00						
v/c Ratio					0.21	0.04	0.59	0.26			0.14	
Uniform Delay, d1					16.4	16.2	15.1	2.5			6.7	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					1.1	0.2	2.7	0.0			0.0	
Delay (s)					17.5	16.4	17.8	2.5			6.7	
Level of Service					B	B	B	A			A	
Approach Delay (s)		0.0			16.7			4.5			6.7	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	5.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	36.5	Sum of lost time (s)	14.9
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

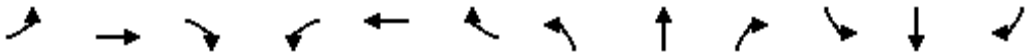
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	633	1	43	0	0	0	0	128	24	78	39	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1						5.1		4.7	5.1	
Lane Util. Factor	1.00	1.00						0.91		1.00	0.95	
Frpb, ped/bikes	1.00	1.00						1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00						1.00		1.00	1.00	
Frt	1.00	0.85						0.98		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (prot)	1641	1473						4586		1641	3282	
Flt Permitted	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (perm)	1641	1473						4586		1641	3282	
Peak-hour factor, PHF	0.76	0.76	0.76	0.92	0.92	0.92	0.73	0.73	0.73	0.66	0.66	0.66
Adj. Flow (vph)	833	1	57	0	0	0	0	175	33	118	59	0
RTOR Reduction (vph)	0	23	0	0	0	0	0	29	0	0	0	0
Lane Group Flow (vph)	833	35	0	0	0	0	0	179	0	118	59	0
Confl. Peds. (#/hr)									2			
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4											
Actuated Green, G (s)	45.5	45.5						8.4		7.3	20.4	
Effective Green, g (s)	45.5	45.5						8.4		7.3	20.4	
Actuated g/C Ratio	0.60	0.60						0.11		0.10	0.27	
Clearance Time (s)	5.1	5.1						5.1		4.7	5.1	
Vehicle Extension (s)	3.0	3.0						3.0		2.0	3.0	
Lane Grp Cap (vph)	981	880						506		157	879	
v/s Ratio Prot		0.02						c0.04		c0.07	0.02	
v/s Ratio Perm	c0.51											
v/c Ratio	0.85	0.04						0.35		0.75	0.07	
Uniform Delay, d1	12.5	6.3						31.3		33.5	20.8	
Progression Factor	1.00	1.00						1.00		1.00	1.00	
Incremental Delay, d2	7.0	0.0						0.4		16.3	0.0	
Delay (s)	19.5	6.3						31.8		49.9	20.8	
Level of Service	B	A						C		D	C	
Approach Delay (s)		18.6			0.0			31.8			40.2	
Approach LOS		B			A			C			D	

Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	76.1	Sum of lost time (s)	14.9
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

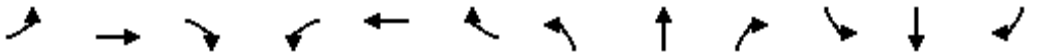
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	144	0	1	1	0	5	0	4	2	5	12	86
Peak Hour Factor	0.74	0.74	0.74	0.50	0.50	0.50	0.50	0.50	0.50	0.80	0.80	0.80
Hourly flow rate (vph)	195	0	1	2	0	10	0	8	4	6	15	108

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	130	66	2	10	0	12	6	123
Volume Left (vph)	130	65	2	0	0	0	6	0
Volume Right (vph)	0	1	0	10	0	4	0	108
Hadj (s)	0.58	0.56	0.67	-0.53	0.00	-0.06	0.67	-0.52
Departure Headway (s)	5.4	5.4	5.7	4.5	5.2	5.1	5.7	4.5
Degree Utilization, x	0.20	0.10	0.00	0.01	0.00	0.02	0.01	0.15
Capacity (veh/h)	637	644	603	762	676	671	601	760
Control Delay (s)	8.6	7.8	7.5	6.4	7.0	7.0	7.6	7.2
Approach Delay (s)	8.3		6.6		7.0		7.2	
Approach LOS	A		A		A		A	

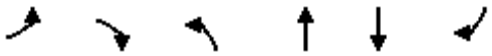
Intersection Summary				
Delay	7.8			
Level of Service	A			
Intersection Capacity Utilization	25.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	339	1	0	223	38	0	0	1	0	0	32
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.93	0.93	0.93	0.25	0.25	0.25	0.73	0.73	0.73
Hourly flow rate (vph)	0	385	1	0	240	41	0	0	4	0	0	44
Pedestrians											6	
Lane Width (ft)											12.0	
Walking Speed (ft/s)											4.0	
Percent Blockage											1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	287			386			510	672	129	378	632	86
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	287			386			510	672	129	378	632	86
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	100	100	100	100	95
cM capacity (veh/h)	1210			1113			407	358	872	528	378	926

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	154	154	78	80	80	80	41	4	44
Volume Left	0	0	0	0	0	0	0	0	0
Volume Right	0	0	1	0	0	0	41	4	44
cSH	1700	1700	1700	1700	1700	1700	1700	872	926
Volume to Capacity	0.09	0.09	0.05	0.05	0.05	0.05	0.02	0.00	0.05
Queue Length 95th (ft)	0	0	0	0	0	0	0	0	4
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	9.1
Lane LOS								A	A
Approach Delay (s)	0.0			0.0				9.1	9.1
Approach LOS								A	A

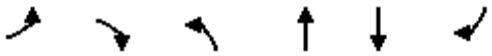
Intersection Summary				
Average Delay	0.6			
Intersection Capacity Utilization	16.6%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	131	67	10	38	143	43
Peak Hour Factor	0.81	0.81	0.86	0.86	0.82	0.82
Hourly flow rate (vph)	162	83	12	44	174	52

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	162	83	12	44	174	52
Volume Left (vph)	162	0	12	0	0	0
Volume Right (vph)	0	83	0	0	0	52
Hadj (s)	0.53	-0.67	0.53	0.17	0.17	-0.67
Departure Headway (s)	5.7	4.5	6.0	5.6	5.4	4.6
Degree Utilization, x	0.26	0.10	0.02	0.07	0.26	0.07
Capacity (veh/h)	599	751	574	611	638	750
Control Delay (s)	9.5	6.9	7.9	7.8	9.1	6.7
Approach Delay (s)	8.6		7.8		8.6	
Approach LOS	A		A		A	

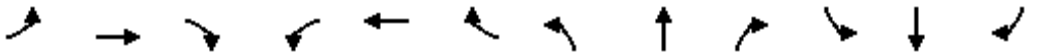
Intersection Summary			
Delay	8.5		
Level of Service	A		
Intersection Capacity Utilization	22.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	23	146	91	122	50	30
Peak Hour Factor	0.78	0.78	0.78	0.78	0.80	0.80
Hourly flow rate (vph)	29	187	117	156	62	38

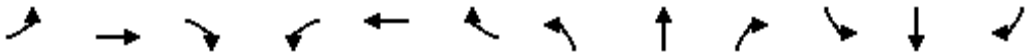
Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total (vph)	217	117	156	100
Volume Left (vph)	29	117	0	0
Volume Right (vph)	187	0	0	38
Hadj (s)	-0.32	0.67	0.17	-0.05
Departure Headway (s)	4.5	5.8	5.3	4.8
Degree Utilization, x	0.27	0.19	0.23	0.13
Capacity (veh/h)	751	598	653	702
Control Delay (s)	9.2	8.9	8.7	8.6
Approach Delay (s)	9.2	8.8		8.6
Approach LOS	A	A		A

Intersection Summary			
Delay	8.9		
Level of Service	A		
Intersection Capacity Utilization	28.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	133	127	89	135	93	89	32	37	82	39	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.92		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1468	3183	4715	1468	1641	1588		1641	1727	2584
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1468	3183	4715	1468	1641	1588		1641	1727	2584
Peak-hour factor, PHF	0.88	0.88	0.88	0.83	0.83	0.83	0.86	0.86	0.86	0.84	0.84	0.84
Adj. Flow (vph)	91	151	144	107	163	112	103	37	43	98	46	44
RTOR Reduction (vph)	0	0	57	0	0	44	0	39	0	0	0	39
Lane Group Flow (vph)	91	151	87	107	163	68	103	41	0	98	46	6
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	8.4	84.2	84.2	9.1	85.2	85.2	16.3	12.7		12.7	9.1	17.5
Effective Green, g (s)	8.4	84.2	84.2	9.1	85.2	85.2	16.3	12.7		12.7	9.1	17.5
Actuated g/C Ratio	0.06	0.60	0.60	0.06	0.61	0.61	0.12	0.09		0.09	0.06	0.12
Clearance Time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	2.0	4.1	4.1	2.0	4.5	4.5	2.0	4.3		2.0	3.7	2.0
Lane Grp Cap (vph)	190	2835	882	206	2869	893	191	144		148	112	323
v/s Ratio Prot	0.03	0.03		c0.03	0.03		0.06	c0.03		c0.06	c0.03	0.00
v/s Ratio Perm			c0.06			0.05						0.00
v/c Ratio	0.48	0.05	0.10	0.52	0.06	0.08	0.54	0.28		0.66	0.41	0.02
Uniform Delay, d1	63.7	11.5	11.8	63.3	11.1	11.2	58.3	59.4		61.6	62.9	53.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.7	0.0	0.2	0.9	0.0	0.2	1.5	1.7		8.3	3.1	0.0
Delay (s)	64.4	11.5	12.0	64.3	11.1	11.4	59.8	61.1		69.9	65.9	53.7
Level of Service	E	B	B	E	B	B	E	E		E	E	D
Approach Delay (s)		24.2			26.1			60.4			65.1	
Approach LOS		C			C			E			E	

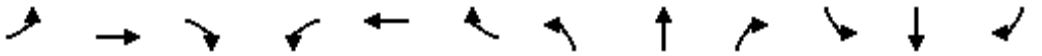
Intersection Summary			
HCM 2000 Control Delay	37.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.21		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	0	0	0	0	18	0	1	0	61	0	4
Peak Hour Factor	0.25	0.25	0.25	0.64	0.64	0.64	0.25	0.25	0.25	0.81	0.81	0.81
Hourly flow rate (vph)	4	0	0	0	0	28	0	4	0	75	0	5

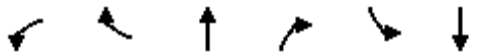
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	4	28	4	80
Volume Left (vph)	4	0	0	75
Volume Right (vph)	0	28	0	5
Hadj (s)	0.37	-0.43	0.17	0.32
Departure Headway (s)	4.5	3.7	4.2	4.3
Degree Utilization, x	0.00	0.03	0.00	0.10
Capacity (veh/h)	781	955	832	829
Control Delay (s)	7.5	6.8	7.2	7.7
Approach Delay (s)	7.5	6.8	7.2	7.7
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.5		
Level of Service	A		
Intersection Capacity Utilization	20.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	176	43	70	301	6	16	0	56	6	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.5		4.0	6.5		4.0		4.0	4.0		
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00		1.00	1.00		
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00		0.99	1.00		
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		1.00	1.00		
Frt	1.00	0.97		1.00	1.00		1.00		0.85	1.00		
Flt Protected	0.95	1.00		0.95	1.00		0.95		1.00	0.95		
Satd. Flow (prot)	1641	4552		1641	4700		1641		1449	1641		
Flt Permitted	0.95	1.00		0.95	1.00		0.95		1.00	0.95		
Satd. Flow (perm)	1641	4552		1641	4700		1641		1449	1641		
Peak-hour factor, PHF	0.88	0.88	0.88	0.86	0.86	0.86	0.62	0.62	0.62	0.75	0.75	0.75
Adj. Flow (vph)	7	200	49	81	350	7	26	0	90	8	0	0
RTOR Reduction (vph)	0	17	0	0	1	0	0	0	86	0	0	0
Lane Group Flow (vph)	7	232	0	81	356	0	26	0	4	8	0	0
Confl. Peds. (#/hr)			4			2			1			
Confl. Bikes (#/hr)						1						
Turn Type	Prot	NA		Prot	NA		Prot		Perm	Prot		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			4
Actuated Green, G (s)	1.2	58.4		7.8	65.0		9.3		4.1	1.2		
Effective Green, g (s)	1.2	58.4		7.8	65.0		9.3		4.1	1.2		
Actuated g/C Ratio	0.01	0.65		0.09	0.72		0.10		0.05	0.01		
Clearance Time (s)	4.0	6.5		4.0	6.5		4.0		4.0	4.0		
Vehicle Extension (s)	2.0	5.3		2.0	5.3		2.0		2.0	2.0		
Lane Grp Cap (vph)	21	2953		142	3394		169		66	21		
v/s Ratio Prot	0.00	0.05		c0.05	c0.08		c0.02			c0.00		
v/s Ratio Perm									0.00			
v/c Ratio	0.33	0.08		0.57	0.10		0.15		0.06	0.38		
Uniform Delay, d1	44.0	5.8		39.5	3.8		36.8		41.1	44.0		
Progression Factor	1.00	1.00		0.63	1.77		1.00		1.00	1.00		
Incremental Delay, d2	3.4	0.1		3.4	0.1		0.2		0.1	4.2		
Delay (s)	47.4	5.9		28.2	6.7		36.9		41.3	48.2		
Level of Service	D	A		C	A		D		D	D		
Approach Delay (s)		7.0			10.7			40.3			48.2	
Approach LOS		A			B			D			D	

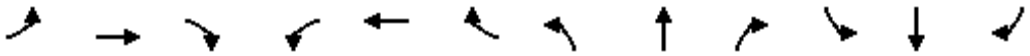
Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.17		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	44.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	98	6	1	30	11	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.84	0.84	0.78	0.78	0.69	0.69
Hourly flow rate (vph)	117	7	1	38	16	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	52	21			40	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	52	21			40	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	87	99			99	
cM capacity (veh/h)	926	1034			1520	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	117	7	40	16
Volume Left	117	0	0	16
Volume Right	0	7	38	0
cSH	926	1034	1700	1520
Volume to Capacity	0.13	0.01	0.02	0.01
Queue Length 95th (ft)	11	1	0	1
Control Delay (s)	9.4	8.5	0.0	7.4
Lane LOS	A	A		A
Approach Delay (s)	9.4		0.0	7.4
Approach LOS	A			

Intersection Summary			
Average Delay	7.1		
Intersection Capacity Utilization	19.4%	ICU Level of Service	A
Analysis Period (min)	15		



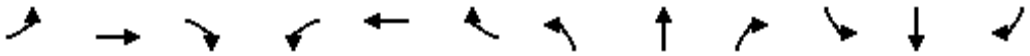
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	72	0	2	0	23	34	5	66	0
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.75	0.75	0.75	0.81	0.81	0.81
Hourly flow rate (vph)	0	0	0	86	0	2	0	31	45	6	81	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	0	88	76	88
Volume Left (vph)	0	86	0	6
Volume Right (vph)	0	2	45	0
Hadj (s)	0.00	0.35	-0.19	0.18
Departure Headway (s)	4.4	4.6	4.0	4.4
Degree Utilization, x	0.00	0.11	0.08	0.11
Capacity (veh/h)	796	744	863	801
Control Delay (s)	7.4	8.2	7.4	7.9
Approach Delay (s)	0.0	8.2	7.4	7.9
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.9			
Level of Service	A			
Intersection Capacity Utilization	18.4%	ICU Level of Service	A	
Analysis Period (min)	15			

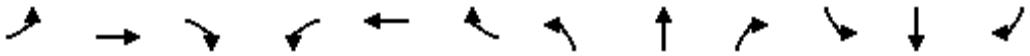
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	120	116	96	140	228	271
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	1641	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	1641	4715	3183	1468
Peak-hour factor, PHF	0.91	0.91	0.73	0.73	0.90	0.90
Adj. Flow (vph)	132	127	132	192	253	301
RTOR Reduction (vph)	0	53	0	0	0	262
Lane Group Flow (vph)	132	74	132	192	253	39
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	52.3	52.3	11.6	67.9	11.6	11.6
Effective Green, g (s)	52.3	52.3	11.6	67.9	11.6	11.6
Actuated g/C Ratio	0.58	0.58	0.13	0.75	0.13	0.13
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	2739	853	211	3557	410	189
v/s Ratio Prot	0.03		c0.08	0.04	c0.08	
v/s Ratio Perm		c0.05				0.03
v/c Ratio	0.05	0.09	0.63	0.05	0.62	0.21
Uniform Delay, d1	8.1	8.3	37.1	2.8	37.1	35.1
Progression Factor	0.98	0.96	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0	0.2	4.1	0.0	1.9	0.2
Delay (s)	8.0	8.2	41.3	2.9	39.0	35.3
Level of Service	A	A	D	A	D	D
Approach Delay (s)	8.1			18.5	37.0	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	33.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	197	0	164	143	218	0	0	176	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1	4.7	5.1			5.1	
Lane Util. Factor				1.00	0.95	0.95	0.97	0.91			0.91	
Frt				1.00	0.85	0.85	1.00	1.00			0.97	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1641	1395	1395	3183	4715			4571	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1641	1395	1395	3183	4715			4571	
Peak-hour factor, PHF	0.92	0.92	0.92	0.82	0.82	0.82	0.82	0.82	0.82	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	240	0	200	174	266	0	0	187	48
RTOR Reduction (vph)	0	0	0	0	72	72	0	0	0	0	37	0
Lane Group Flow (vph)	0	0	0	240	28	28	174	266	0	0	198	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8						
Actuated Green, G (s)				11.0	11.0	11.0	4.0	18.1			9.4	
Effective Green, g (s)				11.0	11.0	11.0	4.0	18.1			9.4	
Actuated g/C Ratio				0.28	0.28	0.28	0.10	0.46			0.24	
Clearance Time (s)				5.1	5.1	5.1	4.7	5.1			5.1	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				459	390	390	323	2171			1093	
v/s Ratio Prot					0.02		c0.05	0.06			c0.04	
v/s Ratio Perm				c0.15		0.02						
v/c Ratio				0.52	0.07	0.07	0.54	0.12			0.18	
Uniform Delay, d1				11.9	10.4	10.4	16.8	6.1			11.9	
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2				1.1	0.1	0.1	1.7	0.0			0.1	
Delay (s)				13.0	10.5	10.5	18.5	6.1			12.0	
Level of Service				B	B	B	B	A			B	
Approach Delay (s)		0.0			11.9			11.0			12.0	
Approach LOS		A			B			B			B	

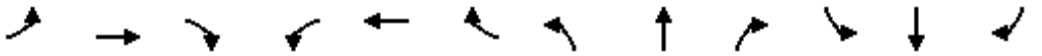
Intersection Summary			
HCM 2000 Control Delay	11.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	39.3	Sum of lost time (s)	14.9
Intersection Capacity Utilization	35.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	166	3	583	0	0	0	0	203	116	28	345	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1	5.1					5.1		4.7	5.1	
Lane Util. Factor		1.00	0.88					0.95		0.97	0.91	
Frpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Frt		1.00	0.85					0.95		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1647	2584					3103		3183	4715	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		1647	2584					3103		3183	4715	
Peak-hour factor, PHF	0.80	0.80	0.80	0.92	0.92	0.92	0.81	0.81	0.81	0.94	0.94	0.94
Adj. Flow (vph)	208	4	729	0	0	0	0	251	143	30	367	0
RTOR Reduction (vph)	0	0	487	0	0	0	0	108	0	0	0	0
Lane Group Flow (vph)	0	212	242	0	0	0	0	286	0	30	367	0
Confl. Bikes (#/hr)												2
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)		12.3	12.3					9.2		0.7	14.6	
Effective Green, g (s)		12.3	12.3					9.2		0.7	14.6	
Actuated g/C Ratio		0.33	0.33					0.25		0.02	0.39	
Clearance Time (s)		5.1	5.1					5.1		4.7	5.1	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		546	856					769		60	1855	
v/s Ratio Prot								c0.09		0.01	c0.08	
v/s Ratio Perm		0.13	0.09									
v/c Ratio		0.39	0.28					0.37		0.50	0.20	
Uniform Delay, d1		9.5	9.1					11.6		18.0	7.4	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		0.5	0.2					0.3		6.4	0.1	
Delay (s)		10.0	9.3					11.9		24.4	7.5	
Level of Service		A	A					B		C	A	
Approach Delay (s)		9.5			0.0			11.9			8.7	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	37.1	Sum of lost time (s)	14.9
Intersection Capacity Utilization	35.6%	ICU Level of Service	A
Analysis Period (min)	15		

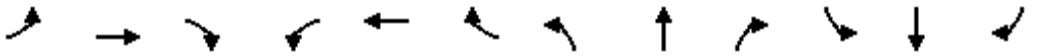
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	7	2	24	10	70	0	127	19	288	286	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3			5.2	5.2		4.9		4.4	5.1	5.1
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.99		1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	0.97			1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.97	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	1675			1668	1450		3208		1641	1727	1468
Flt Permitted	0.95	1.00			0.97	1.00		1.00		0.95	1.00	1.00
Satd. Flow (perm)	1641	1675			1668	1450		3208		1641	1727	1468
Peak-hour factor, PHF	0.86	0.86	0.86	0.81	0.81	0.81	0.76	0.76	0.76	0.85	0.85	0.85
Adj. Flow (vph)	34	8	2	30	12	86	0	167	25	339	336	93
RTOR Reduction (vph)	0	2	0	0	0	77	0	11	0	0	0	40
Lane Group Flow (vph)	34	8	0	0	42	9	0	181	0	339	336	53
Confl. Peds. (#/hr)	1					1			2			
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	3.4	3.4			6.0	6.0		11.1		17.4	32.7	32.7
Effective Green, g (s)	3.4	3.4			6.0	6.0		11.1		17.4	32.7	32.7
Actuated g/C Ratio	0.06	0.06			0.10	0.10		0.19		0.30	0.57	0.57
Clearance Time (s)	5.3	5.3			5.2	5.2		4.9		4.4	5.1	5.1
Vehicle Extension (s)	2.0	2.0			3.7	3.7		3.8		2.0	3.8	3.8
Lane Grp Cap (vph)	96	98			173	150		617		494	978	831
v/s Ratio Prot	c0.02	0.00			c0.03			0.06		c0.21	c0.19	
v/s Ratio Perm						0.01						0.04
v/c Ratio	0.35	0.08			0.24	0.06		0.29		0.69	0.34	0.06
Uniform Delay, d1	26.1	25.7			23.8	23.3		19.9		17.7	6.7	5.6
Progression Factor	1.00	1.00			1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.8	0.1			0.9	0.2		0.3		3.1	0.3	0.0
Delay (s)	26.9	25.8			24.7	23.5		20.3		20.9	7.0	5.7
Level of Service	C	C			C	C		C		C	A	A
Approach Delay (s)		26.7			23.9			20.3			13.0	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	16.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	57.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



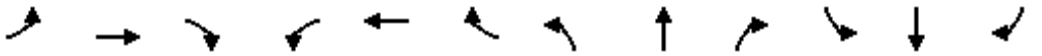
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	21	1	3	16	19	1	69	1	32	107	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00		0.97	0.95	
Frpb, ped/bikes		1.00			1.00	0.98	1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00			1.00	0.85	1.00	1.00		1.00	0.94	
Flt Protected		0.97			0.99	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3183			1714	1446	1641	1725		3183	3055	
Flt Permitted		0.89			0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		2916			1661	1446	1641	1725		3183	3055	
Peak-hour factor, PHF	0.76	0.76	0.76	0.73	0.73	0.73	0.68	0.68	0.68	0.79	0.79	0.79
Adj. Flow (vph)	39	28	1	4	22	26	1	101	1	41	135	89
RTOR Reduction (vph)	0	1	0	0	0	24	0	0	0	0	66	0
Lane Group Flow (vph)	0	67	0	0	26	2	1	102	0	41	158	0
Confl. Peds. (#/hr)			1	1								2
Confl. Bikes (#/hr)			2			1						1
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			1		3	8		7	4	
Permitted Phases	2			1		1						
Actuated Green, G (s)		4.4			2.4	2.4	0.5	8.6		1.0	9.1	
Effective Green, g (s)		4.4			2.4	2.4	0.5	8.6		1.0	9.1	
Actuated g/C Ratio		0.12			0.07	0.07	0.01	0.24		0.03	0.26	
Clearance Time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Vehicle Extension (s)		4.8			4.8	4.8	2.0	3.3		2.0	4.4	
Lane Grp Cap (vph)		361			112	97	23	417		89	783	
v/s Ratio Prot							0.00	c0.06		c0.01	0.05	
v/s Ratio Perm		c0.02			c0.02	0.00						
v/c Ratio		0.19			0.23	0.02	0.04	0.24		0.46	0.20	
Uniform Delay, d1		13.9			15.7	15.5	17.3	10.8		17.0	10.4	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.5			2.1	0.1	0.3	0.3		1.4	0.2	
Delay (s)		14.4			17.7	15.6	17.5	11.2		18.4	10.6	
Level of Service		B			B	B	B	B		B	B	
Approach Delay (s)		14.4			16.7			11.2			11.8	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	35.5	Sum of lost time (s)	19.1
Intersection Capacity Utilization	28.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	306	19	3	227	34	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		5.7	7.2	6.1	6.1
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4675		1641	4715	1641	1450
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4675		1641	4715	1641	1450
Peak-hour factor, PHF	0.89	0.89	0.85	0.85	0.73	0.73
Adj. Flow (vph)	344	21	4	267	47	5
RTOR Reduction (vph)	5	0	0	0	0	5
Lane Group Flow (vph)	360	0	4	267	47	0
Confl. Peds. (#/hr)						2
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	24.4		0.8	30.9	3.2	3.2
Effective Green, g (s)	24.4		0.8	30.9	3.2	3.2
Actuated g/C Ratio	0.51		0.02	0.65	0.07	0.07
Clearance Time (s)	7.2		5.7	7.2	6.1	6.1
Vehicle Extension (s)	6.9		2.0	6.9	2.0	2.0
Lane Grp Cap (vph)	2406		27	3073	110	97
v/s Ratio Prot	c0.08		0.00	c0.06	c0.03	
v/s Ratio Perm						0.00
v/c Ratio	0.15		0.15	0.09	0.43	0.00
Uniform Delay, d1	6.0		23.0	3.0	21.2	20.6
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1		0.9	0.0	1.0	0.0
Delay (s)	6.1		23.9	3.1	22.2	20.6
Level of Service	A		C	A	C	C
Approach Delay (s)	6.1			3.4	22.0	
Approach LOS	A			A	C	

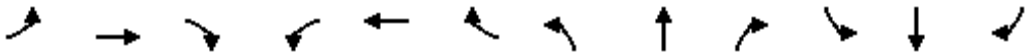
Intersection Summary			
HCM 2000 Control Delay	6.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.19		
Actuated Cycle Length (s)	47.4	Sum of lost time (s)	19.0
Intersection Capacity Utilization	29.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	245	58	321	175	54	30	67	497	32	54	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.87		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	4715	1441	1641	4548		1641	1478		3183	1644	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1641	4715	1441	1641	4548		1641	1478		3183	1644	
Peak-hour factor, PHF	0.91	0.91	0.91	0.90	0.90	0.90	0.78	0.78	0.78	0.79	0.79	0.79
Adj. Flow (vph)	41	269	64	357	194	60	38	86	637	41	68	32
RTOR Reduction (vph)	0	0	54	0	37	0	0	192	0	0	12	0
Lane Group Flow (vph)	41	269	10	357	217	0	38	531	0	41	88	0
Confl. Peds. (#/hr)			3						3			
Confl. Bikes (#/hr)			1						1			
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	6.4	22.8	22.8	36.6	53.0		6.8	55.4		5.3	54.8	
Effective Green, g (s)	6.4	22.8	22.8	36.6	53.0		6.8	55.4		5.3	54.8	
Actuated g/C Ratio	0.05	0.16	0.16	0.26	0.38		0.05	0.40		0.04	0.39	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	3.2		2.0	5.3	
Lane Grp Cap (vph)	75	767	234	429	1721		79	584		120	643	
v/s Ratio Prot	0.02	c0.06		c0.22	0.05		c0.02	c0.36		0.01	0.05	
v/s Ratio Perm			0.01									
v/c Ratio	0.55	0.35	0.04	0.83	0.13		0.48	0.91		0.34	0.14	
Uniform Delay, d1	65.4	52.0	49.4	48.8	28.4		64.9	39.9		65.6	27.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.3	1.3	0.4	12.4	0.2		1.7	18.5		0.6	0.2	
Delay (s)	69.7	53.3	49.8	61.2	28.5		66.6	58.4		66.3	27.6	
Level of Service	E	D	D	E	C		E	E		E	C	
Approach Delay (s)		54.5			47.6			58.8			38.9	
Approach LOS		D			D			E			D	

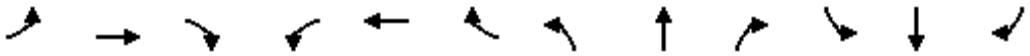
Intersection Summary			
HCM 2000 Control Delay	52.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	37	26	8	48	67	25	92	4	247	225	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frpb, ped/bikes		0.99			1.00			1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	
Frt		0.95			0.93			1.00		1.00	0.98	
Flt Protected		0.99			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1618			1596			1702		1641	1692	
Flt Permitted		0.95			0.97			0.91		0.66	1.00	
Satd. Flow (perm)		1556			1549			1573		1142	1692	
Peak-hour factor, PHF	0.77	0.77	0.77	0.88	0.88	0.88	0.80	0.80	0.80	0.76	0.76	0.76
Adj. Flow (vph)	14	48	34	9	55	76	31	115	5	325	296	47
RTOR Reduction (vph)	0	29	0	0	65	0	0	2	0	0	9	0
Lane Group Flow (vph)	0	67	0	0	75	0	0	149	0	325	334	0
Confl. Bikes (#/hr)			2									
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		4.9			4.9			21.3		21.3	21.3	
Effective Green, g (s)		4.9			4.9			21.3		21.3	21.3	
Actuated g/C Ratio		0.14			0.14			0.62		0.62	0.62	
Clearance Time (s)		4.0			4.0			4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		222			221			979		711	1053	
v/s Ratio Prot											0.20	
v/s Ratio Perm		0.04			c0.05			0.09		c0.28		
v/c Ratio		0.30			0.34			0.15		0.46	0.32	
Uniform Delay, d1		13.1			13.2			2.7		3.4	3.0	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.8			0.9			0.3		2.1	0.8	
Delay (s)		13.9			14.1			3.0		5.5	3.8	
Level of Service		B			B			A		A	A	
Approach Delay (s)		13.9			14.1			3.0			4.6	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	6.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	34.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	38.5%	ICU Level of Service	A
Analysis Period (min)	15		

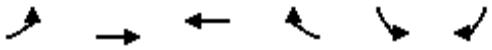
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	3	24	4	8	31	57	3	14	3	147	45	2
Peak Hour Factor	0.86	0.86	0.86	0.75	0.75	0.75	0.83	0.83	0.83	0.82	0.82	0.82
Hourly flow rate (vph)	3	28	5	11	41	76	4	17	4	179	55	2

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	36	128	24	237
Volume Left (vph)	3	11	4	179
Volume Right (vph)	5	76	4	2
Hadj (s)	0.11	-0.17	0.11	0.32
Departure Headway (s)	4.8	4.4	4.7	4.6
Degree Utilization, x	0.05	0.16	0.03	0.30
Capacity (veh/h)	693	762	725	746
Control Delay (s)	8.1	8.2	7.8	9.7
Approach Delay (s)	8.1	8.2	7.8	9.7
Approach LOS	A	A	A	A

Intersection Summary			
Delay	9.0		
Level of Service	A		
Intersection Capacity Utilization	31.0%	ICU Level of Service	A
Analysis Period (min)	15		



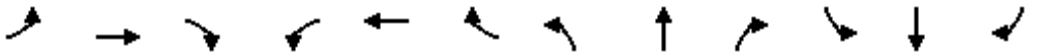
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	198	576	442	87	67	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00	1.00	0.99	0.99	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	0.93	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.97	1.00
Satd. Flow (prot)	3183	3282	4715	1448	3028	1317
Flt Permitted	0.95	1.00	1.00	1.00	0.97	1.00
Satd. Flow (perm)	3183	3282	4715	1448	3028	1317
Peak-hour factor, PHF	0.83	0.83	0.86	0.86	0.86	0.86
Adj. Flow (vph)	239	694	514	101	78	126
RTOR Reduction (vph)	0	0	0	65	53	59
Lane Group Flow (vph)	239	694	514	36	85	7
Confl. Peds. (#/hr)				3		
Confl. Bikes (#/hr)				1		1
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	5.1	24.1	14.3	14.3	4.5	4.5
Effective Green, g (s)	5.1	24.1	14.3	14.3	4.5	4.5
Actuated g/C Ratio	0.13	0.60	0.36	0.36	0.11	0.11
Clearance Time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Vehicle Extension (s)	2.0	5.8	5.8	5.8	2.0	2.0
Lane Grp Cap (vph)	406	1982	1689	518	341	148
v/s Ratio Prot	c0.08	c0.21	0.11		c0.03	
v/s Ratio Perm				0.02		0.01
v/c Ratio	0.59	0.35	0.30	0.07	0.25	0.05
Uniform Delay, d1	16.4	4.0	9.2	8.4	16.2	15.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	0.3	0.3	0.2	0.1	0.1
Delay (s)	17.8	4.3	9.5	8.6	16.3	15.8
Level of Service	B	A	A	A	B	B
Approach Delay (s)		7.7	9.3		16.2	
Approach LOS		A	A		B	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	39.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	33.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	93	69	70	103	91	52
Peak Hour Factor	0.88	0.88	0.94	0.94	0.72	0.72
Hourly flow rate (vph)	106	78	74	110	126	72

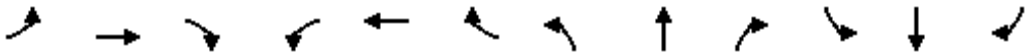
Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total (vph)	184	74	110	199
Volume Left (vph)	0	74	0	126
Volume Right (vph)	78	0	0	72
Hadj (s)	-0.09	0.67	0.17	0.08
Departure Headway (s)	4.7	5.9	5.4	4.9
Degree Utilization, x	0.24	0.12	0.16	0.27
Capacity (veh/h)	726	585	640	696
Control Delay (s)	9.2	8.5	8.2	9.7
Approach Delay (s)	9.2	8.3		9.7
Approach LOS	A	A		A

Intersection Summary			
Delay	9.1		
Level of Service	A		
Intersection Capacity Utilization	31.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	223	10	60	533	1	23	0	9	0	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		4.4	4.9		4.9		4.9		4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00		1.00		1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		0.98		0.97	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		1.00		1.00	
Frt	1.00	0.99		1.00	1.00		1.00		0.85		0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95		1.00		1.00	
Satd. Flow (prot)	1641	4668		1641	4714		1638		1444		1442	
Flt Permitted	0.95	1.00		0.95	1.00		1.00		1.00		1.00	
Satd. Flow (perm)	1641	4668		1641	4714		1724		1444		1442	
Peak-hour factor, PHF	0.69	0.69	0.69	0.94	0.94	0.94	0.62	0.62	0.62	0.38	0.38	0.38
Adj. Flow (vph)	16	323	14	64	567	1	37	0	15	0	0	8
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	14	0	8	0
Lane Group Flow (vph)	16	332	0	64	568	0	37	0	1	0	0	0
Confl. Peds. (#/hr)			90			22	4		16	16		4
Confl. Bikes (#/hr)			19			4						2
Turn Type	Prot	NA		Prot	NA		Perm		Perm		NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	0.5	13.2		1.2	13.9		1.7		1.7		1.7	
Effective Green, g (s)	0.5	13.2		1.2	13.9		1.7		1.7		1.7	
Actuated g/C Ratio	0.02	0.44		0.04	0.46		0.06		0.06		0.06	
Clearance Time (s)	4.4	4.9		4.4	4.9		4.9		4.9		4.9	
Vehicle Extension (s)	2.0	6.1		2.0	5.1		2.0		2.0		2.0	
Lane Grp Cap (vph)	27	2033		64	2162		96		81		80	
v/s Ratio Prot	0.01	0.07		c0.04	c0.12						0.00	
v/s Ratio Perm							c0.02		0.00			
v/c Ratio	0.59	0.16		1.00	0.26		0.39		0.01		0.01	
Uniform Delay, d1	14.8	5.2		14.6	5.0		13.8		13.5		13.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00		1.00		1.00	
Incremental Delay, d2	21.0	0.1		112.5	0.1		0.9		0.0		0.0	
Delay (s)	35.8	5.3		127.0	5.2		14.7		13.5		13.5	
Level of Service	D	A		F	A		B		B		B	
Approach Delay (s)		6.7			17.5			14.4			13.5	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	30.3	Sum of lost time (s)	14.2
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



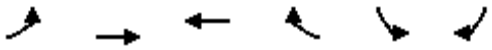
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	220	21	180	471	123	43	26	119	75	53	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00	1.00		0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.97		0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		0.99	
Frt	1.00	0.99		1.00	0.97			1.00	0.85		0.94	
Flt Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.98	
Satd. Flow (prot)	1641	4644		1641	4569			1672	1420		3000	
Flt Permitted	0.95	1.00		0.95	1.00			0.69	1.00		0.82	
Satd. Flow (perm)	1641	4644		1641	4569			1187	1420		2492	
Peak-hour factor, PHF	0.66	0.66	0.66	0.90	0.90	0.90	0.67	0.67	0.67	0.96	0.96	0.96
Adj. Flow (vph)	5	333	32	200	523	137	64	39	178	78	55	83
RTOR Reduction (vph)	0	11	0	0	33	0	0	0	139	0	65	0
Lane Group Flow (vph)	5	354	0	200	628	0	0	103	39	0	151	0
Confl. Peds. (#/hr)			16				11		43	43		11
Confl. Bikes (#/hr)			1						3			1
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	0.9	18.1		11.1	27.7			12.0	12.0		12.0	
Effective Green, g (s)	0.9	18.1		11.1	27.7			12.0	12.0		12.0	
Actuated g/C Ratio	0.02	0.33		0.20	0.50			0.22	0.22		0.22	
Clearance Time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Vehicle Extension (s)	2.0	8.0		2.0	6.7			4.4	4.4		4.4	
Lane Grp Cap (vph)	26	1517		328	2284			257	307		539	
v/s Ratio Prot	0.00	0.08		c0.12	c0.14							
v/s Ratio Perm								c0.09	0.03		0.06	
v/c Ratio	0.19	0.23		0.61	0.27			0.40	0.13		0.28	
Uniform Delay, d1	26.9	13.6		20.2	8.0			18.6	17.5		18.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	1.3	0.3		2.2	0.2			1.7	0.3		0.5	
Delay (s)	28.2	13.9		22.4	8.2			20.3	17.8		18.6	
Level of Service	C	B		C	A			C	B		B	
Approach Delay (s)		14.1			11.5			18.7			18.6	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	55.4	Sum of lost time (s)	14.8
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	341	73	74	774	0	423
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1		5.1	3.0		5.1
Lane Util. Factor	0.91		0.97	0.91		0.88
Frpb, ped/bikes	1.00		1.00	1.00		1.00
Flpb, ped/bikes	1.00		1.00	1.00		1.00
Frt	0.97		1.00	1.00		0.85
Flt Protected	1.00		0.95	1.00		1.00
Satd. Flow (prot)	4578		3183	4715		2584
Flt Permitted	1.00		0.95	1.00		1.00
Satd. Flow (perm)	4578		3183	4715		2584
Peak-hour factor, PHF	0.80	0.80	0.91	0.91	0.87	0.87
Adj. Flow (vph)	426	91	81	851	0	486
RTOR Reduction (vph)	57	0	0	0	0	383
Lane Group Flow (vph)	460	0	81	851	0	103
Confl. Peds. (#/hr)		21				
Turn Type	NA		Prot	NA		Over
Protected Phases	2		1	6		1
Permitted Phases						1
Actuated Green, G (s)	9.2		5.2	24.6		5.2
Effective Green, g (s)	9.2		5.2	24.6		5.2
Actuated g/C Ratio	0.37		0.21	1.00		0.21
Clearance Time (s)	5.1		5.1	3.0		5.1
Vehicle Extension (s)	3.9		2.0	0.9		2.0
Lane Grp Cap (vph)	1712		672	4715		546
v/s Ratio Prot	0.10		0.03	c0.18		0.04
v/s Ratio Perm						
v/c Ratio	0.27		0.12	0.18		0.19
Uniform Delay, d1	5.4		7.8	0.0		8.0
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	0.1		0.0	0.0		0.1
Delay (s)	5.5		7.9	0.0		8.0
Level of Service	A		A	A		A
Approach Delay (s)	5.5			0.7	8.0	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	3.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	24.6	Sum of lost time (s)	10.2
Intersection Capacity Utilization	42.2%	ICU Level of Service	A
Analysis Period (min)	15		

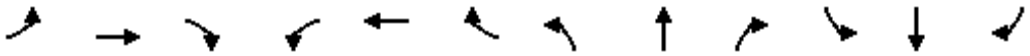
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Volume (veh/h)	0	764	514	0	0	334
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.89	0.89	0.73	0.73
Hourly flow rate (vph)	0	899	578	0	0	458
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		269	396			
pX, platoon unblocked						
vC, conflicting volume	578				877	193
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	578				877	193
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	42
cM capacity (veh/h)	939				273	792

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	300	300	300	193	193	193	458
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	458
cSH	1700	1700	1700	1700	1700	1700	792
Volume to Capacity	0.18	0.18	0.18	0.11	0.11	0.11	0.58
Queue Length 95th (ft)	0	0	0	0	0	0	94
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	15.6
Lane LOS							C
Approach Delay (s)	0.0			0.0			15.6
Approach LOS							C

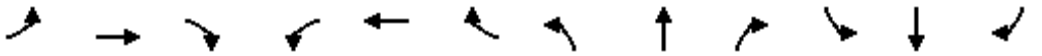
Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	123	641	0	0	308	411	206	3	335	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Lane Util. Factor	0.97	0.91			0.86	0.86		1.00	0.88			
Frpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			0.94	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (prot)	3183	4715			4189	1263		1646	2584			
Flt Permitted	0.95	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (perm)	3183	4715			4189	1263		1646	2584			
Peak-hour factor, PHF	0.85	0.85	0.85	0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	145	754	0	0	346	462	237	3	385	0	0	0
RTOR Reduction (vph)	0	0	0	0	163	163	0	0	262	0	0	0
Lane Group Flow (vph)	145	754	0	0	414	68	0	240	123	0	0	0
Confl. Bikes (#/hr)			4									
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Actuated Green, G (s)	7.3	26.5			14.5	14.5		12.9	12.9			
Effective Green, g (s)	7.3	26.5			14.5	14.5		12.9	12.9			
Actuated g/C Ratio	0.15	0.53			0.29	0.29		0.26	0.26			
Clearance Time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Vehicle Extension (s)	2.0	3.9			3.9	3.9		3.0	3.0			
Lane Grp Cap (vph)	468	2519			1224	369		428	672			
v/s Ratio Prot	0.05	c0.16			0.10			c0.15				
v/s Ratio Perm						0.05			0.05			
v/c Ratio	0.31	0.30			0.34	0.18		0.56	0.18			
Uniform Delay, d1	18.9	6.4			13.8	13.1		15.9	14.3			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	0.1	0.1			0.2	0.3		1.7	0.1			
Delay (s)	19.0	6.5			14.0	13.4		17.6	14.4			
Level of Service	B	A			B	B		B	B			
Approach Delay (s)		8.5			13.8			15.6			0.0	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	49.6	Sum of lost time (s)	14.9
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

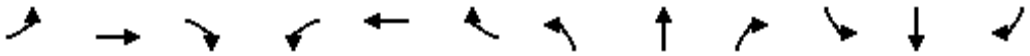
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	22	47	44	4	63	35	40	61	3	61	134	83
Peak Hour Factor	0.83	0.83	0.83	0.80	0.80	0.80	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	27	57	53	5	79	44	46	70	3	70	154	95

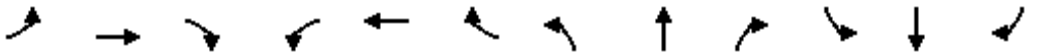
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	27	110	5	123	46	74	224	95
Volume Left (vph)	27	0	5	0	46	0	70	0
Volume Right (vph)	0	53	0	44	0	3	0	95
Hadj (s)	0.67	-0.17	0.67	-0.08	0.67	0.14	0.33	-0.53
Departure Headway (s)	6.5	5.6	6.5	5.7	6.3	5.7	5.7	4.8
Degree Utilization, x	0.05	0.17	0.01	0.19	0.08	0.12	0.35	0.13
Capacity (veh/h)	522	601	520	591	547	596	607	708
Control Delay (s)	8.6	8.6	8.3	8.9	8.6	8.3	10.6	7.3
Approach Delay (s)	8.6		8.9		8.4		9.6	
Approach LOS	A		A		A		A	

Intersection Summary				
Delay	9.1			
Level of Service	A			
Intersection Capacity Utilization	32.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	13	101	5	5	1	75	34	11	1	38	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.98		1.00		1.00	1.00			0.98	
Flpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85		0.99		1.00	0.96			0.91	
Flt Protected	0.95	0.97	1.00		0.98		0.95	1.00			1.00	
Satd. Flow (prot)	1681	1698	1547		1771		1764	1795			1510	
Flt Permitted	0.95	0.97	1.00		0.98		0.99	1.00			1.00	
Satd. Flow (perm)	1681	1698	1547		1771		1841	1795			1506	
Peak-hour factor, PHF	0.72	0.72	0.72	0.46	0.46	0.46	0.83	0.83	0.83	0.67	0.67	0.67
Adj. Flow (vph)	72	18	140	11	11	2	90	41	13	1	57	99
RTOR Reduction (vph)	0	0	89	0	2	0	0	11	0	0	84	0
Lane Group Flow (vph)	45	45	51	0	22	0	90	43	0	0	73	0
Confl. Peds. (#/hr)			1	1			7					7
Confl. Bikes (#/hr)			2			3						
Heavy Vehicles (%)	2%	5%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)											0	
Turn Type	Split	NA	Perm	Split	NA		Perm	NA		Perm	NA	
Protected Phases	2	2		1	1			8			4	
Permitted Phases			2				8			4		
Actuated Green, G (s)	12.2	12.2	12.2		0.9		5.4	5.4			5.1	
Effective Green, g (s)	12.2	12.2	12.2		0.9		5.4	5.4			5.1	
Actuated g/C Ratio	0.37	0.37	0.37		0.03		0.16	0.16			0.15	
Clearance Time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Vehicle Extension (s)	2.9	2.9	2.9		2.9		3.8	3.8			4.5	
Lane Grp Cap (vph)	617	623	568		48		299	291			231	
v/s Ratio Prot	0.03	0.03			c0.01			0.02				
v/s Ratio Perm			c0.03				c0.05				0.05	
v/c Ratio	0.07	0.07	0.09		0.46		0.30	0.15			0.32	
Uniform Delay, d1	6.8	6.8	6.9		15.9		12.2	11.9			12.5	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.0	0.0	0.1		6.5		0.7	0.3			1.4	
Delay (s)	6.9	6.9	6.9		22.4		13.0	12.2			13.9	
Level of Service	A	A	A		C		B	B			B	
Approach Delay (s)		6.9			22.4			12.7			13.9	
Approach LOS		A			C			B			B	

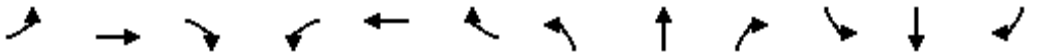
Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.17		
Actuated Cycle Length (s)	33.2	Sum of lost time (s)	15.0
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	216	93	85	326	13	32	0	28	3	2	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	5.4		4.4	5.6		4.4		4.9	4.4	4.9	
Lane Util. Factor	1.00	0.95		0.97	0.91		1.00		1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		0.99	1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		1.00	1.00	1.00	
Frt	1.00	0.95		1.00	0.99		1.00		0.85	1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)	1770	3365		3433	5050		1769		1563	1768	1588	
Flt Permitted	0.95	1.00		0.95	1.00		1.00		1.00	1.00	1.00	
Satd. Flow (perm)	1770	3365		3433	5050		1862		1563	1861	1588	
Peak-hour factor, PHF	0.98	0.98	0.98	0.94	0.94	0.94	0.79	0.79	0.79	0.73	0.73	0.73
Adj. Flow (vph)	38	220	95	90	347	14	41	0	35	4	3	33
RTOR Reduction (vph)	0	43	0	0	4	0	0	0	32	0	31	0
Lane Group Flow (vph)	38	272	0	90	357	0	41	0	3	4	5	0
Confl. Peds. (#/hr)			3			6	1		3	3		1
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		pm+pt		Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	1.8	19.5		2.7	20.2		4.7		3.5	3.5	2.9	
Effective Green, g (s)	1.8	19.5		2.7	20.2		4.7		3.5	3.5	2.9	
Actuated g/C Ratio	0.04	0.43		0.06	0.44		0.10		0.08	0.08	0.06	
Clearance Time (s)	4.4	5.4		4.4	5.6		4.4		4.9	4.4	4.9	
Vehicle Extension (s)	2.0	5.4		2.0	5.4		2.0		5.6	2.0	2.0	
Lane Grp Cap (vph)	70	1445		204	2246		190		120	142	101	
v/s Ratio Prot	0.02	c0.08		c0.03	0.07		c0.01			0.00	0.00	
v/s Ratio Perm							c0.02		0.00	0.00		
v/c Ratio	0.54	0.19		0.44	0.16		0.22		0.02	0.03	0.05	
Uniform Delay, d1	21.4	8.0		20.6	7.5		18.7		19.4	19.4	20.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00		1.00	1.00	1.00	
Incremental Delay, d2	4.5	0.2		0.6	0.1		0.2		0.2	0.0	0.1	
Delay (s)	25.9	8.2		21.2	7.6		18.9		19.6	19.4	20.0	
Level of Service	C	A		C	A		B		B	B	C	
Approach Delay (s)		10.1			10.3			19.2			20.0	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	45.4	Sum of lost time (s)	19.3
Intersection Capacity Utilization	36.3%	ICU Level of Service	A
Analysis Period (min)	15		

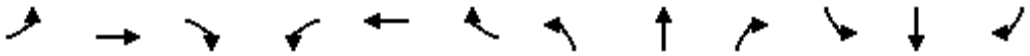
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	3	8	808	10	176	1	357	259	72	161	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1556	3335	3539	1562	1770	3539	1538	3433	3539	1560
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1556	3335	3539	1562	1770	3539	1538	3433	3539	1560
Peak-hour factor, PHF	0.75	0.75	0.75	0.85	0.85	0.85	0.93	0.93	0.93	0.90	0.90	0.90
Adj. Flow (vph)	1	4	11	951	12	207	1	384	278	80	179	2
RTOR Reduction (vph)	0	0	10	0	0	153	0	0	135	0	0	1
Lane Group Flow (vph)	1	4	1	951	12	54	1	384	143	80	179	1
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)			5			1						4
Heavy Vehicles (%)	2%	2%	2%	5%	2%	2%	2%	2%	5%	2%	2%	2%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.6	1.6	3.2	18.5	17.4	17.4	1.6	15.7	34.2	8.3	22.4	22.4
Effective Green, g (s)	1.6	1.6	3.2	18.5	17.4	17.4	1.6	15.7	34.2	8.3	22.4	22.4
Actuated g/C Ratio	0.02	0.02	0.05	0.28	0.26	0.26	0.02	0.24	0.52	0.12	0.34	0.34
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Vehicle Extension (s)	2.0	2.0	2.0	3.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0
Lane Grp Cap (vph)	42	85	74	929	927	409	42	836	792	429	1193	526
v/s Ratio Prot	0.00	0.00	0.00	c0.29	0.00		0.00	c0.11	0.05	c0.02	0.05	
v/s Ratio Perm			0.00			c0.03			0.04			0.00
v/c Ratio	0.02	0.05	0.01	1.02	0.01	0.13	0.02	0.46	0.18	0.19	0.15	0.00
Uniform Delay, d1	31.6	31.7	30.1	24.0	18.1	18.7	31.6	21.7	8.6	26.0	15.4	14.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.1	0.0	35.7	0.0	0.1	0.1	0.4	0.1	0.1	0.1	0.0
Delay (s)	31.7	31.7	30.1	59.6	18.1	18.8	31.7	22.1	8.7	26.1	15.4	14.6
Level of Service	C	C	C	E	B	B	C	C	A	C	B	B
Approach Delay (s)		30.6			52.0			16.5			18.7	
Approach LOS		C			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	36.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	66.4	Sum of lost time (s)	23.4
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		

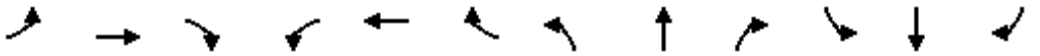
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	40	2	73	114	544	0	0	145	832
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.1	5.1	4.7	5.1			5.1	
Lane Util. Factor					1.00	1.00	1.00	0.91			0.91	
Frpb, ped/bikes					1.00	1.00	1.00	1.00			0.97	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.87	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1727	1538	1719	4940			4191	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1727	1538	1719	4940			4191	
Peak-hour factor, PHF	0.92	0.92	0.92	0.80	0.80	0.80	0.93	0.93	0.93	0.85	0.85	0.85
Adj. Flow (vph)	0	0	0	50	2	91	123	585	0	0	171	979
RTOR Reduction (vph)	0	0	0	0	0	80	0	0	0	0	461	0
Lane Group Flow (vph)	0	0	0	0	52	11	123	585	0	0	689	0
Confl. Peds. (#/hr)												9
Confl. Bikes (#/hr)												5
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8						
Actuated Green, G (s)					5.4	5.4	5.7	30.5			20.1	
Effective Green, g (s)					5.4	5.4	5.7	30.5			20.1	
Actuated g/C Ratio					0.12	0.12	0.12	0.66			0.44	
Clearance Time (s)					5.1	5.1	4.7	5.1			5.1	
Vehicle Extension (s)					3.0	3.0	2.0	3.0			3.0	
Lane Grp Cap (vph)					202	180	212	3268			1827	
v/s Ratio Prot							c0.07	0.12			c0.16	
v/s Ratio Perm					0.03	0.01						
v/c Ratio					0.26	0.06	0.58	0.18			0.38	
Uniform Delay, d1					18.5	18.1	19.1	3.0			8.8	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					0.7	0.1	2.6	0.0			0.1	
Delay (s)					19.2	18.2	21.7	3.0			8.9	
Level of Service					B	B	C	A			A	
Approach Delay (s)		0.0			18.6			6.3			8.9	
Approach LOS		A			B			A			A	

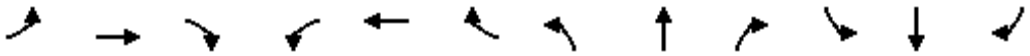
Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	46.1	Sum of lost time (s)	14.9
Intersection Capacity Utilization	52.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	529	2	137	0	0	0	0	130	16	72	121	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1						5.1		4.7	5.1	
Lane Util. Factor	1.00	1.00						0.91		1.00	0.95	
Frpb, ped/bikes	1.00	1.00						1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00						1.00		1.00	1.00	
Frt	1.00	0.85						0.98		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (prot)	1641	1472						4624		1641	3282	
Flt Permitted	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (perm)	1641	1472						4624		1641	3282	
Peak-hour factor, PHF	0.95	0.95	0.95	0.92	0.92	0.92	0.79	0.79	0.79	0.82	0.82	0.82
Adj. Flow (vph)	557	2	144	0	0	0	0	165	20	88	148	0
RTOR Reduction (vph)	0	79	0	0	0	0	0	17	0	0	0	0
Lane Group Flow (vph)	557	67	0	0	0	0	0	168	0	88	148	0
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)									4			
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4											
Actuated Green, G (s)	21.9	21.9						7.6		4.0	16.3	
Effective Green, g (s)	21.9	21.9						7.6		4.0	16.3	
Actuated g/C Ratio	0.45	0.45						0.16		0.08	0.34	
Clearance Time (s)	5.1	5.1						5.1		4.7	5.1	
Vehicle Extension (s)	3.0	3.0						3.0		2.0	3.0	
Lane Grp Cap (vph)	742	666						726		135	1105	
v/s Ratio Prot		0.05						c0.04		c0.05	0.05	
v/s Ratio Perm	c0.34											
v/c Ratio	0.75	0.10						0.23		0.65	0.13	
Uniform Delay, d1	11.0	7.6						17.8		21.5	11.1	
Progression Factor	1.00	1.00						1.00		1.00	1.00	
Incremental Delay, d2	4.3	0.1						0.2		8.3	0.1	
Delay (s)	15.3	7.7						18.0		29.8	11.2	
Level of Service	B	A						B		C	B	
Approach Delay (s)		13.7			0.0			18.0			18.1	
Approach LOS		B			A			B			B	

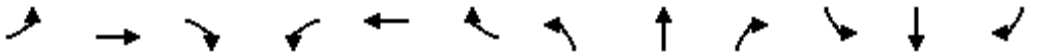
Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	48.4	Sum of lost time (s)	14.9
Intersection Capacity Utilization	52.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	134	0	0	0	0	8	2	13	2	5	9	271
Peak Hour Factor	0.84	0.84	0.84	0.67	0.67	0.67	0.71	0.71	0.71	0.91	0.91	0.91
Hourly flow rate (vph)	160	0	0	0	0	12	3	18	3	5	10	298

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	106	53	0	12	3	21	5	308
Volume Left (vph)	106	53	0	0	3	0	5	0
Volume Right (vph)	0	0	0	12	0	3	0	298
Hadj (s)	0.58	0.58	0.00	-0.53	0.58	0.08	0.67	-0.59
Departure Headway (s)	5.8	5.8	5.5	4.9	5.9	5.3	5.7	4.4
Degree Utilization, x	0.17	0.09	0.00	0.02	0.00	0.03	0.01	0.38
Capacity (veh/h)	582	583	624	675	587	641	607	787
Control Delay (s)	8.9	8.2	7.3	6.8	7.7	7.3	7.6	8.9
Approach Delay (s)	8.6		6.8		7.4		8.9	
Approach LOS	A		A		A		A	

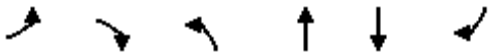
Intersection Summary				
Delay	8.7			
Level of Service	A			
Intersection Capacity Utilization	34.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	309	2	0	510	57	0	0	1	0	0	99
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.92	0.92	0.92	0.25	0.25	0.25	0.62	0.62	0.62
Hourly flow rate (vph)	0	355	2	0	554	62	0	0	4	0	0	160
Pedestrians		1									1	
Lane Width (ft)		12.0									12.0	
Walking Speed (ft/s)		4.0									4.0	
Percent Blockage		0									0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	617			357			702	974	120	678	913	187
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	617			357			702	974	120	678	913	187
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	100	100	100	100	80
cM capacity (veh/h)	905			1142			248	237	885	321	258	798

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	142	142	73	185	185	185	62	4	160
Volume Left	0	0	0	0	0	0	0	0	0
Volume Right	0	0	2	0	0	0	62	4	160
cSH	1700	1700	1700	1700	1700	1700	1700	885	798
Volume to Capacity	0.08	0.08	0.04	0.11	0.11	0.11	0.04	0.00	0.20
Queue Length 95th (ft)	0	0	0	0	0	0	0	0	19
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	10.6
Lane LOS								A	B
Approach Delay (s)	0.0			0.0				9.1	10.6
Approach LOS								A	B

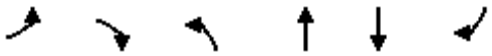
Intersection Summary				
Average Delay	1.5			
Intersection Capacity Utilization	23.1%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	98	54	74	141	111	189
Peak Hour Factor	0.68	0.68	0.76	0.76	0.95	0.95
Hourly flow rate (vph)	144	79	97	186	117	199

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	144	79	97	186	117	199
Volume Left (vph)	144	0	97	0	0	0
Volume Right (vph)	0	79	0	0	0	199
Hadj (s)	0.53	-0.67	0.53	0.17	0.17	-0.67
Departure Headway (s)	6.5	5.3	6.1	5.7	5.7	4.9
Degree Utilization, x	0.26	0.12	0.16	0.29	0.18	0.27
Capacity (veh/h)	523	634	570	607	603	709
Control Delay (s)	10.5	7.7	9.0	9.8	8.8	8.4
Approach Delay (s)	9.5		9.6		8.6	
Approach LOS	A		A		A	

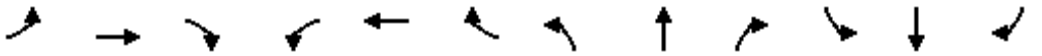
Intersection Summary			
Delay	9.2		
Level of Service	A		
Intersection Capacity Utilization	22.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	65	168	197	140	219	71
Peak Hour Factor	0.86	0.86	0.91	0.91	0.85	0.85
Hourly flow rate (vph)	76	195	216	154	258	84

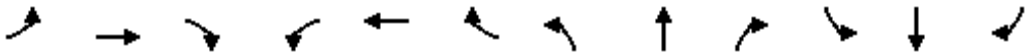
Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total (vph)	271	216	154	341
Volume Left (vph)	76	216	0	0
Volume Right (vph)	195	0	0	84
Hadj (s)	-0.21	0.67	0.17	0.02
Departure Headway (s)	5.5	6.4	5.9	5.4
Degree Utilization, x	0.41	0.39	0.25	0.51
Capacity (veh/h)	610	542	585	644
Control Delay (s)	12.3	12.2	9.7	13.8
Approach Delay (s)	12.3	11.2		13.8
Approach LOS	B	B		B

Intersection Summary			
Delay	12.4		
Level of Service	B		
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	118	118	74	22	194	196	140	57	48	186	51	233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.97	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1421	3183	4715	1424	1641	1593		1641	1727	2584
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1421	3183	4715	1424	1641	1593		1641	1727	2584
Peak-hour factor, PHF	0.88	0.88	0.88	0.76	0.76	0.76	0.93	0.93	0.93	0.70	0.70	0.70
Adj. Flow (vph)	134	134	84	29	255	258	151	61	52	266	73	333
RTOR Reduction (vph)	0	0	53	0	0	179	0	26	0	0	0	247
Lane Group Flow (vph)	134	134	31	29	255	79	151	87	0	266	73	86
Confl. Peds. (#/hr)						11			1			
Confl. Bikes (#/hr)			12			13			5			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	8.1	32.6	32.6	2.2	27.0	27.0	17.2	13.5		18.3	14.6	22.7
Effective Green, g (s)	8.1	32.6	32.6	2.2	27.0	27.0	17.2	13.5		18.3	14.6	22.7
Actuated g/C Ratio	0.09	0.37	0.37	0.03	0.31	0.31	0.20	0.15		0.21	0.17	0.26
Clearance Time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	2.0	4.1	4.1	2.0	4.5	4.5	2.0	4.3		2.0	3.7	2.0
Lane Grp Cap (vph)	293	1748	527	79	1448	437	321	244		341	286	667
v/s Ratio Prot	c0.04	0.03		0.01	0.05		0.09	c0.05		c0.16	0.04	0.01
v/s Ratio Perm			0.02			c0.06						0.02
v/c Ratio	0.46	0.08	0.06	0.37	0.18	0.18	0.47	0.36		0.78	0.26	0.13
Uniform Delay, d1	37.8	17.9	17.8	42.2	22.3	22.3	31.3	33.3		32.9	31.9	25.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0	0.1	1.1	0.1	0.3	0.4	1.4		10.2	0.6	0.0
Delay (s)	38.2	17.9	17.9	43.2	22.4	22.7	31.7	34.7		43.1	32.5	25.0
Level of Service	D	B	B	D	C	C	C	C		D	C	C
Approach Delay (s)		25.6			23.7			33.0			33.0	
Approach LOS		C			C			C			C	

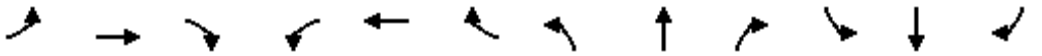
Intersection Summary			
HCM 2000 Control Delay	28.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	87.9	Sum of lost time (s)	21.3
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	0	0	0	0	51	0	1	0	19	0	0
Peak Hour Factor	0.50	0.50	0.50	0.53	0.53	0.53	0.25	0.25	0.25	0.59	0.59	0.59
Hourly flow rate (vph)	8	0	0	0	0	96	0	4	0	32	0	0

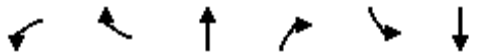
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	8	96	4	32
Volume Left (vph)	8	0	0	32
Volume Right (vph)	0	96	0	0
Hadj (s)	0.37	-0.43	0.17	0.37
Departure Headway (s)	4.4	3.6	4.3	4.5
Degree Utilization, x	0.01	0.10	0.00	0.04
Capacity (veh/h)	796	995	805	783
Control Delay (s)	7.5	6.9	7.3	7.7
Approach Delay (s)	7.5	6.9	7.3	7.7
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.1			
Level of Service	A			
Intersection Capacity Utilization	18.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	316	37	74	387	10	41	2	87	14	5	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.5		4.0	6.5		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	4629		1641	4695		1641	1727	1468	1641	1727	1468
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1641	4629		1641	4695		1641	1727	1468	1641	1727	1468
Peak-hour factor, PHF	0.86	0.86	0.86	0.84	0.84	0.84	0.88	0.88	0.88	0.42	0.42	0.42
Adj. Flow (vph)	2	367	43	88	461	12	47	2	99	33	12	19
RTOR Reduction (vph)	0	5	0	0	1	0	0	0	94	0	0	18
Lane Group Flow (vph)	2	405	0	88	472	0	47	2	5	33	12	1
Confl. Peds. (#/hr)			1									
Confl. Bikes (#/hr)			5			7						
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			4
Actuated Green, G (s)	1.1	97.5		11.9	108.3		7.5	6.9	6.9	5.2	4.6	4.6
Effective Green, g (s)	1.1	97.5		11.9	108.3		7.5	6.9	6.9	5.2	4.6	4.6
Actuated g/C Ratio	0.01	0.70		0.09	0.77		0.05	0.05	0.05	0.04	0.03	0.03
Clearance Time (s)	4.0	6.5		4.0	6.5		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	2.0	5.3		2.0	5.3		2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	12	3223		139	3631		87	85	72	60	56	48
v/s Ratio Prot	0.00	0.09		c0.05	c0.10		c0.03	0.00		0.02	c0.01	
v/s Ratio Perm									0.00			0.00
v/c Ratio	0.17	0.13		0.63	0.13		0.54	0.02	0.07	0.55	0.21	0.01
Uniform Delay, d1	69.0	7.1		61.9	4.0		64.6	63.3	63.5	66.2	65.9	65.5
Progression Factor	1.00	1.00		0.73	2.17		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.4	0.1		6.7	0.1		3.6	0.0	0.1	6.1	0.7	0.0
Delay (s)	71.4	7.2		51.7	8.7		68.2	63.4	63.6	72.3	66.6	65.5
Level of Service	E	A		D	A		E	E	E	E	E	E
Approach Delay (s)		7.5			15.5			65.1			69.2	
Approach LOS		A			B			E			E	

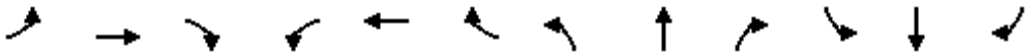
Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.21		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	80	4	3	127	6	1
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.86	0.86	0.58	0.58
Hourly flow rate (vph)	91	5	3	148	10	2
Pedestrians	1		1			
Lane Width (ft)	12.0		12.0			
Walking Speed (ft/s)	4.0		4.0			
Percent Blockage	0		0			
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	102	78			152	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	102	78			152	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	90	100			99	
cM capacity (veh/h)	870	960			1380	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	91	5	151	12
Volume Left	91	0	0	10
Volume Right	0	5	148	0
cSH	870	960	1700	1380
Volume to Capacity	0.10	0.00	0.09	0.01
Queue Length 95th (ft)	9	0	0	1
Control Delay (s)	9.6	8.8	0.0	6.5
Lane LOS	A	A		A
Approach Delay (s)	9.6		0.0	6.5
Approach LOS	A			

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	19.1%	ICU Level of Service	A
Analysis Period (min)	15		



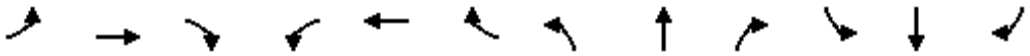
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	1	37	0	6	1	75	112	4	55	1
Peak Hour Factor	0.25	0.25	0.25	0.60	0.60	0.60	0.85	0.85	0.85	0.68	0.68	0.68
Hourly flow rate (vph)	0	0	4	62	0	10	1	88	132	6	81	1

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	4	72	221	88
Volume Left (vph)	0	62	1	6
Volume Right (vph)	4	10	132	1
Hadj (s)	-0.52	0.26	-0.19	0.17
Departure Headway (s)	4.1	4.8	4.0	4.5
Degree Utilization, x	0.00	0.10	0.25	0.11
Capacity (veh/h)	788	692	875	771
Control Delay (s)	7.2	8.3	8.3	8.0
Approach Delay (s)	7.2	8.3	8.3	8.0
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.2		
Level of Service	A		
Intersection Capacity Utilization	27.0%	ICU Level of Service	A
Analysis Period (min)	15		

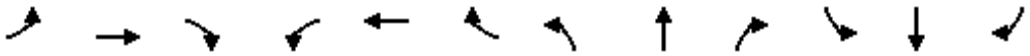
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	238	179	452	287	184	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	1641	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	1641	4715	3183	1468
Peak-hour factor, PHF	0.86	0.86	0.78	0.78	0.86	0.86
Adj. Flow (vph)	277	208	579	368	214	200
RTOR Reduction (vph)	0	128	0	0	0	180
Lane Group Flow (vph)	277	80	579	368	214	20
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	53.8	53.8	57.9	115.7	13.8	13.8
Effective Green, g (s)	53.8	53.8	57.9	115.7	13.8	13.8
Actuated g/C Ratio	0.38	0.38	0.41	0.83	0.10	0.10
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	1811	564	678	3896	313	144
v/s Ratio Prot	c0.06		c0.35	0.08	c0.07	
v/s Ratio Perm		0.05				0.01
v/c Ratio	0.15	0.14	0.85	0.09	0.68	0.14
Uniform Delay, d1	28.2	28.1	37.2	2.3	61.0	57.7
Progression Factor	0.84	0.42	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.5	9.9	0.0	4.9	0.2
Delay (s)	23.9	12.3	47.1	2.3	65.8	57.8
Level of Service	C	B	D	A	E	E
Approach Delay (s)	18.9			29.7	62.0	
Approach LOS	B			C	E	

Intersection Summary			
HCM 2000 Control Delay	34.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



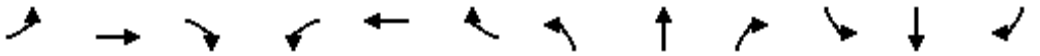
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	113	1	108	496	234	0	0	229	322
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1	4.7	5.1			5.1	
Lane Util. Factor				1.00	0.95	0.95	0.97	0.91			0.91	
Frpb, ped/bikes				1.00	0.99	0.99	1.00	1.00			0.99	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00	
Frt				1.00	0.85	0.85	1.00	1.00			0.91	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1641	1380	1375	3183	4715			4270	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1641	1380	1375	3183	4715			4270	
Peak-hour factor, PHF	0.92	0.92	0.92	0.90	0.90	0.90	0.83	0.83	0.83	0.86	0.86	0.86
Adj. Flow (vph)	0	0	0	126	1	120	598	282	0	0	266	374
RTOR Reduction (vph)	0	0	0	0	51	51	0	0	0	0	288	0
Lane Group Flow (vph)	0	0	0	126	10	9	598	282	0	0	352	0
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)												1
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8						
Actuated Green, G (s)				7.3	7.3	7.3	13.9	29.3			10.7	
Effective Green, g (s)				7.3	7.3	7.3	13.9	29.3			10.7	
Actuated g/C Ratio				0.16	0.16	0.16	0.30	0.63			0.23	
Clearance Time (s)				5.1	5.1	5.1	4.7	5.1			5.1	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				255	215	214	945	2951			976	
v/s Ratio Prot					0.01		c0.19	0.06			c0.08	
v/s Ratio Perm				c0.08		0.01						
v/c Ratio				0.49	0.05	0.04	0.63	0.10			0.36	
Uniform Delay, d1				18.1	16.8	16.8	14.2	3.5			15.2	
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2				1.5	0.1	0.1	1.4	0.0			0.2	
Delay (s)				19.6	16.9	16.9	15.6	3.5			15.4	
Level of Service				B	B	B	B	A			B	
Approach Delay (s)		0.0			18.3			11.7			15.4	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	46.8	Sum of lost time (s)	14.9
Intersection Capacity Utilization	44.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



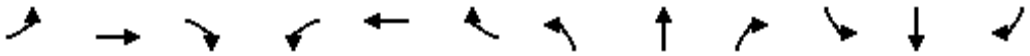
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	77	1	200	0	0	0	0	653	138	150	192	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1	5.1					5.1		4.7	5.1	
Lane Util. Factor		1.00	0.88					0.95		0.97	0.91	
Frt		1.00	0.85					0.97		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1646	2584					3196		3183	4715	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		1646	2584					3196		3183	4715	
Peak-hour factor, PHF	0.87	0.87	0.87	0.92	0.92	0.92	0.84	0.84	0.84	0.92	0.92	0.92
Adj. Flow (vph)	89	1	230	0	0	0	0	777	164	163	209	0
RTOR Reduction (vph)	0	0	192	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	0	90	38	0	0	0	0	914	0	163	209	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)		8.3	8.3					22.6		4.1	31.4	
Effective Green, g (s)		8.3	8.3					22.6		4.1	31.4	
Actuated g/C Ratio		0.17	0.17					0.45		0.08	0.63	
Clearance Time (s)		5.1	5.1					5.1		4.7	5.1	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		273	429					1447		261	2966	
v/s Ratio Prot								c0.29		c0.05	0.04	
v/s Ratio Perm		0.05	0.01									
v/c Ratio		0.33	0.09					0.63		0.62	0.07	
Uniform Delay, d1		18.3	17.6					10.5		22.2	3.6	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		0.7	0.1					0.9		4.6	0.0	
Delay (s)		19.1	17.7					11.4		26.8	3.6	
Level of Service		B	B					B		C	A	
Approach Delay (s)		18.1			0.0			11.4			13.7	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	49.9	Sum of lost time (s)	14.9
Intersection Capacity Utilization	44.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	124	25	4	29	18	277	2	342	31	185	146	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.99	1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.98			1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	1692			1676	1447	1641	3241		1641	1727	1450
Flt Permitted	0.95	1.00			0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1641	1692			1676	1447	1641	3241		1641	1727	1450
Peak-hour factor, PHF	0.89	0.89	0.89	0.79	0.79	0.79	0.79	0.79	0.79	0.89	0.89	0.89
Adj. Flow (vph)	139	28	4	37	23	351	3	433	39	208	164	92
RTOR Reduction (vph)	0	4	0	0	0	231	0	6	0	0	0	56
Lane Group Flow (vph)	139	28	0	0	60	120	3	466	0	208	164	36
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)			1			1						1
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	8.3	8.3			11.5	11.5	0.6	20.0		7.1	26.3	26.3
Effective Green, g (s)	8.3	8.3			11.5	11.5	0.6	20.0		7.1	26.3	26.3
Actuated g/C Ratio	0.12	0.12			0.17	0.17	0.01	0.30		0.11	0.39	0.39
Clearance Time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Vehicle Extension (s)	2.0	2.0			3.7	3.7	2.0	3.8		2.0	3.8	3.8
Lane Grp Cap (vph)	204	210			288	249	14	971		174	680	571
v/s Ratio Prot	c0.08	0.02			0.04		0.00	c0.14		c0.13	0.09	
v/s Ratio Perm						c0.08						0.03
v/c Ratio	0.68	0.14			0.21	0.48	0.21	0.48		1.20	0.24	0.06
Uniform Delay, d1	27.9	26.0			23.7	24.9	32.8	19.1		29.8	13.5	12.5
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.3	0.1			0.5	1.8	2.8	0.5		130.6	0.2	0.1
Delay (s)	35.2	26.1			24.1	26.8	35.6	19.6		160.4	13.8	12.6
Level of Service	D	C			C	C	D	B		F	B	B
Approach Delay (s)		33.5			26.4			19.7			79.2	
Approach LOS		C			C			B			E	

Intersection Summary			
HCM 2000 Control Delay	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	66.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

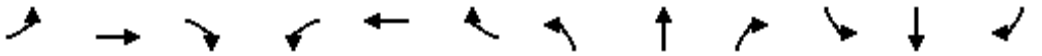


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	111	27	2	6	11	24	6	105	4	22	40	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00		0.97	0.95	
Frpb, ped/bikes		1.00			1.00	0.98	1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00			1.00	0.85	1.00	0.99		1.00	0.94	
Flt Protected		0.96			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3151			1696	1436	1641	1718		3183	3039	
Flt Permitted		0.77			0.61	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		2519			1047	1436	1641	1718		3183	3039	
Peak-hour factor, PHF	0.81	0.81	0.81	0.79	0.79	0.79	0.68	0.68	0.68	0.78	0.78	0.78
Adj. Flow (vph)	137	33	2	8	14	30	9	154	6	28	51	36
RTOR Reduction (vph)	0	1	0	0	0	27	0	2	0	0	28	0
Lane Group Flow (vph)	0	171	0	0	22	3	9	158	0	28	59	0
Confl. Peds. (#/hr)												1
Confl. Bikes (#/hr)						5						5
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			1		3	8		7	4	
Permitted Phases	2			1		1						
Actuated Green, G (s)		8.4			4.5	4.5	0.5	8.2		1.1	8.8	
Effective Green, g (s)		8.4			4.5	4.5	0.5	8.2		1.1	8.8	
Actuated g/C Ratio		0.20			0.11	0.11	0.01	0.20		0.03	0.21	
Clearance Time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Vehicle Extension (s)		4.8			4.8	4.8	2.0	3.3		2.0	4.4	
Lane Grp Cap (vph)		512			114	156	19	341		84	647	
v/s Ratio Prot							0.01	c0.09		c0.01	0.02	
v/s Ratio Perm		c0.07			c0.02	0.00						
v/c Ratio		0.33			0.19	0.02	0.47	0.46		0.33	0.09	
Uniform Delay, d1		14.1			16.7	16.4	20.3	14.6		19.7	13.0	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8			1.6	0.1	6.6	1.1		0.9	0.1	
Delay (s)		14.8			18.4	16.5	26.9	15.7		20.6	13.1	
Level of Service		B			B	B	C	B		C	B	
Approach Delay (s)		14.8			17.3			16.3			15.0	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	41.3	Sum of lost time (s)	19.1
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

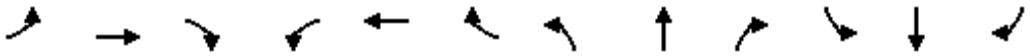
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	317	42	7	353	47	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		5.7	7.2	6.1	6.1
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.98		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4633		1641	4715	1641	1468
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4633		1641	4715	1641	1468
Peak-hour factor, PHF	0.93	0.93	0.79	0.79	0.71	0.71
Adj. Flow (vph)	341	45	9	447	66	10
RTOR Reduction (vph)	12	0	0	0	0	9
Lane Group Flow (vph)	374	0	9	447	66	1
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	24.5		0.9	31.1	5.3	5.3
Effective Green, g (s)	24.5		0.9	31.1	5.3	5.3
Actuated g/C Ratio	0.49		0.02	0.63	0.11	0.11
Clearance Time (s)	7.2		5.7	7.2	6.1	6.1
Vehicle Extension (s)	6.9		2.0	6.9	2.0	2.0
Lane Grp Cap (vph)	2283		29	2950	174	156
v/s Ratio Prot	0.08		0.01	c0.09	c0.04	
v/s Ratio Perm						0.00
v/c Ratio	0.16		0.31	0.15	0.38	0.01
Uniform Delay, d1	6.9		24.1	3.8	20.7	19.8
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1		2.2	0.1	0.5	0.0
Delay (s)	7.1		26.3	3.9	21.2	19.9
Level of Service	A		C	A	C	B
Approach Delay (s)	7.1			4.4	21.0	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	6.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	49.7	Sum of lost time (s)	19.0
Intersection Capacity Utilization	27.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



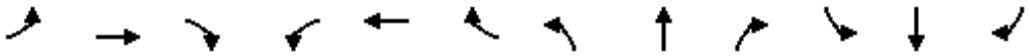
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	152	112	488	279	71	38	79	262	35	153	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.88		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	4715	1444	1641	4572		1641	1511		3183	1695	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1641	4715	1444	1641	4572		1641	1511		3183	1695	
Peak-hour factor, PHF	0.86	0.86	0.86	0.76	0.76	0.76	0.72	0.72	0.72	0.88	0.88	0.88
Adj. Flow (vph)	29	177	130	642	367	93	53	110	364	40	174	25
RTOR Reduction (vph)	0	0	117	0	35	0	0	79	0	0	3	0
Lane Group Flow (vph)	29	177	13	642	425	0	53	395	0	40	196	0
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)			2						2			
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	3.8	14.1	14.1	56.9	67.2		7.9	43.8		5.3	42.1	
Effective Green, g (s)	3.8	14.1	14.1	56.9	67.2		7.9	43.8		5.3	42.1	
Actuated g/C Ratio	0.03	0.10	0.10	0.41	0.48		0.06	0.31		0.04	0.30	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	3.2		2.0	5.3	
Lane Grp Cap (vph)	44	474	145	666	2194		92	472		120	509	
v/s Ratio Prot	0.02	c0.04		c0.39	0.09		c0.03	c0.26		0.01	0.12	
v/s Ratio Perm			0.01									
v/c Ratio	0.66	0.37	0.09	0.96	0.19		0.58	0.84		0.33	0.38	
Uniform Delay, d1	67.5	58.8	57.1	40.5	20.9		64.4	44.8		65.6	38.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	23.9	2.2	1.2	25.9	0.2		5.3	12.3		0.6	1.1	
Delay (s)	91.4	61.1	58.4	66.4	21.1		69.7	57.1		66.2	39.8	
Level of Service	F	E	E	E	C		E	E		E	D	
Approach Delay (s)		62.6			47.5			58.4			44.2	
Approach LOS		E			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	52.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	74	27	13	44	207	30	245	3	182	159	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frpb, ped/bikes		1.00			0.99			1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	
Frt		0.97			0.89			1.00		1.00	0.98	
Flt Protected		0.99			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1652			1523			1715		1641	1681	
Flt Permitted		0.85			0.98			0.96		0.60	1.00	
Satd. Flow (perm)		1428			1495			1649		1041	1681	
Peak-hour factor, PHF	0.78	0.78	0.78	0.87	0.87	0.87	0.79	0.79	0.79	0.84	0.84	0.84
Adj. Flow (vph)	51	95	35	15	51	238	38	310	4	217	189	37
RTOR Reduction (vph)	0	26	0	0	176	0	0	1	0	0	14	0
Lane Group Flow (vph)	0	155	0	0	128	0	0	351	0	217	212	0
Confl. Peds. (#/hr)							1					1
Confl. Bikes (#/hr)			1			3						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		9.1			9.1			18.1		18.1	18.1	
Effective Green, g (s)		9.1			9.1			18.1		18.1	18.1	
Actuated g/C Ratio		0.26			0.26			0.51		0.51	0.51	
Clearance Time (s)		4.0			4.0			4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		369			386			847		535	864	
v/s Ratio Prot											0.13	
v/s Ratio Perm		c0.11			0.09			c0.21		0.21		
v/c Ratio		0.42			0.33			0.41		0.41	0.25	
Uniform Delay, d1		10.9			10.6			5.3		5.2	4.8	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.8			0.5			1.5		2.3	0.7	
Delay (s)		11.6			11.1			6.8		7.5	5.4	
Level of Service		B			B			A		A	A	
Approach Delay (s)		11.6			11.1			6.8			6.5	
Approach LOS		B			B			A			A	

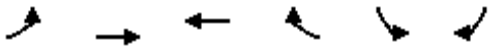
Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	35.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	3	35	24	26	28	85	0	62	1	71	122	5
Peak Hour Factor	0.82	0.82	0.82	0.79	0.79	0.79	0.66	0.66	0.66	0.85	0.85	0.85
Hourly flow rate (vph)	4	43	29	33	35	108	0	94	2	84	144	6

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	76	176	95	233
Volume Left (vph)	4	33	0	84
Volume Right (vph)	29	108	2	6
Hadj (s)	-0.05	-0.16	0.16	0.23
Departure Headway (s)	4.9	4.7	5.0	4.9
Degree Utilization, x	0.10	0.23	0.13	0.32
Capacity (veh/h)	666	714	673	698
Control Delay (s)	8.5	9.1	8.8	10.1
Approach Delay (s)	8.5	9.1	8.8	10.1
Approach LOS	A	A	A	B

Intersection Summary				
Delay	9.4			
Level of Service	A			
Intersection Capacity Utilization	38.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	112	337	645	94	88	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00	1.00	0.99	0.99	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	0.92	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (prot)	3183	3282	4715	1447	2987	1312
Flt Permitted	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (perm)	3183	3282	4715	1447	2987	1312
Peak-hour factor, PHF	0.79	0.79	0.77	0.77	0.82	0.82
Adj. Flow (vph)	142	427	838	122	107	235
RTOR Reduction (vph)	0	0	0	72	101	101
Lane Group Flow (vph)	142	427	838	50	124	16
Confl. Bikes (#/hr)				4		4
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	5.1	29.2	19.4	19.4	6.6	6.6
Effective Green, g (s)	5.1	29.2	19.4	19.4	6.6	6.6
Actuated g/C Ratio	0.11	0.62	0.41	0.41	0.14	0.14
Clearance Time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Vehicle Extension (s)	2.0	5.8	5.8	5.8	2.0	2.0
Lane Grp Cap (vph)	344	2034	1942	596	418	183
v/s Ratio Prot	c0.04	0.13	c0.18		c0.04	
v/s Ratio Perm				0.03		0.01
v/c Ratio	0.41	0.21	0.43	0.08	0.30	0.09
Uniform Delay, d1	19.6	3.9	9.9	8.4	18.2	17.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.1	0.4	0.2	0.1	0.1
Delay (s)	19.9	4.0	10.3	8.6	18.3	17.7
Level of Service	B	A	B	A	B	B
Approach Delay (s)		8.0	10.1		18.1	
Approach LOS		A	B		B	

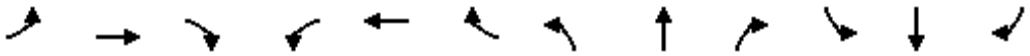
Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	47.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	108	131	64	168	85	53
Peak Hour Factor	0.81	0.81	0.97	0.97	0.78	0.78
Hourly flow rate (vph)	133	162	66	173	109	68

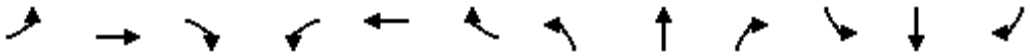
Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total (vph)	295	66	173	177
Volume Left (vph)	0	66	0	109
Volume Right (vph)	162	0	0	68
Hadj (s)	-0.16	0.67	0.17	0.06
Departure Headway (s)	4.7	5.9	5.4	5.2
Degree Utilization, x	0.38	0.11	0.26	0.26
Capacity (veh/h)	737	579	634	626
Control Delay (s)	10.5	8.5	9.2	10.0
Approach Delay (s)	10.5	9.0		10.0
Approach LOS	B	A		B

Intersection Summary			
Delay	9.9		
Level of Service	A		
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	381	16	30	544	0	16	0	26	0	1	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9		4.4	4.9		4.9		4.9		4.9	
Lane Util. Factor		0.91		1.00	0.91		1.00		1.00		1.00	
Frpb, ped/bikes		1.00		1.00	1.00		1.00		0.97		0.84	
Flpb, ped/bikes		1.00		1.00	1.00		1.00		1.00		1.00	
Frt		0.99		1.00	1.00		1.00		0.85		0.88	
Flt Protected		1.00		0.95	1.00		0.95		1.00		1.00	
Satd. Flow (prot)		4675		1641	4715		1641		1425		1275	
Flt Permitted		1.00		0.95	1.00		1.00		1.00		1.00	
Satd. Flow (perm)		4675		1641	4715		1727		1425		1275	
Peak-hour factor, PHF	0.74	0.74	0.74	0.94	0.94	0.94	0.81	0.81	0.81	0.60	0.60	0.60
Adj. Flow (vph)	0	515	22	32	579	0	20	0	32	0	2	18
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	30	0	17	0
Lane Group Flow (vph)	0	533	0	32	579	0	20	0	2	0	3	0
Confl. Peds. (#/hr)			49			10			6	6		
Confl. Bikes (#/hr)			3						4			25
Turn Type	Prot	NA		Prot	NA		Perm		Perm		NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)		20.4		0.7	25.5		2.2		2.2		2.2	
Effective Green, g (s)		20.4		0.7	25.5		2.2		2.2		2.2	
Actuated g/C Ratio		0.54		0.02	0.68		0.06		0.06		0.06	
Clearance Time (s)		4.9		4.4	4.9		4.9		4.9		4.9	
Vehicle Extension (s)		6.1		2.0	5.1		2.0		2.0		2.0	
Lane Grp Cap (vph)		2543		30	3206		101		83		74	
v/s Ratio Prot		c0.11		c0.02	0.12						0.00	
v/s Ratio Perm							c0.01		0.00			
v/c Ratio		0.21		1.07	0.18		0.20		0.02		0.04	
Uniform Delay, d1		4.4		18.4	2.2		16.8		16.6		16.7	
Progression Factor		1.00		1.00	1.00		1.00		1.00		1.00	
Incremental Delay, d2		0.1		185.4	0.1		0.4		0.0		0.1	
Delay (s)		4.5		203.8	2.2		17.2		16.7		16.7	
Level of Service		A		F	A		B		B		B	
Approach Delay (s)		4.5			12.8			16.9			16.7	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	37.5	Sum of lost time (s)	14.2
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



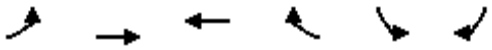
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	259	46	154	443	125	45	49	251	138	56	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00	1.00		0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.97		0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		0.99	
Frt	1.00	0.98		1.00	0.97			1.00	0.85		0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.98	1.00		0.98	
Satd. Flow (prot)	1641	4608		1641	4538			1685	1419		3006	
Flt Permitted	0.95	1.00		0.95	1.00			0.72	1.00		0.78	
Satd. Flow (perm)	1641	4608		1641	4538			1235	1419		2396	
Peak-hour factor, PHF	0.69	0.69	0.69	0.93	0.93	0.93	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	75	375	67	166	476	134	53	58	295	162	66	101
RTOR Reduction (vph)	0	24	0	0	42	0	0	0	224	0	64	0
Lane Group Flow (vph)	75	418	0	166	568	0	0	111	71	0	265	0
Confl. Peds. (#/hr)						1	10		46	46		10
Confl. Bikes (#/hr)						1			3			11
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	4.7	17.3		10.1	22.1			13.3	13.3		13.3	
Effective Green, g (s)	4.7	17.3		10.1	22.1			13.3	13.3		13.3	
Actuated g/C Ratio	0.09	0.32		0.18	0.40			0.24	0.24		0.24	
Clearance Time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Vehicle Extension (s)	2.0	8.0		2.0	6.7			4.4	4.4		4.4	
Lane Grp Cap (vph)	140	1452		301	1826			299	343		580	
v/s Ratio Prot	0.05	0.09		c0.10	c0.13							
v/s Ratio Perm								0.09	0.05		c0.11	
v/c Ratio	0.54	0.29		0.55	0.31			0.37	0.21		0.46	
Uniform Delay, d1	24.1	14.2		20.3	11.2			17.3	16.6		17.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	2.0	0.5		1.2	0.3			1.3	0.5		0.9	
Delay (s)	26.0	14.6		21.6	11.5			18.6	17.1		18.7	
Level of Service	C	B		C	B			B	B		B	
Approach Delay (s)		16.3			13.7			17.5			18.7	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	54.9	Sum of lost time (s)	14.8
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	610	41	142	736	0	291
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1		5.1	3.0		5.1
Lane Util. Factor	0.91		0.97	0.91		0.88
Frpb, ped/bikes	1.00		1.00	1.00		1.00
Flpb, ped/bikes	1.00		1.00	1.00		1.00
Frt	0.99		1.00	1.00		0.85
Flt Protected	1.00		0.95	1.00		1.00
Satd. Flow (prot)	4666		3183	4715		2584
Flt Permitted	1.00		0.95	1.00		1.00
Satd. Flow (perm)	4666		3183	4715		2584
Peak-hour factor, PHF	0.75	0.75	0.97	0.97	0.86	0.86
Adj. Flow (vph)	813	55	146	759	0	338
RTOR Reduction (vph)	20	0	0	0	0	274
Lane Group Flow (vph)	848	0	146	759	0	64
Confl. Peds. (#/hr)		20				
Turn Type	NA		Prot	NA		Over
Protected Phases	2		1	6		1
Permitted Phases						1
Actuated Green, G (s)	15.0		5.9	31.1		5.9
Effective Green, g (s)	15.0		5.9	31.1		5.9
Actuated g/C Ratio	0.48		0.19	1.00		0.19
Clearance Time (s)	5.1		5.1	3.0		5.1
Vehicle Extension (s)	3.9		2.0	0.9		2.0
Lane Grp Cap (vph)	2250		603	4715		490
v/s Ratio Prot	c0.18		0.05	c0.16		0.02
v/s Ratio Perm						
v/c Ratio	0.38		0.24	0.16		0.13
Uniform Delay, d1	5.1		10.7	0.0		10.5
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	0.1		0.1	0.0		0.0
Delay (s)	5.2		10.8	0.0		10.5
Level of Service	A		B	A		B
Approach Delay (s)	5.2			1.7	10.5	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	4.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	31.1	Sum of lost time (s)	10.2
Intersection Capacity Utilization	39.5%	ICU Level of Service	A
Analysis Period (min)	15		

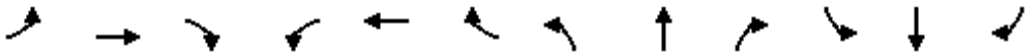
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Volume (veh/h)	0	901	491	0	0	387
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.82	0.82	0.87	0.87	0.91	0.91
Hourly flow rate (vph)	0	1099	564	0	0	425
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		269	396			
pX, platoon unblocked					0.95	
vC, conflicting volume	564				931	188
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	564				751	188
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	47
cM capacity (veh/h)	950				314	797

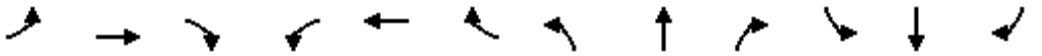
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	366	366	366	188	188	188	425
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	425
cSH	1700	1700	1700	1700	1700	1700	797
Volume to Capacity	0.22	0.22	0.22	0.11	0.11	0.11	0.53
Queue Length 95th (ft)	0	0	0	0	0	0	80
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	14.6
Lane LOS							B
Approach Delay (s)	0.0			0.0			14.6
Approach LOS							B

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	448	452	0	0	441	749	50	1	219	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Lane Util. Factor	0.97	0.91			0.86	0.86		1.00	0.88			
Frpb, ped/bikes	1.00	1.00			0.99	0.98		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			0.93	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (prot)	3183	4715			4114	1239		1646	2584			
Flt Permitted	0.95	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (perm)	3183	4715			4114	1239		1646	2584			
Peak-hour factor, PHF	0.82	0.82	0.82	0.92	0.92	0.92	0.75	0.75	0.75	0.92	0.92	0.92
Adj. Flow (vph)	546	551	0	0	479	814	67	1	292	0	0	0
RTOR Reduction (vph)	0	0	0	0	233	266	0	0	249	0	0	0
Lane Group Flow (vph)	546	551	0	0	653	141	0	68	43	0	0	0
Confl. Peds. (#/hr)						2	3					
Confl. Bikes (#/hr)			3			8						
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Actuated Green, G (s)	11.9	35.0			18.4	18.4		7.9	7.9			
Effective Green, g (s)	11.9	35.0			18.4	18.4		7.9	7.9			
Actuated g/C Ratio	0.22	0.66			0.35	0.35		0.15	0.15			
Clearance Time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Vehicle Extension (s)	2.0	3.9			3.9	3.9		3.0	3.0			
Lane Grp Cap (vph)	713	3107			1425	429		244	384			
v/s Ratio Prot	c0.17	0.12			c0.16			c0.04				
v/s Ratio Perm						0.11			0.02			
v/c Ratio	0.77	0.18			0.46	0.33		0.28	0.11			
Uniform Delay, d1	19.3	3.5			13.5	12.8		20.1	19.6			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	4.4	0.0			0.3	0.6		0.6	0.1			
Delay (s)	23.7	3.5			13.8	13.4		20.7	19.7			
Level of Service	C	A			B	B		C	B			
Approach Delay (s)		13.6			13.7			19.9			0.0	
Approach LOS		B			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	53.1	Sum of lost time (s)	14.9
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	37	91	44	3	128	89	53	108	0	38	73	31
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.81	0.81	0.81	0.89	0.89	0.89
Hourly flow rate (vph)	41	100	48	3	142	99	65	133	0	43	82	35

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	41	148	3	241	65	133	125	35
Volume Left (vph)	41	0	3	0	65	0	43	0
Volume Right (vph)	0	48	0	99	0	0	0	35
Hadj (s)	0.67	-0.06	0.67	-0.12	0.67	0.17	0.34	-0.53
Departure Headway (s)	6.5	5.8	6.5	5.7	6.6	6.1	6.3	5.4
Degree Utilization, x	0.07	0.24	0.01	0.38	0.12	0.23	0.22	0.05
Capacity (veh/h)	521	590	528	609	517	557	534	613
Control Delay (s)	8.8	9.4	8.3	10.9	9.3	9.6	9.9	7.5
Approach Delay (s)	9.3		10.8		9.5		9.4	
Approach LOS	A		B		A		A	

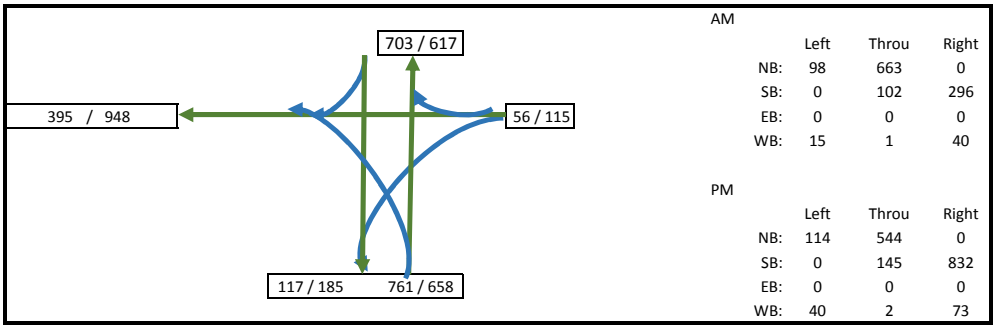
Intersection Summary				
Delay	9.8			
Level of Service	A			
Intersection Capacity Utilization	38.1%	ICU Level of Service	A	
Analysis Period (min)	15			

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION: Caliente Avenue and 905 WB Ramps
ALTERNATIVE: Existing Conditions

DIST. CO. RTE
PM:
DATE:
TIME:

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	98	663	0
SB:	0	102	296
EB:	0	0	0
WB:	15	1	40

PM

	Left	Throu	Right
NB:	114	544	0
SB:	0	145	832
EB:	0	0	0
WB:	40	2	73

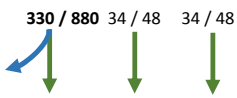
LANE VOLUMES (ILV/HR)

PHASE I

AM 98
PM 114

PHASE II

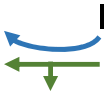
AM 330
PM 880



Remaining NB Through 123 / 67

PHASE III

AM 40
PM 73



PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
468	1067

TOTAL OPERATING LEVEL (ILV/HR):

AM:	468	Under Capacity
PM:	1067	Under Capacity

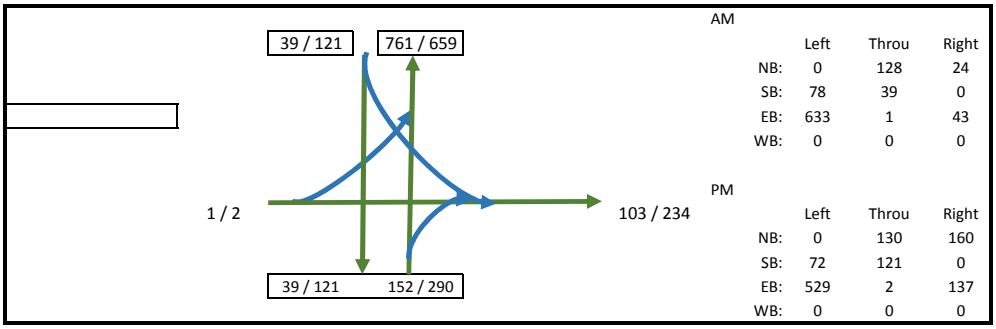
< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION: Caliente Avenue and 905 EB Ramps
ALTERNATIVE: Existing Conditions

DIST. CO. RTE
PM:
DATE:
TIME:

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	0	128	24
SB:	78	39	0
EB:	633	1	43
WB:	0	0	0

PM

	Left	Throu	Right
NB:	0	130	160
SB:	72	121	0
EB:	529	2	137
WB:	0	0	0

LANE VOLUMES (ILV/HR)

PHASE I

AM 78
PM 72

20 / 61 20 / 61 **78 / 72**

PHASE II

AM 67
PM 203

Remaining SB Through 0

43 / 43 43 / 43 **67 / 203**

PHASE III

AM 633
PM 529

633 / 529
44 / 139

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
778	804

TOTAL OPERATING LEVEL (ILV/HR):

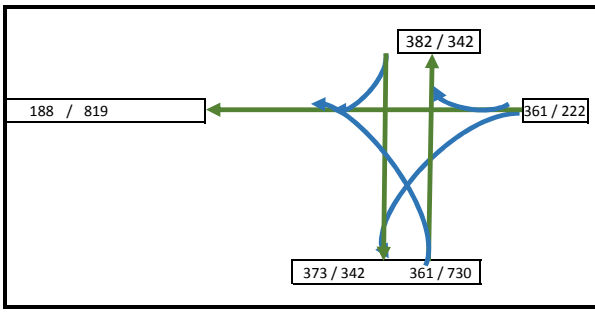
AM:	778	Under Capacity
PM:	804	Under Capacity

< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION:	Britannia Boulevard and SR-905 WB Ramps	DIST. CO. RTE	SR-905
ALTERNATIVE:	Existing Conditions	PM:	
		DATE:	
		TIME:	

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	143	218	0
SB:	0	176	45
EB:	0	0	0
WB:	197	0	164

PM

	Left	Throu	Right
NB:	496	234	0
SB:	0	229	322
EB:	0	0	0
WB:	113	1	108

LANE VOLUMES (ILV/HR)

PHASE I

AM 72
PM 248

72 / 248 72 / 248 73 / 78 73 / 78 73 / 78

PHASE II

AM 104 **104 / 398** 59 / 76 59 / 76
PM 398

Remaining NB Through 1 / 0

PHASE III

AM 197
PM 113

82 / 54
82 / 54
197 / 113

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
373	759

TOTAL OPERATING LEVEL (ILV/HR):

AM:	373	Under Capacity
PM:	759	Under Capacity

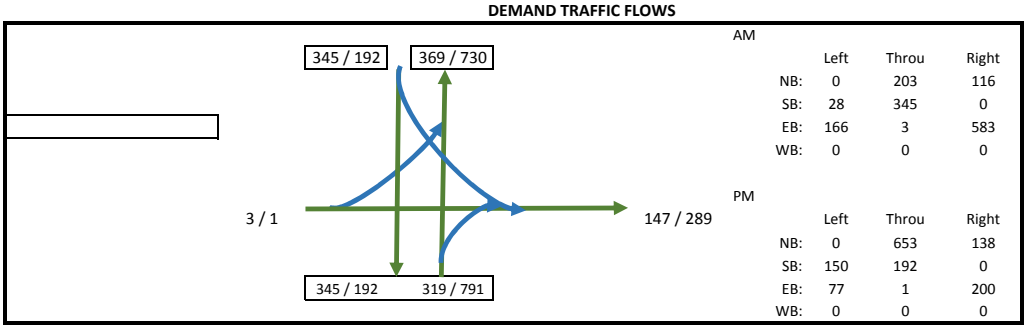
< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION: Britannia Boulevard and 905 EB Ramps
ALTERNATIVE: Existing Conditions

DIST. CO. RTE
PM:
DATE:
TIME:

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	0	203	116
SB:	28	345	0
EB:	166	3	583
WB:	0	0	0

PM

	Left	Throu	Right
NB:	0	653	138
SB:	150	192	0
EB:	77	1	200
WB:	0	0	0

LANE VOLUMES (ILV/HR)

PHASE I

AM **14**
PM **75**

115 / 64 115 / 64 115 / 64 14 / 75 **14 / 75**

PHASE II

AM 218
PM 465

Remaining SB Through 101 / 0

102 / 327 **218 / 465**

PHASE III

AM 292
PM 100

169 / 78

292 / 100
292 / 100

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
523	640

TOTAL OPERATING LEVEL (ILV/HR):

AM:	523	Under Capacity
PM:	640	Under Capacity

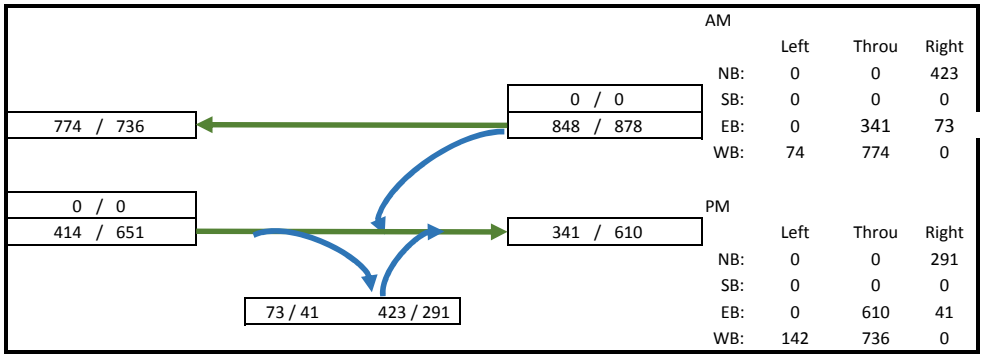
< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION: 905 / Siempre Viva Road
ALTERNATIVE: Existing Conditions

DIST. CO. RTE
PM:
DATE: 12/16/2015
TIME:

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	0	0	423
SB:	0	0	0
EB:	0	341	73
WB:	74	774	0

PM

	Left	Throu	Right
NB:	0	0	291
SB:	0	0	0
EB:	0	610	41
WB:	142	736	0

LANE VOLUMES (ILV/HR)

PHASE I		
AM	37	258 / 245
PM	71	258 / 245
		258 / 245
		37 / 71
		37 / 71

PHASE II		
AM	221	114 / 203
PM	244	114 / 203
		187 / 244
Remaining EB Through		**221 / 174**

PHASE III			
AM	212		
PM	146		
		212 / 146	212 / 146

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PHASE II
470	461

TOTAL OPERATING LEVEL (ILV/HR):

AM:	470	Under Capacity
PM:	461	Under Capacity

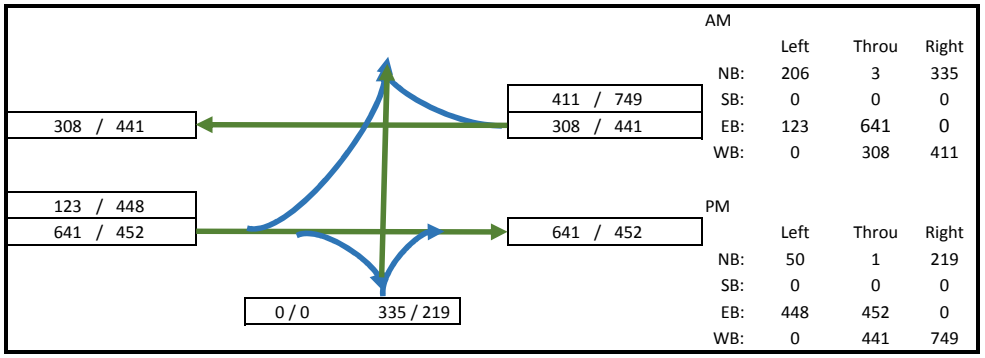
< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION: 905 / Siempre Viva Road
ALTERNATIVE: Existing Conditions

DIST. CO. RTE
PM:
DATE: 12/16/2015
TIME:

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	206	3	335
SB:	0	0	0
EB:	123	641	0
WB:	0	308	411

PM

	Left	Throu	Right
NB:	50	1	219
SB:	0	0	0
EB:	448	452	0
WB:	0	441	749

LANE VOLUMES (ILV/HR)

PHASE I

AM	62	**62 / 224**
PM	224	62 / 224
		214 / 151
		214 / 151
		214 / 151

PHASE II

AM	308	206 / 375
PM	522	**309 / 522**
		103 / 147
Remaining EB Through	**151 / 0**	103 / 147

PHASE III

AM	209	**209 / 51**	168 / 110	**168 / 110**
PM	110			

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

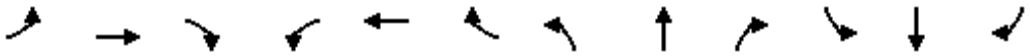
AM	PHASE II
579	855

TOTAL OPERATING LEVEL (ILV/HR):

AM:	579	Under Capacity
PM:	855	Under Capacity

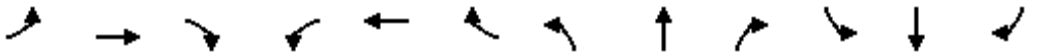
< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

Appendix E
Peak Hour Intersection LOS & ILV Worksheets – Existing Plus Project Conditions



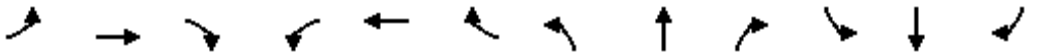
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	1	92	9	5	11	36	35	3	20	62	121
Future Volume (vph)	78	1	92	9	5	11	36	35	3	20	62	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.98		0.98		1.00	1.00			0.98	
Flpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85		0.94		1.00	0.99			0.92	
Flt Protected	0.95	0.95	1.00		0.98		0.95	1.00			1.00	
Satd. Flow (prot)	1681	1686	1548		1676		1768	1836			1677	
Flt Permitted	0.95	0.95	1.00		0.98		0.71	1.00			0.97	
Satd. Flow (perm)	1681	1686	1548		1676		1320	1836			1627	
Peak-hour factor, PHF	0.53	0.53	0.53	0.67	0.67	0.67	0.77	0.77	0.77	0.85	0.85	0.85
Adj. Flow (vph)	147	2	174	13	7	16	47	45	4	24	73	142
RTOR Reduction (vph)	0	0	127	0	16	0	0	3	0	0	72	0
Lane Group Flow (vph)	75	74	47	0	20	0	47	46	0	0	167	0
Confl. Peds. (#/hr)	1		1	1		1	2					2
Confl. Bikes (#/hr)			1			4			6			5
Heavy Vehicles (%)	2%	5%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Split	NA	Perm	Split	NA		Perm	NA		Perm	NA	
Protected Phases	2	2		1	1			8			4	
Permitted Phases			2				8			4		
Actuated Green, G (s)	9.7	9.7	9.7		1.0		10.6	10.6			10.3	
Effective Green, g (s)	9.7	9.7	9.7		1.0		10.6	10.6			10.3	
Actuated g/C Ratio	0.27	0.27	0.27		0.03		0.29	0.29			0.29	
Clearance Time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Vehicle Extension (s)	2.9	2.9	2.9		2.9		3.8	3.8			4.5	
Lane Grp Cap (vph)	452	454	417		46		388	540			465	
v/s Ratio Prot	c0.04	0.04			c0.01			0.03				
v/s Ratio Perm			0.03				0.04				c0.10	
v/c Ratio	0.17	0.16	0.11		0.44		0.12	0.09			0.36	
Uniform Delay, d1	10.1	10.0	9.9		17.2		9.3	9.2			10.2	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.2	0.2	0.1		6.4		0.2	0.1			0.8	
Delay (s)	10.2	10.2	10.0		23.6		9.5	9.3			11.0	
Level of Service	B	B	B		C		A	A			B	
Approach Delay (s)		10.1			23.6			9.4			11.0	
Approach LOS		B			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	36.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	35.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	195	16	30	230	7	55	0	47	5	0	26
Future Volume (vph)	18	195	16	30	230	7	55	0	47	5	0	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	5.4		4.4	5.6		4.4		4.9	4.4	4.9	
Lane Util. Factor	1.00	0.95		0.97	0.91		1.00		1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		0.99	1.00	0.97	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		1.00	1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00		0.85	1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)	1770	3496		3433	5060		1770		1563	1768	1536	
Flt Permitted	0.95	1.00		0.95	1.00		1.00		1.00	1.00	1.00	
Satd. Flow (perm)	1770	3496		3433	5060		1863		1563	1861	1536	
Peak-hour factor, PHF	0.87	0.87	0.87	0.86	0.86	0.86	0.75	0.75	0.75	0.97	0.97	0.97
Adj. Flow (vph)	21	224	18	35	267	8	73	0	63	5	0	27
RTOR Reduction (vph)	0	5	0	0	3	0	0	0	59	0	26	0
Lane Group Flow (vph)	21	237	0	35	272	0	73	0	4	5	1	0
Confl. Peds. (#/hr)			3						2	2		
Confl. Bikes (#/hr)			1			3						2
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		pm+pt		Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	0.7	17.6		0.5	17.2		5.1		2.8	1.5	1.0	
Effective Green, g (s)	0.7	17.6		0.5	17.2		5.1		2.8	1.5	1.0	
Actuated g/C Ratio	0.02	0.43		0.01	0.42		0.13		0.07	0.04	0.02	
Clearance Time (s)	4.4	5.4		4.4	5.6		4.4		4.9	4.4	4.9	
Vehicle Extension (s)	2.0	5.4		2.0	5.4		2.0		5.6	2.0	2.0	
Lane Grp Cap (vph)	30	1519		42	2148		229		108	67	37	
v/s Ratio Prot	c0.01	c0.07		0.01	0.05		c0.02			0.00	0.00	
v/s Ratio Perm							c0.02		0.00	0.00		
v/c Ratio	0.70	0.16		0.83	0.13		0.32		0.04	0.07	0.02	
Uniform Delay, d1	19.8	6.9		20.0	7.1		16.2		17.6	18.9	19.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00		1.00	1.00	1.00	
Incremental Delay, d2	44.4	0.1		74.6	0.1		0.3		0.4	0.2	0.1	
Delay (s)	64.2	7.1		94.5	7.1		16.4		18.0	19.1	19.3	
Level of Service	E	A		F	A		B		B	B	B	
Approach Delay (s)		11.6			17.0			17.2			19.3	
Approach LOS		B			B			B			B	

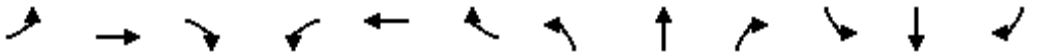
Intersection Summary			
HCM 2000 Control Delay	15.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	40.5	Sum of lost time (s)	19.3
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1	4	221	4	154	0	105	598	174	173	1
Future Volume (vph)	0	1	4	221	4	154	0	105	598	174	173	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.6	5.2	5.2	6.7	6.7		6.3	5.2	5.2	6.3	6.3
Lane Util. Factor		0.95	1.00	0.97	0.95	1.00		0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes		1.00	0.99	1.00	1.00	0.99		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00	1.00		1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1574	3335	3282	1449		3282	1538	3183	3282	1468
Flt Permitted		1.00	1.00	0.95	1.00	1.00		1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1574	3335	3282	1449		3282	1538	3183	3282	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1	4	240	4	167	0	114	650	189	188	1
RTOR Reduction (vph)	0	0	4	0	0	118	0	0	359	0	0	1
Lane Group Flow (vph)	0	1	0	240	4	49	0	114	291	189	188	0
Confl. Peds. (#/hr)			1			2						
Heavy Vehicles (%)	2%	2%	2%	5%	10%	10%	10%	10%	5%	10%	10%	10%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)		1.7	3.4	13.0	18.8	18.8		15.6	28.6	11.2	25.1	25.1
Effective Green, g (s)		1.7	3.4	13.0	18.8	18.8		15.6	28.6	11.2	25.1	25.1
Actuated g/C Ratio		0.03	0.05	0.20	0.29	0.29		0.24	0.45	0.18	0.39	0.39
Clearance Time (s)		5.6	5.2	5.2	6.7	6.7		6.3	5.2	5.2	6.3	6.3
Vehicle Extension (s)		2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0
Lane Grp Cap (vph)		94	83	679	967	426		802	689	558	1291	577
v/s Ratio Prot		0.00	0.00	0.07	0.00			0.03	c0.09	c0.06	0.06	
v/s Ratio Perm			0.00			c0.03			0.10			0.00
v/c Ratio		0.01	0.00	0.35	0.00	0.12		0.14	0.42	0.34	0.15	0.00
Uniform Delay, d1		30.2	28.6	21.8	15.9	16.4		18.9	12.0	23.1	12.5	11.7
Progression Factor		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.0	0.0	0.3	0.0	0.0		0.1	0.4	0.1	0.1	0.0
Delay (s)		30.2	28.6	22.1	15.9	16.5		18.9	12.4	23.2	12.5	11.7
Level of Service		C	C	C	B	B		B	B	C	B	B
Approach Delay (s)		28.9			19.8			13.4			17.8	
Approach LOS		C			B			B			B	

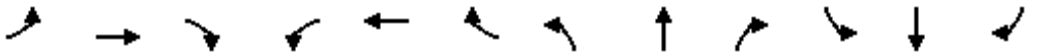
Intersection Summary			
HCM 2000 Control Delay	16.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	63.8	Sum of lost time (s)	23.4
Intersection Capacity Utilization	69.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



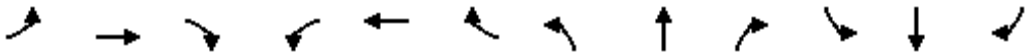
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	150	1	40	98	663	0	0	102	296
Future Volume (vph)	0	0	0	150	1	40	98	663	0	0	102	296
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.1	5.1	4.7	5.1			5.1	
Lane Util. Factor					1.00	1.00	1.00	0.91			0.91	
Frpb, ped/bikes					1.00	1.00	1.00	1.00			0.98	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.89	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1724	1538	1719	4940			4309	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1724	1538	1719	4940			4309	
Peak-hour factor, PHF	0.92	0.92	0.92	0.74	0.74	0.74	0.79	0.79	0.79	0.93	0.93	0.93
Adj. Flow (vph)	0	0	0	203	1	54	124	839	0	0	110	318
RTOR Reduction (vph)	0	0	0	0	0	41	0	0	0	0	233	0
Lane Group Flow (vph)	0	0	0	0	204	13	124	839	0	0	195	0
Confl. Peds. (#/hr)												4
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8						
Actuated Green, G (s)					10.1	10.1	6.1	22.1			11.3	
Effective Green, g (s)					10.1	10.1	6.1	22.1			11.3	
Actuated g/C Ratio					0.24	0.24	0.14	0.52			0.27	
Clearance Time (s)					5.1	5.1	4.7	5.1			5.1	
Vehicle Extension (s)					3.0	3.0	2.0	3.0			3.0	
Lane Grp Cap (vph)					410	366	247	2574			1148	
v/s Ratio Prot							c0.07	c0.17			0.05	
v/s Ratio Perm					0.12	0.01						
v/c Ratio					0.50	0.04	0.50	0.33			0.17	
Uniform Delay, d1					14.0	12.4	16.7	5.9			11.9	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					1.0	0.0	0.6	0.1			0.1	
Delay (s)					14.9	12.4	17.3	5.9			12.0	
Level of Service					B	B	B	A			B	
Approach Delay (s)		0.0			14.4			7.4			12.0	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	42.4	Sum of lost time (s)	14.9
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	633	1	43	0	0	0	0	128	85	78	174	0
Future Volume (vph)	633	1	43	0	0	0	0	128	85	78	174	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1						5.1		4.7	5.1	
Lane Util. Factor	1.00	1.00						0.91		1.00	0.95	
Frpb, ped/bikes	1.00	1.00						0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00						1.00		1.00	1.00	
Frt	1.00	0.85						0.94		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (prot)	1641	1473						4392		1641	3282	
Flt Permitted	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (perm)	1641	1473						4392		1641	3282	
Peak-hour factor, PHF	0.76	0.76	0.76	0.92	0.92	0.92	0.73	0.73	0.73	0.66	0.66	0.66
Adj. Flow (vph)	833	1	57	0	0	0	0	175	116	118	264	0
RTOR Reduction (vph)	0	23	0	0	0	0	0	103	0	0	0	0
Lane Group Flow (vph)	833	35	0	0	0	0	0	188	0	118	264	0
Confl. Peds. (#/hr)									2			
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4											
Actuated Green, G (s)	45.5	45.5						8.7		7.3	20.7	
Effective Green, g (s)	45.5	45.5						8.7		7.3	20.7	
Actuated g/C Ratio	0.60	0.60						0.11		0.10	0.27	
Clearance Time (s)	5.1	5.1						5.1		4.7	5.1	
Vehicle Extension (s)	3.0	3.0						3.0		2.0	3.0	
Lane Grp Cap (vph)	977	877						500		156	889	
v/s Ratio Prot		0.02						0.04		c0.07	c0.08	
v/s Ratio Perm	c0.51											
v/c Ratio	0.85	0.04						0.38		0.76	0.30	
Uniform Delay, d1	12.7	6.4						31.3		33.7	22.1	
Progression Factor	1.00	1.00						1.00		1.00	1.00	
Incremental Delay, d2	7.3	0.0						0.5		16.8	0.2	
Delay (s)	20.0	6.4						31.8		50.5	22.3	
Level of Service	B	A						C		D	C	
Approach Delay (s)		19.1			0.0			31.8			31.0	
Approach LOS		B			A			C			C	

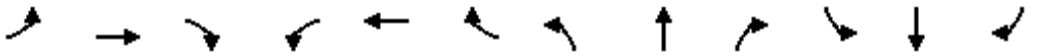
Intersection Summary			
HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	76.4	Sum of lost time (s)	14.9
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	179	0	1	1	0	5	0	30	2	5	70	163
Future Volume (vph)	179	0	1	1	0	5	0	30	2	5	70	163
Peak Hour Factor	0.74	0.74	0.74	0.50	0.50	0.50	0.50	0.50	0.50	0.80	0.80	0.80
Hourly flow rate (vph)	242	0	1	2	0	10	0	60	4	6	88	204

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	161	82	2	10	0	64	6	292
Volume Left (vph)	161	81	2	0	0	0	6	0
Volume Right (vph)	0	1	0	10	0	4	0	204
Hadj (s)	0.58	0.57	0.67	-0.53	0.00	0.05	0.67	-0.38
Departure Headway (s)	6.0	6.0	6.4	5.2	5.5	5.6	6.0	4.9
Degree Utilization, x	0.27	0.14	0.00	0.01	0.00	0.10	0.01	0.40
Capacity (veh/h)	567	568	515	627	628	612	575	706
Control Delay (s)	10.1	8.8	8.3	7.1	7.3	8.0	7.8	9.9
Approach Delay (s)	9.6		7.3		8.0		9.9	
Approach LOS	A		A		A		A	

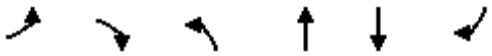
Intersection Summary				
Delay	9.5			
Level of Service	A			
Intersection Capacity Utilization	32.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	400	1	0	358	77	0	0	1	0	0	50
Future Volume (Veh/h)	0	400	1	0	358	77	0	0	1	0	0	50
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.93	0.93	0.93	0.25	0.25	0.25	0.73	0.73	0.73
Hourly flow rate (vph)	0	455	1	0	385	83	0	0	4	0	0	68
Pedestrians											6	
Lane Width (ft)											12.0	
Walking Speed (ft/s)											4.0	
Percent Blockage											1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	474			456			652	930	152	547	847	134
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	474			456			652	930	152	547	847	134
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	100	100	100	100	92
cM capacity (veh/h)	1025			1047			310	251	842	398	282	861

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	182	182	92	128	128	128	83	4	68
Volume Left	0	0	0	0	0	0	0	0	0
Volume Right	0	0	1	0	0	0	83	4	68
cSH	1700	1700	1700	1700	1700	1700	1700	842	861
Volume to Capacity	0.11	0.11	0.05	0.08	0.08	0.08	0.05	0.00	0.08
Queue Length 95th (ft)	0	0	0	0	0	0	0	0	6
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3	9.5
Lane LOS								A	A
Approach Delay (s)	0.0			0.0				9.3	9.5
Approach LOS								A	A

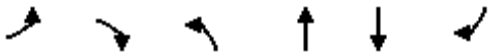
Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	18.1%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	131	67	10	250	239	43
Future Volume (vph)	131	67	10	250	239	43
Peak Hour Factor	0.81	0.81	0.86	0.86	0.82	0.82
Hourly flow rate (vph)	162	83	12	291	291	52

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	162	83	12	291	291	52
Volume Left (vph)	162	0	12	0	0	0
Volume Right (vph)	0	83	0	0	0	52
Hadj (s)	0.53	-0.67	0.53	0.17	0.17	-0.67
Departure Headway (s)	6.7	5.5	6.3	5.9	5.8	5.0
Degree Utilization, x	0.30	0.13	0.02	0.48	0.47	0.07
Capacity (veh/h)	501	600	551	593	597	685
Control Delay (s)	11.4	8.1	8.2	12.9	12.8	7.2
Approach Delay (s)	10.3		12.7		11.9	
Approach LOS	B		B		B	

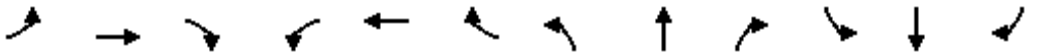
Intersection Summary			
Delay	11.7		
Level of Service	B		
Intersection Capacity Utilization	27.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	23	242	303	122	50	30
Future Volume (vph)	23	242	303	122	50	30
Peak Hour Factor	0.78	0.78	0.78	0.78	0.80	0.80
Hourly flow rate (vph)	29	310	388	156	63	38

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total (vph)	339	388	156	101
Volume Left (vph)	29	388	0	0
Volume Right (vph)	310	0	0	38
Hadj (s)	-0.36	0.67	0.17	-0.06
Departure Headway (s)	5.2	6.3	5.8	5.7
Degree Utilization, x	0.49	0.68	0.25	0.16
Capacity (veh/h)	661	557	607	587
Control Delay (s)	13.0	20.2	9.5	9.8
Approach Delay (s)	13.0	17.1		9.8
Approach LOS	B	C		A

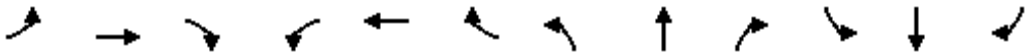
Intersection Summary			
Delay	15.0		
Level of Service	B		
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	212	127	147	309	325	89	32	63	187	39	37
Future Volume (vph)	80	212	127	147	309	325	89	32	63	187	39	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1468	3183	4715	1468	1641	1555		1641	1727	2584
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1468	3183	4715	1468	1641	1555		1641	1727	2584
Peak-hour factor, PHF	0.88	0.88	0.88	0.83	0.83	0.83	0.86	0.86	0.86	0.84	0.84	0.84
Adj. Flow (vph)	91	241	144	177	372	392	103	37	73	223	46	44
RTOR Reduction (vph)	0	0	72	0	0	184	0	66	0	0	0	36
Lane Group Flow (vph)	91	241	72	177	372	208	103	44	0	223	46	8
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	8.4	70.3	70.3	12.1	74.3	74.3	17.8	13.0		23.3	18.5	26.9
Effective Green, g (s)	8.4	70.3	70.3	12.1	74.3	74.3	17.8	13.0		23.3	18.5	26.9
Actuated g/C Ratio	0.06	0.50	0.50	0.09	0.53	0.53	0.13	0.09		0.17	0.13	0.19
Clearance Time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	2.0	4.1	4.1	2.0	4.5	4.5	2.0	4.3		2.0	3.7	2.0
Lane Grp Cap (vph)	190	2367	737	275	2502	779	208	144		273	228	496
v/s Ratio Prot	0.03	0.05		c0.06	0.08		0.06	c0.03		c0.14	0.03	0.00
v/s Ratio Perm			0.05			c0.14						0.00
v/c Ratio	0.48	0.10	0.10	0.64	0.15	0.27	0.50	0.30		0.82	0.20	0.02
Uniform Delay, d1	63.7	18.3	18.2	61.9	16.7	18.0	56.9	59.3		56.3	54.2	45.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1	0.3	3.8	0.1	0.8	0.7	1.9		16.2	0.5	0.0
Delay (s)	64.4	18.4	18.5	65.7	16.9	18.8	57.6	61.2		72.5	54.7	45.8
Level of Service	E	B	B	E	B	B	E	E		E	D	D
Approach Delay (s)		27.2			26.9			59.4			66.1	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	36.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	56.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



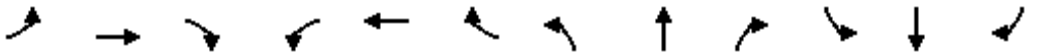
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	1	0	0	0	0	44	0	1	0	119	0	4
Future Volume (vph)	1	0	0	0	0	44	0	1	0	119	0	4
Peak Hour Factor	0.25	0.25	0.25	0.64	0.64	0.64	0.25	0.25	0.25	0.81	0.81	0.81
Hourly flow rate (vph)	4	0	0	0	0	69	0	4	0	147	0	5

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	4	69	4	152
Volume Left (vph)	4	0	0	147
Volume Right (vph)	0	69	0	5
Hadj (s)	0.37	-0.43	0.17	0.34
Departure Headway (s)	4.7	3.8	4.4	4.4
Degree Utilization, x	0.01	0.07	0.00	0.19
Capacity (veh/h)	733	898	792	803
Control Delay (s)	7.7	7.1	7.4	8.4
Approach Delay (s)	7.7	7.1	7.4	8.4
Approach LOS	A	A	A	A

Intersection Summary				
Delay	8.0			
Level of Service	A			
Intersection Capacity Utilization	23.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	0	180	0	0	500
Future Volume (vph)	0	0	180	0	0	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.5			4.5
Lane Util. Factor			1.00			1.00
Frt			1.00			0.85
Flt Protected			0.95			1.00
Satd. Flow (prot)			1770			1583
Flt Permitted			0.76			1.00
Satd. Flow (perm)			1410			1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	196	0	0	543
RTOR Reduction (vph)	0	0	0	0	0	408
Lane Group Flow (vph)	0	0	196	0	0	135
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type			Perm		Perm	Perm
Protected Phases	4			8		
Permitted Phases			8		2	2
Actuated Green, G (s)			8.3			5.7
Effective Green, g (s)			8.3			5.7
Actuated g/C Ratio			0.36			0.25
Clearance Time (s)			4.5			4.5
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			508			392
v/s Ratio Prot						
v/s Ratio Perm			c0.14			c0.08
v/c Ratio			0.39			0.34
Uniform Delay, d1			5.5			7.1
Progression Factor			1.00			1.00
Incremental Delay, d2			0.5			0.5
Delay (s)			5.9			7.6
Level of Service			A			A
Approach Delay (s)	0.0			5.9	7.6	
Approach LOS	A			A	A	

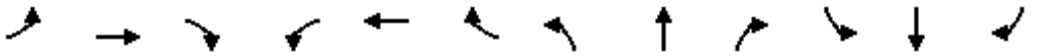
Intersection Summary			
HCM 2000 Control Delay	7.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	23.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	34.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	386	43	167	764	83	16	0	100	41	0	0
Future Volume (vph)	6	386	43	167	764	83	16	0	100	41	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.5		4.0	6.5		4.0		4.0	4.0		
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00		1.00	1.00		
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		0.99	1.00		
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		1.00	1.00		
Frt	1.00	0.98		1.00	0.99		1.00		0.85	1.00		
Flt Protected	0.95	1.00		0.95	1.00		0.95		1.00	0.95		
Satd. Flow (prot)	1641	4632		1641	4636		1641		1449	1641		
Flt Permitted	0.95	1.00		0.95	1.00		0.95		1.00	0.95		
Satd. Flow (perm)	1641	4632		1641	4636		1641		1449	1641		
Peak-hour factor, PHF	0.88	0.88	0.88	0.86	0.86	0.86	0.62	0.62	0.62	0.75	0.75	0.75
Adj. Flow (vph)	7	439	49	194	888	97	26	0	161	55	0	0
RTOR Reduction (vph)	0	12	0	0	8	0	0	0	153	0	0	0
Lane Group Flow (vph)	7	476	0	194	977	0	26	0	8	55	0	0
Confl. Peds. (#/hr)			4			2			1			
Confl. Bikes (#/hr)						1						
Turn Type	Prot	NA		Prot	NA		Prot		Perm	Prot		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			4
Actuated Green, G (s)	1.2	41.7		18.5	59.0		15.3		4.5	6.8		
Effective Green, g (s)	1.2	41.7		18.5	59.0		15.3		4.5	6.8		
Actuated g/C Ratio	0.01	0.46		0.21	0.66		0.17		0.05	0.08		
Clearance Time (s)	4.0	6.5		4.0	6.5		4.0		4.0	4.0		
Vehicle Extension (s)	2.0	5.3		2.0	5.3		2.0		2.0	2.0		
Lane Grp Cap (vph)	21	2146		337	3039		278		72	123		
v/s Ratio Prot	0.00	0.10		c0.12	c0.21		c0.02			c0.03		
v/s Ratio Perm									0.01			
v/c Ratio	0.33	0.22		0.58	0.32		0.09		0.11	0.45		
Uniform Delay, d1	44.0	14.4		32.2	6.8		31.5		40.8	39.8		
Progression Factor	1.00	1.00		0.57	0.71		1.00		1.00	1.00		
Incremental Delay, d2	3.4	0.2		1.0	0.2		0.1		0.3	0.9		
Delay (s)	47.4	14.7		19.5	5.0		31.6		41.1	40.7		
Level of Service	D	B		B	A		C		D	D		
Approach Delay (s)		15.1			7.4			39.8			40.7	
Approach LOS		B			A			D			D	

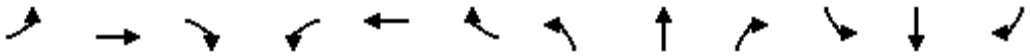
Intersection Summary			
HCM 2000 Control Delay	13.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	995	65	120	303	168	132	10	85	385	10	30
Future Volume (vph)	10	995	65	120	303	168	132	10	85	385	10	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.97	0.86	0.86	0.97	0.91	0.88	1.00	1.00		0.97	0.91	0.91
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.92	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	4801	1362	3433	5085	2787	1770	1613		3433	3111	1441
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	4801	1362	3433	5085	2787	1770	1613		3433	3111	1441
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.92	0.84	0.92	0.78	0.78	0.69	0.69	0.92
Adj. Flow (vph)	11	1082	71	143	329	200	143	13	109	558	14	33
RTOR Reduction (vph)	0	1	39	0	0	110	0	81	0	0	14	13
Lane Group Flow (vph)	11	1088	25	143	329	90	143	41	0	558	17	3
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2			6						8
Actuated Green, G (s)	0.7	29.6	29.6	4.6	33.5	33.5	9.8	7.6		14.7	12.5	12.5
Effective Green, g (s)	0.7	29.6	29.6	4.6	33.5	33.5	9.8	7.6		14.7	12.5	12.5
Actuated g/C Ratio	0.01	0.40	0.40	0.06	0.45	0.45	0.13	0.10		0.20	0.17	0.17
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	32	1907	541	211	2286	1253	232	164		677	521	241
v/s Ratio Prot	0.00	c0.23		c0.04	c0.06		0.08	c0.03		c0.16	0.01	
v/s Ratio Perm			0.02			0.03						0.00
v/c Ratio	0.34	0.57	0.05	0.68	0.14	0.07	0.62	0.25		0.82	0.03	0.01
Uniform Delay, d1	36.7	17.5	13.8	34.2	12.1	11.7	30.6	30.8		28.7	25.9	25.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	6.3	0.4	0.0	8.3	0.0	0.0	4.8	0.8		8.1	0.0	0.0
Delay (s)	43.0	17.9	13.8	42.6	12.1	11.7	35.4	31.6		36.7	26.0	25.9
Level of Service	D	B	B	D	B	B	D	C		D	C	C
Approach Delay (s)		17.9			18.5			33.7			35.9	
Approach LOS		B			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	23.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	74.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	72	0	116	0	32	34	256	85	0
Future Volume (vph)	0	0	0	72	0	116	0	32	34	256	85	0
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.75	0.75	0.75	0.81	0.81	0.81
Hourly flow rate (vph)	0	0	0	86	0	138	0	43	45	316	105	0

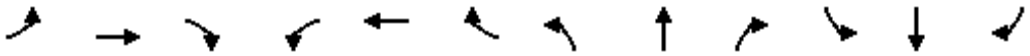
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	0	224	88	421
Volume Left (vph)	0	86	0	316
Volume Right (vph)	0	138	45	0
Hadj (s)	0.00	-0.12	-0.14	0.32
Departure Headway (s)	5.6	5.1	4.9	4.9
Degree Utilization, x	0.00	0.31	0.12	0.58
Capacity (veh/h)	573	656	678	704
Control Delay (s)	8.6	10.4	8.6	14.5
Approach Delay (s)	0.0	10.4	8.6	14.5
Approach LOS	A	B	A	B

Intersection Summary				
Delay	12.5			
Level of Service	B			
Intersection Capacity Utilization	43.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	120	405	210	140	865	522
Future Volume (vph)	120	405	210	140	865	522
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	1641	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	1641	4715	3183	1468
Peak-hour factor, PHF	0.91	0.91	0.73	0.73	0.90	0.90
Adj. Flow (vph)	132	445	288	192	961	580
RTOR Reduction (vph)	0	322	0	0	0	380
Lane Group Flow (vph)	132	123	288	192	961	200
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	24.8	24.8	19.6	48.4	31.1	31.1
Effective Green, g (s)	24.8	24.8	19.6	48.4	31.1	31.1
Actuated g/C Ratio	0.28	0.28	0.22	0.54	0.35	0.35
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	1299	404	357	2535	1099	507
v/s Ratio Prot	0.03		c0.18	0.04	c0.30	
v/s Ratio Perm		c0.08				0.14
v/c Ratio	0.10	0.30	0.81	0.08	0.87	0.40
Uniform Delay, d1	24.3	25.8	33.4	10.0	27.6	22.3
Progression Factor	1.67	6.10	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	1.9	11.9	0.1	7.7	0.2
Delay (s)	40.7	159.2	45.3	10.1	35.3	22.5
Level of Service	D	F	D	B	D	C
Approach Delay (s)	132.1			31.2	30.5	
Approach LOS	F			C	C	

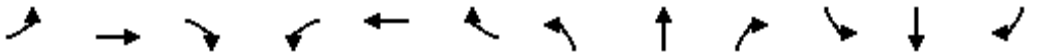
Intersection Summary			
HCM 2000 Control Delay	53.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	206	0	164	529	1106	0	0	579	45
Future Volume (vph)	0	0	0	206	0	164	529	1106	0	0	579	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1	4.7	5.1			5.1	
Lane Util. Factor				1.00	0.95	0.95	0.97	0.91			0.91	
Frt				1.00	0.85	0.85	1.00	1.00			0.99	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1641	1395	1395	3183	4715			4664	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1641	1395	1395	3183	4715			4664	
Peak-hour factor, PHF	0.92	0.92	0.92	0.82	0.82	0.82	0.82	0.82	0.82	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	251	0	200	645	1349	0	0	616	48
RTOR Reduction (vph)	0	0	0	0	77	77	0	0	0	0	15	0
Lane Group Flow (vph)	0	0	0	251	23	23	645	1349	0	0	649	0
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8						
Actuated Green, G (s)				13.1	13.1	13.1	14.7	34.1			14.7	
Effective Green, g (s)				13.1	13.1	13.1	14.7	34.1			14.7	
Actuated g/C Ratio				0.23	0.23	0.23	0.26	0.59			0.26	
Clearance Time (s)				5.1	5.1	5.1	4.7	5.1			5.1	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				374	318	318	815	2801			1194	
v/s Ratio Prot					0.02		c0.20	c0.29			0.14	
v/s Ratio Perm				c0.15		0.02						
v/c Ratio				0.67	0.07	0.07	0.79	0.48			0.54	
Uniform Delay, d1				20.2	17.4	17.4	19.9	6.6			18.5	
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2				4.7	0.1	0.1	5.3	0.1			0.5	
Delay (s)				24.9	17.5	17.5	25.2	6.8			19.0	
Level of Service				C	B	B	C	A			B	
Approach Delay (s)		0.0			21.6			12.7			19.0	
Approach LOS		A			C			B			B	

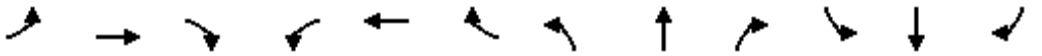
Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	57.4	Sum of lost time (s)	14.9
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	166	3	758	0	0	0	0	1477	135	28	757	0
Future Volume (vph)	166	3	758	0	0	0	0	1477	135	28	757	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1	5.1					5.1		4.7	5.1	
Lane Util. Factor		1.00	0.88					0.95		0.97	0.91	
Frpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Frt		1.00	0.85					0.99		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1647	2584					3241		3183	4715	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		1647	2584					3241		3183	4715	
Peak-hour factor, PHF	0.80	0.80	0.80	0.92	0.92	0.92	0.81	0.81	0.81	0.94	0.94	0.94
Adj. Flow (vph)	208	4	948	0	0	0	0	1823	167	30	805	0
RTOR Reduction (vph)	0	0	290	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	212	658	0	0	0	0	1986	0	30	805	0
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)		39.2	39.2					90.2		3.0	97.9	
Effective Green, g (s)		39.2	39.2					90.2		3.0	97.9	
Actuated g/C Ratio		0.27	0.27					0.61		0.02	0.66	
Clearance Time (s)		5.1	5.1					5.1		4.7	5.1	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		438	687					1984		64	3133	
v/s Ratio Prot								c0.61		c0.01	0.17	
v/s Ratio Perm		0.13	c0.25									
v/c Ratio		0.48	0.96					1.00		0.47	0.26	
Uniform Delay, d1		45.5	53.2					28.6		71.4	10.0	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		0.8	24.1					20.4		5.3	0.0	
Delay (s)		46.4	77.4					49.0		76.7	10.0	
Level of Service		D	E					D		E	B	
Approach Delay (s)		71.7			0.0			49.0			12.4	
Approach LOS		E			A			D			B	

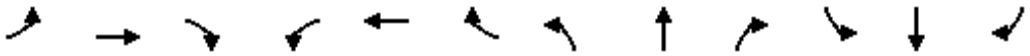
Intersection Summary			
HCM 2000 Control Delay	47.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	147.3	Sum of lost time (s)	14.9
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1323	200	79	24	98	70	35	127	19	288	286	666
Future Volume (vph)	1323	200	79	24	98	70	35	127	19	288	286	666
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.99	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96			1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	1654			1710	1449	1641	3208		1641	1727	1468
Flt Permitted	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1641	1654			1710	1449	1641	3208		1641	1727	1468
Peak-hour factor, PHF	0.86	0.86	0.86	0.81	0.81	0.81	0.76	0.76	0.76	0.85	0.85	0.85
Adj. Flow (vph)	1538	233	92	30	121	86	46	167	25	339	336	784
RTOR Reduction (vph)	0	9	0	0	0	74	0	8	0	0	0	571
Lane Group Flow (vph)	1538	316	0	0	151	12	46	184	0	339	336	213
Confl. Peds. (#/hr)	1					1			2			
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	45.1	45.1			16.4	16.4	4.0	18.3		17.8	31.9	31.9
Effective Green, g (s)	45.1	45.1			16.4	16.4	4.0	18.3		17.8	31.9	31.9
Actuated g/C Ratio	0.38	0.38			0.14	0.14	0.03	0.16		0.15	0.27	0.27
Clearance Time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Vehicle Extension (s)	2.0	2.0			3.7	3.7	2.0	3.8		2.0	3.8	3.8
Lane Grp Cap (vph)	630	635			238	202	55	500		248	469	398
v/s Ratio Prot	c0.94	0.19			c0.09		0.03	0.06		c0.21	c0.19	
v/s Ratio Perm						0.01						0.15
v/c Ratio	2.44	0.50			0.63	0.06	0.84	0.37		1.37	0.72	0.54
Uniform Delay, d1	36.2	27.5			47.7	43.8	56.4	44.4		49.8	38.7	36.4
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	653.4	0.2			5.9	0.2	62.7	0.6		188.8	5.4	1.7
Delay (s)	689.5	27.8			53.5	44.0	119.1	45.0		238.6	44.1	38.1
Level of Service	F	C			D	D	F	D		F	D	D
Approach Delay (s)		574.1			50.1			59.3			86.1	
Approach LOS		F			D			E			F	

Intersection Summary			
HCM 2000 Control Delay	321.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.64		
Actuated Cycle Length (s)	117.4	Sum of lost time (s)	20.0
Intersection Capacity Utilization	117.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



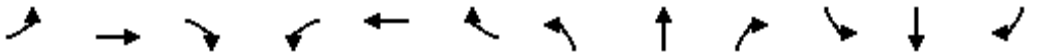
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	272	1	3	130	19	1	87	1	32	146	70
Future Volume (vph)	30	272	1	3	130	19	1	87	1	32	146	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00		0.97	0.95	
Frpb, ped/bikes		1.00			1.00	0.99	1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00			1.00	0.85	1.00	1.00		1.00	0.95	
Flt Protected		1.00			1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3264			1725	1449	1641	1725		3183	3095	
Flt Permitted		0.91			0.58	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		2975			1007	1449	1641	1725		3183	3095	
Peak-hour factor, PHF	0.76	0.76	0.76	0.73	0.73	0.73	0.68	0.68	0.68	0.79	0.79	0.79
Adj. Flow (vph)	39	358	1	4	178	26	1	128	1	41	185	89
RTOR Reduction (vph)	0	0	0	0	0	19	0	0	0	0	61	0
Lane Group Flow (vph)	0	398	0	0	182	7	1	129	0	41	213	0
Confl. Peds. (#/hr)			1	1								2
Confl. Bikes (#/hr)			2			1						1
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			1		3	8		7	4	
Permitted Phases	2			1		1						
Actuated Green, G (s)		16.9			19.0	19.0	0.6	13.7		2.0	15.1	
Effective Green, g (s)		16.9			19.0	19.0	0.6	13.7		2.0	15.1	
Actuated g/C Ratio		0.24			0.27	0.27	0.01	0.19		0.03	0.21	
Clearance Time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Vehicle Extension (s)		4.8			4.8	4.8	2.0	3.3		2.0	4.4	
Lane Grp Cap (vph)		711			270	389	13	334		90	661	
v/s Ratio Prot							0.00	c0.07		c0.01	0.07	
v/s Ratio Perm		c0.13			c0.18	0.00						
v/c Ratio		0.56			0.67	0.02	0.08	0.39		0.46	0.32	
Uniform Delay, d1		23.6			23.1	19.0	34.8	24.8		33.8	23.5	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.5			8.1	0.0	0.9	0.8		1.3	0.5	
Delay (s)		25.2			31.2	19.0	35.7	25.7		35.1	24.0	
Level of Service		C			C	B	D	C		D	C	
Approach Delay (s)		25.2			29.7			25.7			25.4	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	70.7	Sum of lost time (s)	19.1
Intersection Capacity Utilization	35.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	422	77	3	280	60	4
Future Volume (vph)	422	77	3	280	60	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		5.7	7.2	6.1	6.1
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.98		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4606		1641	4715	1641	1450
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4606		1641	4715	1641	1450
Peak-hour factor, PHF	0.89	0.89	0.85	0.85	0.73	0.73
Adj. Flow (vph)	474	87	4	329	82	5
RTOR Reduction (vph)	20	0	0	0	0	4
Lane Group Flow (vph)	541	0	4	329	82	1
Confl. Peds. (#/hr)						2
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	23.6		0.9	30.2	7.5	7.5
Effective Green, g (s)	23.6		0.9	30.2	7.5	7.5
Actuated g/C Ratio	0.46		0.02	0.59	0.15	0.15
Clearance Time (s)	7.2		5.7	7.2	6.1	6.1
Vehicle Extension (s)	6.9		2.0	6.9	2.0	2.0
Lane Grp Cap (vph)	2131		28	2792	241	213
v/s Ratio Prot	c0.12		0.00	c0.07	c0.05	
v/s Ratio Perm						0.00
v/c Ratio	0.25		0.14	0.12	0.34	0.00
Uniform Delay, d1	8.3		24.7	4.6	19.5	18.6
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2		0.9	0.1	0.3	0.0
Delay (s)	8.6		25.5	4.6	19.8	18.6
Level of Service	A		C	A	B	B
Approach Delay (s)	8.6			4.9	19.8	
Approach LOS	A			A	B	

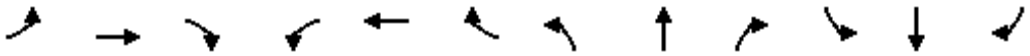
Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	51.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	31.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	322	58	321	210	54	30	67	497	32	54	43
Future Volume (vph)	76	322	58	321	210	54	30	67	497	32	54	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.87		1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	4715	1441	1641	4571		1641	1478		3183	1613	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1641	4715	1441	1641	4571		1641	1478		3183	1613	
Peak-hour factor, PHF	0.91	0.91	0.91	0.90	0.90	0.90	0.78	0.78	0.78	0.79	0.79	0.79
Adj. Flow (vph)	84	354	64	357	233	60	38	86	637	41	68	54
RTOR Reduction (vph)	0	0	53	0	32	0	0	192	0	0	20	0
Lane Group Flow (vph)	84	354	11	357	261	0	38	531	0	41	102	0
Confl. Peds. (#/hr)			3						3			
Confl. Bikes (#/hr)			1						1			
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	11.5	24.4	24.4	35.2	48.1		6.8	55.2		5.3	54.6	
Effective Green, g (s)	11.5	24.4	24.4	35.2	48.1		6.8	55.2		5.3	54.6	
Actuated g/C Ratio	0.08	0.17	0.17	0.25	0.34		0.05	0.39		0.04	0.39	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	3.2		2.0	5.3	
Lane Grp Cap (vph)	134	821	251	412	1570		79	582		120	629	
v/s Ratio Prot	0.05	c0.08		c0.22	0.06		c0.02	c0.36		0.01	0.06	
v/s Ratio Perm			0.01									
v/c Ratio	0.63	0.43	0.04	0.87	0.17		0.48	0.91		0.34	0.16	
Uniform Delay, d1	62.2	51.6	48.1	50.2	32.0		64.9	40.1		65.6	27.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.4	1.7	0.3	16.6	0.2		1.7	18.8		0.6	0.3	
Delay (s)	68.6	53.3	48.4	66.8	32.2		66.6	58.9		66.3	28.1	
Level of Service	E	D	D	E	C		E	E		E	C	
Approach Delay (s)		55.2			51.2			59.3			37.7	
Approach LOS		E			D			E			D	

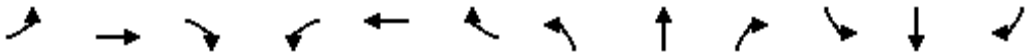
Intersection Summary			
HCM 2000 Control Delay	54.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	95	26	8	74	67	25	92	4	247	225	36
Future Volume (vph)	11	95	26	8	74	67	25	92	4	247	225	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	
Frt		0.97			0.94			1.00		1.00	0.98	
Flt Protected		1.00			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1666			1618			1702		1641	1692	
Flt Permitted		0.96			0.98			0.91		0.66	1.00	
Satd. Flow (perm)		1608			1583			1566		1142	1692	
Peak-hour factor, PHF	0.77	0.77	0.77	0.88	0.88	0.88	0.80	0.80	0.80	0.76	0.76	0.76
Adj. Flow (vph)	14	123	34	9	84	76	31	115	5	325	296	47
RTOR Reduction (vph)	0	27	0	0	60	0	0	2	0	0	11	0
Lane Group Flow (vph)	0	144	0	0	109	0	0	149	0	325	332	0
Confl. Bikes (#/hr)			2									
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.1			7.1			19.0		19.0	19.0	
Effective Green, g (s)		7.1			7.1			19.0		19.0	19.0	
Actuated g/C Ratio		0.21			0.21			0.56		0.56	0.56	
Clearance Time (s)		4.0			4.0			4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		334			329			872		636	942	
v/s Ratio Prot											0.20	
v/s Ratio Perm		c0.09			0.07			0.09		c0.28		
v/c Ratio		0.43			0.33			0.17		0.51	0.35	
Uniform Delay, d1		11.7			11.5			3.7		4.7	4.2	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.9			0.6			0.4		2.9	1.0	
Delay (s)		12.6			12.1			4.1		7.6	5.2	
Level of Service		B			B			A		A	A	
Approach Delay (s)		12.6			12.1			4.1			6.4	
Approach LOS		B			B			A			A	

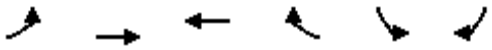
Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	34.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	40.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	61	198	4	8	110	57	3	14	3	147	45	28
Future Volume (vph)	61	198	4	8	110	57	3	14	3	147	45	28
Peak Hour Factor	0.86	0.86	0.86	0.75	0.75	0.75	0.83	0.83	0.83	0.82	0.82	0.82
Hourly flow rate (vph)	71	230	5	11	147	76	4	17	4	179	55	34

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	306	234	25	268
Volume Left (vph)	71	11	4	179
Volume Right (vph)	5	76	4	34
Hadj (s)	0.21	-0.02	0.11	0.23
Departure Headway (s)	5.3	5.2	6.0	5.6
Degree Utilization, x	0.45	0.34	0.04	0.42
Capacity (veh/h)	640	645	507	598
Control Delay (s)	12.7	10.9	9.3	12.6
Approach Delay (s)	12.7	10.9	9.3	12.6
Approach LOS	B	B	A	B

Intersection Summary				
Delay	12.1			
Level of Service	B			
Intersection Capacity Utilization	52.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	198	595	451	87	67	108
Future Volume (vph)	198	595	451	87	67	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00	1.00	0.99	0.99	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	0.93	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.97	1.00
Satd. Flow (prot)	3183	3282	4715	1448	3028	1317
Flt Permitted	0.95	1.00	1.00	1.00	0.97	1.00
Satd. Flow (perm)	3183	3282	4715	1448	3028	1317
Peak-hour factor, PHF	0.83	0.83	0.86	0.86	0.86	0.86
Adj. Flow (vph)	239	717	524	101	78	126
RTOR Reduction (vph)	0	0	0	65	53	59
Lane Group Flow (vph)	239	717	524	36	85	7
Confl. Peds. (#/hr)				3		
Confl. Bikes (#/hr)				1		1
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	5.1	24.2	14.4	14.4	4.5	4.5
Effective Green, g (s)	5.1	24.2	14.4	14.4	4.5	4.5
Actuated g/C Ratio	0.13	0.60	0.36	0.36	0.11	0.11
Clearance Time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Vehicle Extension (s)	2.0	5.8	5.8	5.8	2.0	2.0
Lane Grp Cap (vph)	405	1985	1697	521	340	148
v/s Ratio Prot	c0.08	c0.22	0.11		c0.03	
v/s Ratio Perm				0.03		0.01
v/c Ratio	0.59	0.36	0.31	0.07	0.25	0.05
Uniform Delay, d1	16.5	4.0	9.2	8.4	16.2	15.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.5	0.3	0.3	0.2	0.1	0.1
Delay (s)	18.0	4.3	9.5	8.6	16.3	15.9
Level of Service	B	A	A	A	B	B
Approach Delay (s)		7.7	9.3		16.2	
Approach LOS		A	A		B	

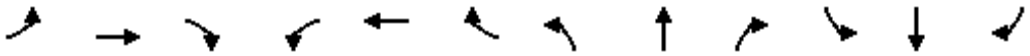
Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	112	69	70	112	91	52
Future Volume (vph)	112	69	70	112	91	52
Peak Hour Factor	0.88	0.88	0.94	0.94	0.72	0.72
Hourly flow rate (vph)	127	78	74	119	126	72

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total (vph)	205	74	119	198
Volume Left (vph)	0	74	0	126
Volume Right (vph)	78	0	0	72
Hadj (s)	-0.06	0.67	0.17	0.08
Departure Headway (s)	4.7	5.9	5.4	5.0
Degree Utilization, x	0.27	0.12	0.18	0.27
Capacity (veh/h)	721	582	637	684
Control Delay (s)	9.5	8.5	8.4	9.8
Approach Delay (s)	9.5	8.4		9.8
Approach LOS	A	A		A

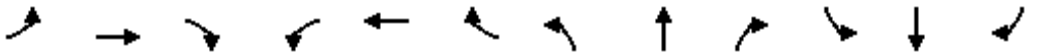
Intersection Summary			
Delay	9.2		
Level of Service	A		
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	281	49	60	559	1	41	0	9	0	0	12
Future Volume (vph)	30	281	49	60	559	1	41	0	9	0	0	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		4.4	4.9		4.9		4.9		4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00		1.00		1.00	
Frpb, ped/bikes	1.00	0.98		1.00	1.00		1.00		0.98		0.97	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		1.00		1.00	
Frt	1.00	0.98		1.00	1.00		1.00		0.85		0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95		1.00		1.00	
Satd. Flow (prot)	1641	4540		1641	4714		1638		1443		1450	
Flt Permitted	0.95	1.00		0.95	1.00		1.00		1.00		1.00	
Satd. Flow (perm)	1641	4540		1641	4714		1724		1443		1450	
Peak-hour factor, PHF	0.69	0.69	0.69	0.94	0.94	0.94	0.62	0.62	0.62	0.38	0.38	0.38
Adj. Flow (vph)	43	407	71	64	595	1	66	0	15	0	0	32
RTOR Reduction (vph)	0	27	0	0	0	0	0	0	13	0	29	0
Lane Group Flow (vph)	43	451	0	64	596	0	66	0	2	0	3	0
Confl. Peds. (#/hr)			90			22	4		16	16		4
Confl. Bikes (#/hr)			19			4						2
Turn Type	Prot	NA		Prot	NA		Perm		Perm		NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	1.8	15.2		2.1	15.5		3.6		3.6		3.6	
Effective Green, g (s)	1.8	15.2		2.1	15.5		3.6		3.6		3.6	
Actuated g/C Ratio	0.05	0.43		0.06	0.44		0.10		0.10		0.10	
Clearance Time (s)	4.4	4.9		4.4	4.9		4.9		4.9		4.9	
Vehicle Extension (s)	2.0	6.1		2.0	5.1		2.0		2.0		2.0	
Lane Grp Cap (vph)	84	1966		98	2081		176		148		148	
v/s Ratio Prot	0.03	0.10		c0.04	c0.13						0.00	
v/s Ratio Perm							c0.04		0.00			
v/c Ratio	0.51	0.23		0.65	0.29		0.38		0.01		0.02	
Uniform Delay, d1	16.2	6.3		16.1	6.3		14.7		14.1		14.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00		1.00		1.00	
Incremental Delay, d2	2.2	0.2		11.3	0.2		0.5		0.0		0.0	
Delay (s)	18.4	6.4		27.4	6.4		15.2		14.2		14.2	
Level of Service	B	A		C	A		B		B		B	
Approach Delay (s)		7.4			8.5			15.0			14.2	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	35.1	Sum of lost time (s)	14.2
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



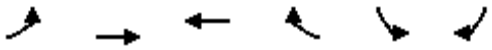
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	259	21	180	486	123	43	26	119	75	53	89
Future Volume (vph)	22	259	21	180	486	123	43	26	119	75	53	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00	1.00		0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.97		0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		0.99	
Frt	1.00	0.99		1.00	0.97			1.00	0.85		0.94	
Flt Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.98	
Satd. Flow (prot)	1641	4654		1641	4572			1672	1420		2989	
Flt Permitted	0.95	1.00		0.95	1.00			0.68	1.00		0.82	
Satd. Flow (perm)	1641	4654		1641	4572			1179	1420		2494	
Peak-hour factor, PHF	0.66	0.66	0.66	0.90	0.90	0.90	0.67	0.67	0.67	0.96	0.96	0.96
Adj. Flow (vph)	33	392	32	200	540	137	64	39	178	78	55	93
RTOR Reduction (vph)	0	9	0	0	32	0	0	0	139	0	73	0
Lane Group Flow (vph)	33	415	0	200	645	0	0	103	39	0	153	0
Confl. Peds. (#/hr)			16				11		43	43		11
Confl. Bikes (#/hr)			1						3			1
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	2.4	17.9		11.5	26.4			12.1	12.1		12.1	
Effective Green, g (s)	2.4	17.9		11.5	26.4			12.1	12.1		12.1	
Actuated g/C Ratio	0.04	0.32		0.21	0.47			0.22	0.22		0.22	
Clearance Time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Vehicle Extension (s)	2.0	8.0		2.0	6.7			4.4	4.4		4.4	
Lane Grp Cap (vph)	70	1495		338	2166			256	308		541	
v/s Ratio Prot	0.02	0.09		c0.12	c0.14							
v/s Ratio Perm								c0.09	0.03		0.06	
v/c Ratio	0.47	0.28		0.59	0.30			0.40	0.13		0.28	
Uniform Delay, d1	26.0	14.1		20.0	9.0			18.7	17.5		18.2	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	1.8	0.4		1.8	0.3			1.7	0.3		0.5	
Delay (s)	27.9	14.5		21.8	9.2			20.4	17.8		18.7	
Level of Service	C	B		C	A			C	B		B	
Approach Delay (s)		15.5			12.1			18.8			18.7	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	55.7	Sum of lost time (s)	14.8
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	380	73	74	789	0	423
Future Volume (vph)	380	73	74	789	0	423
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1		5.1	3.0		5.1
Lane Util. Factor	0.91		0.97	0.91		0.88
Frpb, ped/bikes	1.00		1.00	1.00		1.00
Flpb, ped/bikes	1.00		1.00	1.00		1.00
Frt	0.98		1.00	1.00		0.85
Flt Protected	1.00		0.95	1.00		1.00
Satd. Flow (prot)	4590		3183	4715		2584
Flt Permitted	1.00		0.95	1.00		1.00
Satd. Flow (perm)	4590		3183	4715		2584
Peak-hour factor, PHF	0.80	0.80	0.91	0.91	0.87	0.87
Adj. Flow (vph)	475	91	81	867	0	486
RTOR Reduction (vph)	56	0	0	0	0	384
Lane Group Flow (vph)	510	0	81	867	0	102
Confl. Peds. (#/hr)		21				
Turn Type	NA		Prot	NA		Over
Protected Phases	2		1	6		1
Permitted Phases						1
Actuated Green, G (s)	9.8		5.3	25.3		5.3
Effective Green, g (s)	9.8		5.3	25.3		5.3
Actuated g/C Ratio	0.39		0.21	1.00		0.21
Clearance Time (s)	5.1		5.1	3.0		5.1
Vehicle Extension (s)	3.9		2.0	0.9		2.0
Lane Grp Cap (vph)	1777		666	4715		541
v/s Ratio Prot	c0.11		0.03	c0.18		0.04
v/s Ratio Perm						
v/c Ratio	0.29		0.12	0.18		0.19
Uniform Delay, d1	5.3		8.1	0.0		8.2
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	0.1		0.0	0.0		0.1
Delay (s)	5.5		8.1	0.0		8.3
Level of Service	A		A	A		A
Approach Delay (s)	5.5			0.7	8.3	
Approach LOS	A			A	A	

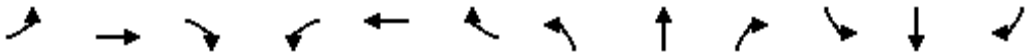
Intersection Summary			
HCM 2000 Control Delay	3.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	25.3	Sum of lost time (s)	10.2
Intersection Capacity Utilization	42.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Traffic Volume (veh/h)	0	803	529	0	0	334
Future Volume (Veh/h)	0	803	529	0	0	334
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.89	0.89	0.73	0.73
Hourly flow rate (vph)	0	945	594	0	0	458
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		269	396			
pX, platoon unblocked						
vC, conflicting volume	594				909	198
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	594				909	198
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	42
cM capacity (veh/h)	925				260	786

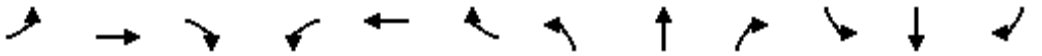
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	315	315	315	198	198	198	458
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	458
cSH	1700	1700	1700	1700	1700	1700	786
Volume to Capacity	0.19	0.19	0.19	0.12	0.12	0.12	0.58
Queue Length 95th (ft)	0	0	0	0	0	0	96
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	15.8
Lane LOS							C
Approach Delay (s)	0.0			0.0			15.8
Approach LOS							C

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	680	0	0	323	411	206	3	335	0	0	0
Future Volume (vph)	123	680	0	0	323	411	206	3	335	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Lane Util. Factor	0.97	0.91			0.86	0.86		1.00	0.88			
Frpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			0.94	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (prot)	3183	4715			4196	1263		1646	2584			
Flt Permitted	0.95	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (perm)	3183	4715			4196	1263		1646	2584			
Peak-hour factor, PHF	0.85	0.85	0.85	0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	145	800	0	0	363	462	237	3	385	0	0	0
RTOR Reduction (vph)	0	0	0	0	163	163	0	0	222	0	0	0
Lane Group Flow (vph)	145	800	0	0	431	68	0	240	163	0	0	0
Confl. Bikes (#/hr)			4									
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Actuated Green, G (s)	7.3	26.7			14.7	14.7		13.2	13.2			
Effective Green, g (s)	7.3	26.7			14.7	14.7		13.2	13.2			
Actuated g/C Ratio	0.15	0.53			0.29	0.29		0.26	0.26			
Clearance Time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Vehicle Extension (s)	2.0	3.9			3.9	3.9		3.0	3.0			
Lane Grp Cap (vph)	463	2512			1231	370		433	680			
v/s Ratio Prot	0.05	c0.17			0.10			c0.15				
v/s Ratio Perm						0.05			0.06			
v/c Ratio	0.31	0.32			0.35	0.18		0.55	0.24			
Uniform Delay, d1	19.2	6.6			13.9	13.2		15.9	14.5			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	0.1	0.1			0.2	0.3		1.5	0.2			
Delay (s)	19.3	6.7			14.2	13.5		17.5	14.7			
Level of Service	B	A			B	B		B	B			
Approach Delay (s)		8.6			14.0			15.7			0.0	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	50.1	Sum of lost time (s)	14.9
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	22	47	63	4	63	35	49	61	3	61	134	83
Future Volume (vph)	22	47	63	4	63	35	49	61	3	61	134	83
Peak Hour Factor	0.83	0.83	0.83	0.80	0.80	0.80	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	27	57	76	5	79	44	56	70	3	70	154	95

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	27	133	5	123	56	73	224	95
Volume Left (vph)	27	0	5	0	56	0	70	0
Volume Right (vph)	0	76	0	44	0	3	0	95
Hadj (s)	0.67	-0.23	0.67	-0.08	0.67	0.14	0.33	-0.53
Departure Headway (s)	6.5	5.6	6.5	5.8	6.3	5.8	5.8	4.9
Degree Utilization, x	0.05	0.21	0.01	0.20	0.10	0.12	0.36	0.13
Capacity (veh/h)	519	604	515	584	539	586	597	695
Control Delay (s)	8.6	8.8	8.4	9.0	8.8	8.4	10.8	7.5
Approach Delay (s)	8.8		9.0		8.6		9.8	
Approach LOS	A		A		A		A	

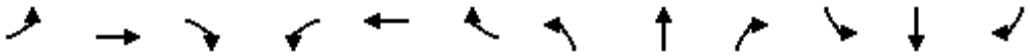
Intersection Summary				
Delay	9.2			
Level of Service	A			
Intersection Capacity Utilization	32.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	500	0	45	180	0	70
Future Volume (vph)	500	0	45	180	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frt	1.00		1.00	1.00	0.86	
Flt Protected	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	5085		1770	5085	1611	
Flt Permitted	1.00		0.95	1.00	1.00	
Satd. Flow (perm)	5085		1770	5085	1611	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	543	0	49	196	0	76
RTOR Reduction (vph)	0	0	0	0	70	0
Lane Group Flow (vph)	543	0	49	196	6	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	4	
Permitted Phases						
Actuated Green, G (s)	18.6		2.3	25.4	2.9	
Effective Green, g (s)	18.6		2.3	25.4	2.9	
Actuated g/C Ratio	0.50		0.06	0.68	0.08	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2535		109	3462	125	
v/s Ratio Prot	c0.11		c0.03	0.04	c0.00	
v/s Ratio Perm						
v/c Ratio	0.21		0.45	0.06	0.05	
Uniform Delay, d1	5.2		16.9	2.0	15.9	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.0		2.9	0.0	0.2	
Delay (s)	5.3		19.8	2.0	16.1	
Level of Service	A		B	A	B	
Approach Delay (s)	5.3			5.5	16.1	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	6.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	37.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	28.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

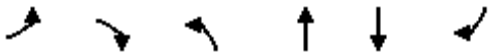
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	570	0	240	225	0	500
Future Volume (vph)	570	0	240	225	0	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frt	1.00		1.00	1.00	0.86	
Flt Protected	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	5085		1770	5085	1611	
Flt Permitted	1.00		0.95	1.00	1.00	
Satd. Flow (perm)	5085		1770	5085	1611	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	620	0	261	245	0	543
RTOR Reduction (vph)	0	0	0	0	145	0
Lane Group Flow (vph)	620	0	261	245	398	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	NA		Prot	NA	Perm	
Protected Phases	2		1	6		
Permitted Phases					4	
Actuated Green, G (s)	12.9		7.8	25.2	17.8	
Effective Green, g (s)	12.9		7.8	25.2	17.8	
Actuated g/C Ratio	0.25		0.15	0.48	0.34	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1261		265	2464	551	
v/s Ratio Prot	c0.12		c0.15	0.05		
v/s Ratio Perm					c0.25	
v/c Ratio	0.49		0.98	0.10	0.72	
Uniform Delay, d1	16.7		22.0	7.3	14.9	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.3		50.7	0.0	4.7	
Delay (s)	17.0		72.7	7.3	19.6	
Level of Service	B		E	A	B	
Approach Delay (s)	17.0			41.0	19.6	
Approach LOS	B			D	B	

Intersection Summary			
HCM 2000 Control Delay	25.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	52.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



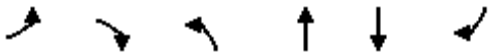
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	175	230	0	0	56	36	96	0	20	0
Future Volume (vph)	0	0	175	230	0	0	56	36	96	0	20	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5			4.5	
Lane Util. Factor		1.00			1.00		1.00	0.95			1.00	
Frt		0.86			1.00		1.00	0.89			1.00	
Flt Protected		1.00			0.95		0.95	1.00			1.00	
Satd. Flow (prot)		1611			1770		1770	3153			1863	
Flt Permitted		1.00			0.64		0.95	1.00			1.00	
Satd. Flow (perm)		1611			1188		1770	3153			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	190	250	0	0	61	39	104	0	22	0
RTOR Reduction (vph)	0	134	0	0	0	0	0	57	0	0	0	0
Lane Group Flow (vph)	0	56	0	0	250	0	61	86	0	0	22	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		10.6			10.6		1.9	16.2			9.8	
Effective Green, g (s)		10.6			10.6		1.9	16.2			9.8	
Actuated g/C Ratio		0.30			0.30		0.05	0.45			0.27	
Clearance Time (s)		4.5			4.5		4.5	4.5			4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		477			351		93	1426			509	
v/s Ratio Prot		0.03					c0.03	c0.03			0.01	
v/s Ratio Perm					c0.21							
v/c Ratio		0.12			0.71		0.66	0.06			0.04	
Uniform Delay, d1		9.2			11.2		16.6	5.5			9.6	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.1			6.7		15.4	0.0			0.0	
Delay (s)		9.3			17.9		32.1	5.5			9.6	
Level of Service		A			B		C	A			A	
Approach Delay (s)		9.3			17.9			13.5			9.6	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	35.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	44.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



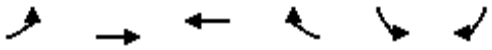
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	155	155	65	72	120	75
Future Volume (vph)	155	155	65	72	120	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	1.00	0.95	
Frt	0.93		1.00	1.00	0.94	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1695		1770	1863	3334	
Flt Permitted	0.98		0.95	1.00	1.00	
Satd. Flow (perm)	1695		1770	1863	3334	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	168	168	71	78	130	82
RTOR Reduction (vph)	60	0	0	0	62	0
Lane Group Flow (vph)	276	0	71	78	150	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	Prot		Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases						
Actuated Green, G (s)	11.1		3.7	17.2	9.0	
Effective Green, g (s)	11.1		3.7	17.2	9.0	
Actuated g/C Ratio	0.30		0.10	0.46	0.24	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	504		175	859	804	
v/s Ratio Prot	c0.16		c0.04	0.04	c0.04	
v/s Ratio Perm						
v/c Ratio	0.55		0.41	0.09	0.19	
Uniform Delay, d1	11.0		15.8	5.7	11.2	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.2		1.5	0.0	0.1	
Delay (s)	12.2		17.3	5.7	11.4	
Level of Service	B		B	A	B	
Approach Delay (s)	12.2			11.2	11.4	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	37.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	10	5	127	270	5
Future Volume (vph)	10	10	5	127	270	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	1.00	0.95	
Frt	0.93		1.00	1.00	1.00	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1695		1770	1863	3530	
Flt Permitted	0.98		0.95	1.00	1.00	
Satd. Flow (perm)	1695		1770	1863	3530	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	5	138	293	5
RTOR Reduction (vph)	11	0	0	0	1	0
Lane Group Flow (vph)	11	0	5	138	297	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	Prot		Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases						
Actuated Green, G (s)	0.9		0.8	27.5	22.2	
Effective Green, g (s)	0.9		0.8	27.5	22.2	
Actuated g/C Ratio	0.02		0.02	0.74	0.59	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	40		37	1369	2095	
v/s Ratio Prot	c0.01		0.00	c0.07	c0.08	
v/s Ratio Perm						
v/c Ratio	0.28		0.14	0.10	0.14	
Uniform Delay, d1	17.9		18.0	1.4	3.4	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	3.8		1.7	0.0	0.0	
Delay (s)	21.8		19.6	1.4	3.4	
Level of Service	C		B	A	A	
Approach Delay (s)	21.8			2.1	3.4	
Approach LOS	C			A	A	

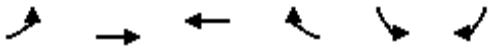
Intersection Summary			
HCM 2000 Control Delay	3.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.15		
Actuated Cycle Length (s)	37.4	Sum of lost time (s)	13.5
Intersection Capacity Utilization	18.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1465	474	28	0	19
Future Volume (Veh/h)	0	1465	474	28	0	19
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1592	515	30	0	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		695	660			
pX, platoon unblocked					0.61	
vC, conflicting volume	545				2122	187
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	545				2512	187
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	97
cM capacity (veh/h)	1020				14	824

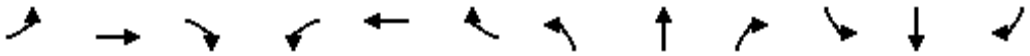
Direction, Lane #	EB 1	WB 1	WB 2	WB 3	SB 1
Volume Total	1592	206	206	133	21
Volume Left	0	0	0	0	0
Volume Right	0	0	0	30	21
cSH	1700	1700	1700	1700	824
Volume to Capacity	0.94	0.12	0.12	0.08	0.03
Queue Length 95th (ft)	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	9.5
Lane LOS					A
Approach Delay (s)	0.0	0.0			9.5
Approach LOS					A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	80.4%	ICU Level of Service	D
Analysis Period (min)	15		



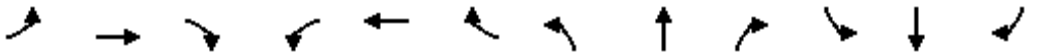
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	100	1365	483	30	100	19
Future Volume (vph)	100	1365	483	30	100	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1641	1727	1713		1641	1468
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1641	1727	1713		1641	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	1484	525	33	109	21
RTOR Reduction (vph)	0	0	1	0	0	19
Lane Group Flow (vph)	109	1484	557	0	109	2
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	14.4	126.0	107.6		13.7	13.7
Effective Green, g (s)	14.4	126.0	107.6		13.7	13.7
Actuated g/C Ratio	0.10	0.85	0.73		0.09	0.09
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	159	1473	1247		152	136
v/s Ratio Prot	0.07	c0.86	0.32		c0.07	
v/s Ratio Perm						0.00
v/c Ratio	0.69	1.01	0.45		0.72	0.01
Uniform Delay, d1	64.5	10.8	8.1		65.1	60.9
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	11.6	25.3	0.3		14.9	0.0
Delay (s)	76.0	36.1	8.3		80.0	60.9
Level of Service	E	D	A		F	E
Approach Delay (s)		38.9	8.3		76.9	
Approach LOS		D	A		E	

Intersection Summary			
HCM 2000 Control Delay	33.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	147.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



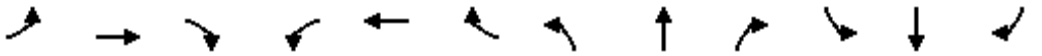
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	13	101	5	5	23	75	56	11	14	51	93
Future Volume (vph)	96	13	101	5	5	23	75	56	11	14	51	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.98		0.99		1.00	1.00			0.99	
Flpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85		0.91		1.00	0.98			0.92	
Flt Protected	0.95	0.96	1.00		0.99		0.95	1.00			1.00	
Satd. Flow (prot)	1681	1693	1545		1646		1764	1817			1682	
Flt Permitted	0.95	0.96	1.00		0.99		0.68	1.00			0.97	
Satd. Flow (perm)	1681	1693	1545		1646		1268	1817			1634	
Peak-hour factor, PHF	0.72	0.72	0.72	0.46	0.46	0.46	0.83	0.83	0.83	0.67	0.67	0.67
Adj. Flow (vph)	133	18	140	11	11	50	90	67	13	21	76	139
RTOR Reduction (vph)	0	0	105	0	45	0	0	9	0	0	72	0
Lane Group Flow (vph)	74	77	35	0	27	0	90	71	0	0	164	0
Confl. Peds. (#/hr)			1	1			7					7
Confl. Bikes (#/hr)			2			3						
Heavy Vehicles (%)	2%	5%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Split	NA	Perm	Split	NA		Perm	NA		Perm	NA	
Protected Phases	2	2		1	1			8			4	
Permitted Phases			2				8			4		
Actuated Green, G (s)	9.7	9.7	9.7		3.6		10.9	10.9			10.6	
Effective Green, g (s)	9.7	9.7	9.7		3.6		10.9	10.9			10.6	
Actuated g/C Ratio	0.25	0.25	0.25		0.09		0.28	0.28			0.27	
Clearance Time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Vehicle Extension (s)	2.9	2.9	2.9		2.9		3.8	3.8			4.5	
Lane Grp Cap (vph)	419	422	385		152		355	509			445	
v/s Ratio Prot	0.04	c0.05			c0.02			0.04				
v/s Ratio Perm			0.02				0.07				c0.10	
v/c Ratio	0.18	0.18	0.09		0.18		0.25	0.14			0.37	
Uniform Delay, d1	11.5	11.5	11.2		16.3		10.8	10.5			11.4	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.2	0.2	0.1		0.5		0.5	0.2			0.9	
Delay (s)	11.7	11.7	11.3		16.8		11.3	10.6			12.3	
Level of Service	B	B	B		B		B	B			B	
Approach Delay (s)		11.5			16.8			11.0			12.3	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	38.9	Sum of lost time (s)	15.0
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



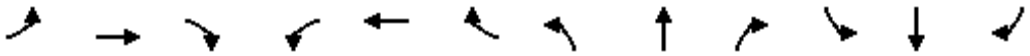
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	304	93	98	380	13	32	0	50	3	2	24
Future Volume (vph)	37	304	93	98	380	13	32	0	50	3	2	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	5.4		4.4	5.6		4.4		4.9	4.4	4.9	
Lane Util. Factor	1.00	0.95		0.97	0.91		1.00		1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		0.99	1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		1.00	1.00	1.00	
Frt	1.00	0.96		1.00	0.99		1.00		0.85	1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)	1770	3403		3433	5055		1769		1563	1768	1588	
Flt Permitted	0.95	1.00		0.95	1.00		1.00		1.00	1.00	1.00	
Satd. Flow (perm)	1770	3403		3433	5055		1862		1563	1861	1588	
Peak-hour factor, PHF	0.98	0.98	0.98	0.94	0.94	0.94	0.79	0.79	0.79	0.73	0.73	0.73
Adj. Flow (vph)	38	310	95	104	404	14	41	0	63	4	3	33
RTOR Reduction (vph)	0	26	0	0	3	0	0	0	58	0	31	0
Lane Group Flow (vph)	38	379	0	104	415	0	41	0	5	4	5	0
Confl. Peds. (#/hr)			3			6	1		3	3		1
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		pm+pt		Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	1.7	19.2		2.7	20.0		4.6		3.4	3.4	2.8	
Effective Green, g (s)	1.7	19.2		2.7	20.0		4.6		3.4	3.4	2.8	
Actuated g/C Ratio	0.04	0.43		0.06	0.44		0.10		0.08	0.08	0.06	
Clearance Time (s)	4.4	5.4		4.4	5.6		4.4		4.9	4.4	4.9	
Vehicle Extension (s)	2.0	5.4		2.0	5.4		2.0		5.6	2.0	2.0	
Lane Grp Cap (vph)	66	1451		205	2246		187		118	139	98	
v/s Ratio Prot	0.02	c0.11		c0.03	0.08		c0.01			0.00	0.00	
v/s Ratio Perm							c0.02		0.00	0.00		
v/c Ratio	0.58	0.26		0.51	0.18		0.22		0.04	0.03	0.05	
Uniform Delay, d1	21.3	8.3		20.5	7.6		18.6		19.3	19.3	19.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00		1.00	1.00	1.00	
Incremental Delay, d2	7.3	0.2		0.7	0.1		0.2		0.4	0.0	0.1	
Delay (s)	28.6	8.6		21.2	7.7		18.8		19.6	19.3	19.9	
Level of Service	C	A		C	A		B		B	B	B	
Approach Delay (s)		10.3			10.4			19.3			19.9	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	11.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	19.3
Intersection Capacity Utilization	38.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	3	8	808	10	243	1	357	259	182	161	2
Future Volume (vph)	1	3	8	808	10	243	1	357	259	182	161	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1555	3335	3539	1562	1770	3539	1538	3433	3539	1560
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1555	3335	3539	1562	1770	3539	1538	3433	3539	1560
Peak-hour factor, PHF	0.75	0.75	0.75	0.85	0.85	0.85	0.93	0.93	0.93	0.90	0.90	0.90
Adj. Flow (vph)	1	4	11	951	12	286	1	384	278	202	179	2
RTOR Reduction (vph)	0	0	10	0	0	211	0	0	136	0	0	1
Lane Group Flow (vph)	1	4	1	951	12	75	1	384	142	202	179	1
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)			5			1						4
Heavy Vehicles (%)	2%	2%	2%	5%	2%	2%	2%	2%	5%	2%	2%	2%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.7	1.7	3.4	20.1	19.0	19.0	1.7	16.9	37.0	11.2	26.4	26.4
Effective Green, g (s)	1.7	1.7	3.4	20.1	19.0	19.0	1.7	16.9	37.0	11.2	26.4	26.4
Actuated g/C Ratio	0.02	0.02	0.05	0.28	0.26	0.26	0.02	0.23	0.51	0.16	0.37	0.37
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Vehicle Extension (s)	2.0	2.0	2.0	3.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0
Lane Grp Cap (vph)	41	83	73	928	931	411	41	828	788	532	1294	570
v/s Ratio Prot	0.00	0.00	0.00	c0.29	0.00		0.00	c0.11	0.05	c0.06	0.05	
v/s Ratio Perm			0.00			c0.05			0.04			0.00
v/c Ratio	0.02	0.05	0.01	1.02	0.01	0.18	0.02	0.46	0.18	0.38	0.14	0.00
Uniform Delay, d1	34.4	34.5	32.8	26.1	19.7	20.6	34.4	23.8	9.5	27.4	15.3	14.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.1	0.0	36.0	0.0	0.1	0.1	0.4	0.1	0.2	0.0	0.0
Delay (s)	34.5	34.5	32.8	62.0	19.7	20.7	34.5	24.2	9.6	27.5	15.3	14.5
Level of Service	C	C	C	E	B	C	C	C	A	C	B	B
Approach Delay (s)		33.3			52.2			18.1			21.8	
Approach LOS		C			D			B			C	

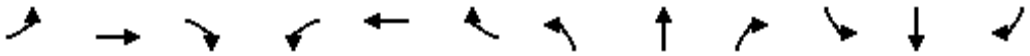
Intersection Summary			
HCM 2000 Control Delay	37.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	72.2	Sum of lost time (s)	23.4
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	134	2	73	114	544	0	0	145	832
Future Volume (vph)	0	0	0	134	2	73	114	544	0	0	145	832
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.1	5.1	4.7	5.1			5.1	
Lane Util. Factor					1.00	1.00	1.00	0.91			0.91	
Frpb, ped/bikes					1.00	1.00	1.00	1.00			0.97	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.87	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1725	1538	1719	4940			4187	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1725	1538	1719	4940			4187	
Peak-hour factor, PHF	0.92	0.92	0.92	0.80	0.80	0.80	0.93	0.93	0.93	0.85	0.85	0.85
Adj. Flow (vph)	0	0	0	168	2	91	123	585	0	0	171	979
RTOR Reduction (vph)	0	0	0	0	0	76	0	0	0	0	472	0
Lane Group Flow (vph)	0	0	0	0	171	15	123	585	0	0	678	0
Confl. Peds. (#/hr)												9
Confl. Bikes (#/hr)												5
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8						
Actuated Green, G (s)					8.4	8.4	5.7	31.4			21.0	
Effective Green, g (s)					8.4	8.4	5.7	31.4			21.0	
Actuated g/C Ratio					0.17	0.17	0.11	0.63			0.42	
Clearance Time (s)					5.1	5.1	4.7	5.1			5.1	
Vehicle Extension (s)					3.0	3.0	2.0	3.0			3.0	
Lane Grp Cap (vph)					289	258	195	3102			1758	
v/s Ratio Prot							c0.07	0.12			c0.16	
v/s Ratio Perm					0.10	0.01						
v/c Ratio					0.59	0.06	0.63	0.19			0.85dr	
Uniform Delay, d1					19.2	17.5	21.1	3.9			10.0	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					3.2	0.1	4.8	0.0			0.1	
Delay (s)					22.4	17.6	26.0	4.0			10.2	
Level of Service					C	B	C	A			B	
Approach Delay (s)		0.0			20.8			7.8			10.2	
Approach LOS		A			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	14.9
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		

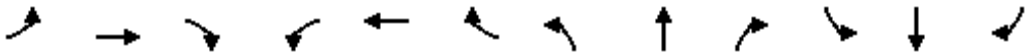
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	529	2	137	0	0	0	0	130	170	72	215	0
Future Volume (vph)	529	2	137	0	0	0	0	130	170	72	215	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1						5.1		4.7	5.1	
Lane Util. Factor	1.00	1.00						0.91		1.00	0.95	
Frpb, ped/bikes	1.00	1.00						0.98		1.00	1.00	
Flpb, ped/bikes	1.00	1.00						1.00		1.00	1.00	
Frt	1.00	0.85						0.92		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (prot)	1641	1472						4242		1641	3282	
Flt Permitted	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (perm)	1641	1472						4242		1641	3282	
Peak-hour factor, PHF	0.95	0.95	0.95	0.92	0.92	0.92	0.79	0.79	0.79	0.82	0.82	0.82
Adj. Flow (vph)	557	2	144	0	0	0	0	165	215	88	262	0
RTOR Reduction (vph)	0	79	0	0	0	0	0	178	0	0	0	0
Lane Group Flow (vph)	557	67	0	0	0	0	0	202	0	88	262	0
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)									4			
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4											
Actuated Green, G (s)	22.6	22.6						8.5		3.9	17.1	
Effective Green, g (s)	22.6	22.6						8.5		3.9	17.1	
Actuated g/C Ratio	0.45	0.45						0.17		0.08	0.34	
Clearance Time (s)	5.1	5.1						5.1		4.7	5.1	
Vehicle Extension (s)	3.0	3.0						3.0		2.0	3.0	
Lane Grp Cap (vph)	743	666						722		128	1124	
v/s Ratio Prot		0.05						0.05		c0.05	c0.08	
v/s Ratio Perm	c0.34											
v/c Ratio	0.75	0.10						0.28		0.69	0.23	
Uniform Delay, d1	11.3	7.8						18.0		22.4	11.7	
Progression Factor	1.00	1.00						1.00		1.00	1.00	
Incremental Delay, d2	4.2	0.1						0.2		11.6	0.1	
Delay (s)	15.5	7.9						18.2		34.0	11.8	
Level of Service	B	A						B		C	B	
Approach Delay (s)		13.9			0.0			18.2			17.4	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	49.9	Sum of lost time (s)	14.9
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		

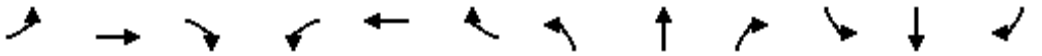
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	222	0	0	0	0	8	2	79	2	5	49	325
Future Volume (vph)	222	0	0	0	0	8	2	79	2	5	49	325
Peak Hour Factor	0.84	0.84	0.84	0.67	0.67	0.67	0.71	0.71	0.71	0.91	0.91	0.91
Hourly flow rate (vph)	264	0	0	0	0	12	3	111	3	5	54	357

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	176	88	0	12	3	114	5	411
Volume Left (vph)	176	88	0	0	3	0	5	0
Volume Right (vph)	0	0	0	12	0	3	0	357
Hadj (s)	0.58	0.58	0.00	-0.53	0.67	0.07	0.67	-0.51
Departure Headway (s)	6.4	6.4	6.3	5.7	6.5	5.9	6.2	5.0
Degree Utilization, x	0.31	0.16	0.00	0.02	0.01	0.19	0.01	0.57
Capacity (veh/h)	529	527	531	557	523	578	555	700
Control Delay (s)	11.2	9.4	8.1	7.6	8.3	9.0	8.1	13.3
Approach Delay (s)	10.6		7.6		9.0		13.2	
Approach LOS	B		A		A		B	

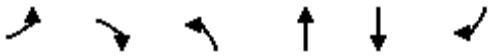
Intersection Summary				
Delay	11.7			
Level of Service	B			
Intersection Capacity Utilization	42.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	463	2	0	604	84	0	0	1	0	0	143
Future Volume (Veh/h)	0	463	2	0	604	84	0	0	1	0	0	143
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.92	0.92	0.92	0.25	0.25	0.25	0.62	0.62	0.62
Hourly flow rate (vph)	0	532	2	0	657	91	0	0	4	0	0	231
Pedestrians		1									1	
Lane Width (ft)		12.0									12.0	
Walking Speed (ft/s)		4.0									4.0	
Percent Blockage		0									0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	749			534			984	1282	178	839	1192	221
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	749			534			984	1282	178	839	1192	221
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	100	100	100	100	70
cM capacity (veh/h)	804			976			133	153	809	244	174	757

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	213	213	108	219	219	219	91	4	231
Volume Left	0	0	0	0	0	0	0	0	0
Volume Right	0	0	2	0	0	0	91	4	231
cSH	1700	1700	1700	1700	1700	1700	1700	809	757
Volume to Capacity	0.13	0.13	0.06	0.13	0.13	0.13	0.05	0.00	0.30
Queue Length 95th (ft)	0	0	0	0	0	0	0	0	32
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5	11.8
Lane LOS								A	B
Approach Delay (s)	0.0			0.0				9.5	11.8
Approach LOS								A	B

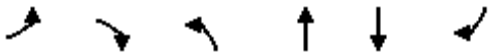
Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	27.5%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	98	54	74	289	353	189
Future Volume (vph)	98	54	74	289	353	189
Peak Hour Factor	0.68	0.68	0.76	0.76	0.95	0.95
Hourly flow rate (vph)	144	79	97	380	372	199

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	144	79	97	380	372	199
Volume Left (vph)	144	0	97	0	0	0
Volume Right (vph)	0	79	0	0	0	199
Hadj (s)	0.53	-0.67	0.53	0.17	0.17	-0.67
Departure Headway (s)	7.5	6.3	6.6	6.2	6.1	5.3
Degree Utilization, x	0.30	0.14	0.18	0.65	0.63	0.29
Capacity (veh/h)	446	523	528	560	576	658
Control Delay (s)	12.5	9.1	9.8	19.0	17.9	9.2
Approach Delay (s)	11.3		17.1		14.9	
Approach LOS	B		C		B	

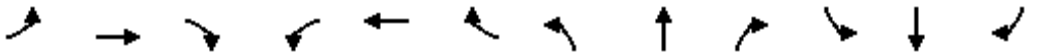
Intersection Summary			
Delay	15.1		
Level of Service	C		
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	65	399	337	140	219	71
Future Volume (vph)	65	399	337	140	219	71
Peak Hour Factor	0.86	0.86	0.91	0.91	0.85	0.85
Hourly flow rate (vph)	76	464	370	154	258	84

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total (vph)	540	370	154	342
Volume Left (vph)	76	370	0	0
Volume Right (vph)	464	0	0	84
Hadj (s)	-0.32	0.67	0.17	0.02
Departure Headway (s)	6.1	7.8	7.3	6.9
Degree Utilization, x	0.91	0.80	0.31	0.66
Capacity (veh/h)	540	453	482	497
Control Delay (s)	43.6	34.0	12.3	22.1
Approach Delay (s)	43.6	27.6		22.1
Approach LOS	E	D		C

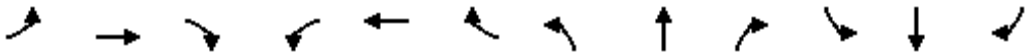
Intersection Summary			
Delay	32.4		
Level of Service	D		
Intersection Capacity Utilization	73.0%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	118	316	74	62	315	357	140	57	114	450	51	233
Future Volume (vph)	118	316	74	62	315	357	140	57	114	450	51	233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.97	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1412	3183	4715	1417	1641	1533		1641	1727	2584
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1412	3183	4715	1417	1641	1533		1641	1727	2584
Peak-hour factor, PHF	0.88	0.88	0.88	0.76	0.76	0.76	0.93	0.93	0.93	0.70	0.70	0.70
Adj. Flow (vph)	134	359	84	82	414	470	151	61	123	643	73	333
RTOR Reduction (vph)	0	0	64	0	0	352	0	62	0	0	0	216
Lane Group Flow (vph)	134	359	20	82	414	118	151	122	0	643	73	117
Confl. Peds. (#/hr)						11			1			
Confl. Bikes (#/hr)			12			13			5			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	4.0	26.7	26.7	4.7	27.7	27.7	24.4	16.3		41.1	33.0	37.0
Effective Green, g (s)	4.0	26.7	26.7	4.7	27.7	27.7	24.4	16.3		41.1	33.0	37.0
Actuated g/C Ratio	0.04	0.24	0.24	0.04	0.25	0.25	0.22	0.15		0.37	0.30	0.34
Clearance Time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	2.0	4.1	4.1	2.0	4.5	4.5	2.0	4.3		2.0	3.7	2.0
Lane Grp Cap (vph)	115	1143	342	135	1186	356	363	226		612	517	868
v/s Ratio Prot	c0.04	0.08		0.03	c0.09		0.09	c0.08		c0.39	0.04	0.00
v/s Ratio Perm			0.01			0.08						0.04
v/c Ratio	1.17	0.31	0.06	0.61	0.35	0.33	0.42	0.54		1.05	0.14	0.14
Uniform Delay, d1	53.0	34.2	32.1	51.8	33.8	33.6	36.7	43.4		34.5	28.2	25.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	135.1	0.2	0.1	5.2	0.3	1.0	0.3	3.5		50.4	0.2	0.0
Delay (s)	188.1	34.4	32.2	57.0	34.1	34.6	37.0	47.0		84.9	28.3	25.4
Level of Service	F	C	C	E	C	C	D	D		F	C	C
Approach Delay (s)		69.8			36.3			42.5			62.1	
Approach LOS		E			D			D			E	

Intersection Summary			
HCM 2000 Control Delay	52.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	110.1	Sum of lost time (s)	21.3
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



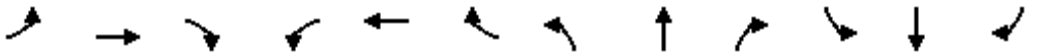
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	4	0	0	0	0	117	0	1	0	59	0	0
Future Volume (vph)	4	0	0	0	0	117	0	1	0	59	0	0
Peak Hour Factor	0.50	0.50	0.50	0.53	0.53	0.53	0.25	0.25	0.25	0.59	0.59	0.59
Hourly flow rate (vph)	8	0	0	0	0	221	0	4	0	100	0	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	8	221	4	100
Volume Left (vph)	8	0	0	100
Volume Right (vph)	0	221	0	0
Hadj (s)	0.37	-0.43	0.17	0.37
Departure Headway (s)	4.7	3.7	4.7	4.7
Degree Utilization, x	0.01	0.23	0.01	0.13
Capacity (veh/h)	731	938	725	717
Control Delay (s)	7.8	7.9	7.7	8.5
Approach Delay (s)	7.8	7.9	7.7	8.5
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.0		
Level of Service	A		
Intersection Capacity Utilization	24.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	0	500	0	0	360
Future Volume (vph)	0	0	500	0	0	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.5			4.5
Lane Util. Factor			1.00			1.00
Frt			1.00			0.85
Flt Protected			0.95			1.00
Satd. Flow (prot)			1770			1583
Flt Permitted			0.76			1.00
Satd. Flow (perm)			1410			1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	543	0	0	391
RTOR Reduction (vph)	0	0	0	0	0	325
Lane Group Flow (vph)	0	0	543	0	0	66
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type			Perm		Perm	Perm
Protected Phases	4			8		
Permitted Phases			8		2	2
Actuated Green, G (s)			18.4			5.6
Effective Green, g (s)			18.4			5.6
Actuated g/C Ratio			0.56			0.17
Clearance Time (s)			4.5			4.5
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			786			268
v/s Ratio Prot						
v/s Ratio Perm			c0.38			c0.04
v/c Ratio			0.69			0.25
Uniform Delay, d1			5.3			11.9
Progression Factor			1.00			1.00
Incremental Delay, d2			2.6			0.5
Delay (s)			7.9			12.4
Level of Service			A			B
Approach Delay (s)	0.0			7.9	12.4	
Approach LOS	A			A	B	

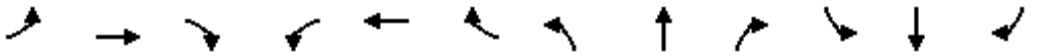
Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	33.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	31.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	844	37	141	710	64	41	2	197	102	5	8
Future Volume (vph)	2	844	37	141	710	64	41	2	197	102	5	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.5		4.0	6.5		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	4680		1641	4648		1641	1727	1468	1641	1727	1468
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1641	4680		1641	4648		1641	1727	1468	1641	1727	1468
Peak-hour factor, PHF	0.86	0.86	0.86	0.84	0.84	0.84	0.88	0.88	0.88	0.42	0.42	0.42
Adj. Flow (vph)	2	981	43	168	845	76	47	2	224	243	12	19
RTOR Reduction (vph)	0	3	0	0	5	0	0	0	212	0	0	16
Lane Group Flow (vph)	2	1021	0	168	916	0	47	2	12	243	12	3
Confl. Peds. (#/hr)			1									
Confl. Bikes (#/hr)			5			7						
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			4
Actuated Green, G (s)	1.1	63.9		18.7	81.5		14.6	7.6	7.6	31.3	24.3	24.3
Effective Green, g (s)	1.1	63.9		18.7	81.5		14.6	7.6	7.6	31.3	24.3	24.3
Actuated g/C Ratio	0.01	0.46		0.13	0.58		0.10	0.05	0.05	0.22	0.17	0.17
Clearance Time (s)	4.0	6.5		4.0	6.5		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	2.0	5.3		2.0	5.3		2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	12	2136		219	2705		171	93	79	366	299	254
v/s Ratio Prot	0.00	c0.22		c0.10	0.20		0.03	0.00		c0.15	0.01	
v/s Ratio Perm									c0.01			0.00
v/c Ratio	0.17	0.48		0.77	0.34		0.27	0.02	0.15	0.66	0.04	0.01
Uniform Delay, d1	69.0	26.5		58.5	15.2		57.8	62.7	63.1	49.6	48.1	47.9
Progression Factor	1.00	1.00		1.21	0.56		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.4	0.8		9.2	0.2		0.3	0.0	0.3	3.5	0.0	0.0
Delay (s)	71.4	27.2		80.1	8.7		58.1	62.7	63.5	53.0	48.2	47.9
Level of Service	E	C		F	A		E	E	E	D	D	D
Approach Delay (s)		27.3			19.7			62.5			52.5	
Approach LOS		C			B			E			D	

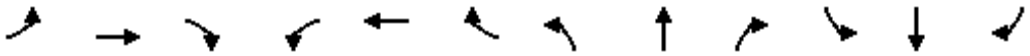
Intersection Summary			
HCM 2000 Control Delay	30.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	645	50	360	1156	416	50	10	247	270	10	20
Future Volume (vph)	50	645	50	360	1156	416	50	10	247	270	10	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.97	0.86	0.86	0.97	0.91	0.88	1.00	1.00		0.97	0.91	0.91
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.94	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4452	1263	3183	4715	2584	1641	1479		3183	2969	1336
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4452	1263	3183	4715	2584	1641	1479		3183	2969	1336
Peak-hour factor, PHF	0.92	0.92	0.92	0.88	0.92	0.88	0.92	0.86	0.86	0.58	0.58	0.92
Adj. Flow (vph)	54	701	54	409	1257	473	54	12	287	466	17	22
RTOR Reduction (vph)	0	1	34	0	0	216	0	214	0	0	7	9
Lane Group Flow (vph)	54	705	15	409	1257	257	54	85	0	466	20	3
Confl. Peds. (#/hr)				1						1		
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2			6						8
Actuated Green, G (s)	4.5	31.0	31.0	18.4	44.9	44.9	4.5	12.2		20.9	28.6	28.6
Effective Green, g (s)	4.5	31.0	31.0	18.4	44.9	44.9	4.5	12.2		20.9	28.6	28.6
Actuated g/C Ratio	0.04	0.31	0.31	0.18	0.45	0.45	0.04	0.12		0.21	0.28	0.28
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	142	1373	389	582	2106	1154	73	179		661	844	380
v/s Ratio Prot	0.02	0.16		c0.13	c0.27		0.03	c0.06		c0.15	0.01	
v/s Ratio Perm			0.01			0.10						0.00
v/c Ratio	0.38	0.51	0.04	0.70	0.60	0.22	0.74	0.48		0.70	0.02	0.01
Uniform Delay, d1	46.6	28.6	24.3	38.5	21.0	17.1	47.4	41.2		36.9	25.9	25.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.7	0.3	0.0	3.8	0.5	0.1	32.0	2.0		3.4	0.0	0.0
Delay (s)	48.3	28.9	24.4	42.3	21.4	17.2	79.4	43.2		40.4	25.9	25.8
Level of Service	D	C	C	D	C	B	E	D		D	C	C
Approach Delay (s)		29.9			24.5			48.7			39.2	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	29.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	64.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	1	37	0	292	1	97	112	179	68	1
Future Volume (vph)	0	0	1	37	0	292	1	97	112	179	68	1
Peak Hour Factor	0.25	0.25	0.25	0.60	0.60	0.60	0.85	0.85	0.85	0.68	0.68	0.68
Hourly flow rate (vph)	0	0	4	62	0	487	1	114	132	263	100	1

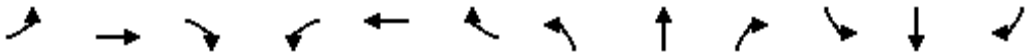
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	4	549	247	364
Volume Left (vph)	0	62	1	263
Volume Right (vph)	4	487	132	1
Hadj (s)	-0.52	-0.34	-0.15	0.31
Departure Headway (s)	6.5	5.4	6.1	6.3
Degree Utilization, x	0.01	0.83	0.42	0.64
Capacity (veh/h)	456	645	538	542
Control Delay (s)	9.6	29.2	13.5	19.9
Approach Delay (s)	9.6	29.2	13.5	19.9
Approach LOS	A	D	B	C

Intersection Summary				
Delay	22.9			
Level of Service	C			
Intersection Capacity Utilization	62.4%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	238	905	738	287	628	347
Future Volume (vph)	238	905	738	287	628	347
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	1641	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	1641	4715	3183	1468
Peak-hour factor, PHF	0.86	0.86	0.78	0.78	0.86	0.86
Adj. Flow (vph)	277	1052	946	368	730	403
RTOR Reduction (vph)	0	320	0	0	0	303
Lane Group Flow (vph)	277	732	946	368	730	100
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	70.7	70.7	24.3	99.0	30.5	30.5
Effective Green, g (s)	70.7	70.7	24.3	99.0	30.5	30.5
Actuated g/C Ratio	0.51	0.51	0.17	0.71	0.22	0.22
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	2381	741	284	3334	693	319
v/s Ratio Prot	0.06		c0.58	0.08	c0.23	
v/s Ratio Perm		c0.50				0.07
v/c Ratio	0.12	0.99	3.33	0.11	1.05	0.31
Uniform Delay, d1	18.2	34.2	57.9	6.5	54.8	45.9
Progression Factor	1.28	3.09	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	28.3	1057.9	0.1	49.1	0.2
Delay (s)	23.5	133.9	1115.8	6.6	103.9	46.1
Level of Service	C	F	F	A	F	D
Approach Delay (s)	110.9			805.1	83.3	
Approach LOS	F			F	F	

Intersection Summary			
HCM 2000 Control Delay	344.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.46		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	105.7%	ICU Level of Service	G
Analysis Period (min)	15		

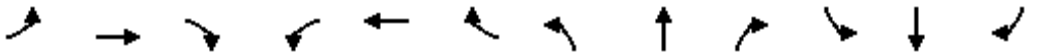
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	135	1	108	765	853	0	0	1241	322
Future Volume (vph)	0	0	0	135	1	108	765	853	0	0	1241	322
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1	4.7	5.1			5.1	
Lane Util. Factor				1.00	0.95	0.95	0.97	0.91			0.91	
Frpb, ped/bikes				1.00	0.99	0.99	1.00	1.00			1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00	
Frt				1.00	0.85	0.85	1.00	1.00			0.97	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1641	1379	1375	3183	4715			4558	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1641	1379	1375	3183	4715			4558	
Peak-hour factor, PHF	0.92	0.92	0.92	0.90	0.90	0.90	0.83	0.83	0.83	0.86	0.86	0.86
Adj. Flow (vph)	0	0	0	150	1	120	922	1028	0	0	1443	374
RTOR Reduction (vph)	0	0	0	0	52	52	0	0	0	0	45	0
Lane Group Flow (vph)	0	0	0	150	9	8	922	1028	0	0	1772	0
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)												1
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8						
Actuated Green, G (s)				13.2	13.2	13.2	29.4	73.8			39.7	
Effective Green, g (s)				13.2	13.2	13.2	29.4	73.8			39.7	
Actuated g/C Ratio				0.14	0.14	0.14	0.30	0.76			0.41	
Clearance Time (s)				5.1	5.1	5.1	4.7	5.1			5.1	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				222	187	186	962	3579			1861	
v/s Ratio Prot					0.01		c0.29	0.22			c0.39	
v/s Ratio Perm				c0.09		0.01						
v/c Ratio				0.68	0.05	0.04	0.96	0.29			0.95	
Uniform Delay, d1				40.0	36.5	36.5	33.3	3.6			27.8	
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2				7.9	0.1	0.1	19.5	0.0			11.5	
Delay (s)				47.8	36.6	36.6	52.8	3.6			39.4	
Level of Service				D	D	D	D	A			D	
Approach Delay (s)		0.0			42.8			26.9			39.4	
Approach LOS		A			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	33.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	97.2	Sum of lost time (s)	14.9
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		

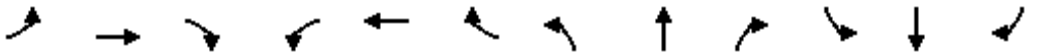
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	1	640	0	0	0	0	1541	151	150	1226	0
Future Volume (vph)	77	1	640	0	0	0	0	1541	151	150	1226	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1	5.1					5.1		4.7	5.1	
Lane Util. Factor		1.00	0.88					0.95		0.97	0.91	
Frt		1.00	0.85					0.99		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1646	2584					3238		3183	4715	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		1646	2584					3238		3183	4715	
Peak-hour factor, PHF	0.87	0.87	0.87	0.92	0.92	0.92	0.84	0.84	0.84	0.92	0.92	0.92
Adj. Flow (vph)	89	1	736	0	0	0	0	1835	180	163	1333	0
RTOR Reduction (vph)	0	0	114	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	90	622	0	0	0	0	2009	0	163	1333	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)		29.9	29.9					77.7		7.5	89.9	
Effective Green, g (s)		29.9	29.9					77.7		7.5	89.9	
Actuated g/C Ratio		0.23	0.23					0.60		0.06	0.69	
Clearance Time (s)		5.1	5.1					5.1		4.7	5.1	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		378	594					1935		183	3260	
v/s Ratio Prot								c0.62		c0.05	0.28	
v/s Ratio Perm		0.05	c0.24									
v/c Ratio		0.24	1.05					1.04		0.89	0.41	
Uniform Delay, d1		40.8	50.1					26.1		60.8	8.6	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		0.3	49.9					31.2		37.5	0.1	
Delay (s)		41.1	99.9					57.4		98.3	8.7	
Level of Service		D	F					E		F	A	
Approach Delay (s)		93.5			0.0			57.4			18.5	
Approach LOS		F			A			E			B	

Intersection Summary			
HCM 2000 Control Delay	50.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.9
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		

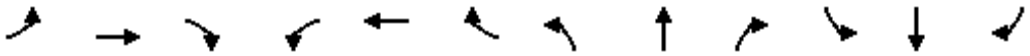
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1025	160	58	29	238	277	90	342	31	185	146	1556
Future Volume (vph)	1025	160	58	29	238	277	90	342	31	185	146	1556
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9			5.1	5.1	4.4	4.9		4.4	5.1	5.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.98	1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96			1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	1653			1718	1442	1641	3241		1641	1727	1437
Flt Permitted	0.95	1.00			0.94	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1641	1653			1623	1442	1641	3241		1641	1727	1437
Peak-hour factor, PHF	0.89	0.89	0.89	0.79	0.79	0.79	0.79	0.79	0.79	0.89	0.89	0.89
Adj. Flow (vph)	1152	180	65	37	301	351	114	433	39	208	164	1748
RTOR Reduction (vph)	0	7	0	0	0	194	0	5	0	0	0	393
Lane Group Flow (vph)	1152	238	0	0	338	157	114	467	0	208	164	1355
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)			1			1						1
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases						6						8
Actuated Green, G (s)	46.6	57.0			30.9	20.9	12.1	47.6		15.6	50.9	50.9
Effective Green, g (s)	46.6	57.0			30.9	20.9	12.1	47.6		15.6	50.9	50.9
Actuated g/C Ratio	0.31	0.38			0.21	0.14	0.08	0.32		0.10	0.34	0.34
Clearance Time (s)	4.4	4.9			5.1	5.1	4.4	4.9		4.4	5.1	5.1
Vehicle Extension (s)	2.0	3.8			3.8	3.8	2.0	3.8		2.0	3.8	3.8
Lane Grp Cap (vph)	511	630			341	201	132	1031		171	587	489
v/s Ratio Prot	c0.70	0.14			0.07		0.07	0.14		c0.13	0.09	
v/s Ratio Perm					c0.14	0.11						c0.94
v/c Ratio	2.25	0.38			0.99	0.78	0.86	0.45		1.22	0.28	2.77
Uniform Delay, d1	51.5	33.4			59.2	62.1	67.9	40.6		67.0	35.9	49.3
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	570.7	0.5			46.2	18.6	39.4	0.4		138.9	0.3	802.6
Delay (s)	622.2	33.9			105.4	80.7	107.2	41.0		205.8	36.3	851.9
Level of Service	F	C			F	F	F	D		F	D	F
Approach Delay (s)		519.0			92.8			53.9			725.4	
Approach LOS		F			F			D			F	

Intersection Summary			
HCM 2000 Control Delay	492.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.18		
Actuated Cycle Length (s)	149.5	Sum of lost time (s)	19.5
Intersection Capacity Utilization	127.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	202	2	6	297	24	6	149	4	22	67	28
Future Volume (vph)	111	202	2	6	297	24	6	149	4	22	67	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00		0.97	0.95	
Frpb, ped/bikes		1.00			1.00	0.99	1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00			1.00	0.85	1.00	1.00		1.00	0.96	
Flt Protected		0.98			1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3222			1725	1447	1641	1720		3183	3107	
Flt Permitted		0.72			0.60	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		2346			1028	1447	1641	1720		3183	3107	
Peak-hour factor, PHF	0.81	0.81	0.81	0.79	0.79	0.79	0.68	0.68	0.68	0.78	0.78	0.78
Adj. Flow (vph)	137	249	2	8	376	30	9	219	6	28	86	36
RTOR Reduction (vph)	0	0	0	0	0	17	0	1	0	0	29	0
Lane Group Flow (vph)	0	388	0	0	384	13	9	224	0	28	93	0
Confl. Peds. (#/hr)												1
Confl. Bikes (#/hr)						5						5
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			1		3	8		7	4	
Permitted Phases	2			1		1						
Actuated Green, G (s)		22.8			49.6	49.6	0.7	21.7		2.2	23.2	
Effective Green, g (s)		22.8			49.6	49.6	0.7	21.7		2.2	23.2	
Actuated g/C Ratio		0.20			0.43	0.43	0.01	0.19		0.02	0.20	
Clearance Time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Vehicle Extension (s)		4.8			4.8	4.8	2.0	3.3		2.0	4.4	
Lane Grp Cap (vph)		463			441	621	9	323		60	624	
v/s Ratio Prot							0.01	c0.13		c0.01	0.03	
v/s Ratio Perm		c0.17			c0.37	0.01						
v/c Ratio		0.84			0.87	0.02	1.00	0.69		0.47	0.15	
Uniform Delay, d1		44.5			30.0	18.9	57.4	43.8		56.0	38.0	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		13.7			18.0	0.0	300.0	6.5		2.1	0.2	
Delay (s)		58.2			48.0	19.0	357.4	50.2		58.1	38.2	
Level of Service		E			D	B	F	D		E	D	
Approach Delay (s)		58.2			45.9			62.0			41.9	
Approach LOS		E			D			E			D	

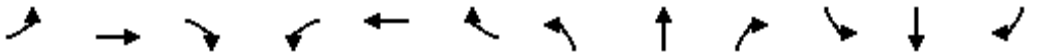
Intersection Summary			
HCM 2000 Control Delay	52.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	115.4	Sum of lost time (s)	19.1
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	398	82	7	485	113	7
Future Volume (vph)	398	82	7	485	113	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		5.7	7.2	6.1	6.1
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4595		1641	4715	1641	1468
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4595		1641	4715	1641	1468
Peak-hour factor, PHF	0.93	0.93	0.79	0.79	0.71	0.71
Adj. Flow (vph)	428	88	9	614	159	10
RTOR Reduction (vph)	26	0	0	0	0	8
Lane Group Flow (vph)	490	0	9	614	159	2
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	21.9		0.9	28.5	10.8	10.8
Effective Green, g (s)	21.9		0.9	28.5	10.8	10.8
Actuated g/C Ratio	0.42		0.02	0.54	0.21	0.21
Clearance Time (s)	7.2		5.7	7.2	6.1	6.1
Vehicle Extension (s)	6.9		2.0	6.9	2.0	2.0
Lane Grp Cap (vph)	1913		28	2554	336	301
v/s Ratio Prot	0.11		0.01	c0.13	c0.10	
v/s Ratio Perm						0.00
v/c Ratio	0.26		0.32	0.24	0.47	0.01
Uniform Delay, d1	10.0		25.5	6.3	18.4	16.6
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2		2.4	0.2	0.4	0.0
Delay (s)	10.3		28.0	6.5	18.8	16.6
Level of Service	B		C	A	B	B
Approach Delay (s)	10.3			6.8	18.7	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	52.6	Sum of lost time (s)	19.0
Intersection Capacity Utilization	28.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	206	112	488	367	71	38	79	262	35	153	66
Future Volume (vph)	52	206	112	488	367	71	38	79	262	35	153	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.88		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	4715	1445	1641	4601		1641	1511		3183	1649	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1641	4715	1445	1641	4601		1641	1511		3183	1649	
Peak-hour factor, PHF	0.86	0.86	0.86	0.76	0.76	0.76	0.72	0.72	0.72	0.88	0.88	0.88
Adj. Flow (vph)	60	240	130	642	483	93	53	110	364	40	174	75
RTOR Reduction (vph)	0	0	115	0	22	0	0	80	0	0	10	0
Lane Group Flow (vph)	60	240	15	642	554	0	53	394	0	40	239	0
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)			2						2			
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	7.4	15.7	15.7	56.1	64.4		7.9	43.0		5.3	41.3	
Effective Green, g (s)	7.4	15.7	15.7	56.1	64.4		7.9	43.0		5.3	41.3	
Actuated g/C Ratio	0.05	0.11	0.11	0.40	0.46		0.06	0.31		0.04	0.29	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	3.2		2.0	5.3	
Lane Grp Cap (vph)	86	528	162	657	2116		92	464		120	486	
v/s Ratio Prot	0.04	c0.05		c0.39	0.12		c0.03	c0.26		0.01	0.14	
v/s Ratio Perm			0.01									
v/c Ratio	0.70	0.45	0.09	0.98	0.26		0.58	0.85		0.33	0.49	
Uniform Delay, d1	65.2	58.1	55.7	41.3	23.2		64.4	45.5		65.6	40.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	18.0	2.8	1.1	29.0	0.3		5.3	13.7		0.6	1.8	
Delay (s)	83.2	61.0	56.8	70.3	23.5		69.7	59.2		66.2	42.5	
Level of Service	F	E	E	E	C		E	E		E	D	
Approach Delay (s)		62.8			48.2			60.3			45.8	
Approach LOS		E			D			E			D	

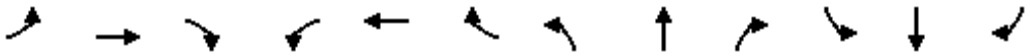
Intersection Summary			
HCM 2000 Control Delay	53.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	114	27	13	110	207	30	245	3	182	159	31
Future Volume (vph)	40	114	27	13	110	207	30	245	3	182	159	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frpb, ped/bikes		1.00			0.99			1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	
Frt		0.98			0.92			1.00		1.00	0.98	
Flt Protected		0.99			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1668			1563			1715		1641	1681	
Flt Permitted		0.78			0.98			0.96		0.56	1.00	
Satd. Flow (perm)		1315			1541			1650		975	1681	
Peak-hour factor, PHF	0.78	0.78	0.78	0.87	0.87	0.87	0.79	0.79	0.79	0.84	0.84	0.84
Adj. Flow (vph)	51	146	35	15	126	238	38	310	4	217	189	37
RTOR Reduction (vph)	0	12	0	0	110	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	220	0	0	269	0	0	352	0	217	217	0
Confl. Peds. (#/hr)							1					1
Confl. Bikes (#/hr)			1			3						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		14.5			14.5			33.3		33.3	33.3	
Effective Green, g (s)		14.5			14.5			33.3		33.3	33.3	
Actuated g/C Ratio		0.26			0.26			0.60		0.60	0.60	
Clearance Time (s)		4.0			4.0			4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		341			400			984		581	1003	
v/s Ratio Prot											0.13	
v/s Ratio Perm		0.17			c0.17			0.21		c0.22		
v/c Ratio		0.65			0.67			0.36		0.37	0.22	
Uniform Delay, d1		18.4			18.5			5.8		5.8	5.2	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		4.2			4.4			1.0		1.8	0.5	
Delay (s)		22.5			23.0			6.8		7.7	5.7	
Level of Service		C			C			A		A	A	
Approach Delay (s)		22.5			23.0			6.8			6.7	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	55.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		

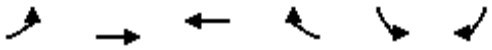
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	43	156	24	26	226	85	0	62	1	71	122	71
Future Volume (vph)	43	156	24	26	226	85	0	62	1	71	122	71
Peak Hour Factor	0.82	0.82	0.82	0.79	0.79	0.79	0.66	0.66	0.66	0.85	0.85	0.85
Hourly flow rate (vph)	52	190	29	33	286	108	0	94	2	84	144	84

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	271	427	96	312
Volume Left (vph)	52	33	0	84
Volume Right (vph)	29	108	2	84
Hadj (s)	0.14	0.03	0.16	0.06
Departure Headway (s)	6.3	5.9	7.0	6.3
Degree Utilization, x	0.47	0.70	0.19	0.55
Capacity (veh/h)	532	591	410	529
Control Delay (s)	14.7	21.2	11.6	16.6
Approach Delay (s)	14.7	21.2	11.6	16.6
Approach LOS	B	C	B	C

Intersection Summary				
Delay	17.5			
Level of Service	C			
Intersection Capacity Utilization	50.5%	ICU Level of Service	A	
Analysis Period (min)	15			



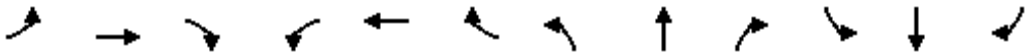
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	112	350	667	94	88	193
Future Volume (vph)	112	350	667	94	88	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00	1.00	0.99	0.99	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	0.92	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (prot)	3183	3282	4715	1447	2987	1311
Flt Permitted	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (perm)	3183	3282	4715	1447	2987	1311
Peak-hour factor, PHF	0.79	0.79	0.77	0.77	0.82	0.82
Adj. Flow (vph)	142	443	866	122	107	235
RTOR Reduction (vph)	0	0	0	71	102	101
Lane Group Flow (vph)	142	443	866	51	123	16
Confl. Bikes (#/hr)				4		4
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	5.1	29.6	19.8	19.8	6.6	6.6
Effective Green, g (s)	5.1	29.6	19.8	19.8	6.6	6.6
Actuated g/C Ratio	0.11	0.62	0.42	0.42	0.14	0.14
Clearance Time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Vehicle Extension (s)	2.0	5.8	5.8	5.8	2.0	2.0
Lane Grp Cap (vph)	341	2045	1965	603	415	182
v/s Ratio Prot	c0.04	0.13	c0.18		c0.04	
v/s Ratio Perm				0.04		0.01
v/c Ratio	0.42	0.22	0.44	0.08	0.30	0.09
Uniform Delay, d1	19.8	3.9	9.9	8.4	18.4	17.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.1	0.4	0.2	0.1	0.1
Delay (s)	20.1	4.0	10.3	8.5	18.5	17.9
Level of Service	C	A	B	A	B	B
Approach Delay (s)		7.9	10.1		18.3	
Approach LOS		A	B		B	

Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	47.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	34.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	121	131	64	190	85	53
Future Volume (vph)	121	131	64	190	85	53
Peak Hour Factor	0.81	0.81	0.97	0.97	0.78	0.78
Hourly flow rate (vph)	149	162	66	196	109	68

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total (vph)	311	66	196	177
Volume Left (vph)	0	66	0	109
Volume Right (vph)	162	0	0	68
Hadj (s)	-0.14	0.67	0.17	0.06
Departure Headway (s)	4.7	6.0	5.5	5.3
Degree Utilization, x	0.41	0.11	0.30	0.26
Capacity (veh/h)	730	577	632	614
Control Delay (s)	10.9	8.5	9.6	10.2
Approach Delay (s)	10.9	9.3		10.2
Approach LOS	B	A		B

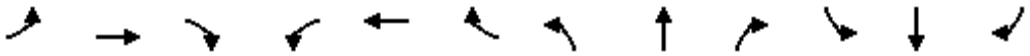
Intersection Summary			
Delay	10.2		
Level of Service	B		
Intersection Capacity Utilization	35.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	421	43	30	610	0	60	0	26	0	1	33
Future Volume (vph)	13	421	43	30	610	0	60	0	26	0	1	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		4.4	4.9		4.9		4.9		4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00		1.00		1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00		0.98		0.91	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		1.00		1.00	
Frt	1.00	0.99		1.00	1.00		1.00		0.85		0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95		1.00		1.00	
Satd. Flow (prot)	1641	4623		1641	4715		1641		1437		1362	
Flt Permitted	0.95	1.00		0.95	1.00		0.87		1.00		1.00	
Satd. Flow (perm)	1641	4623		1641	4715		1502		1437		1362	
Peak-hour factor, PHF	0.74	0.74	0.74	0.94	0.94	0.94	0.81	0.81	0.81	0.60	0.60	0.60
Adj. Flow (vph)	18	569	58	32	649	0	74	0	32	0	2	55
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	28	0	48	0
Lane Group Flow (vph)	18	615	0	32	649	0	74	0	4	0	9	0
Confl. Peds. (#/hr)			49			10			6	6		
Confl. Bikes (#/hr)			3						4			25
Turn Type	Prot	NA		Prot	NA		Perm		Perm		NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	0.6	18.7		0.7	18.8		4.6		4.6		4.6	
Effective Green, g (s)	0.6	18.7		0.7	18.8		4.6		4.6		4.6	
Actuated g/C Ratio	0.02	0.49		0.02	0.49		0.12		0.12		0.12	
Clearance Time (s)	4.4	4.9		4.4	4.9		4.9		4.9		4.9	
Vehicle Extension (s)	2.0	6.1		2.0	5.1		2.0		2.0		2.0	
Lane Grp Cap (vph)	25	2263		30	2320		180		173		164	
v/s Ratio Prot	0.01	0.13		c0.02	c0.14						0.01	
v/s Ratio Perm							c0.05		0.00			
v/c Ratio	0.72	0.27		1.07	0.28		0.41		0.02		0.05	
Uniform Delay, d1	18.7	5.7		18.8	5.7		15.5		14.8		14.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00		1.00		1.00	
Incremental Delay, d2	58.2	0.2		185.4	0.1		0.6		0.0		0.0	
Delay (s)	77.0	5.9		204.1	5.9		16.1		14.8		14.9	
Level of Service	E	A		F	A		B		B		B	
Approach Delay (s)		7.9			15.2			15.7			14.9	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	38.2	Sum of lost time (s)	14.2
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



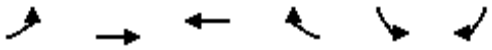
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	286	46	154	487	125	45	49	251	138	56	108
Future Volume (vph)	65	286	46	154	487	125	45	49	251	138	56	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00	1.00		0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.97		0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		0.99	
Frt	1.00	0.98		1.00	0.97			1.00	0.85		0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.98	1.00		0.98	
Satd. Flow (prot)	1641	4617		1641	4551			1685	1419		2986	
Flt Permitted	0.95	1.00		0.95	1.00			0.70	1.00		0.79	
Satd. Flow (perm)	1641	4617		1641	4551			1216	1419		2402	
Peak-hour factor, PHF	0.69	0.69	0.69	0.93	0.93	0.93	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	94	414	67	166	524	134	53	58	295	162	66	127
RTOR Reduction (vph)	0	21	0	0	40	0	0	0	223	0	96	0
Lane Group Flow (vph)	94	460	0	166	618	0	0	111	72	0	259	0
Confl. Peds. (#/hr)						1	10		46	46		10
Confl. Bikes (#/hr)						1			3			11
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	6.6	16.7		10.2	19.7			13.2	13.2		13.2	
Effective Green, g (s)	6.6	16.7		10.2	19.7			13.2	13.2		13.2	
Actuated g/C Ratio	0.12	0.31		0.19	0.36			0.24	0.24		0.24	
Clearance Time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Vehicle Extension (s)	2.0	8.0		2.0	6.7			4.4	4.4		4.4	
Lane Grp Cap (vph)	199	1419		308	1651			295	344		583	
v/s Ratio Prot	0.06	0.10		c0.10	c0.14							
v/s Ratio Perm								0.09	0.05		c0.11	
v/c Ratio	0.47	0.32		0.54	0.37			0.38	0.21		0.44	
Uniform Delay, d1	22.2	14.5		19.9	12.8			17.1	16.4		17.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.6	0.6		0.9	0.5			1.3	0.5		0.9	
Delay (s)	22.9	15.0		20.8	13.2			18.5	16.9		18.3	
Level of Service	C	B		C	B			B	B		B	
Approach Delay (s)		16.3			14.8			17.3			18.3	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	54.3	Sum of lost time (s)	14.8
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	637	41	142	780	0	291
Future Volume (vph)	637	41	142	780	0	291
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1		5.1	3.0		5.1
Lane Util. Factor	0.91		0.97	0.91		0.88
Frpb, ped/bikes	1.00		1.00	1.00		1.00
Flpb, ped/bikes	1.00		1.00	1.00		1.00
Frt	0.99		1.00	1.00		0.85
Flt Protected	1.00		0.95	1.00		1.00
Satd. Flow (prot)	4667		3183	4715		2584
Flt Permitted	1.00		0.95	1.00		1.00
Satd. Flow (perm)	4667		3183	4715		2584
Peak-hour factor, PHF	0.75	0.75	0.97	0.97	0.86	0.86
Adj. Flow (vph)	849	55	146	804	0	338
RTOR Reduction (vph)	14	0	0	0	0	219
Lane Group Flow (vph)	890	0	146	804	0	119
Confl. Peds. (#/hr)		20				
Turn Type	NA		Prot	NA		Over
Protected Phases	2		1	6		1
Permitted Phases						1
Actuated Green, G (s)	15.6		6.2	32.0		6.2
Effective Green, g (s)	15.6		6.2	32.0		6.2
Actuated g/C Ratio	0.49		0.19	1.00		0.19
Clearance Time (s)	5.1		5.1	3.0		5.1
Vehicle Extension (s)	3.9		2.0	0.9		2.0
Lane Grp Cap (vph)	2275		616	4715		500
v/s Ratio Prot	c0.19		0.05	c0.17		0.05
v/s Ratio Perm						
v/c Ratio	0.39		0.24	0.17		0.24
Uniform Delay, d1	5.2		10.9	0.0		10.9
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	0.1		0.1	0.0		0.1
Delay (s)	5.3		11.0	0.0		11.0
Level of Service	A		B	A		B
Approach Delay (s)	5.3			1.7	11.0	
Approach LOS	A			A	B	

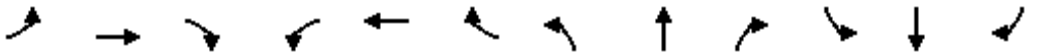
Intersection Summary			
HCM 2000 Control Delay	4.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	32.0	Sum of lost time (s)	10.2
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Traffic Volume (veh/h)	0	928	535	0	0	387
Future Volume (Veh/h)	0	928	535	0	0	387
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.82	0.82	0.87	0.87	0.91	0.91
Hourly flow rate (vph)	0	1132	615	0	0	425
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		269	396			
pX, platoon unblocked					0.94	
vC, conflicting volume	615				992	205
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	615				779	205
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	45
cM capacity (veh/h)	908				298	777

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	377	377	377	205	205	205	425
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	425
cSH	1700	1700	1700	1700	1700	1700	777
Volume to Capacity	0.22	0.22	0.22	0.12	0.12	0.12	0.55
Queue Length 95th (ft)	0	0	0	0	0	0	84
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	15.1
Lane LOS							C
Approach Delay (s)	0.0			0.0			15.1
Approach LOS							C

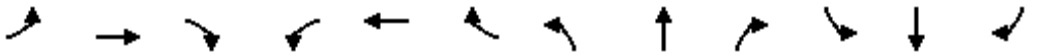
Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	448	479	0	0	485	749	50	1	219	0	0	0
Future Volume (vph)	448	479	0	0	485	749	50	1	219	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Lane Util. Factor	0.97	0.91			0.86	0.86		1.00	0.88			
Frpb, ped/bikes	1.00	1.00			0.99	0.98		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			0.93	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (prot)	3183	4715			4131	1239		1646	2584			
Flt Permitted	0.95	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (perm)	3183	4715			4131	1239		1646	2584			
Peak-hour factor, PHF	0.82	0.82	0.82	0.92	0.92	0.92	0.75	0.75	0.75	0.92	0.92	0.92
Adj. Flow (vph)	546	584	0	0	527	814	67	1	292	0	0	0
RTOR Reduction (vph)	0	0	0	0	209	263	0	0	249	0	0	0
Lane Group Flow (vph)	546	584	0	0	725	144	0	68	43	0	0	0
Confl. Peds. (#/hr)						2	3					
Confl. Bikes (#/hr)			3			8						
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Actuated Green, G (s)	12.0	35.7			19.0	19.0		7.9	7.9			
Effective Green, g (s)	12.0	35.7			19.0	19.0		7.9	7.9			
Actuated g/C Ratio	0.22	0.66			0.35	0.35		0.15	0.15			
Clearance Time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Vehicle Extension (s)	2.0	3.9			3.9	3.9		3.0	3.0			
Lane Grp Cap (vph)	709	3128			1458	437		241	379			
v/s Ratio Prot	c0.17	0.12			c0.18			c0.04				
v/s Ratio Perm						0.12			0.02			
v/c Ratio	0.77	0.19			0.50	0.33		0.28	0.11			
Uniform Delay, d1	19.6	3.5			13.7	12.7		20.4	19.9			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	4.7	0.0			0.4	0.6		0.6	0.1			
Delay (s)	24.3	3.5			14.0	13.3		21.1	20.0			
Level of Service	C	A			B	B		C	C			
Approach Delay (s)		13.6			13.8			20.2			0.0	
Approach LOS		B			B			C			A	

Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	53.8	Sum of lost time (s)	14.9
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	37	91	57	3	128	89	75	108	0	38	73	31
Future Volume (vph)	37	91	57	3	128	89	75	108	0	38	73	31
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.81	0.81	0.81	0.89	0.89	0.89
Hourly flow rate (vph)	41	100	63	3	142	99	93	133	0	43	82	35

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	41	163	3	241	93	133	125	35
Volume Left (vph)	41	0	3	0	93	0	43	0
Volume Right (vph)	0	63	0	99	0	0	0	35
Hadj (s)	0.67	-0.10	0.67	-0.12	0.67	0.17	0.34	-0.53
Departure Headway (s)	6.6	5.8	6.6	5.8	6.6	6.1	6.4	5.5
Degree Utilization, x	0.08	0.26	0.01	0.39	0.17	0.23	0.22	0.05
Capacity (veh/h)	513	583	519	596	512	552	525	601
Control Delay (s)	8.9	9.7	8.4	11.2	9.8	9.7	10.1	7.7
Approach Delay (s)	9.6		11.1		9.8		9.5	
Approach LOS	A		B		A		A	

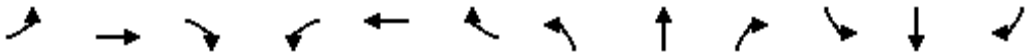
Intersection Summary				
Delay	10.1			
Level of Service	B			
Intersection Capacity Utilization	38.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	360	0	183	500	0	45
Future Volume (vph)	360	0	183	500	0	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frt	1.00		1.00	1.00	0.86	
Flt Protected	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	5085		1770	5085	1611	
Flt Permitted	1.00		0.95	1.00	1.00	
Satd. Flow (perm)	5085		1770	5085	1611	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	391	0	199	543	0	49
RTOR Reduction (vph)	0	0	0	0	48	0
Lane Group Flow (vph)	391	0	199	543	1	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	4	
Permitted Phases						
Actuated Green, G (s)	11.4		7.8	23.7	0.9	
Effective Green, g (s)	11.4		7.8	23.7	0.9	
Actuated g/C Ratio	0.34		0.23	0.71	0.03	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1725		410	3586	43	
v/s Ratio Prot	c0.08		c0.11	0.11	c0.00	
v/s Ratio Perm						
v/c Ratio	0.23		0.49	0.15	0.03	
Uniform Delay, d1	7.9		11.2	1.6	15.9	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.1		0.9	0.0	0.3	
Delay (s)	8.0		12.1	1.7	16.2	
Level of Service	A		B	A	B	
Approach Delay (s)	8.0			4.4	16.2	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	6.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	33.6	Sum of lost time (s)	13.5
Intersection Capacity Utilization	31.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

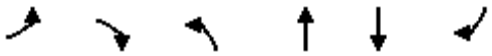
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	405	0	543	683	0	340
Future Volume (vph)	405	0	543	683	0	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frt	1.00		1.00	1.00	0.86	
Flt Protected	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	5085		1770	5085	1611	
Flt Permitted	1.00		0.95	1.00	1.00	
Satd. Flow (perm)	5085		1770	5085	1611	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	440	0	590	742	0	370
RTOR Reduction (vph)	0	0	0	0	337	0
Lane Group Flow (vph)	440	0	590	742	33	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	NA		Prot	NA	Perm	
Protected Phases	2		1	6		
Permitted Phases					4	
Actuated Green, G (s)	11.5		30.7	46.7	5.5	
Effective Green, g (s)	11.5		30.7	46.7	5.5	
Actuated g/C Ratio	0.19		0.50	0.76	0.09	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	955		887	3880	144	
v/s Ratio Prot	c0.09		c0.33	0.15		
v/s Ratio Perm					c0.02	
v/c Ratio	0.46		0.67	0.19	0.23	
Uniform Delay, d1	22.1		11.4	2.0	25.9	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.4		1.9	0.0	0.8	
Delay (s)	22.4		13.3	2.0	26.7	
Level of Service	C		B	A	C	
Approach Delay (s)	22.4			7.0	26.7	
Approach LOS	C			A	C	

Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	61.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



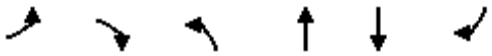
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	10	120	160	0	0	200	16	260	0	20	0
Future Volume (vph)	0	10	120	160	0	0	200	16	260	0	20	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5			4.5	
Lane Util. Factor		1.00			1.00		1.00	0.95			1.00	
Frt		0.88			1.00		1.00	0.86			1.00	
Flt Protected		1.00			0.95		0.95	1.00			1.00	
Satd. Flow (prot)		1631			1770		1770	3038			1863	
Flt Permitted		1.00			0.67		0.95	1.00			1.00	
Satd. Flow (perm)		1631			1243		1770	3038			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	11	130	174	0	0	217	17	283	0	22	0
RTOR Reduction (vph)	0	102	0	0	0	0	0	123	0	0	0	0
Lane Group Flow (vph)	0	39	0	0	174	0	217	177	0	0	22	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		9.1			9.1		8.3	23.6			10.8	
Effective Green, g (s)		9.1			9.1		8.3	23.6			10.8	
Actuated g/C Ratio		0.22			0.22		0.20	0.57			0.26	
Clearance Time (s)		4.5			4.5		4.5	4.5			4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		355			271		352	1719			482	
v/s Ratio Prot		0.02					c0.12	c0.06			0.01	
v/s Ratio Perm					c0.14							
v/c Ratio		0.11			0.64		0.62	0.10			0.05	
Uniform Delay, d1		13.1			14.8		15.2	4.2			11.6	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.1			5.1		3.2	0.0			0.0	
Delay (s)		13.2			19.9		18.4	4.2			11.6	
Level of Service		B			B		B	A			B	
Approach Delay (s)		13.2			19.9			10.2			11.6	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	41.7	Sum of lost time (s)	13.5
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



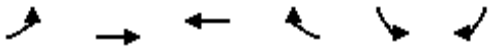
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	103	100	168	204	245	175
Future Volume (vph)	103	100	168	204	245	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	1.00	0.95	
Frt	0.93		1.00	1.00	0.94	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1696		1770	1863	3318	
Flt Permitted	0.98		0.95	1.00	1.00	
Satd. Flow (perm)	1696		1770	1863	3318	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	112	109	183	222	266	190
RTOR Reduction (vph)	62	0	0	0	126	0
Lane Group Flow (vph)	159	0	183	222	330	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	Prot		Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases						
Actuated Green, G (s)	7.7		7.8	27.0	14.7	
Effective Green, g (s)	7.7		7.8	27.0	14.7	
Actuated g/C Ratio	0.18		0.18	0.62	0.34	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	298		315	1151	1116	
v/s Ratio Prot	c0.09		c0.10	0.12	c0.10	
v/s Ratio Perm						
v/c Ratio	0.53		0.58	0.19	0.30	
Uniform Delay, d1	16.4		16.5	3.6	10.7	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.8		2.7	0.1	0.1	
Delay (s)	18.2		19.2	3.7	10.8	
Level of Service	B		B	A	B	
Approach Delay (s)	18.2			10.7	10.8	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	43.7	Sum of lost time (s)	13.5
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	10	8	362	337	8
Future Volume (vph)	10	10	8	362	337	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	1.00	0.95	
Frt	0.93		1.00	1.00	1.00	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1695		1770	1863	3526	
Flt Permitted	0.98		0.95	1.00	1.00	
Satd. Flow (perm)	1695		1770	1863	3526	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	9	393	366	9
RTOR Reduction (vph)	11	0	0	0	2	0
Lane Group Flow (vph)	11	0	9	393	373	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	Prot		Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases						
Actuated Green, G (s)	0.9		0.9	28.7	23.3	
Effective Green, g (s)	0.9		0.9	28.7	23.3	
Actuated g/C Ratio	0.02		0.02	0.74	0.60	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	39		41	1385	2128	
v/s Ratio Prot	c0.01		0.01	c0.21	0.11	
v/s Ratio Perm						
v/c Ratio	0.29		0.22	0.28	0.18	
Uniform Delay, d1	18.5		18.5	1.6	3.4	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	4.1		2.7	0.1	0.0	
Delay (s)	22.6		21.2	1.7	3.4	
Level of Service	C		C	A	A	
Approach Delay (s)	22.6			2.2	3.4	
Approach LOS	C			A	A	

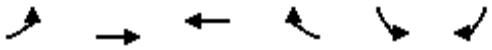
Intersection Summary			
HCM 2000 Control Delay	3.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	38.6	Sum of lost time (s)	13.5
Intersection Capacity Utilization	29.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1162	1847	84	0	15
Future Volume (Veh/h)	0	1162	1847	84	0	15
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1263	2008	91	0	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		695	695			
pX, platoon unblocked					0.79	
vC, conflicting volume	2099				3316	715
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2099				3798	715
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	96
cM capacity (veh/h)	259				2	373

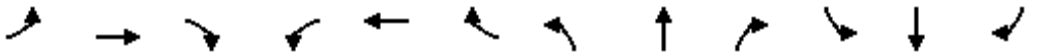
Direction, Lane #	EB 1	WB 1	WB 2	WB 3	SB 1
Volume Total	1263	803	803	493	16
Volume Left	0	0	0	0	0
Volume Right	0	0	0	91	16
cSH	1700	1700	1700	1700	373
Volume to Capacity	0.74	0.47	0.47	0.29	0.04
Queue Length 95th (ft)	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	15.1
Lane LOS					C
Approach Delay (s)	0.0	0.0			15.1
Approach LOS					C

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	100	1062	1916	87	70	15
Future Volume (vph)	100	1062	1916	87	70	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1641	1727	1717		1641	1468
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1641	1727	1717		1641	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	1154	2083	95	76	16
RTOR Reduction (vph)	0	0	1	0	0	15
Lane Group Flow (vph)	109	1154	2177	0	76	1
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	8.0	125.1	113.1		12.0	12.0
Effective Green, g (s)	8.0	125.1	113.1		12.0	12.0
Actuated g/C Ratio	0.06	0.86	0.78		0.08	0.08
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	90	1488	1338		135	121
v/s Ratio Prot	c0.07	0.67	c1.27		c0.05	
v/s Ratio Perm						0.00
v/c Ratio	1.21	0.78	1.63		0.56	0.01
Uniform Delay, d1	68.5	4.2	16.0		64.0	61.1
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	162.2	2.6	285.7		5.3	0.0
Delay (s)	230.8	6.8	301.7		69.3	61.1
Level of Service	F	A	F		E	E
Approach Delay (s)		26.1	301.7		67.9	
Approach LOS		C	F		E	

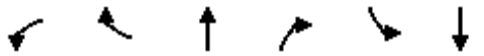
Intersection Summary			
HCM 2000 Control Delay	197.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.51		
Actuated Cycle Length (s)	145.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	347	1970	95	3	1419	233	77	27	2	460	38	204
Future Volume (vph)	347	1970	95	3	1419	233	77	27	2	460	38	204
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	0.88	1.00	1.00	1.00	0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1468	1641	4715	2584	1641	1727	1468	3183	1727	1468
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1468	1641	4715	2584	1641	1727	1468	3183	1727	1468
Peak-hour factor, PHF	0.85	0.85	0.85	0.90	0.90	0.90	0.85	0.85	0.85	0.84	0.84	0.84
Adj. Flow (vph)	408	2318	112	3	1577	259	91	32	2	548	45	243
RTOR Reduction (vph)	0	0	48	0	0	151	0	0	2	0	0	207
Lane Group Flow (vph)	408	2318	64	3	1577	108	91	32	0	548	45	36
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Actuated Green, G (s)	12.8	46.5	46.5	0.7	34.4	34.4	7.3	4.6	4.6	15.0	12.3	12.3
Effective Green, g (s)	12.8	46.5	46.5	0.7	34.4	34.4	7.3	4.6	4.6	15.0	12.3	12.3
Actuated g/C Ratio	0.15	0.56	0.56	0.01	0.42	0.42	0.09	0.06	0.06	0.18	0.15	0.15
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	492	2647	824	13	1958	1073	144	95	81	576	256	218
v/s Ratio Prot	c0.13	c0.49		0.00	0.33		0.06	c0.02		c0.17	0.03	
v/s Ratio Perm			0.04			0.04			0.00			0.02
v/c Ratio	0.83	0.88	0.08	0.23	0.81	0.10	0.63	0.34	0.00	0.95	0.18	0.17
Uniform Delay, d1	33.9	15.7	8.3	40.8	21.3	14.8	36.5	37.6	36.9	33.5	30.8	30.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.1	3.6	0.0	8.9	2.5	0.0	8.7	2.1	0.0	25.8	0.3	0.4
Delay (s)	45.0	19.2	8.4	49.7	23.8	14.8	45.2	39.7	36.9	59.4	31.1	31.1
Level of Service	D	B	A	D	C	B	D	D	D	E	C	C
Approach Delay (s)		22.5			22.6			43.7			49.6	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	27.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	82.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	68	8	393	40	6	413
Future Volume (Veh/h)	68	8	393	40	6	413
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.45	0.45	0.72	0.72	0.98	0.98
Hourly flow rate (vph)	151	18	546	56	6	421
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	979	546			546	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	979	546			546	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	43	97			99	
cM capacity (veh/h)	267	522			984	

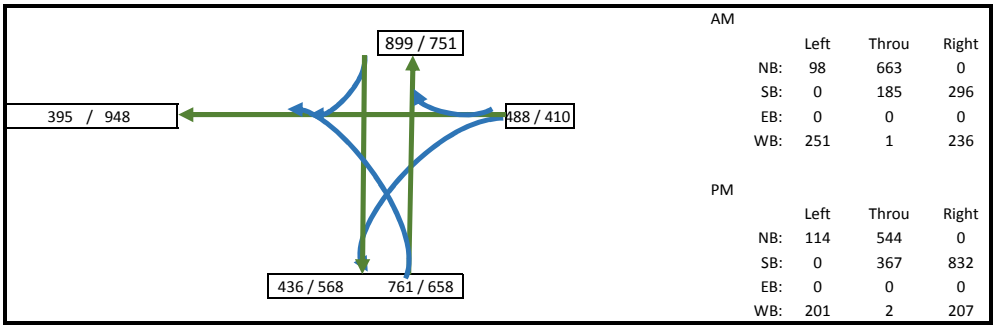
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	169	546	56	6	421
Volume Left	151	0	0	6	0
Volume Right	18	0	56	0	0
cSH	281	1700	1700	984	1700
Volume to Capacity	0.60	0.32	0.03	0.01	0.25
Queue Length 95th (ft)	90	0	0	0	0
Control Delay (s)	35.4	0.0	0.0	8.7	0.0
Lane LOS	E			A	
Approach Delay (s)	35.4	0.0		0.1	
Approach LOS	E				

Intersection Summary			
Average Delay	5.0		
Intersection Capacity Utilization	32.7%	ICU Level of Service	A
Analysis Period (min)	15		

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION:	Caliente Avenue and 905 WB Ramps	DIST. CO. RTE	SR-905
ALTERNATIVE:	Existing + Project Conditions	PM:	
		DATE:	
		TIME:	

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	98	663	0
SB:	0	185	296
EB:	0	0	0
WB:	251	1	236

PM

	Left	Throu	Right
NB:	114	544	0
SB:	0	367	832
EB:	0	0	0
WB:	201	2	207

LANE VOLUMES (ILV/HR)

PHASE I

AM 98
PM 114

PHASE II

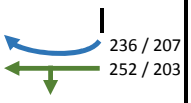
AM 358
PM 954

358 / 954

Remaining NB Through 123 / 67

PHASE III

AM 236
PM 207



PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
692	1275

TOTAL OPERATING LEVEL (ILV/HR):

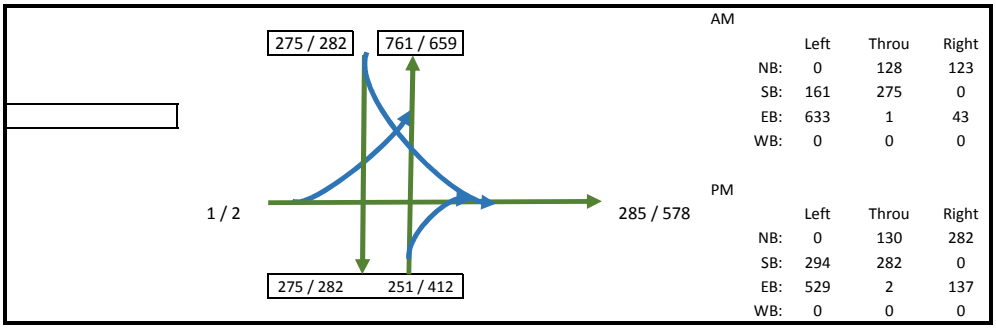
AM:	692	Under Capacity
PM:	1275	At Capacity

< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION:	Caliente Avenue and 905 EB Ramps	DIST. CO. RTE	SR-905
ALTERNATIVE:	Existing + Project Conditions	PM:	
		DATE:	
		TIME:	

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	0	128	123
SB:	161	275	0
EB:	633	1	43
WB:	0	0	0

PM

	Left	Throu	Right
NB:	0	130	282
SB:	294	282	0
EB:	529	2	137
WB:	0	0	0

LANE VOLUMES (ILV/HR)

PHASE I				
AM	161			
PM	294			
		138 / 141	138 / 141	**161 / 294**

PHASE II				
AM	166			
PM	325			
Remaining SB Through	114 / 0	43 / 43	43 / 43	**166 / 325**

PHASE III		
AM	633	**633 / 529**
PM	529	
		44 / 139

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
960	1148

TOTAL OPERATING LEVEL (ILV/HR):

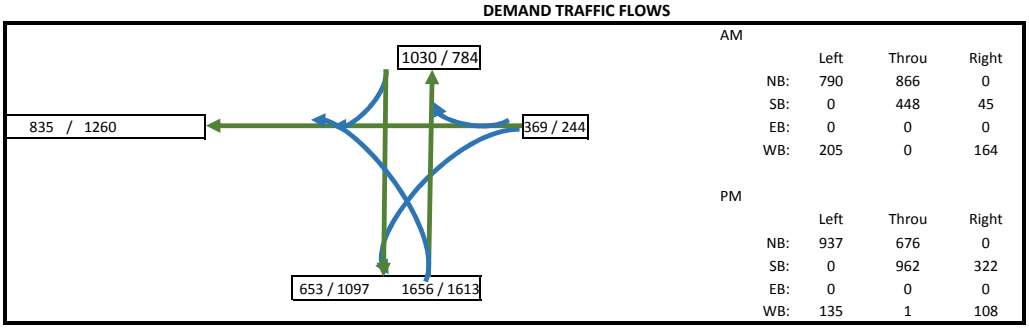
AM:	960	Under Capacity
PM:	1148	Under Capacity

< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION:	Britannia Boulevard and SR-905 WB Ramps	DIST. CO. RTE	SR-905
ALTERNATIVE:	Existing + Project Conditions	PM:	
		DATE:	
		TIME:	

DEMAND TRAFFIC FLOWS



AM

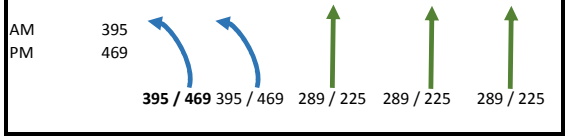
	Left	Throu	Right
NB:	790	866	0
SB:	0	448	45
EB:	0	0	0
WB:	205	0	164

PM

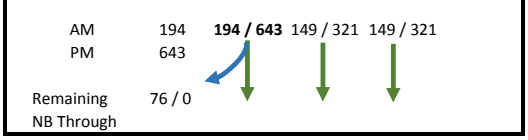
	Left	Throu	Right
NB:	937	676	0
SB:	0	962	322
EB:	0	0	0
WB:	135	1	108

LANE VOLUMES (ILV/HR)

PHASE I



PHASE II



PHASE III

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
794	1246

TOTAL OPERATING LEVEL (ILV/HR):

AM:	794	Under Capacity
PM:	1246	At Capacity

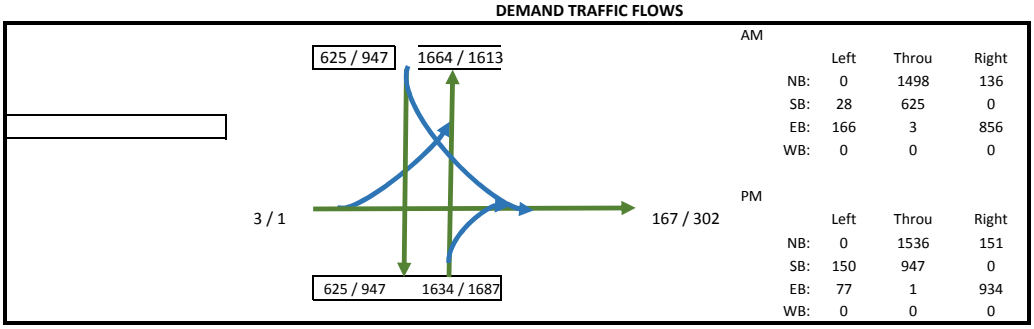
< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION: Britannia Boulevard and 905 EB Ramps
ALTERNATIVE: Existing + Project Conditions

DIST. CO. RTE: SR-905
PM:
DATE:
TIME:

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	0	1498	136
SB:	28	625	0
EB:	166	3	856
WB:	0	0	0

PM

	Left	Throu	Right
NB:	0	1536	151
SB:	150	947	0
EB:	77	1	934
WB:	0	0	0

LANE VOLUMES (ILV/HR)

PHASE I

AM **14**
PM **75**

208 / 316 208 / 316 208 / 316 14 / 75 **14 / 75**

PHASE II

AM 885
PM 919

Remaining SB Through

749 / 768 **885 / 919**

PHASE III

AM 428
PM 467

169 / 78

428 / 467
428 / 467

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
1327	1461

TOTAL OPERATING LEVEL (ILV/HR):

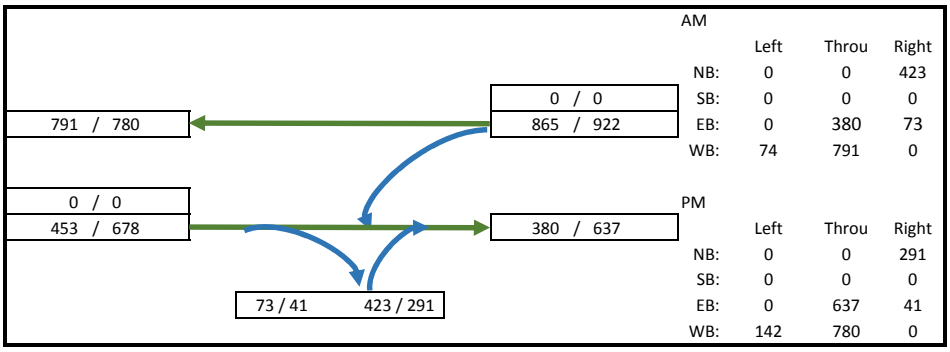
AM:	1327	At Capacity
PM:	1461	At Capacity

< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION:	905 / Siempre Viva Road	DIST. CO. RTE	SR-905
ALTERNATIVE:	Existing + Project Conditions	PM:	
		DATE:	1/27/2015
		TIME:	

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	0	0	423
SB:	0	0	0
EB:	0	380	73
WB:	74	791	0

PM

	Left	Throu	Right
NB:	0	0	291
SB:	0	0	0
EB:	0	637	41
WB:	142	780	0

LANE VOLUMES (ILV/HR)

PHASE I

AM	37	264 / 260
PM	71	264 / 260
		264 / 260
		37 / 71
		37 / 71

PHASE II

AM	200	127 / 212
PM	253	127 / 212
		200 / 253
Remaining EB Through		**227 / 189**

PHASE III

AM	212		
PM	146		
		212 / 146	212 / 146

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PHASE II
449	470

TOTAL OPERATING LEVEL (ILV/HR):

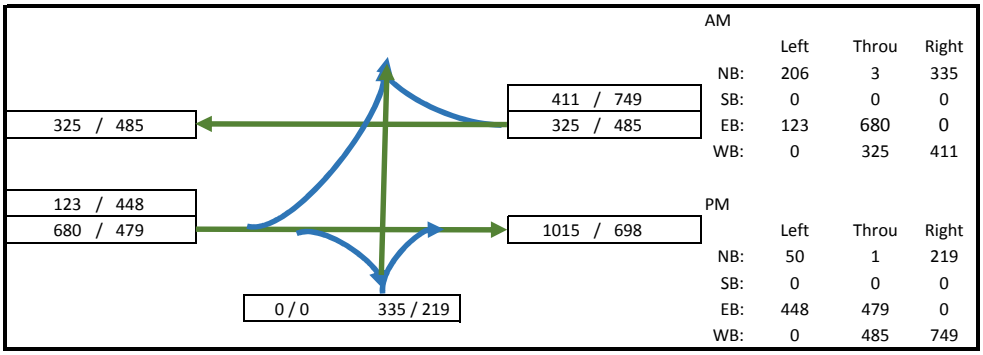
AM:	449	Under Capacity
PM:	470	Under Capacity

< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION:	905 / Siempre Viva Road	DIST. CO. RTE	SR-905
ALTERNATIVE:	Existing + Project Conditions	PM:	
		DATE:	1/27/2016
		TIME:	

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	206	3	335
SB:	0	0	0
EB:	123	680	0
WB:	0	325	411

PM

	Left	Throu	Right
NB:	50	1	219
SB:	0	0	0
EB:	448	479	0
WB:	0	485	749

LANE VOLUMES (ILV/HR)

PHASE I

AM	62	**62 / 224**
PM	224	62 / 224
		227 / 160
		227 / 160
		227 / 160

PHASE II

AM	314	206 / 375
PM	536	**314 / 537**
		108 / 162
Remaining EB Through	**165/ 0**	108 / 162

PHASE III

AM	209	**209 / 51**	168 / 110	168 / 110
PM	110			

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PHASE II
584	870

TOTAL OPERATING LEVEL (ILV/HR):

AM:	584	Under Capacity
PM:	870	Under Capacity

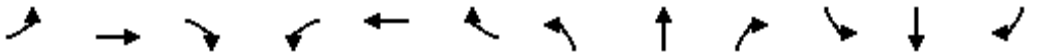
< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

Appendix F
Improvements Worksheets and Triggers - Existing Plus Project Conditions

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	120	405	210	140	865	522
Future Volume (vph)	120	405	210	140	865	522
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	0.97	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	3183	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	3183	4715	3183	1468
Peak-hour factor, PHF	0.91	0.92	0.92	0.73	0.92	0.92
Adj. Flow (vph)	132	440	228	192	940	567
RTOR Reduction (vph)	0	285	0	0	0	358
Lane Group Flow (vph)	132	155	228	192	940	209
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	31.8	31.8	10.5	46.3	33.2	33.2
Effective Green, g (s)	31.8	31.8	10.5	46.3	33.2	33.2
Actuated g/C Ratio	0.35	0.35	0.12	0.51	0.37	0.37
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	1665	518	371	2425	1174	541
v/s Ratio Prot	0.03		c0.07	0.04	c0.30	
v/s Ratio Perm		c0.11				0.14
v/c Ratio	0.08	0.30	0.61	0.08	0.80	0.39
Uniform Delay, d1	19.4	21.1	37.8	11.1	25.4	20.9
Progression Factor	1.40	5.44	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	1.5	2.1	0.1	3.8	0.2
Delay (s)	27.1	116.0	39.9	11.1	29.2	21.1
Level of Service	C	F	D	B	C	C
Approach Delay (s)	95.5			26.8	26.2	
Approach LOS	F			C	C	

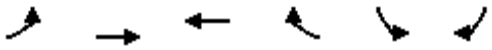
Intersection Summary			
HCM 2000 Control Delay	42.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1323	200	79	24	98	70	35	127	19	288	286	666
Future Volume (vph)	1323	200	79	24	98	70	35	127	19	288	286	666
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		4.4	5.1	4.4	4.4	4.9		4.4	5.1	4.4
Lane Util. Factor	0.97	0.91		1.00	0.95	1.00	1.00	0.95		1.00	0.95	0.88
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4515		1641	3282	1462	1641	3212		1641	3282	2584
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4515		1641	3282	1462	1641	3212		1641	3282	2584
Peak-hour factor, PHF	0.92	0.86	0.86	0.81	0.81	0.81	0.76	0.76	0.76	0.85	0.85	0.92
Adj. Flow (vph)	1438	233	92	30	121	86	46	167	25	339	336	724
RTOR Reduction (vph)	0	45	0	0	0	60	0	9	0	0	0	193
Lane Group Flow (vph)	1438	280	0	30	121	26	46	183	0	339	336	531
Confl. Peds. (#/hr)	1					1			2			
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases						6						4
Actuated Green, G (s)	54.6	63.7		4.1	13.0	38.6	6.6	14.1		25.6	32.9	87.5
Effective Green, g (s)	54.6	63.7		4.1	13.0	38.6	6.6	14.1		25.6	32.9	87.5
Actuated g/C Ratio	0.43	0.51		0.03	0.10	0.31	0.05	0.11		0.20	0.26	0.69
Clearance Time (s)	4.4	4.9		4.4	5.1	4.4	4.4	4.9		4.4	5.1	4.4
Vehicle Extension (s)	2.0	3.8		2.0	3.8	2.0	2.0	3.8		2.0	3.8	2.0
Lane Grp Cap (vph)	1378	2280		53	338	447	85	359		333	856	1793
v/s Ratio Prot	c0.45	0.06		0.02	c0.04	0.01	0.03	c0.06		c0.21	0.10	0.13
v/s Ratio Perm						0.01						0.08
v/c Ratio	1.04	0.12		0.57	0.36	0.06	0.54	0.51		1.02	0.39	0.30
Uniform Delay, d1	35.8	16.5		60.1	52.7	30.9	58.3	52.7		50.2	38.4	7.4
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	36.4	0.0		8.0	0.8	0.0	3.7	1.5		54.0	0.4	0.0
Delay (s)	72.2	16.5		68.1	53.5	30.9	62.0	54.3		104.2	38.8	7.5
Level of Service	E	B		E	D	C	E	D		F	D	A
Approach Delay (s)		61.9			47.2			55.8			38.4	
Approach LOS		E			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	51.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	126.1	Sum of lost time (s)	19.0
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



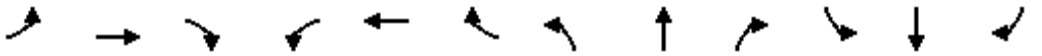
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	100	1365	483	30	100	19
Future Volume (vph)	100	1365	483	30	100	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1641	1727	4674		1641	1468
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1641	1727	4674		1641	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	1484	525	33	109	21
RTOR Reduction (vph)	0	0	4	0	0	19
Lane Group Flow (vph)	109	1484	554	0	109	2
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	14.4	122.6	104.2		14.5	14.5
Effective Green, g (s)	14.4	122.6	104.2		14.5	14.5
Actuated g/C Ratio	0.10	0.84	0.71		0.10	0.10
Clearance Time (s)	4.0	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	161	1449	3333		162	145
v/s Ratio Prot	0.07	c0.86	0.12		c0.07	
v/s Ratio Perm						0.00
v/c Ratio	0.68	1.02	0.17		0.67	0.01
Uniform Delay, d1	63.6	11.8	6.8		63.5	59.4
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	10.7	30.0	0.0		10.5	0.0
Delay (s)	74.3	41.7	6.8		74.0	59.4
Level of Service	E	D	A		E	E
Approach Delay (s)		44.0	6.8		71.6	
Approach LOS		D	A		E	

Intersection Summary			
HCM 2000 Control Delay	36.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	146.1	Sum of lost time (s)	13.0
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	238	905	738	287	628	347
Future Volume (vph)	238	905	738	287	628	347
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	0.97	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	3183	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	3183	4715	3183	1468
Peak-hour factor, PHF	0.86	0.92	0.92	0.78	0.92	0.92
Adj. Flow (vph)	277	984	802	368	683	377
RTOR Reduction (vph)	0	523	0	0	0	282
Lane Group Flow (vph)	277	461	802	368	683	95
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	32.2	32.2	20.6	56.8	22.7	22.7
Effective Green, g (s)	32.2	32.2	20.6	56.8	22.7	22.7
Actuated g/C Ratio	0.36	0.36	0.23	0.63	0.25	0.25
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	1686	525	728	2975	802	370
v/s Ratio Prot	0.06		c0.25	0.08	c0.21	
v/s Ratio Perm		c0.31				0.06
v/c Ratio	0.16	0.88	1.10	0.12	0.85	0.26
Uniform Delay, d1	19.7	27.1	34.7	6.6	32.0	26.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	18.5	64.7	0.1	8.4	0.1
Delay (s)	19.9	45.6	99.4	6.7	40.4	27.0
Level of Service	B	D	F	A	D	C
Approach Delay (s)	40.0			70.2	35.7	
Approach LOS	D			E	D	

Intersection Summary			
HCM 2000 Control Delay	48.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		

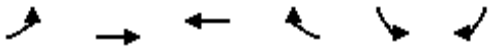
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1025	160	58	29	238	277	90	342	31	185	146	1556
Future Volume (vph)	1025	160	58	29	238	277	90	342	31	185	146	1556
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		5.1	5.1	4.4	4.4	5.1		4.4	5.1	4.4
Lane Util. Factor	0.97	0.91		1.00	0.95	1.00	1.00	0.95		1.00	0.95	0.88
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4513		1641	3282	1458	1641	3241		1641	3282	2574
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4513		1641	3282	1458	1641	3241		1641	3282	2574
Peak-hour factor, PHF	0.92	0.89	0.89	0.79	0.79	0.79	0.79	0.79	0.79	0.89	0.89	0.92
Adj. Flow (vph)	1114	180	65	37	301	351	114	433	39	208	164	1691
RTOR Reduction (vph)	0	36	0	0	0	80	0	5	0	0	0	100
Lane Group Flow (vph)	1114	209	0	37	301	271	114	467	0	208	164	1591
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)			1			1						1
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases						6						4
Actuated Green, G (s)	52.2	51.9		10.6	10.8	24.6	11.4	20.1		13.8	22.5	74.7
Effective Green, g (s)	52.2	51.9		10.6	10.8	24.6	11.4	20.1		13.8	22.5	74.7
Actuated g/C Ratio	0.45	0.45		0.09	0.09	0.21	0.10	0.17		0.12	0.19	0.64
Clearance Time (s)	4.4	4.9		5.1	5.1	4.4	4.4	5.1		4.4	5.1	4.4
Vehicle Extension (s)	2.0	3.8		3.8	3.8	2.0	2.0	3.8		2.0	3.8	2.0
Lane Grp Cap (vph)	1433	2020		150	305	309	161	562		195	637	1658
v/s Ratio Prot	0.35	0.05		0.02	c0.09	0.10	0.07	0.14		c0.13	0.05	c0.43
v/s Ratio Perm						0.08						0.19
v/c Ratio	0.78	0.10		0.25	0.99	0.88	0.71	0.83		1.07	0.26	0.96
Uniform Delay, d1	26.9	18.5		48.9	52.5	44.2	50.6	46.3		51.1	39.6	19.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.5	0.0		1.1	47.6	22.8	11.0	10.5		83.2	0.3	13.5
Delay (s)	29.4	18.6		50.1	100.1	67.0	61.6	56.7		134.3	39.9	32.7
Level of Service	C	B		D	F	E	E	E		F	D	C
Approach Delay (s)		27.5			80.5			57.7			43.5	
Approach LOS		C			F			E			D	

Intersection Summary			
HCM 2000 Control Delay	46.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	115.9	Sum of lost time (s)	19.5
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	100	1062	1916	87	70	15
Future Volume (vph)	100	1062	1916	87	70	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1641	1727	4685		1641	1468
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1641	1727	4685		1641	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	1154	2083	95	76	16
RTOR Reduction (vph)	0	0	5	0	0	14
Lane Group Flow (vph)	109	1154	2173	0	76	2
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	7.0	58.8	47.3		9.0	9.0
Effective Green, g (s)	7.0	58.8	47.3		9.0	9.0
Actuated g/C Ratio	0.09	0.77	0.62		0.12	0.12
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	149	1322	2885		192	172
v/s Ratio Prot	0.07	c0.67	0.46		c0.05	
v/s Ratio Perm						0.00
v/c Ratio	0.73	0.87	0.75		0.40	0.01
Uniform Delay, d1	34.0	6.4	10.6		31.4	30.0
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	16.8	6.6	1.2		1.3	0.0
Delay (s)	50.8	13.0	11.7		32.7	30.0
Level of Service	D	B	B		C	C
Approach Delay (s)		16.3	11.7		32.3	
Approach LOS		B	B		C	

Intersection Summary			
HCM 2000 Control Delay	13.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	76.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection No.	16	Peak:	PM		Green = Manual Input			**Control Type**		Signal	Base Delay	34.1
Project's Total Daily Trip Generation - Table 3.1 **[a]**	40126								**SI Type**	LOS D	Max Delay	55
External Peak Hour Trip Generation - Table 3.1 **[b]**	In	2201	Out	1345								
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
E + P Peak Hour Turning Movements Volumes - Figure 6-4 **[c]**	628	0	347	0	0	0	0	238	905	738	287	0
Project Trip Assignment - Figure 3-4 **[d]**	444		175						726	286		
Type of Turning Movement **[e]**	out		out						in	in		
Base Volume (c - d) **[f]**	184	0	172	0	0	0	0	238	179	452	287	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[g]**	24511		Delay (from Synchro)	54.9	LOS (from Synchro)	D						
Percent Reduction in Trip Gen. (g / a) **[h]**	38.9%											
Trip Assignment after Trip Gen reduction (d - h * d) **[i]**	271	0	107	0	0	0	0	0	443	175	0	0
Base Volume + Reduced Trip Assignment (f + i)	455	0	279	0	0	0	0	238	622	627	287	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[j]**	0	238	622	627	287	0	455	0	279	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Trigger ADT **[k]**	**24512**		Delay (from Synchro)	54.9	LOS (from Synchro)	D						
Percent Reduction in Trip Gen. (k / a) **[L]**	38.9%											
Trip Assignment after Trip Gen reduction (d - L * d) **[m]**	271	0	107	0	0	0	0	0	443	175	0	0
Base Volume + Reduced Trip Assignment (f + m)	455	0	279	0	0	0	0	238	622	627	287	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[n]**	0	238	622	627	287	0	455	0	279	0	0	0
Change when compare to previous ADT (n - j) **[o]**	0	0	0	0	0	0	0	0	0	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[p]**	24513		Delay (from Synchro)	55.0	LOS (from Synchro)	E						
Percent Reduction in Trip Gen. (p / a) **[q]**	38.9%											
Trip Assignment after Trip Gen reduction (d - q * d) **[r]**	271	0	107	0	0	0	0	0	444	175	0	0
Base Volume + Reduced Trip Assignment (f + r)	455	0	279	0	0	0	0	238	623	627	287	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[s]**	0	238	623	627	287	0	455	0	279	0	0	0
Change when compare to previous ADT (s - n) **[t]**	0	0	1	0	0	0	0	0	0	0	0	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	238	622	627	287	455	279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	1641	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	1641	4715	3183	1468
Peak-hour factor, PHF	0.86	0.86	0.78	0.78	0.86	0.86
Adj. Flow (vph)	277	723	804	368	529	324
RTOR Reduction (vph)	0	505	0	0	0	262
Lane Group Flow (vph)	277	218	804	368	529	62
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	30.7	30.7	68.0	102.7	26.8	26.8
Effective Green, g (s)	30.7	30.7	68.0	102.7	26.8	26.8
Actuated g/C Ratio	0.22	0.22	0.49	0.73	0.19	0.19
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	1033	321	797	3458	609	281
v/s Ratio Prot	0.06		c0.49	0.08	c0.17	
v/s Ratio Perm		c0.15				0.04
v/c Ratio	0.27	0.68	1.01	0.11	0.87	0.22
Uniform Delay, d1	45.3	50.1	36.0	5.4	54.9	47.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	11.0	34.1	0.1	12.1	0.1
Delay (s)	46.0	61.1	70.1	5.5	67.0	47.9
Level of Service	D	E	E	A	E	D
Approach Delay (s)	56.9			49.8	59.8	
Approach LOS	E			D	E	

Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	82.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

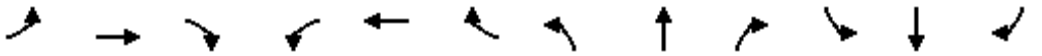
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	238	622	627	287	455	279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	1641	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	1641	4715	3183	1468
Peak-hour factor, PHF	0.86	0.86	0.78	0.78	0.86	0.86
Adj. Flow (vph)	277	723	804	368	529	324
RTOR Reduction (vph)	0	505	0	0	0	262
Lane Group Flow (vph)	277	218	804	368	529	62
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	30.7	30.7	68.0	102.7	26.8	26.8
Effective Green, g (s)	30.7	30.7	68.0	102.7	26.8	26.8
Actuated g/C Ratio	0.22	0.22	0.49	0.73	0.19	0.19
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	1033	321	797	3458	609	281
v/s Ratio Prot	0.06		c0.49	0.08	c0.17	
v/s Ratio Perm		c0.15				0.04
v/c Ratio	0.27	0.68	1.01	0.11	0.87	0.22
Uniform Delay, d1	45.3	50.1	36.0	5.4	54.9	47.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	11.0	34.1	0.1	12.1	0.1
Delay (s)	46.0	61.1	70.1	5.5	67.0	47.9
Level of Service	D	E	E	A	E	D
Approach Delay (s)	56.9			49.8	59.8	
Approach LOS	E			D	E	

Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	82.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	238	623	627	287	455	279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	1641	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	1641	4715	3183	1468
Peak-hour factor, PHF	0.86	0.86	0.78	0.78	0.86	0.86
Adj. Flow (vph)	277	724	804	368	529	324
RTOR Reduction (vph)	0	505	0	0	0	262
Lane Group Flow (vph)	277	219	804	368	529	62
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	30.8	30.8	67.9	102.7	26.8	26.8
Effective Green, g (s)	30.8	30.8	67.9	102.7	26.8	26.8
Actuated g/C Ratio	0.22	0.22	0.49	0.73	0.19	0.19
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	1037	322	795	3458	609	281
v/s Ratio Prot	0.06		c0.49	0.08	c0.17	
v/s Ratio Perm		c0.15				0.04
v/c Ratio	0.27	0.68	1.01	0.11	0.87	0.22
Uniform Delay, d1	45.2	50.1	36.0	5.4	54.9	47.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	11.1	34.7	0.1	12.1	0.1
Delay (s)	45.9	61.2	70.8	5.5	67.0	47.9
Level of Service	D	E	E	A	E	D
Approach Delay (s)	56.9			50.3	59.8	
Approach LOS	E			D	E	

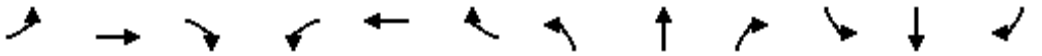
Intersection Summary			
HCM 2000 Control Delay	55.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection No.	19	Peak:	PM		Green = Manual Input			Control Type		Signal	Base Delay	41.2
Project's Total Daily Trip Generation - Table 3.1 **[a]**	40126								SI Type	LOS D	Max Delay	55
External Peak Hour Trip Generation - Table 3.1 **[b]**	In	2201	Out	1345								
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
E + P Peak Hour Turning Movements Volumes - Figure 6-4 **[c]**	90	342	31	185	146	1556	1025	160	58	29	238	277
Project Trip Assignment - Figure 3-4 **[d]**	88	0	0	0	0	1474	901	135	54	0	220	0
Type of Turning Movement **[e]**	in					in	out	out	out		in	
Base Volume (c - d) **[f]**	2	342	31	185	146	82	124	25	4	29	18	277
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[g]**	16186		Delay (from Synchro)	54.9	LOS (from Synchro)	D						
Percent Reduction in Trip Gen. (g / a) **[h]**	59.7%											
Trip Assignment after Trip Gen reduction (d - h * d) **[i]**	35	0	0	0	0	595	363	54	22	0	89	0
Base Volume + Reduced Trip Assignment (f + i)	37	342	31	185	146	677	487	79	26	29	107	277
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[j]**	487	79	26	29	107	277	37	342	31	185	146	677
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Trigger ADT **[k]**	**16187**		Delay (from Synchro)	54.9	LOS (from Synchro)	D						
Percent Reduction in Trip Gen. (k / a) **[L]**	59.7%											
Trip Assignment after Trip Gen reduction (d - L * d) **[m]**	35	0	0	0	0	595	363	54	22	0	89	0
Base Volume + Reduced Trip Assignment (f + m)	37	342	31	185	146	677	487	79	26	29	107	277
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[n]**	487	79	26	29	107	277	37	342	31	185	146	677
Change when compare to previous ADT (n - j) **[o]**	0	0	0	0	0	0	0	0	0	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[p]**	16188		Delay (from Synchro)	55.0	LOS (from Synchro)	E						
Percent Reduction in Trip Gen. (p / a) **[q]**	59.7%											
Trip Assignment after Trip Gen reduction (d - q * d) **[r]**	36	0	0	0	0	595	363	54	22	0	89	0
Base Volume + Reduced Trip Assignment (f + r)	38	342	31	185	146	677	487	79	26	29	107	277
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[s]**	487	79	26	29	107	277	38	342	31	185	146	677
Change when compare to previous ADT (s - n) **[t]**	0	0	0	0	0	0	1	0	0	0	0	0



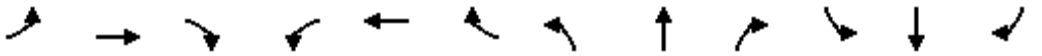
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	487	79	26	29	107	277	37	342	31	185	146	677
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9			5.1	5.1	4.4	4.9		4.4	5.1	5.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99			1.00	0.98	1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96			1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	1655			1709	1444	1641	3241		1641	1727	1437
Flt Permitted	0.95	1.00			0.92	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1641	1655			1593	1444	1641	3241		1641	1727	1437
Peak-hour factor, PHF	0.89	0.89	0.89	0.79	0.79	0.79	0.79	0.79	0.79	0.89	0.89	0.89
Adj. Flow (vph)	547	89	29	37	135	351	47	433	39	208	164	761
RTOR Reduction (vph)	0	8	0	0	0	241	0	5	0	0	0	540
Lane Group Flow (vph)	547	110	0	0	172	110	47	467	0	208	164	221
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)			1			1						1
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases						6						8
Actuated Green, G (s)	49.2	63.9			35.4	25.3	5.2	25.7		20.0	40.3	40.3
Effective Green, g (s)	49.2	63.9			35.4	25.3	5.2	25.7		20.0	40.3	40.3
Actuated g/C Ratio	0.35	0.46			0.25	0.18	0.04	0.18		0.14	0.29	0.29
Clearance Time (s)	4.4	4.9			5.1	5.1	4.4	4.9		4.4	5.1	5.1
Vehicle Extension (s)	2.0	3.8			3.8	3.8	2.0	3.8		2.0	3.8	3.8
Lane Grp Cap (vph)	580	760			414	262	61	599		236	500	416
v/s Ratio Prot	c0.33	0.07			0.03		0.03	c0.14		c0.13	0.09	
v/s Ratio Perm					0.08	c0.08						0.15
v/c Ratio	0.94	0.15			0.42	0.42	0.77	0.78		0.88	0.33	0.53
Uniform Delay, d1	43.5	21.7			43.2	50.3	66.3	54.0		58.3	38.7	41.4
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	23.8	0.1			0.9	1.4	41.1	6.7		28.8	0.5	1.6
Delay (s)	67.3	21.9			44.1	51.7	107.4	60.6		87.2	39.2	43.0
Level of Service	E	C			D	D	F	E		F	D	D
Approach Delay (s)		59.3			49.2			64.9			50.6	
Approach LOS		E			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	139.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	487	79	26	29	107	277	37	342	31	185	146	677
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9			5.1	5.1	4.4	4.9		4.4	5.1	5.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99			1.00	0.98	1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96			1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	1655			1709	1444	1641	3241		1641	1727	1437
Flt Permitted	0.95	1.00			0.92	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1641	1655			1593	1444	1641	3241		1641	1727	1437
Peak-hour factor, PHF	0.89	0.89	0.89	0.79	0.79	0.79	0.79	0.79	0.79	0.89	0.89	0.89
Adj. Flow (vph)	547	89	29	37	135	351	47	433	39	208	164	761
RTOR Reduction (vph)	0	8	0	0	0	241	0	5	0	0	0	540
Lane Group Flow (vph)	547	110	0	0	172	110	47	467	0	208	164	221
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)			1			1						1
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases						6						8
Actuated Green, G (s)	49.2	63.9			35.4	25.3	5.2	25.7		20.0	40.3	40.3
Effective Green, g (s)	49.2	63.9			35.4	25.3	5.2	25.7		20.0	40.3	40.3
Actuated g/C Ratio	0.35	0.46			0.25	0.18	0.04	0.18		0.14	0.29	0.29
Clearance Time (s)	4.4	4.9			5.1	5.1	4.4	4.9		4.4	5.1	5.1
Vehicle Extension (s)	2.0	3.8			3.8	3.8	2.0	3.8		2.0	3.8	3.8
Lane Grp Cap (vph)	580	760			414	262	61	599		236	500	416
v/s Ratio Prot	c0.33	0.07			0.03		0.03	c0.14		c0.13	0.09	
v/s Ratio Perm					0.08	c0.08						0.15
v/c Ratio	0.94	0.15			0.42	0.42	0.77	0.78		0.88	0.33	0.53
Uniform Delay, d1	43.5	21.7			43.2	50.3	66.3	54.0		58.3	38.7	41.4
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	23.8	0.1			0.9	1.4	41.1	6.7		28.8	0.5	1.6
Delay (s)	67.3	21.9			44.1	51.7	107.4	60.6		87.2	39.2	43.0
Level of Service	E	C			D	D	F	E		F	D	D
Approach Delay (s)		59.3			49.2			64.9			50.6	
Approach LOS		E			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	139.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	487	79	26	29	107	277	38	342	31	185	146	677
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9			5.1	5.1	4.4	4.9		4.4	5.1	5.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99			1.00	0.98	1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96			1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	1655			1709	1444	1641	3241		1641	1727	1437
Flt Permitted	0.95	1.00			0.92	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1641	1655			1593	1444	1641	3241		1641	1727	1437
Peak-hour factor, PHF	0.89	0.89	0.89	0.79	0.79	0.79	0.79	0.79	0.79	0.89	0.89	0.89
Adj. Flow (vph)	547	89	29	37	135	351	48	433	39	208	164	761
RTOR Reduction (vph)	0	8	0	0	0	241	0	5	0	0	0	540
Lane Group Flow (vph)	547	110	0	0	172	110	48	467	0	208	164	221
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)			1			1						1
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases						6						8
Actuated Green, G (s)	49.2	63.9			35.4	25.3	5.2	25.7		20.0	40.3	40.3
Effective Green, g (s)	49.2	63.9			35.4	25.3	5.2	25.7		20.0	40.3	40.3
Actuated g/C Ratio	0.35	0.46			0.25	0.18	0.04	0.18		0.14	0.29	0.29
Clearance Time (s)	4.4	4.9			5.1	5.1	4.4	4.9		4.4	5.1	5.1
Vehicle Extension (s)	2.0	3.8			3.8	3.8	2.0	3.8		2.0	3.8	3.8
Lane Grp Cap (vph)	580	760			414	262	61	599		236	500	416
v/s Ratio Prot	c0.33	0.07			0.03		0.03	c0.14		c0.13	0.09	
v/s Ratio Perm					0.08	c0.08						0.15
v/c Ratio	0.94	0.15			0.42	0.42	0.79	0.78		0.88	0.33	0.53
Uniform Delay, d1	43.5	21.7			43.2	50.3	66.4	54.0		58.3	38.7	41.4
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	23.8	0.1			0.9	1.4	44.6	6.7		28.8	0.5	1.6
Delay (s)	67.3	21.9			44.1	51.7	111.0	60.6		87.2	39.2	43.0
Level of Service	E	C			D	D	F	E		F	D	D
Approach Delay (s)		59.3			49.2			65.3			50.6	
Approach LOS		E			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	139.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Existing + Project Trigger Calculations

Roadway	From	To	Cross-Section	Threshold LOS E	Existing ADT	LOS w/o Project	Available Capacity	% of Project Trips	LOS w/ Project	Project's External Trip Generation at Time of Impact [1]	Projects Total ADT Generation at Time of Impact
Britannia Boulevard	SR-905 EB Ramps	Airway Road	5-Ln w/RM (2-NB, 3-SB)	45840	22,969	B	22,871	67%	E	34,136	37,678
Airway Road	Cactus Road	Continental Road	2-Ln	30000	2,232	A	4,268	83%	F	5,142	5,675
Airway Road	Continental Road	Britannia Blvd	2-Ln	6500	2,332	A	4,168	83%	F	5,022	5,543
Airway Road	Brittania Blvd	La Media Road	2-Ln	6500	2,927	B	3,573	10%	E	35,730	39,437
Airway Road	La Media Road	Avenida Costa Azul	2-Ln	6500	6,839	E	160	3%	E	5,333	5,886
Siempre Viva Road	Cactus Road	Britannia Blvd	2-Ln	6500	2,142	A	4,358	13%	E	33,523	37,001

Notes:

90.6% of Total Trip Generation due to internal capture.

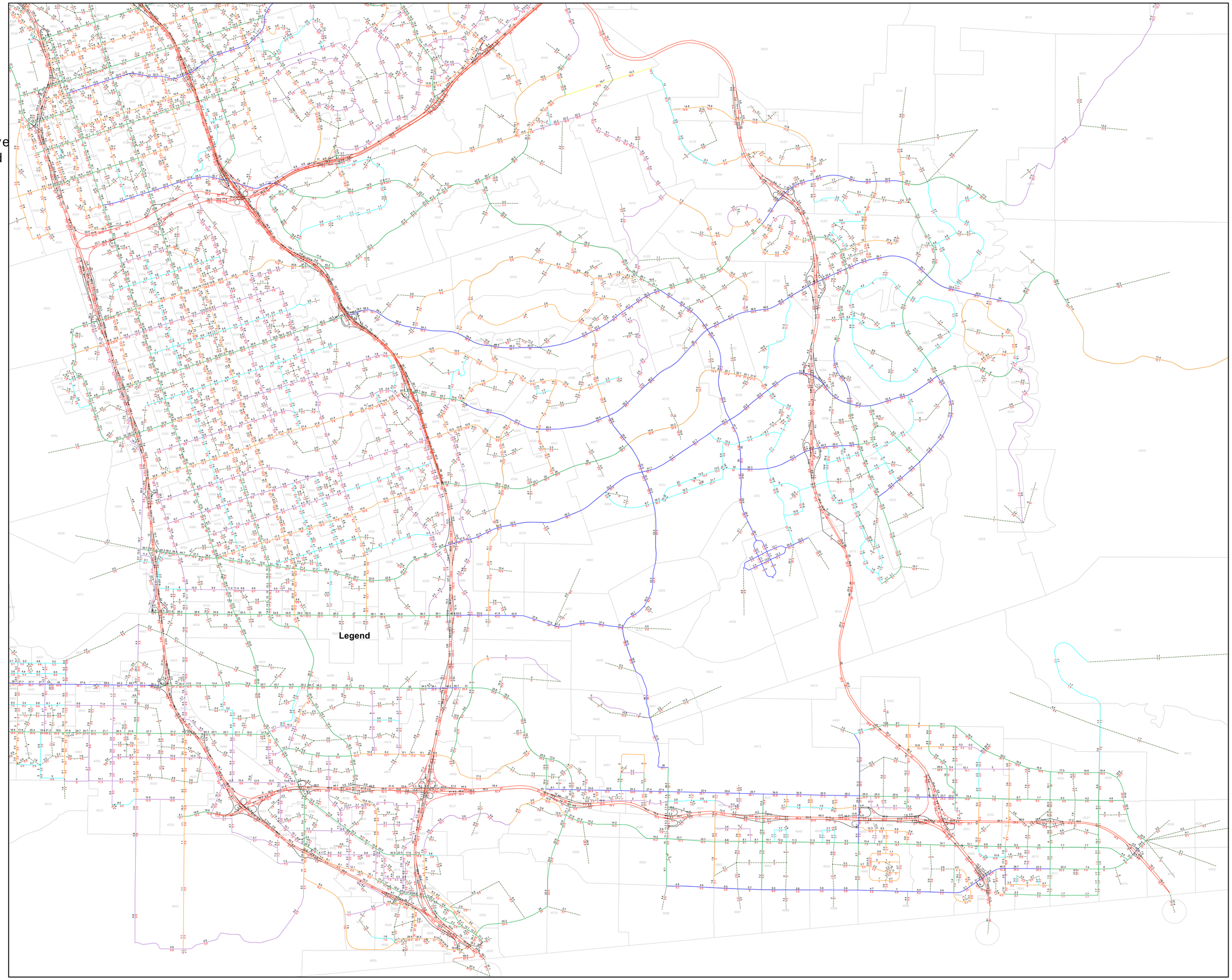
Appendix G
Cumulative Project Information

SANDAG
Series 11
Southbay2

Village 2 B&S

Otay Ranch V-13
Nearterm Cumulative
Model with Updated
Otay Mesa Land Use

2025
ADT Plot



Functional Classifications

- Freeway
- Prime
- Major
- Collector
- Light Collector
- Rural Collector
- Local
- Freeway Ramp
- Local Ramp
- Zone Connector

Traffic Analysis Zones

\# Unadjusted ADT(x1000)

\# Adjusted ADT(x1000)

SAN DIEGO ASSOCIATION OF GOVERNMENTS
401 B STREET, SUITE 800
SAN DIEGO, CALIFORNIA 92101 USA
(619) 699-1900
E-mail: sandag@sandag.org
Web site: www.sandag.org

N

0 0.15 0.3 0.45
Miles

SANDAG

servicebureau

Date: May 16, 2014

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
468	101	SINGLE FAMILY	du	1.0	16.	11.
468	4112	RIGHT-OF-WAY	acre	4.2	0.	0.
468	5007	STREETFRONT COMMERCIAL	acre	1.3	1944.	1411.
468	6002	LOW RISE OFFICE	acre	4.1	1464.	1122.
468	6003	GOV'T OFFICE OR CENTER	acre	0.6	635.	477.
468	6803	JUNIOR COLLEGE	acre	12.6	3241.	2563.
468		TOTAL			7300.	5584.
4044	4113	COMMUNICATION OR UTILITY	acre	28.3	113.	87.
4044	7204	GOLF COURSE	acre	259.4	0.	0.
4044	7205	GOLF CLUB HOUSE	acre	1.0	709.	484.
4044		TOTAL			822.	570.
4045	101	SINGLE FAMILY	du	494.5	7715.	5384.
4045	9101	INACTIVE USE	acre	434.0	0.	0.
4045		TOTAL			7715.	5384.
4089	101	SINGLE FAMILY	du	65.4	1020.	712.
4089		TOTAL			1020.	712.
4099	101	SINGLE FAMILY	du	7.0	109.	76.
4099	9101	INACTIVE USE	acre	31.3	0.	0.
4099		TOTAL			109.	76.
4115	101	SINGLE FAMILY	du	236.0	3682.	2569.
4115	1409	OTHER GROUP QUARTERS	acre	3.9	19.	13.
4115	6109	OTHER PUBLIC SERVICE	acre	0.8	309.	223.
4115	7601	ACTIVE PARK	acre	14.7	980.	645.
4115	9101	INACTIVE USE	acre	132.3	0.	0.
4115		TOTAL			4990.	3451.
4120	101	SINGLE FAMILY	du	360.0	5616.	3919.
4120	102	MULTI-FAMILY	du	305.0	3263.	2291.
4120	4113	COMMUNICATION OR UTILITY	acre	6.3	25.	19.
4120	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4120	7601	ACTIVE PARK	acre	3.5	232.	153.
4120	9101	INACTIVE USE	acre	15.9	0.	0.
4120		TOTAL			11255.	7567.
4123	101	SINGLE FAMILY	du	175.4	2736.	1909.
4123	9101	INACTIVE USE	acre	92.7	0.	0.
4123		TOTAL			2736.	1909.
4131	101	SINGLE FAMILY	du	49.0	764.	533.
4131	102	MULTI-FAMILY	du	188.0	2012.	1412.
4131	5004	NEIGHBORHOOD COMMERCIAL	acre	11.4	17353.	12278.
4131	5007	STREETFRONT COMMERCIAL	acre	4.2	6251.	4538.
4131	6002	LOW RISE OFFICE	acre	0.9	339.	260.
4131	6103	LIBRARY	acre	2.7	1180.	800.
4131	6109	OTHER PUBLIC SERVICE	acre	2.0	799.	578.
4131	6509	OTHER HEALTH CARE	acre	7.0	3433.	2547.
4131	7204	GOLF COURSE	acre	130.2	0.	0.

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4131	7205	GOLF CLUB HOUSE	acre	1.0	709.	484.
4131	7601	ACTIVE PARK	acre	59.9	3987.	2624.
4131		TOTAL			36828.	26054.
4138	101	SINGLE FAMILY	du	511.0	7972.	5563.
4138	9101	INACTIVE USE	acre	11.4	0.	0.
4138		TOTAL			7972.	5563.
4141	101	SINGLE FAMILY	du	215.0	3354.	2340.
4141	9101	INACTIVE USE	acre	25.8	0.	0.
4141		TOTAL			3354.	2340.
4142	101	SINGLE FAMILY	du	460.0	7176.	5008.
4142	6102	CHURCH	acre	5.3	284.	218.
4142	6809	OTHER SCHOOL	acre	0.9	180.	148.
4142	9101	INACTIVE USE	acre	149.4	0.	0.
4142		TOTAL			7640.	5374.
4146	101	SINGLE FAMILY	du	6.0	94.	65.
4146	102	MULTI-FAMILY	du	106.0	1134.	796.
4146	5004	NEIGHBORHOOD COMMERCIAL	acre	12.3	18711.	13239.
4146	6002	LOW RISE OFFICE	acre	2.0	721.	553.
4146		TOTAL			20660.	14653.
4152	101	SINGLE FAMILY	du	166.0	2590.	1807.
4152	102	MULTI-FAMILY	du	357.0	3820.	2682.
4152	9101	INACTIVE USE	acre	27.5	0.	0.
4152		TOTAL			6409.	4489.
4157	102	MULTI-FAMILY	du	120.0	1284.	901.
4157	5003	COMMUNITY COMMERCIAL	acre	11.3	9473.	6703.
4157		TOTAL			10757.	7604.
4158	101	SINGLE FAMILY	du	380.0	5928.	4137.
4158	102	MULTI-FAMILY	du	284.0	3039.	2133.
4158	6105	FIRE OR POLICE STATION	acre	1.4	426.	314.
4158	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4158	7601	ACTIVE PARK	acre	6.8	454.	298.
4158	9101	INACTIVE USE	acre	10.4	0.	0.
4158		TOTAL			11965.	8068.
4159	101	SINGLE FAMILY	du	584.0	9110.	6357.
4159	6109	OTHER PUBLIC SERVICE	acre	2.5	982.	710.
4159	7601	ACTIVE PARK	acre	27.4	1822.	1199.
4159	9101	INACTIVE USE	acre	23.9	0.	0.
4159		TOTAL			11915.	8267.
4160	101	SINGLE FAMILY	du	233.0	3635.	2536.
4160	4113	COMMUNICATION OR UTILITY	acre	0.7	3.	2.
4160	9101	INACTIVE USE	acre	43.0	0.	0.
4160		TOTAL			3637.	2538.

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Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4161	101	SINGLE FAMILY	du	454.0	7082.	4942.
4161	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4161	7607	RESIDENTIAL RECREATION	acre	2.5	0.	0.
4161	9101	INACTIVE USE	acre	120.2	0.	0.
4161		TOTAL			9201.	6127.
4162	4113	COMMUNICATION OR UTILITY	acre	5.4	22.	16.
4162	5004	NEIGHBORHOOD COMMERCIAL	acre	5.8	8776.	6209.
4162	9101	INACTIVE USE	acre	5.9	0.	0.
4162		TOTAL			8797.	6226.
4165	101	SINGLE FAMILY	du	411.0	6412.	4474.
4165	6105	FIRE OR POLICE STATION	acre	1.0	321.	236.
4165	6805	JUNIOR HIGH OR MIDDLE SCHOOL	acre	1.0	4206.	2586.
4165	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4165	9101	INACTIVE USE	acre	59.8	0.	0.
4165		TOTAL			13056.	8481.
4169	101	SINGLE FAMILY	du	240.0	3744.	2613.
4169	4113	COMMUNICATION OR UTILITY	acre	3.9	16.	12.
4169	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4169	9101	INACTIVE USE	acre	87.9	0.	0.
4169		TOTAL			5878.	3809.
4171	101	SINGLE FAMILY	du	237.4	3703.	2584.
4171	102	MULTI-FAMILY	du	110.0	1177.	826.
4171	6809	OTHER SCHOOL	acre	1.0	196.	162.
4171	7210	OTHER RECREATION	acre	6.4	43.	29.
4171	7601	ACTIVE PARK	acre	33.3	2220.	1461.
4171	9101	INACTIVE USE	acre	3.4	0.	0.
4171		TOTAL			7339.	5062.
4172	101	SINGLE FAMILY	du	601.0	9376.	6542.
4172	102	MULTI-FAMILY	du	766.0	8196.	5754.
4172	7602	PASSIVE PARK	acre	4.0	0.	0.
4172	9101	INACTIVE USE	acre	63.9	0.	0.
4172		TOTAL			17572.	12297.
4173	101	SINGLE FAMILY	du	249.3	3889.	2714.
4173	102	MULTI-FAMILY	du	421.8	4513.	3169.
4173	6102	CHURCH	acre	3.3	175.	134.
4173	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4173	7601	ACTIVE PARK	acre	15.6	1038.	683.
4173	9101	INACTIVE USE	acre	7.8	0.	0.
4173		TOTAL			11733.	7884.
4174	101	SINGLE FAMILY	du	10.1	157.	109.
4174	103	MOBILE HOME PARK	du	166.0	1096.	727.
4174	2103	LIGHT INDUSTRY	acre	25.0	2508.	2027.
4174	2104	WAREHOUSING OR STORAGE	acre	0.6	19.	16.
4174	5001	WHOLESALE TRADE	acre	1.5	71.	50.
4174	5009	OTHER COMMERCIAL	acre	0.2	24.	17.

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4174	6002	LOW RISE OFFICE	acre	2.7	971.	744.
4174	9101	INACTIVE USE	acre	0.5	0.	0.
4174		TOTAL			4846.	3691.
4176	101	SINGLE FAMILY	du	99.4	1550.	1082.
4176	6110	CONVENTION CENTER	acre	14.4	1131.	772.
4176	9101	INACTIVE USE	acre	28.9	0.	0.
4176		TOTAL			2682.	1854.
4177	101	SINGLE FAMILY	du	202.0	3151.	2199.
4177	7601	ACTIVE PARK	acre	12.0	797.	524.
4177	9101	INACTIVE USE	acre	57.0	0.	0.
4177		TOTAL			3948.	2723.
4178	101	SINGLE FAMILY	du	223.1	3480.	2429.
4178	102	MULTI-FAMILY	du	386.3	4134.	2902.
4178	1409	OTHER GROUP QUARTERS	acre	1.2	6.	4.
4178	2103	LIGHT INDUSTRY	acre	1.1	111.	90.
4178	9101	INACTIVE USE	acre	0.3	0.	0.
4178		TOTAL			7731.	5425.
4181	101	SINGLE FAMILY	du	175.1	2731.	1906.
4181	6102	CHURCH	acre	4.2	224.	172.
4181	9101	INACTIVE USE	acre	55.6	0.	0.
4181		TOTAL			2956.	2078.
4182	2101	INDUSTRIAL PARK	acre	32.8	6306.	5169.
4182	2103	LIGHT INDUSTRY	acre	42.9	4301.	3476.
4182	2104	WAREHOUSING OR STORAGE	acre	9.4	310.	254.
4182	6104	POST OFFICE	acre	3.2	3529.	2453.
4182	7601	ACTIVE PARK	acre	7.3	487.	320.
4182	9101	INACTIVE USE	acre	1.7	0.	0.
4182		TOTAL			14933.	11672.
4183	2101	INDUSTRIAL PARK	acre	68.7	13205.	10825.
4183	2103	LIGHT INDUSTRY	acre	6.5	654.	529.
4183	5007	STREETFRONT COMMERCIAL	acre	16.8	25154.	18261.
4183	6002	LOW RISE OFFICE	acre	4.3	1531.	1173.
4183	6003	GOV'T OFFICE OR CENTER	acre	1.0	1074.	806.
4183	6509	OTHER HEALTH CARE	acre	1.0	508.	377.
4183	9101	INACTIVE USE	acre	22.4	0.	0.
4183		TOTAL			42127.	31972.
4184	2103	LIGHT INDUSTRY	acre	6.9	688.	556.
4184	2104	WAREHOUSING OR STORAGE	acre	3.0	99.	81.
4184	5003	COMMUNITY COMMERCIAL	acre	10.0	8391.	5937.
4184	5007	STREETFRONT COMMERCIAL	acre	0.9	1376.	999.
4184		TOTAL			10555.	7573.
4185	101	SINGLE FAMILY	du	254.0	3962.	2765.
4185	9101	INACTIVE USE	acre	19.5	0.	0.
4185		TOTAL			3962.	2765.

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Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4189	101	SINGLE FAMILY	du	250.0	3900.	2721.
4189	9101	INACTIVE USE	acre	132.0	0.	0.
4189		TOTAL			3900.	2721.
4190	2103	LIGHT INDUSTRY	acre	5.1	514.	415.
4190	5003	COMMUNITY COMMERCIAL	acre	20.5	17202.	12171.
4190	5007	STREETFRONT COMMERCIAL	acre	7.9	11764.	8540.
4190	6002	LOW RISE OFFICE	acre	1.4	497.	381.
4190	9101	INACTIVE USE	acre	14.8	0.	0.
4190		TOTAL			29976.	21507.
4193	101	SINGLE FAMILY	du	342.0	5335.	3723.
4193	9101	INACTIVE USE	acre	40.7	0.	0.
4193		TOTAL			5335.	3723.
4194	5004	NEIGHBORHOOD COMMERCIAL	acre	2.6	4029.	2851.
4194	5007	STREETFRONT COMMERCIAL	acre	3.7	5503.	3995.
4194	6002	LOW RISE OFFICE	acre	4.1	1450.	1111.
4194	6003	GOV'T OFFICE OR CENTER	acre	3.6	3802.	2854.
4194		TOTAL			14785.	10812.
4195	5003	COMMUNITY COMMERCIAL	acre	48.9	41024.	29025.
4195	6509	OTHER HEALTH CARE	acre	3.1	1509.	1119.
4195	9101	INACTIVE USE	acre	2.4	0.	0.
4195		TOTAL			42532.	30145.
4197	5003	COMMUNITY COMMERCIAL	acre	9.4	7929.	5610.
4197	6002	LOW RISE OFFICE	acre	8.4	3006.	2304.
4197	6102	CHURCH	acre	8.2	436.	335.
4197	6809	OTHER SCHOOL	acre	0.4	78.	64.
4197	9101	INACTIVE USE	acre	0.3	0.	0.
4197		TOTAL			11449.	8314.
4198	101	SINGLE FAMILY	du	285.0	4446.	3102.
4198	6805	JUNIOR HIGH OR MIDDLE SCHOOL	acre	1.0	4206.	2586.
4198	9101	INACTIVE USE	acre	25.5	0.	0.
4198		TOTAL			8652.	5689.
4199	1501	LOW-RISE HOTEL OR MOTEL	acre	2.1	720.	444.
4199	5007	STREETFRONT COMMERCIAL	acre	8.5	12650.	9184.
4199	6002	LOW RISE OFFICE	acre	0.3	105.	80.
4199	7602	PASSIVE PARK	acre	0.7	0.	0.
4199	9101	INACTIVE USE	acre	18.4	0.	0.
4199		TOTAL			13475.	9708.
4201	101	SINGLE FAMILY	du	29.0	452.	316.
4201	102	MULTI-FAMILY	du	334.0	3574.	2509.
4201	6102	CHURCH	acre	1.5	81.	62.
4201	7601	ACTIVE PARK	acre	17.8	1187.	782.
4201		TOTAL			5294.	3668.
4202	102	MULTI-FAMILY	du	772.7	8268.	5805.

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4202	1504	RESORT	acre	190.1	12375.	7629.
4202	1505	HIGH-RISE HOTEL	acre	1390.9	18082.	11147.
4202	4113	COMMUNICATION OR UTILITY	acre	8.1	32.	25.
4202	5012	BAYFRONT NEIGHBORHOOD COM	acre	115.9	19647.	13901.
4202	6005	BAYFRONT HIGH RISE OF	acre	46.4	992.	786.
4202	6109	OTHER PUBLIC SERVICE	acre	3.0	1199.	867.
4202	7601	ACTIVE PARK	acre	17.9	1194.	786.
4202	9101	INACTIVE USE	acre	250.9	0.	0.
4202		TOTAL			61789.	40945.
4204	101	SINGLE FAMILY	du	263.5	4111.	2868.
4204	102	MULTI-FAMILY	du	189.5	2028.	1424.
4204	1409	OTHER GROUP QUARTERS	acre	6.5	31.	22.
4204	5007	STREETFRONT COMMERCIAL	acre	2.9	4292.	3116.
4204	6002	LOW RISE OFFICE	acre	0.4	143.	109.
4204		TOTAL			10604.	7539.
4206	101	SINGLE FAMILY	du	79.0	1232.	860.
4206	102	MULTI-FAMILY	du	231.0	2472.	1735.
4206	7601	ACTIVE PARK	acre	1.9	127.	84.
4206		TOTAL			3831.	2679.
4207	101	SINGLE FAMILY	du	329.0	5132.	3581.
4207	102	MULTI-FAMILY	du	507.0	5425.	3809.
4207	4113	COMMUNICATION OR UTILITY	acre	2.3	9.	7.
4207	7204	GOLF COURSE	acre	37.2	0.	0.
4207	7601	ACTIVE PARK	acre	3.2	213.	140.
4207	9101	INACTIVE USE	acre	14.2	0.	0.
4207		TOTAL			10780.	7537.
4208	1501	LOW-RISE HOTEL OR MOTEL	acre	4.0	1365.	842.
4208	5007	STREETFRONT COMMERCIAL	acre	10.1	15069.	10939.
4208	9101	INACTIVE USE	acre	3.5	0.	0.
4208		TOTAL			16434.	11781.
4209	101	SINGLE FAMILY	du	599.0	9344.	6521.
4209	6102	CHURCH	acre	5.0	266.	205.
4209	6809	OTHER SCHOOL	acre	1.2	242.	200.
4209	7601	ACTIVE PARK	acre	5.0	334.	220.
4209	9101	INACTIVE USE	acre	77.3	0.	0.
4209		TOTAL			10186.	7144.
4210	101	SINGLE FAMILY	du	543.5	8478.	5916.
4210	102	MULTI-FAMILY	du	330.0	3531.	2479.
4210	4113	COMMUNICATION OR UTILITY	acre	3.2	13.	10.
4210	6102	CHURCH	acre	1.5	80.	62.
4210	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4210	7601	ACTIVE PARK	acre	15.0	1002.	659.
4210	9101	INACTIVE USE	acre	134.9	0.	0.
4210		TOTAL			15222.	10310.
4211	101	SINGLE FAMILY	du	4.3	67.	47.

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4211	102	MULTI-FAMILY	du	482.8	5166.	3627.
4211	1501	LOW-RISE HOTEL OR MOTEL	acre	0.2	54.	33.
4211	4119	OTHER TRANSPORTATION	acre	0.9	104.	80.
4211	5007	STREETFRONT COMMERCIAL	acre	6.0	9022.	6550.
4211		TOTAL			14414.	10337.
4212	101	SINGLE FAMILY	du	438.9	6846.	4777.
4212	102	MULTI-FAMILY	du	297.0	3178.	2231.
4212	9101	INACTIVE USE	acre	0.9	0.	0.
4212		TOTAL			10024.	7009.
4213	101	SINGLE FAMILY	du	224.0	3494.	2438.
4213	103	MOBILE HOME PARK	du	196.0	1294.	858.
4213	9101	INACTIVE USE	acre	1.8	0.	0.
4213		TOTAL			4788.	3296.
4214	5004	NEIGHBORHOOD COMMERCIAL	acre	13.6	20680.	14632.
4214	6804	SENIOR HIGH SCHOOL	acre	1.0	5369.	2423.
4214		TOTAL			26049.	17054.
4215	101	SINGLE FAMILY	du	345.0	5382.	3756.
4215	4113	COMMUNICATION OR UTILITY	acre	3.6	15.	11.
4215	9101	INACTIVE USE	acre	35.9	0.	0.
4215		TOTAL			5397.	3767.
4216	101	SINGLE FAMILY	du	8.6	135.	94.
4216	102	MULTI-FAMILY	du	700.4	7494.	5261.
4216	103	MOBILE HOME PARK	du	17.0	112.	75.
4216	9101	INACTIVE USE	acre	1.5	0.	0.
4216		TOTAL			7741.	5430.
4218	102	MULTI-FAMILY	du	84.0	899.	631.
4218	6002	LOW RISE OFFICE	acre	3.0	1061.	813.
4218	9101	INACTIVE USE	acre	4.5	0.	0.
4218		TOTAL			1959.	1444.
4219	101	SINGLE FAMILY	du	93.0	1451.	1012.
4219	102	MULTI-FAMILY	du	406.0	4344.	3050.
4219	1409	OTHER GROUP QUARTERS	acre	1.1	5.	4.
4219	5007	STREETFRONT COMMERCIAL	acre	2.2	3236.	2349.
4219	6002	LOW RISE OFFICE	acre	0.1	41.	32.
4219	6102	CHURCH	acre	1.4	73.	56.
4219		TOTAL			9150.	6503.
4220	101	SINGLE FAMILY	du	512.0	7987.	5574.
4220	102	MULTI-FAMILY	du	200.0	2140.	1502.
4220	5004	NEIGHBORHOOD COMMERCIAL	acre	6.3	9676.	6846.
4220	6102	CHURCH	acre	4.6	248.	190.
4220	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4220	7601	ACTIVE PARK	acre	7.5	499.	328.
4220	9101	INACTIVE USE	acre	2.0	0.	0.
4220		TOTAL			22669.	15626.

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Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4221	5003	COMMUNITY COMMERCIAL	acre	19.2	16086.	11381.
4221	7601	ACTIVE PARK	acre	14.9	991.	652.
4221	9101	INACTIVE USE	acre	22.2	0.	0.
4221		TOTAL			17077.	12033.
4222	101	SINGLE FAMILY	du	10.0	156.	109.
4222	102	MULTI-FAMILY	du	322.6	3452.	2423.
4222	103	MOBILE HOME PARK	du	28.9	191.	126.
4222	1501	LOW-RISE HOTEL OR MOTEL	acre	4.0	1365.	842.
4222	4112	RIGHT-OF-WAY	acre	3.1	0.	0.
4222	5007	STREETFRONT COMMERCIAL	acre	3.8	5683.	4126.
4222	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4222		TOTAL			12965.	8811.
4223	102	MULTI-FAMILY	du	94.0	1006.	706.
4223	6509	OTHER HEALTH CARE	acre	1.6	796.	590.
4223	9101	INACTIVE USE	acre	8.6	0.	0.
4223		TOTAL			1802.	1297.
4224	101	SINGLE FAMILY	du	77.0	1201.	838.
4224	102	MULTI-FAMILY	du	56.0	599.	421.
4224	7210	OTHER RECREATION	acre	0.1	1.	0.
4224	7601	ACTIVE PARK	acre	20.4	1357.	893.
4224	9101	INACTIVE USE	acre	4.9	0.	0.
4224		TOTAL			3158.	2152.
4225	101	SINGLE FAMILY	du	561.0	8752.	6107.
4225	102	MULTI-FAMILY	du	93.0	995.	699.
4225	7601	ACTIVE PARK	acre	18.3	1221.	804.
4225	9101	INACTIVE USE	acre	15.2	0.	0.
4225		TOTAL			10968.	7609.
4226	101	SINGLE FAMILY	du	777.0	12121.	8458.
4226	7601	ACTIVE PARK	acre	12.9	856.	564.
4226	9101	INACTIVE USE	acre	36.7	0.	0.
4226		TOTAL			12978.	9022.
4227	101	SINGLE FAMILY	du	80.4	1254.	875.
4227	102	MULTI-FAMILY	du	416.0	4451.	3125.
4227	6102	CHURCH	acre	1.2	64.	49.
4227	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4227		TOTAL			7888.	5235.
4228	101	SINGLE FAMILY	du	132.3	2063.	1440.
4228	102	MULTI-FAMILY	du	387.3	4144.	2910.
4228	6002	LOW RISE OFFICE	acre	1.8	632.	484.
4228		TOTAL			6840.	4834.
4232	101	SINGLE FAMILY	du	6.4	99.	69.
4232	102	MULTI-FAMILY	du	464.5	4970.	3489.
4232	103	MOBILE HOME PARK	du	10.7	71.	47.
4232	1501	LOW-RISE HOTEL OR MOTEL	acre	1.5	517.	319.

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Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4232	5004	NEIGHBORHOOD COMMERCIAL	acre	3.1	4753.	3363.
4232	5007	STREETFRONT COMMERCIAL	acre	5.0	7534.	5470.
4232	6806	ELEMENTARY SCHOOL	acre	0.9	1941.	1085.
4232	9101	INACTIVE USE	acre	0.1	0.	0.
4232		TOTAL			19884.	13841.
4233	101	SINGLE FAMILY	du	8.2	128.	89.
4233	102	MULTI-FAMILY	du	637.6	6823.	4790.
4233	4114	PARKING	acre	0.7	0.	0.
4233	5007	STREETFRONT COMMERCIAL	acre	6.6	9857.	7156.
4233	6002	LOW RISE OFFICE	acre	3.0	1068.	819.
4233	6509	OTHER HEALTH CARE	acre	0.7	355.	263.
4233	7210	OTHER RECREATION	acre	0.0	0.	0.
4233	9101	INACTIVE USE	acre	0.1	0.	0.
4233		TOTAL			18231.	13117.
4234	101	SINGLE FAMILY	du	191.0	2980.	2079.
4234	102	MULTI-FAMILY	du	97.0	1038.	729.
4234	7204	GOLF COURSE	acre	53.4	0.	0.
4234	7205	GOLF CLUB HOUSE	acre	1.0	709.	484.
4234		TOTAL			4726.	3292.
4235	6002	LOW RISE OFFICE	acre	10.7	3825.	2931.
4235	9101	INACTIVE USE	acre	10.9	0.	0.
4235		TOTAL			3825.	2931.
4236	101	SINGLE FAMILY	du	518.0	8081.	5639.
4236	102	MULTI-FAMILY	du	119.0	1273.	894.
4236	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4236	7601	ACTIVE PARK	acre	5.6	373.	245.
4236	9101	INACTIVE USE	acre	185.6	0.	0.
4236		TOTAL			11846.	7963.
4237	6803	JUNIOR COLLEGE	acre	149.0	38313.	30299.
4237		TOTAL			38313.	30299.
4238	101	SINGLE FAMILY	du	44.3	691.	482.
4238	102	MULTI-FAMILY	du	203.6	2178.	1529.
4238	5007	STREETFRONT COMMERCIAL	acre	1.7	2533.	1839.
4238	6002	LOW RISE OFFICE	acre	0.7	265.	203.
4238	6003	GOV'T OFFICE OR CENTER	acre	7.1	7514.	5641.
4238	6103	LIBRARY	acre	4.0	1753.	1189.
4238	6105	FIRE OR POLICE STATION	acre	0.8	251.	185.
4238	7602	PASSIVE PARK	acre	4.0	0.	0.
4238		TOTAL			15185.	11068.
4239	102	MULTI-FAMILY	du	707.0	7565.	5311.
4239	6002	LOW RISE OFFICE	acre	1.8	625.	479.
4239	6102	CHURCH	acre	8.4	451.	346.
4239	6103	LIBRARY	acre	2.3	1013.	687.
4239	6105	FIRE OR POLICE STATION	acre	1.5	467.	344.
4239	7210	OTHER RECREATION	acre	4.8	31.	21.

Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4239	9101	INACTIVE USE	acre	21.0	0.	0.
4239		TOTAL			10152.	7189.
4240	101	SINGLE FAMILY	du	504.8	7875.	5495.
4240		TOTAL			7875.	5495.
4241	101	SINGLE FAMILY	du	944.0	14726.	10276.
4241	102	MULTI-FAMILY	du	382.0	4087.	2870.
4241	4113	COMMUNICATION OR UTILITY	acre	55.3	221.	169.
4241	6804	SENIOR HIGH SCHOOL	acre	1.0	5369.	2423.
4241	7602	PASSIVE PARK	acre	4.9	0.	0.
4241	9101	INACTIVE USE	acre	31.2	0.	0.
4241		TOTAL			24404.	15737.
4242	102	MULTI-FAMILY	du	252.0	2696.	1893.
4242	4113	COMMUNICATION OR UTILITY	acre	11.2	45.	34.
4242	6103	LIBRARY	acre	0.2	101.	68.
4242	6804	SENIOR HIGH SCHOOL	acre	1.0	5369.	2423.
4242	9101	INACTIVE USE	acre	10.5	0.	0.
4242		TOTAL			8211.	4418.
4243	101	SINGLE FAMILY	du	595.0	9282.	6477.
4243	102	MULTI-FAMILY	du	38.0	407.	285.
4243	6102	CHURCH	acre	4.1	221.	170.
4243	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4243	7601	ACTIVE PARK	acre	21.3	1419.	934.
4243	9101	INACTIVE USE	acre	5.8	0.	0.
4243		TOTAL			13448.	9051.
4244	101	SINGLE FAMILY	du	121.5	1895.	1323.
4244	102	MULTI-FAMILY	du	238.0	2547.	1788.
4244	4114	PARKING	acre	1.0	0.	0.
4244	6102	CHURCH	acre	0.8	45.	34.
4244		TOTAL			4487.	3145.
4245	101	SINGLE FAMILY	du	22.3	347.	242.
4245	102	MULTI-FAMILY	du	442.3	4733.	3323.
4245	103	MOBILE HOME PARK	du	38.4	253.	168.
4245	1409	OTHER GROUP QUARTERS	acre	1.6	8.	5.
4245	1501	LOW-RISE HOTEL OR MOTEL	acre	3.2	1104.	681.
4245	5007	STREETFRONT COMMERCIAL	acre	9.1	13564.	9847.
4245		TOTAL			20010.	14267.
4246	101	SINGLE FAMILY	du	7.3	113.	79.
4246	102	MULTI-FAMILY	du	731.9	7831.	5498.
4246	1409	OTHER GROUP QUARTERS	acre	0.2	1.	1.
4246	4114	PARKING	acre	0.9	0.	0.
4246	5007	STREETFRONT COMMERCIAL	acre	5.3	7970.	5786.
4246	6002	LOW RISE OFFICE	acre	1.8	653.	501.
4246	6102	CHURCH	acre	0.4	23.	18.
4246	6509	OTHER HEALTH CARE	acre	0.1	23.	17.
4246	7601	ACTIVE PARK	acre	7.8	517.	341.

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4246	7602	PASSIVE PARK	acre	1.5	0.	0.
4246		TOTAL			17132.	12240.
4248	5003	COMMUNITY COMMERCIAL	acre	29.0	24359.	17235.
4248	6002	LOW RISE OFFICE	acre	1.5	546.	419.
4248		TOTAL			24905.	17654.
4249	101	SINGLE FAMILY	du	231.0	3603.	2514.
4249	102	MULTI-FAMILY	du	458.8	4909.	3447.
4249	6102	CHURCH	acre	2.6	141.	108.
4249		TOTAL			8653.	6069.
4250	101	SINGLE FAMILY	du	0.7	11.	7.
4250	102	MULTI-FAMILY	du	935.0	10004.	7024.
4250	1501	LOW-RISE HOTEL OR MOTEL	acre	4.3	1473.	908.
4250	4111	TRANSIT STATION	acre	1.3	373.	285.
4250	4112	RIGHT-OF-WAY	acre	1.4	0.	0.
4250	4119	OTHER TRANSPORTATION	acre	1.4	151.	115.
4250	5007	STREETFRONT COMMERCIAL	acre	7.0	10410.	7557.
4250	6001	HIGH RISE OFFICE	acre	1.8	4933.	3909.
4250	9101	INACTIVE USE	acre	0.1	0.	0.
4250		TOTAL			27355.	19806.
4251	101	SINGLE FAMILY	du	58.0	905.	631.
4251	102	MULTI-FAMILY	du	274.0	2932.	2058.
4251	9101	INACTIVE USE	acre	26.1	0.	0.
4251		TOTAL			3837.	2690.
4252	101	SINGLE FAMILY	du	12.9	202.	141.
4252	102	MULTI-FAMILY	du	294.9	3156.	2215.
4252	4113	COMMUNICATION OR UTILITY	acre	0.1	0.	0.
4252	6002	LOW RISE OFFICE	acre	0.5	181.	139.
4252	6003	GOV'T OFFICE OR CENTER	acre	4.2	4452.	3343.
4252	6105	FIRE OR POLICE STATION	acre	3.5	1080.	796.
4252	6509	OTHER HEALTH CARE	acre	0.7	331.	245.
4252	7601	ACTIVE PARK	acre	0.9	62.	41.
4252		TOTAL			9464.	6920.
4253	101	SINGLE FAMILY	du	311.0	4852.	3386.
4253	102	MULTI-FAMILY	du	117.0	1252.	879.
4253	6102	CHURCH	acre	4.6	247.	189.
4253	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4253	7601	ACTIVE PARK	acre	5.0	333.	219.
4253	9101	INACTIVE USE	acre	19.5	0.	0.
4253		TOTAL			8802.	5858.
4254	101	SINGLE FAMILY	du	136.0	2122.	1480.
4254	102	MULTI-FAMILY	du	56.0	599.	421.
4254	6109	OTHER PUBLIC SERVICE	acre	6.0	2384.	1724.
4254	6804	SENIOR HIGH SCHOOL	acre	1.0	5369.	2423.
4254	9101	INACTIVE USE	acre	1.8	0.	0.
4254		TOTAL			10474.	6047.

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Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4255	101	SINGLE FAMILY	du	1155.0	18018.	12573.
4255	102	MULTI-FAMILY	du	78.0	835.	586.
4255	4113	COMMUNICATION OR UTILITY	acre	14.3	57.	44.
4255	6102	CHURCH	acre	12.2	653.	501.
4255	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4255	7204	GOLF COURSE	acre	58.0	0.	0.
4255	7601	ACTIVE PARK	acre	11.8	784.	516.
4255	7602	PASSIVE PARK	acre	3.2	0.	0.
4255		TOTAL			22465.	15405.
4256	101	SINGLE FAMILY	du	22.7	355.	247.
4256	102	MULTI-FAMILY	du	537.9	5755.	4040.
4256	6102	CHURCH	acre	1.2	64.	49.
4256	6109	OTHER PUBLIC SERVICE	acre	0.0	14.	10.
4256		TOTAL			6187.	4347.
4257	101	SINGLE FAMILY	du	395.0	6162.	4300.
4257	102	MULTI-FAMILY	du	96.0	1027.	721.
4257	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4257	7607	RESIDENTIAL RECREATION	acre	6.1	0.	0.
4257	9101	INACTIVE USE	acre	29.3	0.	0.
4257		TOTAL			9308.	6206.
4258	102	MULTI-FAMILY	du	409.0	4376.	3072.
4258	9101	INACTIVE USE	acre	31.2	0.	0.
4258		TOTAL			4376.	3072.
4259	2103	LIGHT INDUSTRY	acre	6.0	599.	484.
4259	5003	COMMUNITY COMMERCIAL	acre	11.4	9574.	6774.
4259	6002	LOW RISE OFFICE	acre	5.3	1910.	1464.
4259	7210	OTHER RECREATION	acre	5.1	34.	23.
4259		TOTAL			12118.	8746.
4260	101	SINGLE FAMILY	du	2.7	43.	30.
4260	102	MULTI-FAMILY	du	696.1	7448.	5229.
4260	103	MOBILE HOME PARK	du	52.7	348.	231.
4260	1501	LOW-RISE HOTEL OR MOTEL	acre	2.8	939.	579.
4260	5007	STREETFRONT COMMERCIAL	acre	4.3	6420.	4661.
4260	6109	OTHER PUBLIC SERVICE	acre	0.1	41.	29.
4260	9101	INACTIVE USE	acre	0.2	0.	0.
4260		TOTAL			15238.	10758.
4261	101	SINGLE FAMILY	du	5.9	92.	64.
4261	102	MULTI-FAMILY	du	1036.7	11092.	7788.
4261	1501	LOW-RISE HOTEL OR MOTEL	acre	0.1	17.	10.
4261	5007	STREETFRONT COMMERCIAL	acre	2.2	3371.	2447.
4261	6001	HIGH RISE OFFICE	acre	4.0	10925.	8656.
4261	6002	LOW RISE OFFICE	acre	1.4	484.	371.
4261	6102	CHURCH	acre	0.6	29.	22.
4261	6806	ELEMENTARY SCHOOL	acre	0.2	481.	269.
4261	9101	INACTIVE USE	acre	0.9	0.	0.
4261		TOTAL			26491.	19628.

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Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4262	101	SINGLE FAMILY	du	224.0	3494.	2438.
4262	7602	PASSIVE PARK	acre	0.9	0.	0.
4262	9101	INACTIVE USE	acre	13.2	0.	0.
4262		TOTAL			3494.	2438.
4263	5003	COMMUNITY COMMERCIAL	acre	42.7	35821.	25345.
4263	9101	INACTIVE USE	acre	2.0	0.	0.
4263		TOTAL			35821.	25345.
4264	5003	COMMUNITY COMMERCIAL	acre	17.8	14953.	10580.
4264	9101	INACTIVE USE	acre	1.6	0.	0.
4264		TOTAL			14953.	10580.
4265	101	SINGLE FAMILY	du	403.0	6287.	4387.
4265	4113	COMMUNICATION OR UTILITY	acre	0.9	4.	3.
4265	9101	INACTIVE USE	acre	79.2	0.	0.
4265		TOTAL			6290.	4390.
4266	101	SINGLE FAMILY	du	413.0	6443.	4496.
4266	4113	COMMUNICATION OR UTILITY	acre	1.8	7.	5.
4266	6102	CHURCH	acre	2.3	121.	93.
4266	9101	INACTIVE USE	acre	5.2	0.	0.
4266		TOTAL			6571.	4594.
4267	101	SINGLE FAMILY	du	680.0	10608.	7402.
4267	4113	COMMUNICATION OR UTILITY	acre	1.4	6.	4.
4267	5007	STREETFRONT COMMERCIAL	acre	0.1	200.	145.
4267	6002	LOW RISE OFFICE	acre	0.7	254.	195.
4267	6509	OTHER HEALTH CARE	acre	0.1	37.	27.
4267	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4267	7602	PASSIVE PARK	acre	5.3	0.	0.
4267	9101	INACTIVE USE	acre	54.7	0.	0.
4267		TOTAL			13223.	8959.
4268	101	SINGLE FAMILY	du	0.2	4.	2.
4268	102	MULTI-FAMILY	du	1132.4	12117.	8507.
4268	103	MOBILE HOME PARK	du	73.4	484.	321.
4268	4112	RIGHT-OF-WAY	acre	2.3	0.	0.
4268	4119	OTHER TRANSPORTATION	acre	0.7	82.	62.
4268	5007	STREETFRONT COMMERCIAL	acre	1.7	2489.	1807.
4268	7601	ACTIVE PARK	acre	3.1	206.	135.
4268		TOTAL			15381.	10835.
4269	101	SINGLE FAMILY	du	15.4	241.	168.
4269	102	MULTI-FAMILY	du	706.1	7555.	5304.
4269	4114	PARKING	acre	0.3	0.	0.
4269	5007	STREETFRONT COMMERCIAL	acre	3.1	4651.	3376.
4269	6001	HIGH RISE OFFICE	acre	1.9	5114.	4052.
4269	6002	LOW RISE OFFICE	acre	1.5	540.	414.
4269	6102	CHURCH	acre	0.2	13.	10.
4269	6502	HOSPITAL	acre	13.3	4489.	3302.
4269	6509	OTHER HEALTH CARE	acre	4.1	2022.	1500.

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4269	6805	JUNIOR HIGH OR MIDDLE SCHOOL	acre	1.0	4206.	2586.
4269	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4269		TOTAL			30949.	21898.
4270	101	SINGLE FAMILY	du	874.0	13634.	9514.
4270	102	MULTI-FAMILY	du	328.0	3510.	2464.
4270	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4270	7601	ACTIVE PARK	acre	11.6	771.	507.
4270	7602	PASSIVE PARK	acre	3.0	0.	0.
4270	9101	INACTIVE USE	acre	51.1	0.	0.
4270		TOTAL			20033.	13670.
4271	101	SINGLE FAMILY	du	437.0	6817.	4757.
4271	102	MULTI-FAMILY	du	9.0	96.	68.
4271	4113	COMMUNICATION OR UTILITY	acre	0.2	1.	1.
4271	6102	CHURCH	acre	7.6	405.	311.
4271	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4271	7601	ACTIVE PARK	acre	6.0	398.	262.
4271		TOTAL			9835.	6583.
4272	2001	HEAVY INDUSTRY	acre	9.5	739.	611.
4272	2103	LIGHT INDUSTRY	acre	8.7	874.	706.
4272	4113	COMMUNICATION OR UTILITY	acre	3.7	15.	11.
4272	6002	LOW RISE OFFICE	acre	11.4	4078.	3126.
4272	9101	INACTIVE USE	acre	18.2	0.	0.
4272		TOTAL			5706.	4455.
4273	101	SINGLE FAMILY	du	515.0	8034.	5606.
4273	4113	COMMUNICATION OR UTILITY	acre	4.3	17.	13.
4273	6102	CHURCH	acre	2.5	131.	100.
4273	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4273	6809	OTHER SCHOOL	acre	1.8	352.	290.
4273	7601	ACTIVE PARK	acre	5.9	393.	259.
4273	9101	INACTIVE USE	acre	22.0	0.	0.
4273		TOTAL			11045.	7454.
4274	102	MULTI-FAMILY	du	499.5	5344.	3752.
4274	5007	STREETFRONT COMMERCIAL	acre	0.2	266.	193.
4274	9101	INACTIVE USE	acre	5.5	0.	0.
4274		TOTAL			5610.	3945.
4275	101	SINGLE FAMILY	du	278.0	4337.	3026.
4275	102	MULTI-FAMILY	du	280.0	2996.	2103.
4275	6805	JUNIOR HIGH OR MIDDLE SCHOOL	acre	1.0	4206.	2586.
4275	7601	ACTIVE PARK	acre	11.2	749.	493.
4275	9101	INACTIVE USE	acre	26.1	0.	0.
4275		TOTAL			12287.	8208.
4276	101	SINGLE FAMILY	du	9.1	142.	99.
4276	102	MULTI-FAMILY	du	862.7	9231.	6481.
4276	103	MOBILE HOME PARK	du	13.9	92.	61.
4276	1501	LOW-RISE HOTEL OR MOTEL	acre	1.8	622.	383.

Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4276	5007	STREETFRONT COMMERCIAL	acre	13.1	19621.	14244.
4276	6001	HIGH RISE OFFICE	acre	0.2	427.	338.
4276	6002	LOW RISE OFFICE	acre	0.5	189.	145.
4276	6102	CHURCH	acre	0.1	7.	6.
4276		TOTAL			30330.	21757.
4277	101	SINGLE FAMILY	du	54.5	849.	593.
4277	102	MULTI-FAMILY	du	152.2	1628.	1143.
4277	1401	JAIL	acre	2.4	44.	32.
4277	4113	COMMUNICATION OR UTILITY	acre	0.7	3.	2.
4277	5007	STREETFRONT COMMERCIAL	acre	0.2	313.	227.
4277	6001	HIGH RISE OFFICE	acre	0.5	1452.	1151.
4277	6002	LOW RISE OFFICE	acre	2.1	753.	577.
4277	6003	GOV'T OFFICE OR CENTER	acre	12.4	13143.	9867.
4277	6509	OTHER HEALTH CARE	acre	0.3	132.	98.
4277	7210	OTHER RECREATION	acre	0.1	1.	0.
4277		TOTAL			18317.	13690.
4278	1501	LOW-RISE HOTEL OR MOTEL	acre	2.6	895.	552.
4278	2103	LIGHT INDUSTRY	acre	4.1	412.	333.
4278	4114	PARKING	acre	1.0	0.	0.
4278	5003	COMMUNITY COMMERCIAL	acre	14.9	12520.	8858.
4278	9101	INACTIVE USE	acre	9.6	0.	0.
4278		TOTAL			13827.	9743.
4279	101	SINGLE FAMILY	du	543.0	8471.	5911.
4279	102	MULTI-FAMILY	du	90.0	963.	676.
4279	5004	NEIGHBORHOOD COMMERCIAL	acre	1.8	2738.	1937.
4279	5007	STREETFRONT COMMERCIAL	acre	0.1	129.	93.
4279	9101	INACTIVE USE	acre	7.0	0.	0.
4279		TOTAL			12300.	8618.
4280	101	SINGLE FAMILY	du	298.0	4650.	3244.
4280		TOTAL			4650.	3244.
4281	5007	STREETFRONT COMMERCIAL	acre	0.3	510.	370.
4281	7207	MARINA	acre	9.7	540.	369.
4281	7601	ACTIVE PARK	acre	14.2	943.	621.
4281	9101	INACTIVE USE	acre	1.3	0.	0.
4281		TOTAL			1993.	1359.
4282	101	SINGLE FAMILY	du	67.7	1056.	737.
4282	102	MULTI-FAMILY	du	277.1	2965.	2082.
4282	5007	STREETFRONT COMMERCIAL	acre	0.3	505.	367.
4282	6002	LOW RISE OFFICE	acre	4.1	1449.	1111.
4282	6509	OTHER HEALTH CARE	acre	0.1	60.	45.
4282	6809	OTHER SCHOOL	acre	0.1	9.	7.
4282		TOTAL			6045.	4348.
4283	102	MULTI-FAMILY	du	681.2	7289.	5117.
4283	1502	HIGH-RISE HOTEL	acre	0.4	621.	383.
4283	4111	TRANSIT STATION	acre	1.1	308.	235.

Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4283	4112	RIGHT-OF-WAY	acre	2.5	0.	0.
4283	5007	STREETFRONT COMMERCIAL	acre	1.4	2053.	1491.
4283	6001	HIGH RISE OFFICE	acre	0.8	2114.	1675.
4283		TOTAL			12385.	8901.
4284	5003	COMMUNITY COMMERCIAL	acre	42.0	35284.	24965.
4284		TOTAL			35284.	24965.
4285	102	MULTI-FAMILY	du	704.8	7541.	5294.
4285		TOTAL			7541.	5294.
4286	2001	HEAVY INDUSTRY	acre	44.9	3495.	2889.
4286	2103	LIGHT INDUSTRY	acre	3.4	337.	272.
4286	9101	INACTIVE USE	acre	1.0	0.	0.
4286		TOTAL			3832.	3162.
4287	102	MULTI-FAMILY	du	410.3	4390.	3082.
4287	5002	REGIONAL COMMERCIAL	acre	38.2	28722.	20280.
4287	6002	LOW RISE OFFICE	acre	8.6	3054.	2341.
4287		TOTAL			36167.	25704.
4288	101	SINGLE FAMILY	du	175.0	2730.	1905.
4288	102	MULTI-FAMILY	du	76.0	813.	571.
4288	7210	OTHER RECREATION	acre	0.3	2.	1.
4288		TOTAL			3545.	2477.
4289	7601	ACTIVE PARK	acre	25.7	1709.	1124.
4289	9101	INACTIVE USE	acre	1418.0	0.	0.
4289		TOTAL			1709.	1124.
4290	102	MULTI-FAMILY	du	269.0	2878.	2021.
4290	6102	CHURCH	acre	8.9	476.	365.
4290	7607	RESIDENTIAL RECREATION	acre	4.0	0.	0.
4290	9101	INACTIVE USE	acre	4.1	0.	0.
4290		TOTAL			3354.	2386.
4291	102	MULTI-FAMILY	du	330.0	3530.	2479.
4291	9101	INACTIVE USE	acre	15.4	0.	0.
4291		TOTAL			3530.	2479.
4292	7208	OTC	acre	149.6	1002.	684.
4292		TOTAL			1002.	684.
4293	101	SINGLE FAMILY	du	319.0	4976.	3473.
4293	4113	COMMUNICATION OR UTILITY	acre	3.8	15.	12.
4293	7601	ACTIVE PARK	acre	4.5	297.	195.
4293	9101	INACTIVE USE	acre	31.6	0.	0.
4293		TOTAL			5289.	3680.
4294	5007	STREETFRONT COMMERCIAL	acre	0.9	1331.	966.
4294	6105	FIRE OR POLICE STATION	acre	0.6	187.	138.
4294	6805	JUNIOR HIGH OR MIDDLE SCHOOL	acre	1.0	4206.	2586.

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4294	6807	SCHOOL DISTRICT OFFICE	acre	11.0	2772.	2125.
4294		TOTAL			8495.	5815.
4295	101	SINGLE FAMILY	du	164.0	2558.	1785.
4295	102	MULTI-FAMILY	du	710.0	7597.	5334.
4295	5007	STREETFRONT COMMERCIAL	acre	1.1	1675.	1216.
4295	7601	ACTIVE PARK	acre	5.6	372.	245.
4295	9101	INACTIVE USE	acre	22.2	0.	0.
4295		TOTAL			12202.	8579.
4296	101	SINGLE FAMILY	du	937.4	14623.	10204.
4296	102	MULTI-FAMILY	du	1346.5	14408.	10115.
4296	5007	STREETFRONT COMMERCIAL	acre	5.2	7742.	5621.
4296	6102	CHURCH	acre	13.6	724.	556.
4296	6804	SENIOR HIGH SCHOOL	acre	1.0	5369.	2423.
4296	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4296	6809	OTHER SCHOOL	acre	0.1	14.	12.
4296	7601	ACTIVE PARK	acre	7.6	505.	332.
4296	7607	RESIDENTIAL RECREATION	acre	2.9	0.	0.
4296	9101	INACTIVE USE	acre	20.7	0.	0.
4296		TOTAL			45503.	30447.
4297	101	SINGLE FAMILY	du	68.0	1061.	740.
4297	102	MULTI-FAMILY	du	190.0	2033.	1427.
4297	5007	STREETFRONT COMMERCIAL	acre	2.4	3616.	2625.
4297	6002	LOW RISE OFFICE	acre	10.3	3679.	2820.
4297		TOTAL			10389.	7612.
4298	102	MULTI-FAMILY	du	394.1	4217.	2960.
4298	5011	EASTLAKE REGIONAL COM	acre	1092.6	77359.	54622.
4298		TOTAL			81575.	57583.
4299	101	SINGLE FAMILY	du	659.0	10280.	7174.
4299	4113	COMMUNICATION OR UTILITY	acre	18.4	74.	56.
4299	7601	ACTIVE PARK	acre	3.2	216.	142.
4299	9101	INACTIVE USE	acre	14.3	0.	0.
4299		TOTAL			10570.	7372.
4300	101	SINGLE FAMILY	du	4.3	67.	47.
4300	102	MULTI-FAMILY	du	93.0	995.	698.
4300	1501	LOW-RISE HOTEL OR MOTEL	acre	2.2	737.	455.
4300	5004	NEIGHBORHOOD COMMERCIAL	acre	1.7	2573.	1821.
4300	5007	STREETFRONT COMMERCIAL	acre	10.6	15807.	11476.
4300	6001	HIGH RISE OFFICE	acre	1.1	2915.	2310.
4300		TOTAL			23095.	16806.
4301	1501	LOW-RISE HOTEL OR MOTEL	acre	5.0	1703.	1050.
4301	2103	LIGHT INDUSTRY	acre	4.8	482.	390.
4301	7601	ACTIVE PARK	acre	3.9	260.	171.
4301	9101	INACTIVE USE	acre	2.9	0.	0.
4301		TOTAL			2445.	1611.

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Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4302	101	SINGLE FAMILY	du	372.0	5803.	4050.
4302	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4302	6809	OTHER SCHOOL	acre	1.8	358.	295.
4302	9101	INACTIVE USE	acre	56.6	0.	0.
4302		TOTAL			8280.	5530.
4303	101	SINGLE FAMILY	du	4.8	74.	52.
4303	102	MULTI-FAMILY	du	189.2	2025.	1421.
4303	103	MOBILE HOME PARK	du	17.5	115.	77.
4303	1501	LOW-RISE HOTEL OR MOTEL	acre	0.1	33.	21.
4303	5007	STREETFRONT COMMERCIAL	acre	6.8	10129.	7353.
4303	6001	HIGH RISE OFFICE	acre	2.1	5836.	4624.
4303	6002	LOW RISE OFFICE	acre	0.1	29.	22.
4303		TOTAL			18241.	13570.
4304	101	SINGLE FAMILY	du	296.0	4618.	3222.
4304	102	MULTI-FAMILY	du	21.0	225.	158.
4304		TOTAL			4842.	3380.
4305	101	SINGLE FAMILY	du	691.0	10780.	7522.
4305	102	MULTI-FAMILY	du	897.0	9598.	6738.
4305	5007	STREETFRONT COMMERCIAL	acre	3.8	5683.	4126.
4305	6102	CHURCH	acre	3.6	190.	146.
4305	6509	OTHER HEALTH CARE	acre	4.7	2280.	1692.
4305	7601	ACTIVE PARK	acre	6.7	448.	295.
4305	7602	PASSIVE PARK	acre	0.9	0.	0.
4305	9101	INACTIVE USE	acre	1.0	0.	0.
4305		TOTAL			28978.	20518.
4306	5003	COMMUNITY COMMERCIAL	acre	17.8	14961.	10585.
4306		TOTAL			14961.	10585.
4307	2001	HEAVY INDUSTRY	acre	7.7	601.	497.
4307	4113	COMMUNICATION OR UTILITY	acre	2.5	10.	8.
4307	5003	COMMUNITY COMMERCIAL	acre	8.2	6892.	4877.
4307	5007	STREETFRONT COMMERCIAL	acre	12.6	18779.	13633.
4307	6002	LOW RISE OFFICE	acre	3.3	1176.	901.
4307	7601	ACTIVE PARK	acre	1.8	118.	78.
4307	9101	INACTIVE USE	acre	9.9	0.	0.
4307		TOTAL			27576.	19993.
4308	102	MULTI-FAMILY	du	183.0	1958.	1375.
4308	6102	CHURCH	acre	3.5	190.	146.
4308	6809	OTHER SCHOOL	acre	1.1	220.	181.
4308	9101	INACTIVE USE	acre	2.3	0.	0.
4308		TOTAL			2368.	1702.
4309	101	SINGLE FAMILY	du	328.0	5117.	3571.
4309	102	MULTI-FAMILY	du	56.0	599.	421.
4309		TOTAL			5716.	3991.
4310	1501	LOW-RISE HOTEL OR MOTEL	acre	3.3	1110.	684.

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Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4310	2103	LIGHT INDUSTRY	acre	1.3	128.	103.
4310	4114	PARKING	acre	1.1	0.	0.
4310	7210	OTHER RECREATION	acre	13.3	88.	60.
4310	7601	ACTIVE PARK	acre	5.6	373.	245.
4310		TOTAL			1698.	1093.
4311	101	SINGLE FAMILY	du	112.0	1747.	1219.
4311	102	MULTI-FAMILY	du	142.0	1519.	1067.
4311	6002	LOW RISE OFFICE	acre	0.3	96.	74.
4311	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4311	6809	OTHER SCHOOL	acre	0.1	16.	13.
4311		TOTAL			5498.	3558.
4312	101	SINGLE FAMILY	du	726.0	11326.	7903.
4312	5007	STREETFRONT COMMERCIAL	acre	0.4	598.	434.
4312	6102	CHURCH	acre	2.1	113.	87.
4312	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4312		TOTAL			14155.	9609.
4313	101	SINGLE FAMILY	du	10.8	169.	118.
4313	102	MULTI-FAMILY	du	152.0	1626.	1142.
4313	1501	LOW-RISE HOTEL OR MOTEL	acre	0.4	153.	94.
4313	5007	STREETFRONT COMMERCIAL	acre	0.8	1237.	898.
4313	6002	LOW RISE OFFICE	acre	0.1	43.	33.
4313	6509	OTHER HEALTH CARE	acre	0.1	60.	45.
4313	7210	OTHER RECREATION	acre	2.1	14.	9.
4313	9101	INACTIVE USE	acre	6.4	0.	0.
4313		TOTAL			3301.	2338.
4315	101	SINGLE FAMILY	du	406.3	6339.	4423.
4315	6102	CHURCH	acre	1.8	96.	74.
4315	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4315	7601	ACTIVE PARK	acre	3.3	220.	145.
4315	9101	INACTIVE USE	acre	2.2	0.	0.
4315		TOTAL			8773.	5827.
4316	101	SINGLE FAMILY	du	137.1	2139.	1493.
4316	102	MULTI-FAMILY	du	230.4	2465.	1730.
4316	103	MOBILE HOME PARK	du	14.3	94.	63.
4316	4112	RIGHT-OF-WAY	acre	5.6	0.	0.
4316	5007	STREETFRONT COMMERCIAL	acre	2.6	3938.	2859.
4316	6001	HIGH RISE OFFICE	acre	0.9	2401.	1902.
4316	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4316		TOTAL			13156.	9232.
4317	101	SINGLE FAMILY	du	162.1	2529.	1765.
4317	102	MULTI-FAMILY	du	107.9	1154.	810.
4317	5007	STREETFRONT COMMERCIAL	acre	4.6	6818.	4950.
4317	6002	LOW RISE OFFICE	acre	0.6	197.	151.
4317		TOTAL			10699.	7676.
4318	101	SINGLE FAMILY	du	70.0	1092.	762.

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4318	102	MULTI-FAMILY	du	127.0	1359.	954.
4318	5004	NEIGHBORHOOD COMMERCIAL	acre	6.1	9246.	6542.
4318	5007	STREETFRONT COMMERCIAL	acre	2.5	3763.	2732.
4318	6002	LOW RISE OFFICE	acre	4.5	1615.	1238.
4318	6104	POST OFFICE	acre	4.7	5211.	3622.
4318	6109	OTHER PUBLIC SERVICE	acre	0.6	240.	173.
4318		TOTAL			22525.	16023.
4319	101	SINGLE FAMILY	du	295.0	4602.	3211.
4319	6102	CHURCH	acre	1.8	97.	75.
4319	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4319		TOTAL			6818.	4471.
4320	101	SINGLE FAMILY	du	203.0	3167.	2210.
4320	102	MULTI-FAMILY	du	611.8	6546.	4596.
4320	5004	NEIGHBORHOOD COMMERCIAL	acre	10.0	15262.	10798.
4320	6102	CHURCH	acre	7.3	388.	298.
4320	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4320	7601	ACTIVE PARK	acre	10.0	666.	438.
4320	7602	PASSIVE PARK	acre	0.8	0.	0.
4320	9101	INACTIVE USE	acre	11.2	0.	0.
4320		TOTAL			28147.	19525.
4321	101	SINGLE FAMILY	du	300.2	4683.	3268.
4321	102	MULTI-FAMILY	du	103.0	1102.	774.
4321	6002	LOW RISE OFFICE	acre	0.5	193.	148.
4321	9101	INACTIVE USE	acre	0.1	0.	0.
4321		TOTAL			5978.	4189.
4322	101	SINGLE FAMILY	du	495.5	7731.	5394.
4322	102	MULTI-FAMILY	du	4.0	43.	30.
4322	6102	CHURCH	acre	3.9	208.	160.
4322	9101	INACTIVE USE	acre	0.1	0.	0.
4322		TOTAL			7982.	5584.
4323	2103	LIGHT INDUSTRY	acre	1.0	98.	79.
4323	4113	COMMUNICATION OR UTILITY	acre	2.5	10.	8.
4323	5007	STREETFRONT COMMERCIAL	acre	1.4	2092.	1519.
4323	6002	LOW RISE OFFICE	acre	4.8	1701.	1304.
4323	7601	ACTIVE PARK	acre	1.5	98.	65.
4323	9101	INACTIVE USE	acre	0.9	0.	0.
4323		TOTAL			3999.	2974.
4324	101	SINGLE FAMILY	du	174.1	2716.	1895.
4324	7210	OTHER RECREATION	acre	2.5	16.	11.
4324	9101	INACTIVE USE	acre	0.6	0.	0.
4324		TOTAL			2732.	1906.
4325	101	SINGLE FAMILY	du	563.0	8783.	6129.
4325	6105	FIRE OR POLICE STATION	acre	1.5	476.	351.
4325	7601	ACTIVE PARK	acre	3.7	248.	163.
4325	9101	INACTIVE USE	acre	23.1	0.	0.
4325		TOTAL			9507.	6643.

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Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4326	5003	COMMUNITY COMMERCIAL	acre	25.0	20982.	14845.
4326	9101	INACTIVE USE	acre	7.4	0.	0.
4326		TOTAL			20982.	14845.
4327	101	SINGLE FAMILY	du	400.0	6240.	4354.
4327	9101	INACTIVE USE	acre	35.0	0.	0.
4327		TOTAL			6240.	4354.
4328	101	SINGLE FAMILY	du	92.0	1435.	1002.
4328	102	MULTI-FAMILY	du	366.7	3924.	2755.
4328	1501	LOW-RISE HOTEL OR MOTEL	acre	0.2	54.	33.
4328	5007	STREETFRONT COMMERCIAL	acre	5.6	8313.	6035.
4328	6002	LOW RISE OFFICE	acre	0.8	275.	211.
4328		TOTAL			14002.	10036.
4329	102	MULTI-FAMILY	du	201.0	2151.	1510.
4329	9101	INACTIVE USE	acre	4.2	0.	0.
4329		TOTAL			2151.	1510.
4330	101	SINGLE FAMILY	du	297.0	4633.	3233.
4330	6102	CHURCH	acre	1.6	87.	66.
4330	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4330		TOTAL			6838.	4485.
4331	101	SINGLE FAMILY	du	940.7	14674.	10240.
4331	102	MULTI-FAMILY	du	2946.0	31522.	22130.
4331	2103	LIGHT INDUSTRY	acre	36.5	3657.	2956.
4331	5021	MIXED USE COMMERCIAL	acre	130.0	19669.	14279.
4331	6105	FIRE OR POLICE STATION	acre	1.7	526.	388.
4331	6109	OTHER PUBLIC SERVICE	acre	17.5	6995.	5057.
4331	6804	SENIOR HIGH SCHOOL	acre	1.0	5369.	2423.
4331	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4331	7601	ACTIVE PARK	acre	19.8	1319.	868.
4331	9101	INACTIVE USE	acre	138.7	0.	0.
4331		TOTAL			85850.	59525.
4332	101	SINGLE FAMILY	du	15.9	247.	173.
4332	102	MULTI-FAMILY	du	261.0	2793.	1961.
4332	5004	NEIGHBORHOOD COMMERCIAL	acre	5.3	8058.	5702.
4332	5007	STREETFRONT COMMERCIAL	acre	2.8	4196.	3046.
4332	6002	LOW RISE OFFICE	acre	8.7	3115.	2388.
4332	6509	OTHER HEALTH CARE	acre	0.8	410.	304.
4332	9101	INACTIVE USE	acre	0.1	0.	0.
4332		TOTAL			18820.	13573.
4333	102	MULTI-FAMILY	du	108.0	1156.	811.
4333	9101	INACTIVE USE	acre	9.4	0.	0.
4333		TOTAL			1156.	811.
4334	101	SINGLE FAMILY	du	161.0	2512.	1753.
4334	102	MULTI-FAMILY	du	14.0	150.	105.
4334	6804	SENIOR HIGH SCHOOL	acre	1.0	5369.	2423.
4334		TOTAL			8030.	4280.

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Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4335	101	SINGLE FAMILY	du	21.0	328.	229.
4335	102	MULTI-FAMILY	du	85.0	909.	639.
4335	5007	STREETFRONT COMMERCIAL	acre	1.9	2886.	2095.
4335	7204	GOLF COURSE	acre	148.6	0.	0.
4335	7205	GOLF CLUB HOUSE	acre	1.0	709.	484.
4335	9101	INACTIVE USE	acre	1.3	0.	0.
4335		TOTAL			4832.	3446.
4336	101	SINGLE FAMILY	du	1.0	16.	11.
4336	4113	COMMUNICATION OR UTILITY	acre	0.0	0.	0.
4336	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4336	7601	ACTIVE PARK	acre	6.7	447.	294.
4336		TOTAL			2581.	1490.
4337	101	SINGLE FAMILY	du	237.0	3697.	2580.
4337	9101	INACTIVE USE	acre	16.2	0.	0.
4337		TOTAL			3697.	2580.
4338	101	SINGLE FAMILY	du	282.5	4407.	3075.
4338	102	MULTI-FAMILY	du	448.5	4799.	3369.
4338	6805	JUNIOR HIGH OR MIDDLE SCHOOL	acre	1.0	4206.	2586.
4338	9101	INACTIVE USE	acre	8.8	0.	0.
4338		TOTAL			13412.	9030.
4339	102	MULTI-FAMILY	du	132.0	1412.	992.
4339	1409	OTHER GROUP QUARTERS	acre	30.6	147.	103.
4339	6502	HOSPITAL	acre	26.5	8948.	6582.
4339	6509	OTHER HEALTH CARE	acre	13.7	6709.	4978.
4339		TOTAL			17217.	12654.
4340	101	SINGLE FAMILY	du	359.0	5600.	3908.
4340	4113	COMMUNICATION OR UTILITY	acre	7.2	29.	22.
4340	7210	OTHER RECREATION	acre	9.1	60.	41.
4340	7601	ACTIVE PARK	acre	20.0	1332.	877.
4340		TOTAL			7021.	4848.
4341	4114	PARKING	acre	0.1	0.	0.
4341	5007	STREETFRONT COMMERCIAL	acre	9.2	13751.	9983.
4341	6002	LOW RISE OFFICE	acre	1.6	559.	429.
4341	7601	ACTIVE PARK	acre	2.4	159.	105.
4341	9101	INACTIVE USE	acre	1.7	0.	0.
4341		TOTAL			14469.	10516.
4342	101	SINGLE FAMILY	du	90.0	1404.	980.
4342	102	MULTI-FAMILY	du	286.0	3060.	2148.
4342	2103	LIGHT INDUSTRY	acre	19.0	1900.	1535.
4342	2104	WAREHOUSING OR STORAGE	acre	3.6	119.	97.
4342	4112	RIGHT-OF-WAY	acre	4.2	0.	0.
4342	7210	OTHER RECREATION	acre	1.9	12.	8.
4342	9101	INACTIVE USE	acre	0.5	0.	0.
4342		TOTAL			6495.	4769.

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Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4343	5007	STREETFRONT COMMERCIAL	acre	14.2	21275.	15445.
4343	7601	ACTIVE PARK	acre	2.7	180.	119.
4343	9101	INACTIVE USE	acre	4.2	0.	0.
4343		TOTAL			21455.	15564.
4344	101	SINGLE FAMILY	du	66.0	1030.	718.
4344	102	MULTI-FAMILY	du	275.8	2951.	2072.
4344	1501	LOW-RISE HOTEL OR MOTEL	acre	0.1	47.	29.
4344	5007	STREETFRONT COMMERCIAL	acre	4.6	6808.	4942.
4344	5009	OTHER COMMERCIAL	acre	4.1	520.	378.
4344	6002	LOW RISE OFFICE	acre	0.7	253.	194.
4344	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4344		TOTAL			13727.	9518.
4345	102	MULTI-FAMILY	du	2883.8	30857.	21663.
4345	1502	HIGH-RISE HOTEL	acre	8.5	13686.	8437.
4345	5002	REGIONAL COMMERCIAL	acre	22.7	17066.	12050.
4345	6001	HIGH RISE OFFICE	acre	8.9	24300.	19254.
4345	6002	LOW RISE OFFICE	acre	8.1	2875.	2204.
4345	6007	OFFICE	acre	370.9	5786.	4435.
4345	6105	FIRE OR POLICE STATION	acre	1.2	361.	266.
4345	6109	OTHER PUBLIC SERVICE	acre	13.1	5220.	3773.
4345	6804	SENIOR HIGH SCHOOL	acre	1.0	5369.	2423.
4345	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4345	7601	ACTIVE PARK	acre	22.3	1487.	979.
4345		TOTAL			109125.	76669.
4346	101	SINGLE FAMILY	du	509.0	7940.	5541.
4346	7601	ACTIVE PARK	acre	5.6	373.	245.
4346	9101	INACTIVE USE	acre	29.5	0.	0.
4346		TOTAL			8313.	5786.
4347	101	SINGLE FAMILY	du	1.6	25.	17.
4347	102	MULTI-FAMILY	du	384.2	4111.	2886.
4347	4113	COMMUNICATION OR UTILITY	acre	0.1	0.	0.
4347	5007	STREETFRONT COMMERCIAL	acre	2.2	3371.	2447.
4347	6102	CHURCH	acre	3.2	170.	130.
4347	6509	OTHER HEALTH CARE	acre	4.5	2188.	1623.
4347	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4347	9101	INACTIVE USE	acre	4.2	0.	0.
4347		TOTAL			11983.	8289.
4348	101	SINGLE FAMILY	du	283.0	4415.	3081.
4348	4113	COMMUNICATION OR UTILITY	acre	2.5	10.	8.
4348	6102	CHURCH	acre	1.0	51.	39.
4348	7601	ACTIVE PARK	acre	2.7	180.	119.
4348	9101	INACTIVE USE	acre	0.3	0.	0.
4348		TOTAL			4657.	3247.
4350	6811	ELEMENTARY SCHOOL	acre	60.0	6468.	3618.
4350		TOTAL			6468.	3618.

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Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4351	101	SINGLE FAMILY	du	861.0	13431.	9372.
4351	102	MULTI-FAMILY	du	355.3	3801.	2669.
4351	5007	STREETFRONT COMMERCIAL	acre	5.6	8321.	6041.
4351	6109	OTHER PUBLIC SERVICE	acre	4.9	1946.	1407.
4351	6804	SENIOR HIGH SCHOOL	acre	1.0	5369.	2423.
4351	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4351	7601	ACTIVE PARK	acre	7.2	479.	315.
4351	9101	INACTIVE USE	acre	45.3	0.	0.
4351		TOTAL			35465.	23411.
4352	101	SINGLE FAMILY	du	211.0	3292.	2297.
4352	102	MULTI-FAMILY	du	205.5	2198.	1543.
4352	6102	CHURCH	acre	1.9	101.	78.
4352	6806	ELEMENTARY SCHOOL	acre	2.0	4237.	2370.
4352	9101	INACTIVE USE	acre	0.6	0.	0.
4352		TOTAL			9828.	6288.
4353	2101	INDUSTRIAL PARK	acre	65.7	12618.	10344.
4353	6810	UCCV	acre	200.9	36204.	28919.
4353		TOTAL			48821.	39262.
4354	2001	HEAVY INDUSTRY	acre	25.6	1994.	1648.
4354	2103	LIGHT INDUSTRY	acre	47.6	4771.	3856.
4354	2201	EXTRACTIVE INDUSTRY	acre	52.6	79.	65.
4354	4113	COMMUNICATION OR UTILITY	acre	86.9	348.	265.
4354		TOTAL			7191.	5835.
4355	101	SINGLE FAMILY	du	459.0	7160.	4997.
4355	4113	COMMUNICATION OR UTILITY	acre	0.7	3.	2.
4355	6102	CHURCH	acre	5.4	288.	221.
4355	6109	OTHER PUBLIC SERVICE	acre	2.3	931.	673.
4355	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4355		TOTAL			10502.	7079.
4356	102	MULTI-FAMILY	du	609.0	6516.	4575.
4356	5003	COMMUNITY COMMERCIAL	acre	12.4	10405.	7362.
4356	7601	ACTIVE PARK	acre	10.0	668.	440.
4356		TOTAL			17589.	12376.
4357	101	SINGLE FAMILY	du	12.7	199.	139.
4357	102	MULTI-FAMILY	du	645.6	6908.	4850.
4357	1501	LOW-RISE HOTEL OR MOTEL	acre	0.2	58.	36.
4357	2103	LIGHT INDUSTRY	acre	11.5	1149.	929.
4357	2104	WAREHOUSING OR STORAGE	acre	0.3	10.	8.
4357	5007	STREETFRONT COMMERCIAL	acre	5.9	8906.	6465.
4357	6002	LOW RISE OFFICE	acre	0.9	341.	261.
4357	7210	OTHER RECREATION	acre	1.2	8.	6.
4357	9101	INACTIVE USE	acre	0.1	0.	0.
4357		TOTAL			17578.	12693.
4358	101	SINGLE FAMILY	du	557.0	8689.	6063.
4358	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.

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Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4358	9101	INACTIVE USE	acre	79.6	0.	0.
4358		TOTAL			10808.	7248.
4359	101	SINGLE FAMILY	du	3.2	50.	35.
4359	102	MULTI-FAMILY	du	312.5	3344.	2348.
4359	5003	COMMUNITY COMMERCIAL	acre	17.6	14810.	10479.
4359	5007	STREETFRONT COMMERCIAL	acre	4.1	6149.	4464.
4359		TOTAL			24353.	17325.
4360	101	SINGLE FAMILY	du	290.0	4524.	3157.
4360	102	MULTI-FAMILY	du	105.9	1133.	795.
4360	6809	OTHER SCHOOL	acre	0.2	47.	39.
4360	9101	INACTIVE USE	acre	0.1	0.	0.
4360		TOTAL			5704.	3991.
4361	101	SINGLE FAMILY	du	455.3	7103.	4957.
4361	102	MULTI-FAMILY	du	93.0	995.	699.
4361	4113	COMMUNICATION OR UTILITY	acre	2.5	10.	8.
4361	6102	CHURCH	acre	3.4	181.	139.
4361	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4361	9101	INACTIVE USE	acre	0.2	0.	0.
4361		TOTAL			10408.	6987.
4362	101	SINGLE FAMILY	du	63.3	987.	689.
4362	102	MULTI-FAMILY	du	507.7	5433.	3814.
4362	6804	SENIOR HIGH SCHOOL	acre	1.0	5369.	2423.
4362		TOTAL			11789.	6925.
4363	101	SINGLE FAMILY	du	47.9	747.	522.
4363	102	MULTI-FAMILY	du	381.0	4077.	2862.
4363	2103	LIGHT INDUSTRY	acre	53.7	5382.	4350.
4363	7601	ACTIVE PARK	acre	3.2	213.	140.
4363	9101	INACTIVE USE	acre	57.4	0.	0.
4363		TOTAL			10419.	7874.
4364	101	SINGLE FAMILY	du	95.0	1482.	1034.
4364	102	MULTI-FAMILY	du	310.0	3317.	2329.
4364		TOTAL			4799.	3363.
4365	101	SINGLE FAMILY	du	95.0	1482.	1034.
4365	103	MOBILE HOME PARK	du	133.0	878.	582.
4365	2103	LIGHT INDUSTRY	acre	9.8	986.	797.
4365	2104	WAREHOUSING OR STORAGE	acre	0.2	8.	6.
4365	4112	RIGHT-OF-WAY	acre	2.8	0.	0.
4365	5004	NEIGHBORHOOD COMMERCIAL	acre	7.7	11675.	8261.
4365		TOTAL			15029.	10680.
4366	101	SINGLE FAMILY	du	428.0	6677.	4659.
4366	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4366	9101	INACTIVE USE	acre	10.6	0.	0.
4366		TOTAL			8795.	5844.

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Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4367	101	SINGLE FAMILY	du	342.0	5335.	3723.
4367	102	MULTI-FAMILY	du	154.0	1648.	1157.
4367	4113	COMMUNICATION OR UTILITY	acre	18.4	73.	56.
4367	5007	STREETFRONT COMMERCIAL	acre	1.2	1795.	1303.
4367		TOTAL			8851.	6239.
4368	101	SINGLE FAMILY	du	104.1	1624.	1133.
4368	102	MULTI-FAMILY	du	543.8	5818.	4085.
4368	1501	LOW-RISE HOTEL OR MOTEL	acre	0.1	39.	24.
4368	5007	STREETFRONT COMMERCIAL	acre	4.1	6052.	4394.
4368	6002	LOW RISE OFFICE	acre	0.7	237.	182.
4368	9101	INACTIVE USE	acre	0.5	0.	0.
4368		TOTAL			13771.	9818.
4369	101	SINGLE FAMILY	du	30.9	481.	336.
4369	102	MULTI-FAMILY	du	538.7	5764.	4047.
4369	103	MOBILE HOME PARK	du	29.3	193.	128.
4369	2104	WAREHOUSING OR STORAGE	acre	0.5	17.	14.
4369	5007	STREETFRONT COMMERCIAL	acre	9.5	14209.	10315.
4369	5009	OTHER COMMERCIAL	acre	0.1	18.	13.
4369	6002	LOW RISE OFFICE	acre	0.6	205.	157.
4369	6104	POST OFFICE	acre	0.2	219.	152.
4369		TOTAL			21106.	15162.
4370	101	SINGLE FAMILY	du	482.0	7519.	5247.
4370	102	MULTI-FAMILY	du	14.0	150.	105.
4370	6102	CHURCH	acre	0.7	35.	27.
4370	9101	INACTIVE USE	acre	0.0	0.	0.
4370		TOTAL			7704.	5379.
4372	101	SINGLE FAMILY	du	73.3	1143.	798.
4372	102	MULTI-FAMILY	du	447.1	4784.	3359.
4372	2104	WAREHOUSING OR STORAGE	acre	0.7	22.	18.
4372		TOTAL			5949.	4174.
4373	101	SINGLE FAMILY	du	96.6	1507.	1051.
4373	102	MULTI-FAMILY	du	2423.3	25929.	18204.
4373	5018	COMMERCIAL/RETAIL	acre	231.8	13098.	9267.
4373	6007	OFFICE	acre	556.4	8679.	6653.
4373	6109	OTHER PUBLIC SERVICE	acre	3.1	1235.	893.
4373	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4373	7601	ACTIVE PARK	acre	18.8	1251.	823.
4373		TOTAL			53817.	38076.
4374	101	SINGLE FAMILY	du	382.0	5959.	4158.
4374	4113	COMMUNICATION OR UTILITY	acre	10.8	43.	33.
4374	7601	ACTIVE PARK	acre	2.4	160.	105.
4374	9101	INACTIVE USE	acre	0.1	0.	0.
4374		TOTAL			6162.	4297.
4375	102	MULTI-FAMILY	du	425.0	4547.	3193.
4375	7601	ACTIVE PARK	acre	44.6	2970.	1955.
4375		TOTAL			7518.	5147.

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Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4376	101	SINGLE FAMILY	du	73.1	1141.	796.
4376	102	MULTI-FAMILY	du	156.1	1671.	1173.
4376	6807	SCHOOL DISTRICT OFFICE	acre	6.4	1607.	1232.
4376	9101	INACTIVE USE	acre	0.0	0.	0.
4376		TOTAL			4419.	3201.
4377	101	SINGLE FAMILY	du	2.0	32.	22.
4377	102	MULTI-FAMILY	du	617.0	6602.	4635.
4377	5007	STREETFRONT COMMERCIAL	acre	9.7	14490.	10519.
4377	6002	LOW RISE OFFICE	acre	0.1	32.	24.
4377	6102	CHURCH	acre	0.5	26.	20.
4377	7601	ACTIVE PARK	acre	3.9	260.	171.
4377		TOTAL			21441.	15392.
4378	101	SINGLE FAMILY	du	0.2	4.	2.
4378	102	MULTI-FAMILY	du	202.0	2161.	1517.
4378	5004	NEIGHBORHOOD COMMERCIAL	acre	3.2	4826.	3414.
4378	5007	STREETFRONT COMMERCIAL	acre	2.4	3526.	2560.
4378	6002	LOW RISE OFFICE	acre	2.1	736.	564.
4378		TOTAL			11253.	8058.
4379	2101	INDUSTRIAL PARK	acre	35.5	6828.	5598.
4379	9101	INACTIVE USE	acre	100.6	0.	0.
4379		TOTAL			6828.	5598.
4380	5003	COMMUNITY COMMERCIAL	acre	31.4	26331.	18630.
4380		TOTAL			26331.	18630.
4381	101	SINGLE FAMILY	du	71.0	1108.	773.
4381	102	MULTI-FAMILY	du	13.0	139.	98.
4381	5007	STREETFRONT COMMERCIAL	acre	1.5	2213.	1607.
4381	6804	SENIOR HIGH SCHOOL	acre	1.0	5369.	2423.
4381	7601	ACTIVE PARK	acre	8.6	573.	377.
4381		TOTAL			9402.	5277.
4382	2301	JUNKYARD/DUMP/LANDFILL	acre	486.7	7690.	6338.
4382	4113	COMMUNICATION OR UTILITY	acre	5.5	22.	17.
4382	7601	ACTIVE PARK	acre	23.2	1544.	1016.
4382		TOTAL			9256.	7371.
4383	101	SINGLE FAMILY	du	744.1	11609.	8101.
4383	102	MULTI-FAMILY	du	799.8	8558.	6008.
4383	2103	LIGHT INDUSTRY	acre	17.9	1789.	1445.
4383	5021	MIXED USE COMMERCIAL	acre	15.4	2338.	1698.
4383	6002	LOW RISE OFFICE	acre	12.1	4332.	3321.
4383	6109	OTHER PUBLIC SERVICE	acre	1.5	618.	446.
4383	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4383	7601	ACTIVE PARK	acre	5.7	381.	251.
4383		TOTAL			31742.	22454.
4384	101	SINGLE FAMILY	du	56.6	884.	617.
4384	102	MULTI-FAMILY	du	850.5	9101.	6389.

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Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4384	6805	JUNIOR HIGH OR MIDDLE SCHOOL	acre	1.0	4206.	2586.
4384		TOTAL			14190.	9592.
4386	101	SINGLE FAMILY	du	77.9	1215.	848.
4386	102	MULTI-FAMILY	du	54.4	582.	408.
4386	6102	CHURCH	acre	4.3	229.	176.
4386	6105	FIRE OR POLICE STATION	acre	0.4	137.	101.
4386	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4386	7601	ACTIVE PARK	acre	3.1	206.	135.
4386	9101	INACTIVE USE	acre	0.0	0.	0.
4386		TOTAL			4487.	2853.
4387	101	SINGLE FAMILY	du	2.5	39.	27.
4387	102	MULTI-FAMILY	du	242.8	2598.	1824.
4387	103	MOBILE HOME PARK	du	119.0	785.	521.
4387	1501	LOW-RISE HOTEL OR MOTEL	acre	0.2	66.	40.
4387	2103	LIGHT INDUSTRY	acre	0.3	26.	21.
4387	2104	WAREHOUSING OR STORAGE	acre	7.4	245.	200.
4387	4112	RIGHT-OF-WAY	acre	2.1	0.	0.
4387	5007	STREETFRONT COMMERCIAL	acre	1.5	2321.	1685.
4387	6002	LOW RISE OFFICE	acre	0.7	249.	191.
4387	6003	GOV'T OFFICE OR CENTER	acre	7.1	7488.	5621.
4387	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4387	7601	ACTIVE PARK	acre	5.2	347.	228.
4387		TOTAL			16282.	11544.
4389	101	SINGLE FAMILY	du	48.5	757.	528.
4389	102	MULTI-FAMILY	du	934.4	9998.	7019.
4389	5004	NEIGHBORHOOD COMMERCIAL	acre	2.2	3434.	2430.
4389	5007	STREETFRONT COMMERCIAL	acre	1.2	1735.	1259.
4389	6102	CHURCH	acre	0.7	36.	27.
4389	6804	SENIOR HIGH SCHOOL	acre	1.0	5369.	2423.
4389		TOTAL			21328.	13686.
4390	101	SINGLE FAMILY	du	655.6	10227.	7137.
4390	102	MULTI-FAMILY	du	279.7	2993.	2101.
4390	5007	STREETFRONT COMMERCIAL	acre	0.9	1271.	923.
4390	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4390	7601	ACTIVE PARK	acre	4.3	290.	191.
4390	7607	RESIDENTIAL RECREATION	acre	0.8	0.	0.
4390	9101	INACTIVE USE	acre	2.6	0.	0.
4390		TOTAL			16899.	11536.
4391	101	SINGLE FAMILY	du	253.5	3954.	2759.
4391	102	MULTI-FAMILY	du	1330.6	14238.	9996.
4391	4113	COMMUNICATION OR UTILITY	acre	19.6	78.	60.
4391	5017	COMMERCIAL/RETAIL	acre	193.2	21830.	15445.
4391	6006	OFFICE	acre	38.6	1005.	770.
4391	6109	OTHER PUBLIC SERVICE	acre	3.1	1235.	893.
4391	6805	JUNIOR HIGH OR MIDDLE SCHOOL	acre	1.0	4206.	2586.
4391	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4391	7601	ACTIVE PARK	acre	19.2	1276.	840.
4391		TOTAL			49940.	34534.

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Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4392	101	SINGLE FAMILY	du	30.0	468.	327.
4392	102	MULTI-FAMILY	du	54.7	585.	411.
4392	5004	NEIGHBORHOOD COMMERCIAL	acre	20.3	30921.	21877.
4392	5007	STREETFRONT COMMERCIAL	acre	2.0	2969.	2155.
4392	9101	INACTIVE USE	acre	0.1	0.	0.
4392		TOTAL			34942.	24770.
4393	102	MULTI-FAMILY	du	365.5	3911.	2746.
4393	4112	RIGHT-OF-WAY	acre	0.7	0.	0.
4393	5003	COMMUNITY COMMERCIAL	acre	18.4	15456.	10936.
4393	5004	NEIGHBORHOOD COMMERCIAL	acre	3.2	4887.	3458.
4393	5007	STREETFRONT COMMERCIAL	acre	2.2	3257.	2365.
4393	6002	LOW RISE OFFICE	acre	1.1	389.	298.
4393	9101	INACTIVE USE	acre	0.9	0.	0.
4393		TOTAL			27900.	19802.
4394	101	SINGLE FAMILY	du	33.4	521.	364.
4394	102	MULTI-FAMILY	du	395.1	4228.	2968.
4394	103	MOBILE HOME PARK	du	296.0	1954.	1296.
4394	4113	COMMUNICATION OR UTILITY	acre	6.6	26.	20.
4394	7601	ACTIVE PARK	acre	9.2	611.	402.
4394		TOTAL			7340.	5049.
4396	101	SINGLE FAMILY	du	358.0	5585.	3897.
4396	2103	LIGHT INDUSTRY	acre	22.6	2269.	1834.
4396	9101	INACTIVE USE	acre	2.2	0.	0.
4396		TOTAL			7854.	5731.
4397	101	SINGLE FAMILY	du	192.0	2995.	2090.
4397	102	MULTI-FAMILY	du	54.0	578.	406.
4397	103	MOBILE HOME PARK	du	191.0	1261.	836.
4397	6102	CHURCH	acre	2.3	121.	93.
4397		TOTAL			4955.	3425.
4398	101	SINGLE FAMILY	du	107.5	1678.	1171.
4398	102	MULTI-FAMILY	du	201.0	2151.	1510.
4398	5004	NEIGHBORHOOD COMMERCIAL	acre	6.8	10454.	7397.
4398	7601	ACTIVE PARK	acre	19.1	1273.	838.
4398	9101	INACTIVE USE	acre	0.2	0.	0.
4398		TOTAL			15556.	10916.
4399	101	SINGLE FAMILY	du	399.0	6224.	4343.
4399	102	MULTI-FAMILY	du	118.0	1263.	886.
4399	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4399		TOTAL			9606.	6415.
4400	101	SINGLE FAMILY	du	6.1	96.	67.
4400	102	MULTI-FAMILY	du	3.4	36.	26.
4400	2103	LIGHT INDUSTRY	acre	1.2	118.	96.
4400	4113	COMMUNICATION OR UTILITY	acre	0.2	1.	1.
4400	5001	WHOLESALE TRADE	acre	0.5	22.	16.
4400	5007	STREETFRONT COMMERCIAL	acre	13.5	20240.	14694.

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Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4400	6002	LOW RISE OFFICE	acre	31.7	11305.	8665.
4400	9101	INACTIVE USE	acre	1.5	0.	0.
4400		TOTAL			31819.	23563.
4401	102	MULTI-FAMILY	du	164.6	1761.	1236.
4401	103	MOBILE HOME PARK	du	4.1	27.	18.
4401	1501	LOW-RISE HOTEL OR MOTEL	acre	0.1	36.	22.
4401	5007	STREETFRONT COMMERCIAL	acre	1.0	1467.	1065.
4401	6002	LOW RISE OFFICE	acre	0.5	175.	134.
4401	9101	INACTIVE USE	acre	1.1	0.	0.
4401		TOTAL			3466.	2476.
4402	101	SINGLE FAMILY	du	23.9	373.	260.
4402	102	MULTI-FAMILY	du	610.1	6528.	4583.
4402	4113	COMMUNICATION OR UTILITY	acre	5.5	22.	17.
4402	5007	STREETFRONT COMMERCIAL	acre	7.0	10446.	7584.
4402	6002	LOW RISE OFFICE	acre	0.1	41.	32.
4402	6103	LIBRARY	acre	6.1	2644.	1793.
4402	9101	INACTIVE USE	acre	0.3	0.	0.
4402		TOTAL			20055.	14268.
4403	101	SINGLE FAMILY	du	21.8	340.	238.
4403	102	MULTI-FAMILY	du	969.0	10369.	7279.
4403	103	MOBILE HOME PARK	du	5.2	34.	23.
4403	2101	INDUSTRIAL PARK	acre	32.7	6281.	5149.
4403	2103	LIGHT INDUSTRY	acre	2.0	195.	158.
4403	5007	STREETFRONT COMMERCIAL	acre	2.4	3655.	2653.
4403	6002	LOW RISE OFFICE	acre	0.6	206.	158.
4403	6102	CHURCH	acre	0.3	18.	14.
4403	7601	ACTIVE PARK	acre	3.1	206.	135.
4403	9101	INACTIVE USE	acre	0.1	0.	0.
4403		TOTAL			21305.	15807.
4404	101	SINGLE FAMILY	du	0.5	7.	5.
4404	102	MULTI-FAMILY	du	82.7	885.	621.
4404	4111	TRANSIT STATION	acre	1.1	311.	237.
4404	5003	COMMUNITY COMMERCIAL	acre	15.5	12989.	9190.
4404	5007	STREETFRONT COMMERCIAL	acre	4.5	6665.	4839.
4404	5009	OTHER COMMERCIAL	acre	0.2	24.	18.
4404	6002	LOW RISE OFFICE	acre	0.2	66.	50.
4404		TOTAL			20947.	14960.
4405	101	SINGLE FAMILY	du	100.5	1567.	1094.
4405	102	MULTI-FAMILY	du	479.1	5126.	3599.
4405	2201	EXTRACTIVE INDUSTRY	acre	31.0	47.	38.
4405	7601	ACTIVE PARK	acre	4.8	320.	211.
4405		TOTAL			7060.	4942.
4406	101	SINGLE FAMILY	du	462.8	7220.	5038.
4406	102	MULTI-FAMILY	du	77.0	824.	578.
4406	5007	STREETFRONT COMMERCIAL	acre	1.0	1481.	1075.
4406	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4406	7602	PASSIVE PARK	acre	1.0	0.	0.
4406		TOTAL			11643.	7876.
4407	101	SINGLE FAMILY	du	325.1	5071.	3539.
4407	102	MULTI-FAMILY	du	90.0	963.	676.
4407	2103	LIGHT INDUSTRY	acre	0.2	19.	15.
4407	6102	CHURCH	acre	2.3	121.	93.
4407	7210	OTHER RECREATION	acre	0.5	3.	2.
4407	7601	ACTIVE PARK	acre	5.1	338.	222.
4407	7602	PASSIVE PARK	acre	1.2	0.	0.
4407	9101	INACTIVE USE	acre	1.6	0.	0.
4407		TOTAL			6515.	4548.
4408	102	MULTI-FAMILY	du	172.0	1840.	1292.
4408	103	MOBILE HOME PARK	du	7.1	46.	31.
4408	1501	LOW-RISE HOTEL OR MOTEL	acre	0.3	104.	64.
4408	2104	WAREHOUSING OR STORAGE	acre	3.0	101.	83.
4408	4113	COMMUNICATION OR UTILITY	acre	6.2	25.	19.
4408	5004	NEIGHBORHOOD COMMERCIAL	acre	11.1	16924.	11974.
4408	5007	STREETFRONT COMMERCIAL	acre	2.9	4374.	3176.
4408	5009	OTHER COMMERCIAL	acre	0.2	21.	15.
4408	6002	LOW RISE OFFICE	acre	1.5	544.	417.
4408		TOTAL			23980.	17071.
4409	101	SINGLE FAMILY	du	1.0	16.	11.
4409	102	MULTI-FAMILY	du	138.6	1483.	1041.
4409	103	MOBILE HOME PARK	du	90.0	594.	394.
4409	2101	INDUSTRIAL PARK	acre	22.2	4272.	3502.
4409	2103	LIGHT INDUSTRY	acre	23.9	2390.	1932.
4409	2104	WAREHOUSING OR STORAGE	acre	4.5	150.	123.
4409	4112	RIGHT-OF-WAY	acre	5.7	0.	0.
4409	4113	COMMUNICATION OR UTILITY	acre	7.6	31.	23.
4409	9101	INACTIVE USE	acre	0.2	0.	0.
4409		TOTAL			8936.	7026.
4410	101	SINGLE FAMILY	du	58.5	913.	637.
4410	102	MULTI-FAMILY	du	151.6	1622.	1139.
4410	103	MOBILE HOME PARK	du	502.0	3313.	2197.
4410	2103	LIGHT INDUSTRY	acre	12.6	1266.	1023.
4410	2104	WAREHOUSING OR STORAGE	acre	2.3	76.	62.
4410	4113	COMMUNICATION OR UTILITY	acre	11.4	46.	35.
4410	5007	STREETFRONT COMMERCIAL	acre	0.2	329.	239.
4410	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4410		TOTAL			9684.	6517.
4411	102	MULTI-FAMILY	du	45.0	481.	338.
4411	103	MOBILE HOME PARK	du	426.0	2812.	1865.
4411	9101	INACTIVE USE	acre	4.7	0.	0.
4411		TOTAL			3293.	2203.
4412	101	SINGLE FAMILY	du	198.5	3097.	2161.
4412	102	MULTI-FAMILY	du	38.0	407.	285.

Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4412	103	MOBILE HOME PARK	du	129.0	851.	565.
4412	2103	LIGHT INDUSTRY	acre	6.2	625.	505.
4412	5007	STREETFRONT COMMERCIAL	acre	0.1	194.	141.
4412	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4412	7601	ACTIVE PARK	acre	4.3	286.	188.
4412	9101	INACTIVE USE	acre	0.1	0.	0.
4412		TOTAL			7580.	5031.
4414	2103	LIGHT INDUSTRY	acre	44.1	4423.	3575.
4414	5006	AUTO COMMERCIAL	acre	1.5	720.	510.
4414	5009	OTHER COMMERCIAL	acre	1.6	199.	144.
4414	9101	INACTIVE USE	acre	5.0	0.	0.
4414		TOTAL			5342.	4229.
4415	102	MULTI-FAMILY	du	106.0	1134.	796.
4415	1501	LOW-RISE HOTEL OR MOTEL	acre	0.1	42.	26.
4415	5004	NEIGHBORHOOD COMMERCIAL	acre	10.9	16692.	11810.
4415	5007	STREETFRONT COMMERCIAL	acre	0.1	200.	145.
4415		TOTAL			18068.	12778.
4416	101	SINGLE FAMILY	du	117.7	1837.	1282.
4416	102	MULTI-FAMILY	du	95.8	1025.	720.
4416	2103	LIGHT INDUSTRY	acre	15.9	1596.	1290.
4416	5001	WHOLESALE TRADE	acre	0.2	12.	8.
4416	5007	STREETFRONT COMMERCIAL	acre	9.3	13955.	10131.
4416	6102	CHURCH	acre	2.5	132.	101.
4416	6509	OTHER HEALTH CARE	acre	0.4	195.	145.
4416	7210	OTHER RECREATION	acre	0.1	1.	0.
4416	9101	INACTIVE USE	acre	7.1	0.	0.
4416		TOTAL			18751.	13676.
4417	2103	LIGHT INDUSTRY	acre	159.7	16004.	12934.
4417	2301	JUNKYARD/DUMP/LANDFILL	acre	23.1	365.	301.
4417		TOTAL			16369.	13235.
4418	101	SINGLE FAMILY	du	0.2	4.	2.
4418	2101	INDUSTRIAL PARK	acre	3.9	744.	610.
4418	2103	LIGHT INDUSTRY	acre	1.8	184.	149.
4418	4112	RIGHT-OF-WAY	acre	1.8	0.	0.
4418	5003	COMMUNITY COMMERCIAL	acre	21.3	17883.	12653.
4418	5009	OTHER COMMERCIAL	acre	0.2	20.	15.
4418	9101	INACTIVE USE	acre	0.4	0.	0.
4418		TOTAL			18834.	13428.
4419	2103	LIGHT INDUSTRY	acre	54.0	5415.	4377.
4419	2104	WAREHOUSING OR STORAGE	acre	2.8	94.	77.
4419	2301	JUNKYARD/DUMP/LANDFILL	acre	1.1	18.	14.
4419	4113	COMMUNICATION OR UTILITY	acre	5.6	22.	17.
4419	6002	LOW RISE OFFICE	acre	0.2	56.	43.
4419	7210	OTHER RECREATION	acre	1.4	9.	6.
4419	9101	INACTIVE USE	acre	43.9	0.	0.
4419		TOTAL			5614.	4534.

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Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4420	101	SINGLE FAMILY	du	0.5	7.	5.
4420	102	MULTI-FAMILY	du	103.5	1107.	777.
4420	2103	LIGHT INDUSTRY	acre	39.1	3922.	3170.
4420	2104	WAREHOUSING OR STORAGE	acre	9.6	316.	259.
4420	9101	INACTIVE USE	acre	1.3	0.	0.
4420		TOTAL			5352.	4210.
4421	5007	STREETFRONT COMMERCIAL	acre	6.2	9245.	6712.
4421	6002	LOW RISE OFFICE	acre	5.4	1932.	1481.
4421	7601	ACTIVE PARK	acre	68.8	4580.	3014.
4421	9101	INACTIVE USE	acre	583.3	0.	0.
4421		TOTAL			15757.	11206.
4424	101	SINGLE FAMILY	du	4.6	71.	49.
4424	2103	LIGHT INDUSTRY	acre	47.5	4758.	3845.
4424	2104	WAREHOUSING OR STORAGE	acre	7.8	257.	210.
4424	4112	RIGHT-OF-WAY	acre	4.4	0.	0.
4424	5007	STREETFRONT COMMERCIAL	acre	0.2	326.	237.
4424	6002	LOW RISE OFFICE	acre	0.0	15.	12.
4424	9101	INACTIVE USE	acre	20.9	0.	0.
4424		TOTAL			5427.	4353.
4425	102	MULTI-FAMILY	du	11.1	119.	84.
4425	2103	LIGHT INDUSTRY	acre	22.8	2285.	1847.
4425	2104	WAREHOUSING OR STORAGE	acre	4.2	141.	115.
4425	2201	EXTRACTIVE INDUSTRY	acre	9.4	14.	12.
4425	5009	OTHER COMMERCIAL	acre	0.4	50.	36.
4425	7601	ACTIVE PARK	acre	19.3	1287.	847.
4425	8002	INTENSIVE AGRICULTURE	acre	2.1	1.	1.
4425	9101	INACTIVE USE	acre	19.4	0.	0.
4425		TOTAL			3897.	2941.
4426	2103	LIGHT INDUSTRY	acre	40.5	4056.	3278.
4426	5006	AUTO COMMERCIAL	acre	5.9	2799.	1981.
4426	9101	INACTIVE USE	acre	99.2	0.	0.
4426		TOTAL			6855.	5258.
4427	102	MULTI-FAMILY	du	656.0	7019.	4928.
4427	1501	LOW-RISE HOTEL OR MOTEL	acre	1.8	598.	368.
4427	5004	NEIGHBORHOOD COMMERCIAL	acre	2.5	3831.	2710.
4427	5007	STREETFRONT COMMERCIAL	acre	2.0	3054.	2217.
4427	7601	ACTIVE PARK	acre	7.7	515.	339.
4427	9101	INACTIVE USE	acre	2.5	0.	0.
4427		TOTAL			15016.	10562.
4428	101	SINGLE FAMILY	du	234.0	3650.	2547.
4428	102	MULTI-FAMILY	du	69.0	738.	518.
4428	9101	INACTIVE USE	acre	20.1	0.	0.
4428		TOTAL			4389.	3066.
4430	7210	OTHER RECREATION	acre	103.8	685.	468.
4430	9101	INACTIVE USE	acre	159.5	0.	0.
4430		TOTAL			685.	468.

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Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4431	2301	JUNKYARD/DUMP/LANDFILL	acre	5.3	84.	69.
4431	5003	COMMUNITY COMMERCIAL	acre	21.4	17916.	12676.
4431	6002	LOW RISE OFFICE	acre	1.1	407.	312.
4431	8002	INTENSIVE AGRICULTURE	acre	22.6	11.	9.
4431	9101	INACTIVE USE	acre	3.3	0.	0.
4431		TOTAL			18418.	13066.
4443	101	SINGLE FAMILY	du	928.0	14477.	10102.
4443	102	MULTI-FAMILY	du	2409.0	25776.	18096.
4443	4112	RIGHT-OF-WAY	acre	49.1	0.	0.
4443	7601	ACTIVE PARK	acre	9.3	619.	408.
4443	9101	INACTIVE USE	acre	271.0	0.	0.
4443		TOTAL			40872.	28606.
4450	2103	LIGHT INDUSTRY	acre	168.2	16854.	13621.
4450	9101	INACTIVE USE	acre	25.5	0.	0.
4450		TOTAL			16854.	13621.
4460	101	SINGLE FAMILY	du	535.0	8346.	5824.
4460	102	MULTI-FAMILY	du	264.0	2825.	1983.
4460	2103	LIGHT INDUSTRY	acre	24.0	2405.	1944.
4460	2301	JUNKYARD/DUMP/LANDFILL	acre	2.0	32.	26.
4460	4103	GENERAL AVIATION AIRPORT	acre	3.8	25.	19.
4460	4112	RIGHT-OF-WAY	acre	31.2	0.	0.
4460	5004	NEIGHBORHOOD COMMERCIAL	acre	6.3	9615.	6803.
4460	7601	ACTIVE PARK	acre	1.0	67.	44.
4460	9101	INACTIVE USE	acre	122.9	0.	0.
4460		TOTAL			23314.	16643.
4467	2103	LIGHT INDUSTRY	acre	30.9	3097.	2503.
4467	2104	WAREHOUSING OR STORAGE	acre	0.9	28.	23.
4467	9101	INACTIVE USE	acre	44.3	0.	0.
4467		TOTAL			3126.	2526.
4470	101	SINGLE FAMILY	du	15.0	234.	163.
4470	102	MULTI-FAMILY	du	958.0	10251.	7196.
4470	2104	WAREHOUSING OR STORAGE	acre	70.0	2317.	1894.
4470	4112	RIGHT-OF-WAY	acre	26.2	0.	0.
4470	5009	OTHER COMMERCIAL	acre	0.4	51.	37.
4470	6102	CHURCH	acre	0.6	32.	25.
4470	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4470		TOTAL			15003.	10500.
4479	2103	LIGHT INDUSTRY	acre	185.4	18577.	15014.
4479	2104	WAREHOUSING OR STORAGE	acre	3.1	103.	84.
4479	4112	RIGHT-OF-WAY	acre	23.1	0.	0.
4479	4119	OTHER TRANSPORTATION	acre	8.3	923.	705.
4479	9101	INACTIVE USE	acre	43.6	0.	0.
4479		TOTAL			19603.	15802.
4480	101	SINGLE FAMILY	du	1.0	16.	11.
4480	2101	INDUSTRIAL PARK	acre	68.5	13159.	10787.

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4480	2103	LIGHT INDUSTRY	acre	44.9	4499.	3636.
4480	4112	RIGHT-OF-WAY	acre	4.7	0.	0.
4480	5003	COMMUNITY COMMERCIAL	acre	28.5	23914.	16920.
4480	8003	FIELD CROPS	acre	93.2	9.	7.
4480	9101	INACTIVE USE	acre	0.4	0.	0.
4480		TOTAL			41597.	31362.
4482	2101	INDUSTRIAL PARK	acre	289.5	55613.	45590.
4482	4112	RIGHT-OF-WAY	acre	1.7	0.	0.
4482		TOTAL			55613.	45590.
4497	101	SINGLE FAMILY	du	13.0	203.	142.
4497	102	MULTI-FAMILY	du	130.0	1391.	977.
4497	2103	LIGHT INDUSTRY	acre	86.7	8687.	7021.
4497	2104	WAREHOUSING OR STORAGE	acre	23.1	765.	625.
4497	4112	RIGHT-OF-WAY	acre	12.3	0.	0.
4497	4119	OTHER TRANSPORTATION	acre	37.1	4126.	3151.
4497	9101	INACTIVE USE	acre	103.9	0.	0.
4497		TOTAL			15171.	11915.
4500	2101	INDUSTRIAL PARK	acre	57.8	11103.	9102.
4500	2301	JUNKYARD/DUMP/LANDFILL	acre	161.0	2544.	2097.
4500	4112	RIGHT-OF-WAY	acre	5.5	0.	0.
4500	5003	COMMUNITY COMMERCIAL	acre	6.1	5119.	3622.
4500	8003	FIELD CROPS	acre	105.8	11.	8.
4500		TOTAL			18776.	14829.
4502	101	SINGLE FAMILY	du	174.0	2714.	1894.
4502	2301	JUNKYARD/DUMP/LANDFILL	acre	340.0	5372.	4428.
4502	9101	INACTIVE USE	acre	331.3	0.	0.
4502		TOTAL			8086.	6322.
4506	2101	INDUSTRIAL PARK	acre	240.6	46219.	37889.
4506	4112	RIGHT-OF-WAY	acre	1.9	0.	0.
4506	8003	FIELD CROPS	acre	81.1	8.	6.
4506	9101	INACTIVE USE	acre	49.6	0.	0.
4506		TOTAL			46227.	37896.
4534	2101	INDUSTRIAL PARK	acre	35.0	6724.	5512.
4534	4112	RIGHT-OF-WAY	acre	6.9	0.	0.
4534	8003	FIELD CROPS	acre	122.6	12.	10.
4534		TOTAL			6736.	5521.
4535	101	SINGLE FAMILY	du	19.0	296.	207.
4535	9101	INACTIVE USE	acre	81.6	0.	0.
4535		TOTAL			296.	207.
4537	4119	OTHER TRANSPORTATION	acre	119.3	13266.	10132.
4537	5004	NEIGHBORHOOD COMMERCIAL	acre	1.5	2289.	1620.
4537	8003	FIELD CROPS	acre	37.5	4.	3.
4537		TOTAL			15559.	11755.

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Zone	Land Use Code	Name	Type	Amount	Trips Person	Trips Vehicle
4545	101	SINGLE FAMILY	du	4.0	62.	44.
4545	2103	LIGHT INDUSTRY	acre	4.0	401.	324.
4545	2104	WAREHOUSING OR STORAGE	acre	21.0	695.	568.
4545	4112	RIGHT-OF-WAY	acre	6.9	0.	0.
4545	4119	OTHER TRANSPORTATION	acre	1.8	200.	153.
4545	8003	FIELD CROPS	acre	11.0	1.	1.
4545	9101	INACTIVE USE	acre	100.7	0.	0.
4545		TOTAL			1360.	1089.
4549	2103	LIGHT INDUSTRY	acre	72.3	7244.	5855.
4549	4112	RIGHT-OF-WAY	acre	10.7	0.	0.
4549		TOTAL			7244.	5855.
4550	101	SINGLE FAMILY	du	1337.0	20857.	14554.
4550	9101	INACTIVE USE	acre	41.8	0.	0.
4550		TOTAL			20857.	14554.
4558	101	SINGLE FAMILY	du	321.0	5008.	3494.
4558	102	MULTI-FAMILY	du	1211.0	12958.	9097.
4558	2301	JUNKYARD/DUMP/LANDFILL	acre	0.9	14.	12.
4558	5004	NEIGHBORHOOD COMMERCIAL	acre	18.3	27929.	19761.
4558	9101	INACTIVE USE	acre	196.8	0.	0.
4558		TOTAL			45909.	32364.
4562	101	SINGLE FAMILY	du	5.0	78.	54.
4562	2101	INDUSTRIAL PARK	acre	50.0	9605.	7874.
4562	2103	LIGHT INDUSTRY	acre	10.0	1002.	810.
4562	4112	RIGHT-OF-WAY	acre	6.9	0.	0.
4562	5001	WHOLESALE TRADE	acre	19.3	938.	664.
4562	8003	FIELD CROPS	acre	44.0	4.	3.
4562	9101	INACTIVE USE	acre	5.6	0.	0.
4562		TOTAL			11627.	9406.
4571	2101	INDUSTRIAL PARK	acre	176.2	33840.	27741.
4571	2103	LIGHT INDUSTRY	acre	32.0	3206.	2591.
4571	2104	WAREHOUSING OR STORAGE	acre	23.1	765.	625.
4571	8003	FIELD CROPS	acre	157.1	16.	12.
4571	9101	INACTIVE USE	acre	7.4	0.	0.
4571		TOTAL			37827.	30970.
4588	2101	INDUSTRIAL PARK	acre	23.2	4457.	3654.
4588	2103	LIGHT INDUSTRY	acre	47.9	4800.	3879.
4588	4112	RIGHT-OF-WAY	acre	5.7	0.	0.
4588	5001	WHOLESALE TRADE	acre	8.2	399.	282.
4588	9101	INACTIVE USE	acre	55.4	0.	0.
4588		TOTAL			9655.	7815.
4614	101	SINGLE FAMILY	du	768.1	11982.	8361.
4614	102	MULTI-FAMILY	du	1462.0	15643.	10983.
4614	5021	MIXED USE COMMERCIAL	acre	15.4	2338.	1698.
4614	6109	OTHER PUBLIC SERVICE	acre	6.4	2564.	1853.
4614	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.

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Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4614	7601	ACTIVE PARK	acre	37.2	2481.	1633.
4614	9101	INACTIVE USE	acre	22.6	0.	0.
4614		TOTAL			37127.	25712.
4615	2103	LIGHT INDUSTRY	acre	9.7	968.	782.
4615		TOTAL			968.	782.
4616	101	SINGLE FAMILY	du	562.5	8776.	6124.
4616	102	MULTI-FAMILY	du	918.0	9823.	6896.
4616	6109	OTHER PUBLIC SERVICE	acre	1.5	618.	446.
4616	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4616	7601	ACTIVE PARK	acre	5.6	371.	244.
4616		TOTAL			21705.	14895.

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The following projects are included in the model developed for the Otay Ranch Resort Village 13 project. These projects were either approved, built but not fully occupied, or their schedule was tentative at the time. This model was employed for the analysis of Year 2025 Cumulative Traffic Conditions.

APPROVED / PENDING PROJECTS IN EAST OTAY MESA AND CHULA VISTA

No.	Project Name	Location	Description
County of San Diego			
1	National Enterprises Storage and Recycling Facility (MUP98-001)	East and west side of Alta Rd north of Old Otay Mesa Road	The project proposes to develop areas for interim use including automobile storage, scrap and recycling operations, and wood and green material recycling, and will include temporary office trailers of 720 s.f. each and 200 employee parking spaces. Project would provide space for approximately 11,000 vehicles.
2	Travel Plaza Truck Stop (TPM 20414; MUP 98-024)	East side of Enrico Fermi Drive north of Airway Road and south of Old Otay Mesa	Four parcels, ranging from 7.35 to 42.16 acres each. Full-service truck stop travel plaza. Driver facilities, restaurant, convenience store, service bays, fuel sales, 122-room hotel, office building, parking.
3	Otay Tech Centre - Previously Sunroad Tech Centre (TM 5139)	Northeast of Otay Mesa Road and Harvest Road	Technology business park and commercial retail on 289.5 gross acres.
4	Enrico Fermi Industrial (TM 5394)	Southwest corner of Old Otay Mesa Road and Enrico Fermi Drive	79.37 acres of industrial development
5	Aron Construction Auto Auction Park (MUP00-012)	Northwest corner of Old Otay Mesa Rd and Alta Road	38.2 acres
6	Airway Business Centre- (Saeed Industrial TM5304)	North side of Airway Drive between Michael Faraday Drive and Pasea de las	35 acres
7	PG&E Subdivision/Otay Mesa Generating Plant (TPM 2057)	East of Alta Road, btw Loop Road and Energy Centre Way	Natural gas-fired electric generating plan
8	Otay Mesa Generating Plant Industrial Outlots	East of Alta Road, btw Loop Road and Energy Centre Way	30.60 acres of industrial uses
9	Otay Hills Mineral Extraction (MUP04-004/RP04-001)	Eastern extension of Old Otay Mesa, 2.5 miles northeast of Otay Mesa crossing	Hard rock quarry on 210 acres
10	Rowland Property (MUP 03-001)	Northeast corner of Old Otay Mesa Road and Enrico Fermi Drive	Auto-storage and wrecking yard located on 40.44 acres
11	Otay 310	South of Old Otay Mesa Road, east of Alta Road	311 acres mixed industrial, rural residential and SR11

APPROVED / PENDING PROJECTS IN EAST OTAY MESA AND CHULA VISTA

No.	Project Name	Location	Description
12	Correctional Facility (Proposed Project)	West of Alta Road near existing prison facility	2,112 Bed Correctional Detention Facility
13	Otay Business Park (Paragon)	South of Airway Road, east of Enrico Fermi Drive	2202.8 KSF Business Park on 161.6 gross acres
14	Otay Logistics Industrial Park	East of Enrico Fermi Drive, btw Airway Road & Siempre Viva Road	277 ksf of warehousing
15	California Crossing (40 acres Commercial)	East of SR-125, north of Otay Mesa Road, west of Harvest Road	28.50 net acres of Community Shopping Center
16	Pilot Travel Centre	North quadrant of Piper Ranch & Otay Mesa Road	Construction of a 10,000-sq. ft. commercial center including Wendy's restaurant and driver amenities, gas station and parking (71 car and 139 truck spaces). 65 employees (18 – 20 per shift).
17	Piper Otay Park	Northeast quadrant of Piper Ranch & Otay Mesa Road	25 gross acres (19.8 net acres) of light industrial use.
18	Donovan Health Facility	480 Alta Road	15 bed facility with approx. 1,200 staff and 75-100 visitors anticipated per day
19	International Industrial Park (TM 5549)	The project site is located in the East Otay Mesa Specific Plan Area, part of the Otay Subregional Planning Area, within unincorporated San Diego County. Parcels 1-5 would be accessed via Vann Centre Blvd. Parcel 7-10 would take access off Enrico Fermi Road.	133 acres of Technology/Business Park
20	RTX (S08-022).	Immediately south of Via de la Amistad, east of Enrico Fermi Drive	18.75 acres of Truck Park and Storage
21	Jamul Casino	Southwest quadrant of SR-94 / Melody Road	Casino (unique land use)
22	Otay Ranch Resort Village	The project site is located along Otay Lakes Road, 1 mile east of the intersection of Otay Lakes Road / Wueste Road	1,881 SF dus, 57 mf dus, 200 acres resort, 40 ksf community commercial, 2.2 acres fire station, 1 elementary school, and 26.7 acres active park.
City of San Diego			
23	California Terraces	North of Otay Mesa Road, off of Ocean View Hills Parkway	Phase I = 644 MF dus, Phase II = 1585 dus, 2.4 acres commercial
24	La Media Truck Park site	Northeast corner of La Media Road & Lone Star	Industrial use (approx 70 acres)

APPROVED / PENDING PROJECTS IN EAST OTAY MESA AND CHULA VISTA

No.	Project Name	Location	Description
25	Robinhood Ridge	West side of Otay Valley Road/Heritage Road north of Otay Mesa Road	3.8 acres of neighborhood commercial, 4.6 acres of light industrial
26	La Media Truck Park II	East side of La Media Road north of Windstock Street	40 acres
27	World Petrol III	North of Otay Mesa Road, east of La Media	22 fuelling stations, 3632 sf convenience market, 2041 restaurant, 290 sf office
28	Ingalls Property	South of Vista Santo Domingo	13 SF dus, 24 townhomes, 106 apts, 19700 sf office, 20396 sf retail, 39450 industrial
29	Otay Corporate Centre N; Otay Corporate Centre S	North and south of Otay Mesa Road, west of Heritage Road	industrial park
30	San Ysidro High School (Expansion)	Southwest corner of Airway Road & Caliente Avenue	High School for 814 students
31	Semi-Trailer Storage Facility (Planned Development permit 12083)	Southwest corner of Otay Mesa Road and Innovative Drive	8.02 net acres
32	Southwestern Junior College	North of Airway Road, btw Britannia & La Media	500 Students Higher Education Center
33	Sunroad Otay Park (TM 91-0394)	South of Otay Mesa Road and west of La Media	1,337,000 square feet of Small Industrial Park, 79.3 acres
34	Esplande	Northeast of Airway Road & La Media Road	1,337 SF dus on 77.6 Acres
35	Interstate Industrial Centre (TPM 98-0759)	East side of Piper Ranch Road, South of Otay Mesa Road	453,000 square feet of Warehousing
36	Handler Otay Mesa	South off Otay Mesa Road, west of Corporate Centre Drive	mixed commercial/retail/office project
37	Pardee Commercial	Southeast corner of Otay Mesa Road/Palm Avenue	16 acre commercial
38	Candlelight Villas West	West side of Caliente Avenue, south of San Ysidro High School	223 MF dus on 23 Acres
39	Southview	Southeast of Caliente Avenue and Airway Road	553 MF dus
40	Candlelight	Southeast of Caliente Avenue and Airway Road	435 MF dus
41	Brownfield Tech park	South of Otay Mesa Road, west of Britannia Boulevard	741180 SF of business park on 50 acres

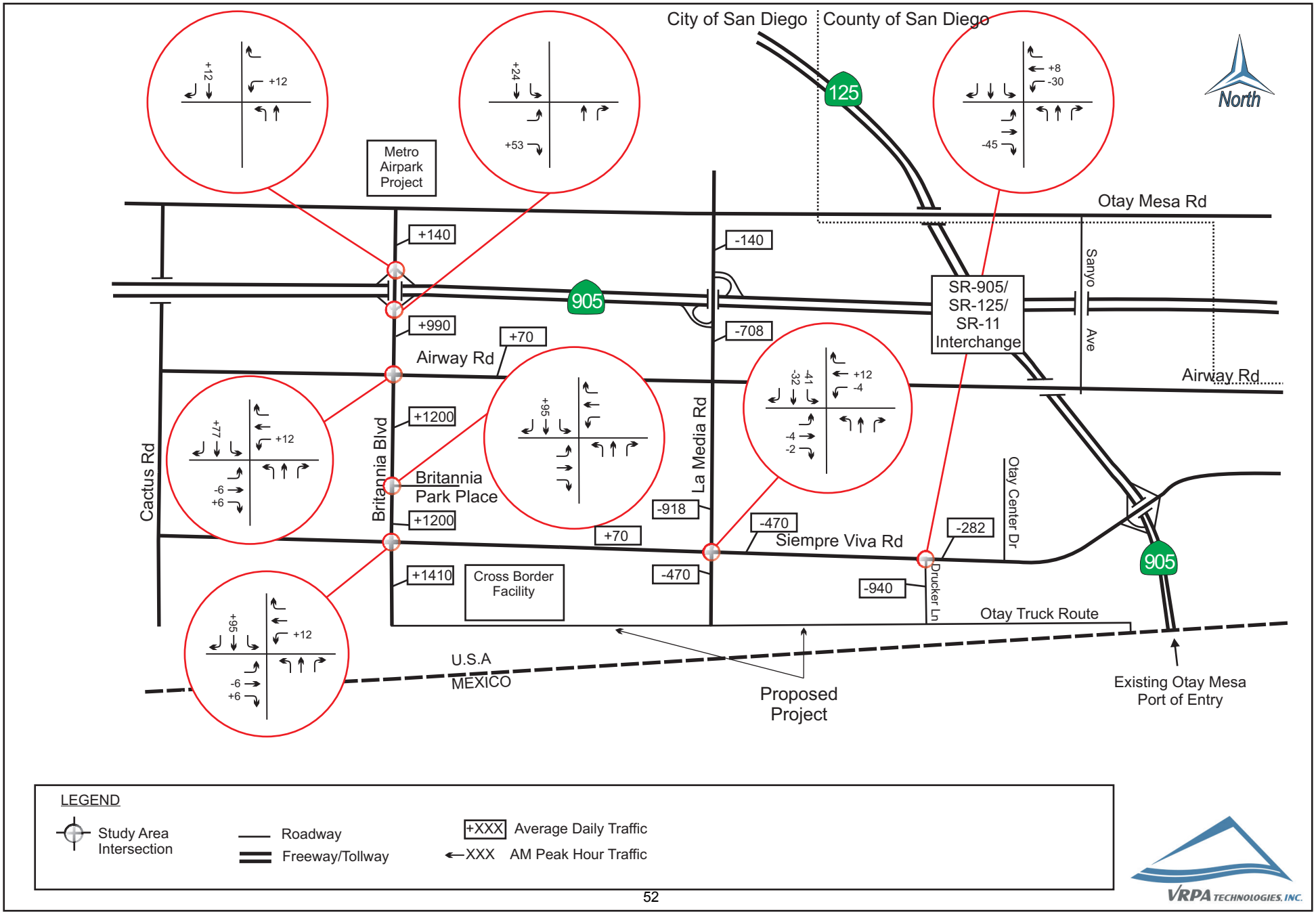
APPROVED / PENDING PROJECTS IN EAST OTAY MESA AND CHULA VISTA

No.	Project Name	Location	Description
42	Las Californias	South of Siempre Viva Road, btw Britannia & La Media	374,300 sq ft small industrial park, 305,90 sq ft large industrial park
City of Chula Vista			
43	Otay Ranch Village 2	This project is located at southwestern and southeastern quadrant of the intersection of Olympic Parkway / Heritage Road	Land use information for the various villages in Otay Ranch was provided by City of Chula Vista as direct model input. Please see Appendix G for detailed information.
44	Otay Ranch Village 3	This project is located along Heritage Road, at the northeast quadrant of the intersection of Main Street / Heritage Road.	
45	Otay Ranch Village 4	This project is located along Main Street, at the southwest quadrant of the intersection of Main Street / La Media Road	
46	Otay Ranch Village 8 west	This project is located along Otay Valley Road, at the southwest quadrant of the intersection of Main Street / La Media Road	
47	Otay Ranch Village 8 east	This project is located along Otay Valley Road, at the southeast quadrant of the intersection of Main Street / La Media Road	
48	Otay Ranch Village 9	This project is located at the southwest quadrant of the intersection of Hunte Parkway / Eastlake Parkway	
49	Otay Ranch Village 10	This project is located along Discovery Falls Drive at the southeastern and southwestern quadrant of the future Discovery Falls Drive / University Drive intersection.	
50	University Village	This project is located at the southeast quadrant of the intersection of Hunte Parkway / Eastlake Parkway	
51	Eastern Urban Center	This project is located at the southwest quadrant of the intersection of Birch Road / East Lake Parkway	Land use information for the various villages in Otay Ranch was provided by City of Chula Vista as direct model input. Please see Appendix G for detailed information.
52	Regional Technology Center	This project is located at the southeast quadrant of the intersection of Hunte Parkway / Eastlake Parkway	

The Otay Mesa Truck Route Traffic Technical Report was taken into consideration under Year 2025 Cumulative Traffic Conditions as well as under Year 2025 Cumulative Plus Project Traffic Conditions.

Otay Truck Route Traffic Technical Report
2035 Horizon Year Project Traffic - AM Peak Hour

Figure 5-9



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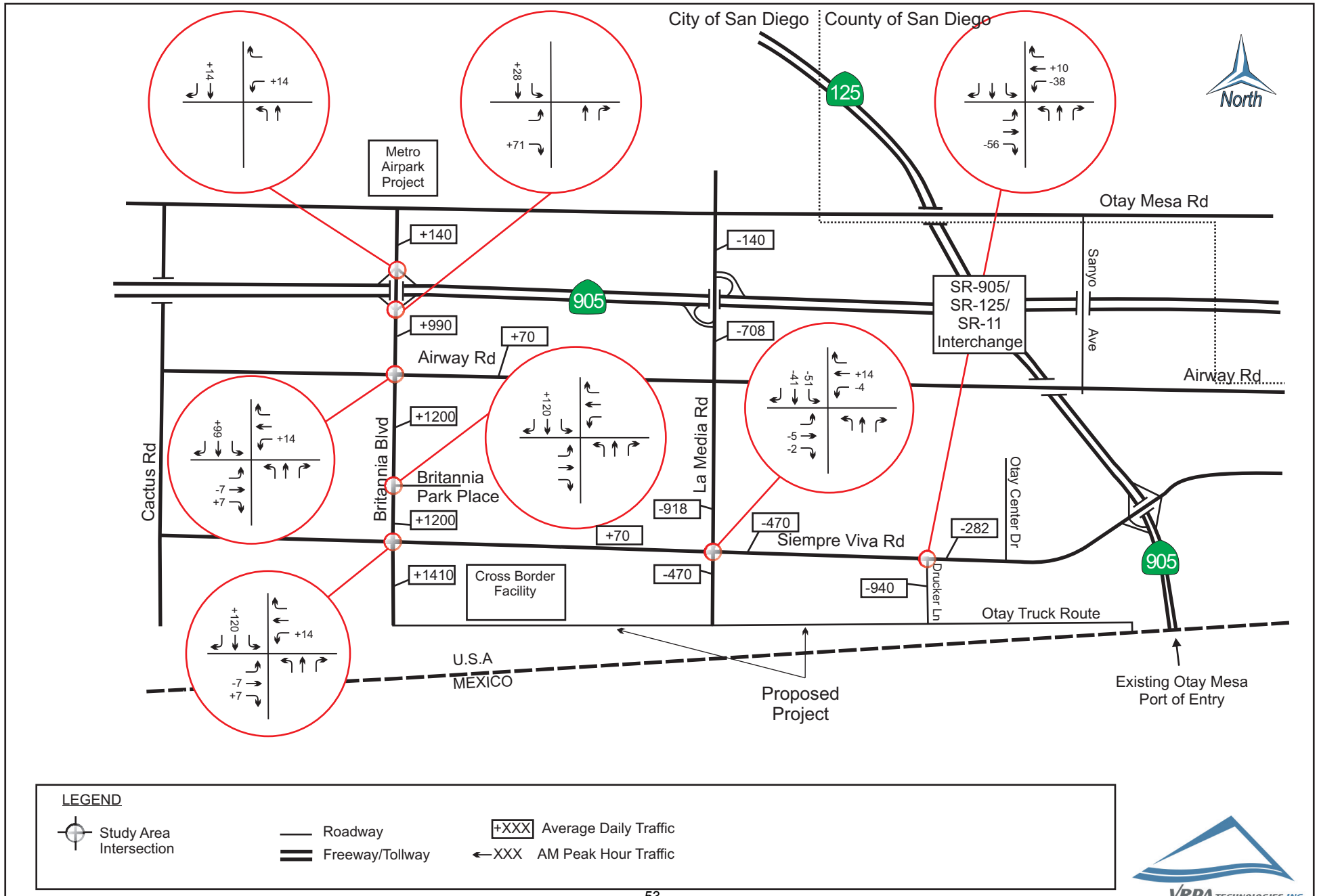
Otay Truck Route Traffic Technical Report
2035 Horizon Year Project Traffic - PM Peak Hour

Figure 5-10



VRPA TECHNOLOGIES, INC.

Appendix H
Cumulative Traffic Conditions Network Improvements - Identified Capital Improvement Projects

City of Chula Vista

2014/15-2018/19 Capital Improvement Program

Project Description Report

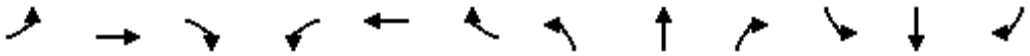
Project Name: Heritage Road Bridge Replacement
Project No: STM364

Project Location:	Heritage Road from Niranva Avenue/Main Street intersection to Entertainment Circle North(Amphitheater) crossing		
Department Responsible:	Engineering		
Project Intents:	Capacity		
Project Description:	Replacement of the Heritage Road bridge. Phase I will complete: Preliminary Engineering/Environmental evaluation to determine environmental impacts and compile construction plans.		
Project Information:	The City of San Diego has a share in the cost of the project. CALTRANS has designated the bridge as eligible for funding through the Highway Bridge Program.		
Justification:	The existing bridge was constructed as an interim bridge in 1993 and does not accommodate existing peak traffic, pedestrians, or a 50 year storm event. The General Plan indicates that Heritage Road is planned as a six-lane major arterial between Olympic Parkway to the boundary with the City of San Diego. This project supports Strong & Secure Neighborhoods Strategic Goal as the Eastern Territories and San Diego's Otay Mesa area develop, there will be a need for a wide and realigned bridge to accommodate projected traffic and a 50-year storm event.		
Total Estimated Cost:	$3,836,599		
Estimated Operation and Maintenance Cost:	$0	Project Type:	Major Streets

Source Of Funding

Fund No	Fund Name	Previous	2014/15	2015/16	2016/17	2017/18	2018/19	Future
73612	Highway Bridge Program	$345,267	($345,267)	$0	$0	$0	$0	$0
73610	Miscellaneous Transportation Grants (Safety Lu Demo)	$2,519,720	$0	$0	$0	$0	$0	$0
59110	Transportation Development	$2,774,510	$0	$0	$0	$1	$0	$0

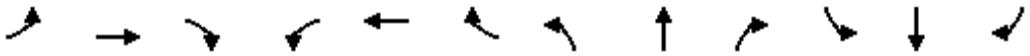
Appendix I
Peak Hour Intersection LOS & ILV Worksheets – Cumulative (Existing Plus Cumulative Projects) Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	160	290	220	40	50	20	80	50	60	70	70	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.98		1.00		1.00	0.99			0.99	
Flpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85		0.98		1.00	0.92			0.94	
Flt Protected	0.95	1.00	1.00		0.98		0.95	1.00			0.99	
Satd. Flow (prot)	1681	1717	1547		1754		1767	1695			1696	
Flt Permitted	0.95	1.00	1.00		0.98		0.54	1.00			0.88	
Satd. Flow (perm)	1681	1717	1547		1754		1003	1695			1518	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	315	239	43	54	22	87	54	65	76	76	141
RTOR Reduction (vph)	0	0	166	0	10	0	0	45	0	0	38	0
Lane Group Flow (vph)	157	332	73	0	109	0	87	74	0	0	255	0
Confl. Peds. (#/hr)	1		1	1		1	2					2
Confl. Bikes (#/hr)			1			4			6			5
Heavy Vehicles (%)	2%	5%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Split	NA	Perm	Split	NA		Perm	NA		Perm	NA	
Protected Phases	2	2		1	1			8			4	
Permitted Phases			2				8			4		
Actuated Green, G (s)	17.4	17.4	17.4		7.5		17.7	17.7			17.4	
Effective Green, g (s)	17.4	17.4	17.4		7.5		17.7	17.7			17.4	
Actuated g/C Ratio	0.30	0.30	0.30		0.13		0.31	0.31			0.30	
Clearance Time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Vehicle Extension (s)	2.9	2.9	2.9		2.9		3.8	3.8			4.5	
Lane Grp Cap (vph)	510	521	469		229		309	523			460	
v/s Ratio Prot	0.09	c0.19			c0.06			0.04				
v/s Ratio Perm			0.05				0.09				c0.17	
v/c Ratio	0.31	0.64	0.15		0.48		0.28	0.14			0.56	
Uniform Delay, d1	15.3	17.2	14.6		23.1		15.0	14.3			16.7	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.3	2.5	0.1		1.5		0.6	0.2			2.1	
Delay (s)	15.7	19.7	14.7		24.6		15.6	14.5			18.8	
Level of Service	B	B	B		C		B	B			B	
Approach Delay (s)		17.2			24.6			15.0			18.8	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	57.3	Sum of lost time (s)	15.0
Intersection Capacity Utilization	56.5%	ICU Level of Service	B
Analysis Period (min)	15		

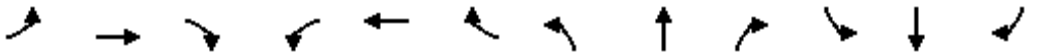
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	240	40	120	320	120	60	0	50	15	10	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	5.4		4.4	5.6		4.4		4.9	4.4	4.9	
Lane Util. Factor	1.00	0.95		0.97	0.91		1.00		1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00		0.99	1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		1.00	1.00	1.00	
Frt	1.00	0.98		1.00	0.96		1.00		0.85	1.00	0.89	
Flt Protected	0.95	1.00		0.95	1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)	1770	3457		3433	4848		1770		1563	1768	1630	
Flt Permitted	0.95	1.00		0.95	1.00		1.00		1.00	1.00	1.00	
Satd. Flow (perm)	1770	3457		3433	4848		1863		1563	1861	1630	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	261	43	130	348	130	65	0	54	16	11	33
RTOR Reduction (vph)	0	12	0	0	56	0	0	0	50	0	31	0
Lane Group Flow (vph)	54	292	0	130	422	0	65	0	4	16	13	0
Confl. Peds. (#/hr)			3						2	2		
Confl. Bikes (#/hr)			1			3						2
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		pm+pt		Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	2.0	18.9		4.1	20.8		4.5		3.4	3.5	2.9	
Effective Green, g (s)	2.0	18.9		4.1	20.8		4.5		3.4	3.5	2.9	
Actuated g/C Ratio	0.04	0.41		0.09	0.45		0.10		0.07	0.08	0.06	
Clearance Time (s)	4.4	5.4		4.4	5.6		4.4		4.9	4.4	4.9	
Vehicle Extension (s)	2.0	5.4		2.0	5.4		2.0		5.6	2.0	2.0	
Lane Grp Cap (vph)	76	1417		305	2187		179		115	140	102	
v/s Ratio Prot	0.03	0.08		c0.04	c0.09		c0.01			0.00	0.01	
v/s Ratio Perm							c0.03		0.00	0.01		
v/c Ratio	0.71	0.21		0.43	0.19		0.36		0.03	0.11	0.13	
Uniform Delay, d1	21.8	8.8		19.9	7.6		19.3		19.8	19.9	20.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00		1.00	1.00	1.00	
Incremental Delay, d2	22.8	0.2		0.4	0.1		0.5		0.3	0.1	0.2	
Delay (s)	44.5	8.9		20.2	7.7		19.8		20.1	20.0	20.6	
Level of Service	D	A		C	A		B		C	C	C	
Approach Delay (s)		14.3			10.4			19.9			20.5	
Approach LOS		B			B			B			C	

Intersection Summary			
HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	46.1	Sum of lost time (s)	19.3
Intersection Capacity Utilization	36.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	10	770	110	500	10	130	790	210	410	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1576	3335	3539	1563	1770	3539	1538	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1576	3335	3539	1563	1770	3539	1538	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	837	120	543	11	141	859	228	446	43
RTOR Reduction (vph)	0	0	10	0	0	425	0	0	444	0	0	27
Lane Group Flow (vph)	11	11	1	837	120	118	11	141	415	228	446	16
Confl. Peds. (#/hr)			1			2						
Heavy Vehicles (%)	2%	2%	2%	5%	2%	2%	2%	2%	5%	2%	2%	2%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.6	2.3	6.1	15.3	14.9	14.9	3.8	17.3	32.6	11.6	25.1	25.1
Effective Green, g (s)	1.6	2.3	6.1	15.3	14.9	14.9	3.8	17.3	32.6	11.6	25.1	25.1
Actuated g/C Ratio	0.02	0.03	0.09	0.22	0.22	0.22	0.06	0.25	0.47	0.17	0.36	0.36
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Vehicle Extension (s)	2.0	2.0	2.0	3.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0
Lane Grp Cap (vph)	41	118	139	741	766	338	97	889	728	578	1291	577
v/s Ratio Prot	0.01	0.00	0.00	c0.25	0.03		0.01	0.04	c0.13	c0.07	0.13	
v/s Ratio Perm			0.00			c0.08			0.14			0.01
v/c Ratio	0.27	0.09	0.01	1.13	0.16	0.35	0.11	0.16	0.57	0.39	0.35	0.03
Uniform Delay, d1	33.0	32.2	28.6	26.8	21.9	22.8	30.9	20.1	13.0	25.5	15.9	14.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	0.1	0.0	74.8	0.0	0.2	0.2	0.1	1.0	0.2	0.2	0.0
Delay (s)	34.3	32.4	28.6	101.6	21.9	23.1	31.1	20.2	14.1	25.6	16.0	14.0
Level of Service	C	C	C	F	C	C	C	C	B	C	B	B
Approach Delay (s)		31.8			66.8			15.1			19.0	
Approach LOS		C			E			B			B	

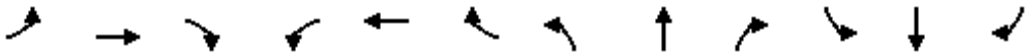
Intersection Summary			
HCM 2000 Control Delay	39.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	68.8	Sum of lost time (s)	23.4
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	400	10	60	160	870	0	0	400	790
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.1	5.1	4.7	5.1			5.1	
Lane Util. Factor					1.00	1.00	1.00	0.91			0.91	
Frpb, ped/bikes					1.00	1.00	1.00	1.00			0.98	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.90	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1725	1538	1719	4940			4371	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1725	1538	1719	4940			4371	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	435	11	65	174	946	0	0	435	859
RTOR Reduction (vph)	0	0	0	0	0	45	0	0	0	0	526	0
Lane Group Flow (vph)	0	0	0	0	446	20	174	946	0	0	768	0
Confl. Peds. (#/hr)												4
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8						
Actuated Green, G (s)					19.1	19.1	8.3	33.3			20.3	
Effective Green, g (s)					19.1	19.1	8.3	33.3			20.3	
Actuated g/C Ratio					0.31	0.31	0.13	0.53			0.32	
Clearance Time (s)					5.1	5.1	4.7	5.1			5.1	
Vehicle Extension (s)					3.0	3.0	2.0	3.0			3.0	
Lane Grp Cap (vph)					526	469	227	2627			1417	
v/s Ratio Prot							c0.10	0.19			c0.18	
v/s Ratio Perm					0.26	0.01						
v/c Ratio					0.85	0.04	0.77	0.36			0.54	
Uniform Delay, d1					20.4	15.3	26.2	8.5			17.3	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					12.1	0.0	13.0	0.1			0.4	
Delay (s)					32.5	15.3	39.2	8.6			17.8	
Level of Service					C	B	D	A			B	
Approach Delay (s)		0.0			30.3			13.3			17.8	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	62.6	Sum of lost time (s)	14.9
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

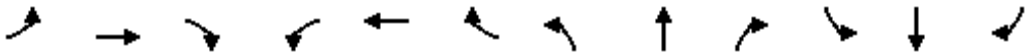
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	770	10	70	0	0	0	0	260	130	300	500	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1						5.1		4.7	5.1	
Lane Util. Factor	1.00	1.00						0.91		1.00	0.95	
Frpb, ped/bikes	1.00	1.00						0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00						1.00		1.00	1.00	
Frt	1.00	0.87						0.95		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (prot)	1641	1501						4443		1641	3282	
Flt Permitted	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (perm)	1641	1501						4443		1641	3282	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	837	11	76	0	0	0	0	283	141	326	543	0
RTOR Reduction (vph)	0	37	0	0	0	0	0	90	0	0	0	0
Lane Group Flow (vph)	837	50	0	0	0	0	0	334	0	326	543	0
Confl. Peds. (#/hr)									2			
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4											
Actuated Green, G (s)	51.9	51.9						13.0		20.3	38.0	
Effective Green, g (s)	51.9	51.9						13.0		20.3	38.0	
Actuated g/C Ratio	0.52	0.52						0.13		0.20	0.38	
Clearance Time (s)	5.1	5.1						5.1		4.7	5.1	
Vehicle Extension (s)	3.0	3.0						3.0		2.0	3.0	
Lane Grp Cap (vph)	850	778						577		332	1245	
v/s Ratio Prot		0.03						c0.08		c0.20	0.17	
v/s Ratio Perm	c0.51											
v/c Ratio	0.98	0.06						0.58		0.98	0.44	
Uniform Delay, d1	23.7	12.0						41.0		39.7	23.1	
Progression Factor	1.00	1.00						1.00		1.00	1.00	
Incremental Delay, d2	26.9	0.0						1.4		44.2	0.2	
Delay (s)	50.6	12.0						42.4		83.9	23.3	
Level of Service	D	B						D		F	C	
Approach Delay (s)		47.0			0.0			42.4			46.0	
Approach LOS		D			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	45.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.1	Sum of lost time (s)	14.9
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

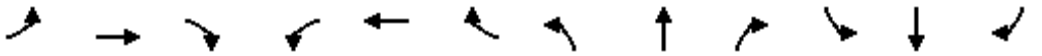
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	170	10	150	100	10	120	20	100	50	100	220	250
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	185	11	163	109	11	130	22	109	54	109	239	272

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	123	236	109	141	22	163	109	511
Volume Left (vph)	123	62	109	0	22	0	109	0
Volume Right (vph)	0	163	0	130	0	54	0	272
Hadj (s)	0.58	-0.27	0.67	-0.48	0.58	-0.06	0.67	-0.25
Departure Headway (s)	7.9	7.1	8.2	7.1	8.1	7.4	7.4	6.5
Degree Utilization, x	0.27	0.46	0.25	0.28	0.05	0.34	0.22	0.92
Capacity (veh/h)	439	491	421	486	425	463	469	547
Control Delay (s)	12.7	14.9	12.7	11.6	10.3	12.9	11.4	46.0
Approach Delay (s)	14.1		12.1		12.6		39.9	
Approach LOS	B		B		B		E	

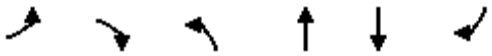
Intersection Summary				
Delay	24.9			
Level of Service	C			
Intersection Capacity Utilization	61.7%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	800	90	0	420	260	0	0	0	0	0	60
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	870	98	0	457	283	0	0	0	0	0	65
Pedestrians											6	
Lane Width (ft)											12.0	
Walking Speed (ft/s)											4.0	
Percent Blockage											1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	745			967			1136	1664	339	752	1430	158
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	745			967			1136	1664	339	752	1430	158
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	100	100	100	100	92
cM capacity (veh/h)	804			661			135	88	634	282	124	830

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	348	348	272	152	152	152	283	0	65
Volume Left	0	0	0	0	0	0	0	0	0
Volume Right	0	0	98	0	0	0	283	0	65
cSH	1700	1700	1700	1700	1700	1700	1700	1700	830
Volume to Capacity	0.20	0.20	0.16	0.09	0.09	0.09	0.17	0.00	0.08
Queue Length 95th (ft)	0	0	0	0	0	0	0	0	6
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7
Lane LOS								A	A
Approach Delay (s)	0.0			0.0				0.0	9.7
Approach LOS								A	A

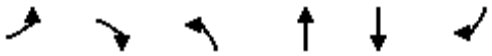
Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	20.8%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	200	100	100	600	1670	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	217	109	109	652	1815	65

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	217	109	109	652	1815	65
Volume Left (vph)	217	0	109	0	0	0
Volume Right (vph)	0	109	0	0	0	65
Hadj (s)	0.67	-0.53	0.67	0.17	0.17	-0.53
Departure Headway (s)	8.3	7.1	7.3	6.8	6.9	6.2
Degree Utilization, x	0.50	0.21	0.22	1.0	1.0	0.11
Capacity (veh/h)	430	500	484	535	528	567
Control Delay (s)	18.1	10.8	11.2	142.2	1130.7	8.8
Approach Delay (s)	15.7		123.4		1091.8	
Approach LOS	C		F		F	

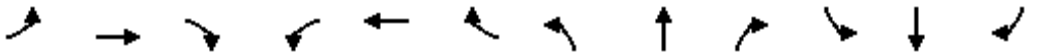
Intersection Summary			
Delay	725.3		
Level of Service	F		
Intersection Capacity Utilization	105.6%	ICU Level of Service	G
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	30	160	520	850	60	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	174	565	924	65	43

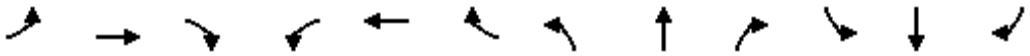
Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total (vph)	207	565	924	109
Volume Left (vph)	33	565	0	0
Volume Right (vph)	174	0	0	43
Hadj (s)	-0.30	0.67	0.17	-0.07
Departure Headway (s)	5.6	5.9	5.4	5.5
Degree Utilization, x	0.32	0.93	1.0	0.16
Capacity (veh/h)	619	596	666	636
Control Delay (s)	11.3	44.8	202.5	9.5
Approach Delay (s)	11.3	142.7		9.5
Approach LOS	B	F		A

Intersection Summary			
Delay	119.6		
Level of Service	F		
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	200	1000	150	150	950	300	200	50	100	400	100	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1468	3183	4715	1468	1641	1554		1641	1727	2584
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1468	3183	4715	1468	1641	1554		1641	1727	2584
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	1087	163	163	1033	326	217	54	109	435	109	326
RTOR Reduction (vph)	0	0	113	0	0	225	0	75	0	0	0	145
Lane Group Flow (vph)	217	1087	50	163	1033	101	217	88	0	435	109	181
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	6.0	28.3	28.3	6.0	28.6	28.6	16.4	12.5		24.1	20.2	26.2
Effective Green, g (s)	6.0	28.3	28.3	6.0	28.6	28.6	16.4	12.5		24.1	20.2	26.2
Actuated g/C Ratio	0.07	0.31	0.31	0.07	0.31	0.31	0.18	0.14		0.26	0.22	0.28
Clearance Time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	2.0	4.1	4.1	2.0	4.5	4.5	2.0	4.3		2.0	3.7	2.0
Lane Grp Cap (vph)	207	1447	450	207	1462	455	291	210		428	378	734
v/s Ratio Prot	c0.07	c0.23		0.05	0.22		0.13	c0.06		c0.27	0.06	0.02
v/s Ratio Perm			0.03			0.07						0.05
v/c Ratio	1.05	0.75	0.11	0.79	0.71	0.22	0.75	0.42		1.02	0.29	0.25
Uniform Delay, d1	43.1	28.8	22.9	42.5	28.1	23.6	35.9	36.5		34.0	30.0	25.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	75.8	2.4	0.2	16.5	1.8	0.4	8.8	2.1		47.7	0.5	0.1
Delay (s)	118.9	31.2	23.1	59.0	29.9	24.0	44.7	38.6		81.7	30.5	25.5
Level of Service	F	C	C	E	C	C	D	D		F	C	C
Approach Delay (s)		43.3			31.8			42.1			54.2	
Approach LOS		D			C			D			D	

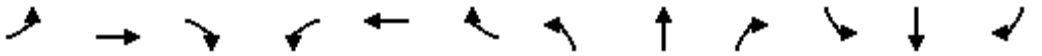
Intersection Summary			
HCM 2000 Control Delay	41.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	92.2	Sum of lost time (s)	21.3
Intersection Capacity Utilization	75.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	0	0	0	0	20	0	190	0	80	0	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	0	0	0	0	22	0	207	0	87	0	22

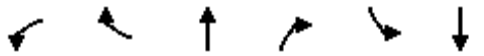
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	11	22	207	109
Volume Left (vph)	11	0	0	87
Volume Right (vph)	0	22	0	22
Hadj (s)	0.37	-0.43	0.17	0.21
Departure Headway (s)	5.0	4.2	4.3	4.4
Degree Utilization, x	0.02	0.03	0.24	0.13
Capacity (veh/h)	664	786	828	804
Control Delay (s)	8.1	7.3	8.6	8.1
Approach Delay (s)	8.1	7.3	8.6	8.1
Approach LOS	A	A	A	A

Intersection Summary				
Delay	8.4			
Level of Service	A			
Intersection Capacity Utilization	32.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	1700	100	150	1450	30	100	25	100	30	20	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.5		4.0	6.5		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	4676		1641	4699		1641	1727	1468	1641	1727	1468
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1641	4676		1641	4699		1641	1727	1468	1641	1727	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	1848	109	163	1576	33	109	27	109	33	22	43
RTOR Reduction (vph)	0	4	0	0	1	0	0	0	97	0	0	41
Lane Group Flow (vph)	43	1953	0	163	1608	0	109	27	12	33	22	2
Confl. Peds. (#/hr)						2						
Confl. Bikes (#/hr)						1						
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			4
Actuated Green, G (s)	7.2	74.2		26.5	93.5		14.6	15.6	15.6	5.2	6.2	6.2
Effective Green, g (s)	7.2	74.2		26.5	93.5		14.6	15.6	15.6	5.2	6.2	6.2
Actuated g/C Ratio	0.05	0.53		0.19	0.67		0.10	0.11	0.11	0.04	0.04	0.04
Clearance Time (s)	4.0	6.5		4.0	6.5		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	2.0	5.3		3.0	5.3		3.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	84	2478		310	3138		171	192	163	60	76	65
v/s Ratio Prot	0.03	c0.42		c0.10	0.34		c0.07	0.02		0.02	c0.01	
v/s Ratio Perm									0.01			0.00
v/c Ratio	0.51	0.79		0.53	0.51		0.64	0.14	0.07	0.55	0.29	0.03
Uniform Delay, d1	64.7	26.6		51.1	11.7		60.2	56.1	55.7	66.2	64.8	64.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.2	2.6		1.6	0.6		7.6	0.1	0.1	6.1	0.8	0.1
Delay (s)	66.9	29.2		52.7	12.3		67.7	56.3	55.8	72.3	65.5	64.1
Level of Service	E	C		D	B		E	E	E	E	E	E
Approach Delay (s)		30.0			16.1			61.2			67.2	
Approach LOS		C			B			E			E	

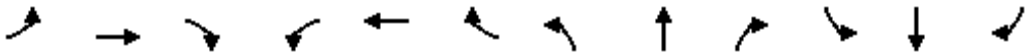
Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	67.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	110	310	10	30	250	10
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	120	337	11	33	272	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	582	27			43	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	582	27			43	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	68	67			82	
cM capacity (veh/h)	380	1026			1515	

Direction, Lane #	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	120	168	168	43	283
Volume Left	120	0	0	0	272
Volume Right	0	168	168	33	0
cSH	380	1026	1026	1700	1515
Volume to Capacity	0.32	0.16	0.16	0.03	0.18
Queue Length 95th (ft)	33	15	15	0	16
Control Delay (s)	18.8	9.2	9.2	0.0	7.6
Lane LOS	C	A	A		A
Approach Delay (s)	11.7			0.0	7.6
Approach LOS	B				

Intersection Summary			
Average Delay	9.6		
Intersection Capacity Utilization	33.8%	ICU Level of Service	A
Analysis Period (min)	15		



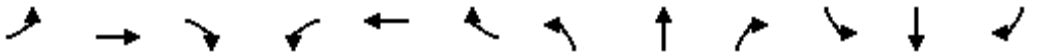
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	60	0	10	0	40	50	30	90	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	65	0	11	0	43	54	33	98	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	0	76	98	130
Volume Left (vph)	0	65	0	33
Volume Right (vph)	0	11	54	0
Hadj (s)	0.00	0.26	-0.16	0.22
Departure Headway (s)	4.5	4.7	4.1	4.4
Degree Utilization, x	0.00	0.10	0.11	0.16
Capacity (veh/h)	765	726	856	798
Control Delay (s)	7.5	8.2	7.6	8.2
Approach Delay (s)	0.0	8.2	7.6	8.2
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.0		
Level of Service	A		
Intersection Capacity Utilization	23.7%	ICU Level of Service	A
Analysis Period (min)	15		

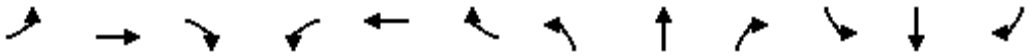
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1620	440	120	1370	310	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	1641	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	1641	4715	3183	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1761	478	130	1489	337	174
RTOR Reduction (vph)	0	206	0	0	0	147
Lane Group Flow (vph)	1761	272	130	1489	337	27
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	51.3	51.3	10.3	65.6	13.9	13.9
Effective Green, g (s)	51.3	51.3	10.3	65.6	13.9	13.9
Actuated g/C Ratio	0.57	0.57	0.11	0.73	0.15	0.15
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	2687	836	187	3436	491	226
v/s Ratio Prot	c0.37		c0.08	0.32	c0.11	
v/s Ratio Perm		0.19				0.02
v/c Ratio	0.66	0.33	0.70	0.43	0.69	0.12
Uniform Delay, d1	13.3	10.2	38.3	4.8	36.0	32.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	1.0	8.7	0.4	3.2	0.1
Delay (s)	14.5	11.3	47.1	5.2	39.2	32.9
Level of Service	B	B	D	A	D	C
Approach Delay (s)	13.8			8.6	37.0	
Approach LOS	B			A	D	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	260	0	610	180	330	0	0	530	440
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1	4.7	5.1			5.1	5.1
Lane Util. Factor				1.00	0.95	0.95	0.97	0.91			0.91	1.00
Frt				1.00	0.85	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1641	1395	1395	3183	4715			4715	1468
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1641	1395	1395	3183	4715			4715	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	283	0	663	196	359	0	0	576	478
RTOR Reduction (vph)	0	0	0	0	241	240	0	0	0	0	0	325
Lane Group Flow (vph)	0	0	0	283	91	91	196	359	0	0	576	153
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				13.6	13.6	13.6	5.1	25.6			15.8	15.8
Effective Green, g (s)				13.6	13.6	13.6	5.1	25.6			15.8	15.8
Actuated g/C Ratio				0.28	0.28	0.28	0.10	0.52			0.32	0.32
Clearance Time (s)				5.1	5.1	5.1	4.7	5.1			5.1	5.1
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				451	384	384	328	2443			1508	469
v/s Ratio Prot					0.07		c0.06	0.08			c0.12	
v/s Ratio Perm				c0.17		0.07						0.10
v/c Ratio				0.63	0.24	0.24	0.60	0.15			0.38	0.33
Uniform Delay, d1				15.7	13.9	13.9	21.2	6.2			13.0	12.8
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				2.7	0.3	0.3	2.9	0.0			0.2	0.4
Delay (s)				18.4	14.2	14.2	24.1	6.2			13.2	13.2
Level of Service				B	B	B	C	A			B	B
Approach Delay (s)		0.0			15.5			12.5			13.2	
Approach LOS		A			B			B			B	

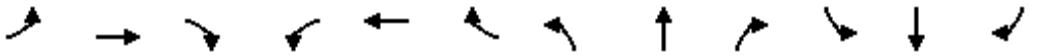
Intersection Summary			
HCM 2000 Control Delay	13.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	49.4	Sum of lost time (s)	14.9
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	200	5	750	0	0	0	0	310	130	140	650	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1	5.1					5.1		4.7	5.1	
Lane Util. Factor		1.00	0.88					0.95		0.97	0.91	
Frpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Frt		1.00	0.85					0.96		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1647	2584					3137		3183	4715	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		1647	2584					3137		3183	4715	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	5	815	0	0	0	0	337	141	152	707	0
RTOR Reduction (vph)	0	0	250	0	0	0	0	93	0	0	0	0
Lane Group Flow (vph)	0	222	565	0	0	0	0	385	0	152	707	0
Confl. Bikes (#/hr)												2
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)		14.6	14.6					11.7		3.9	20.3	
Effective Green, g (s)		14.6	14.6					11.7		3.9	20.3	
Actuated g/C Ratio		0.32	0.32					0.26		0.09	0.45	
Clearance Time (s)		5.1	5.1					5.1		4.7	5.1	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		533	836					813		275	2122	
v/s Ratio Prot								c0.12		c0.05	0.15	
v/s Ratio Perm		0.13	c0.22									
v/c Ratio		0.42	0.68					0.47		0.55	0.33	
Uniform Delay, d1		11.9	13.2					14.1		19.8	8.0	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		0.5	2.2					0.4		2.4	0.1	
Delay (s)		12.4	15.4					14.5		22.2	8.1	
Level of Service		B	B					B		C	A	
Approach Delay (s)		14.7			0.0			14.5			10.6	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	45.1	Sum of lost time (s)	14.9
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		

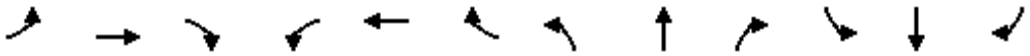
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	80	25	110	270	160	30	230	30	480	625	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.99	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96			1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	1666			1703	1449	1641	3215		1641	1727	1468
Flt Permitted	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1641	1666			1703	1449	1641	3215		1641	1727	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	87	27	120	293	174	33	250	33	522	679	326
RTOR Reduction (vph)	0	8	0	0	0	111	0	8	0	0	0	133
Lane Group Flow (vph)	54	106	0	0	413	63	33	275	0	522	679	193
Confl. Peds. (#/hr)	1					1			2			
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	12.2	12.2			35.0	35.0	4.1	20.7		45.9	62.3	62.3
Effective Green, g (s)	12.2	12.2			35.0	35.0	4.1	20.7		45.9	62.3	62.3
Actuated g/C Ratio	0.09	0.09			0.26	0.26	0.03	0.15		0.34	0.47	0.47
Clearance Time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Vehicle Extension (s)	2.0	2.0			3.7	3.7	2.0	3.8		2.0	3.8	3.8
Lane Grp Cap (vph)	149	152			446	379	50	498		563	805	684
v/s Ratio Prot	0.03	c0.06			c0.24		0.02	0.09		c0.32	c0.39	
v/s Ratio Perm						0.04						0.13
v/c Ratio	0.36	0.70			0.93	0.17	0.66	0.55		0.93	0.84	0.28
Uniform Delay, d1	57.0	58.9			48.0	38.0	64.1	52.2		42.2	31.4	21.9
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.5	10.6			25.4	0.3	22.4	1.6		21.2	8.3	0.3
Delay (s)	57.6	69.5			73.5	38.3	86.5	53.7		63.4	39.7	22.2
Level of Service	E	E			E	D	F	D		E	D	C
Approach Delay (s)		65.7			63.0			57.2			44.1	
Approach LOS		E			E			E			D	

Intersection Summary			
HCM 2000 Control Delay	51.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	133.6	Sum of lost time (s)	20.0
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	90	25	70	140	70	10	70	10	40	205	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00		0.97	0.95	
Frpb, ped/bikes		1.00			1.00	0.99	1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			1.00	0.85	1.00	0.98		1.00	0.96	
Flt Protected		0.99			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3152			1699	1450	1641	1695		3183	3118	
Flt Permitted		0.79			0.14	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		2528			234	1450	1641	1695		3183	3118	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	98	27	76	152	76	11	76	11	43	223	87
RTOR Reduction (vph)	0	10	0	0	0	33	0	3	0	0	30	0
Lane Group Flow (vph)	0	169	0	0	228	43	11	84	0	43	280	0
Confl. Peds. (#/hr)			1	1								2
Confl. Bikes (#/hr)			2			1						1
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			1		3	8		7	4	
Permitted Phases	2			1		1						
Actuated Green, G (s)		15.3			70.6	70.6	1.5	17.1		3.1	18.7	
Effective Green, g (s)		15.3			70.6	70.6	1.5	17.1		3.1	18.7	
Actuated g/C Ratio		0.12			0.56	0.56	0.01	0.14		0.02	0.15	
Clearance Time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Vehicle Extension (s)		4.8			4.8	4.8	2.0	3.3		2.0	4.4	
Lane Grp Cap (vph)		308			131	817	19	231		78	465	
v/s Ratio Prot							0.01	0.05		c0.01	c0.09	
v/s Ratio Perm		c0.07			c0.97	0.03						
v/c Ratio		0.55			1.74	0.05	0.58	0.36		0.55	0.60	
Uniform Delay, d1		51.7			27.3	12.3	61.5	49.1		60.4	49.8	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		3.3			362.9	0.1	23.8	1.1		4.7	2.8	
Delay (s)		55.0			390.2	12.3	85.4	50.2		65.1	52.6	
Level of Service		E			F	B	F	D		E	D	
Approach Delay (s)		55.0			295.7			54.1			54.1	
Approach LOS		E			F			D			D	

Intersection Summary			
HCM 2000 Control Delay	132.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.35		
Actuated Cycle Length (s)	125.2	Sum of lost time (s)	19.1
Intersection Capacity Utilization	38.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

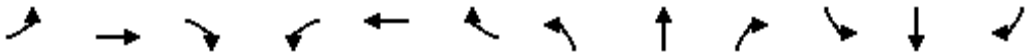
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	780	170	250	800	40	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		5.7	7.2	6.1	6.1
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4589		1641	4715	1641	1449
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4589		1641	4715	1641	1449
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	848	185	272	870	43	11
RTOR Reduction (vph)	27	0	0	0	0	10
Lane Group Flow (vph)	1006	0	272	870	43	1
Confl. Peds. (#/hr)						2
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	24.9		8.8	39.4	5.1	5.1
Effective Green, g (s)	24.9		8.8	39.4	5.1	5.1
Actuated g/C Ratio	0.43		0.15	0.68	0.09	0.09
Clearance Time (s)	7.2		5.7	7.2	6.1	6.1
Vehicle Extension (s)	6.9		2.0	6.9	2.0	2.0
Lane Grp Cap (vph)	1976		249	3214	144	127
v/s Ratio Prot	c0.22		c0.17	0.18	c0.03	
v/s Ratio Perm						0.00
v/c Ratio	0.51		1.09	0.27	0.30	0.01
Uniform Delay, d1	12.0		24.5	3.6	24.7	24.0
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7		83.9	0.2	0.4	0.0
Delay (s)	12.7		108.4	3.8	25.1	24.0
Level of Service	B		F	A	C	C
Approach Delay (s)	12.7			28.7	24.9	
Approach LOS	B			C	C	

Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	57.8	Sum of lost time (s)	19.0
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	300	430	260	400	240	170	100	250	840	100	400	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.88		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	4715	1441	1641	4422		1641	1509		3183	1641	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1641	4715	1441	1641	4422		1641	1509		3183	1641	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	467	283	435	261	185	109	272	913	109	435	217
RTOR Reduction (vph)	0	0	241	0	95	0	0	71	0	0	11	0
Lane Group Flow (vph)	326	467	42	435	351	0	109	1114	0	109	641	0
Confl. Peds. (#/hr)			3						3			
Confl. Bikes (#/hr)			1						1			
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	29.2	20.9	20.9	31.0	22.7		13.2	59.0		9.2	55.9	
Effective Green, g (s)	29.2	20.9	20.9	31.0	22.7		13.2	59.0		9.2	55.9	
Actuated g/C Ratio	0.21	0.15	0.15	0.22	0.16		0.09	0.42		0.07	0.40	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	3.2		2.0	5.3	
Lane Grp Cap (vph)	342	703	215	363	716		154	635		209	655	
v/s Ratio Prot	0.20	c0.10		c0.27	0.08		c0.07	c0.74		0.03	0.39	
v/s Ratio Perm			0.03									
v/c Ratio	0.95	0.66	0.20	1.20	0.49		0.71	1.75		0.52	0.98	
Uniform Delay, d1	54.7	56.2	52.2	54.5	53.4		61.5	40.5		63.3	41.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	36.0	4.9	2.0	112.9	2.4		11.5	346.2		1.1	29.7	
Delay (s)	90.7	61.1	54.2	167.4	55.8		73.0	386.7		64.4	71.2	
Level of Service	F	E	D	F	E		E	F		E	E	
Approach Delay (s)		68.3			110.9			360.3			70.2	
Approach LOS		E			F			F			E	

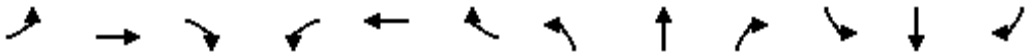
Intersection Summary			
HCM 2000 Control Delay	172.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.35		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	128.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	100	70	20	90	90	30	100	10	370	255	280
Future Volume (vph)	80	100	70	20	90	90	30	100	10	370	255	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frpb, ped/bikes		0.99			1.00			1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	
Frt		0.96			0.94			0.99		1.00	0.92	
Flt Protected		0.98			0.99			0.99		0.95	1.00	
Satd. Flow (prot)		1625			1614			1692		1641	1592	
Flt Permitted		0.80			0.96			0.87		0.66	1.00	
Satd. Flow (perm)		1323			1560			1480		1140	1592	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	109	76	22	98	98	33	109	11	402	277	304
RTOR Reduction (vph)	0	24	0	0	50	0	0	4	0	0	53	0
Lane Group Flow (vph)	0	248	0	0	168	0	0	149	0	402	528	0
Confl. Bikes (#/hr)			2									
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.0			15.0			36.5		36.5	36.5	
Effective Green, g (s)		15.0			15.0			36.5		36.5	36.5	
Actuated g/C Ratio		0.25			0.25			0.61		0.61	0.61	
Clearance Time (s)		4.0			4.0			4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		333			393			907		699	976	
v/s Ratio Prot											0.33	
v/s Ratio Perm		c0.19			0.11			0.10		c0.35		
v/c Ratio		0.74			0.43			0.16		0.58	0.54	
Uniform Delay, d1		20.5			18.6			4.9		6.9	6.7	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		8.7			0.7			0.4		3.4	2.2	
Delay (s)		29.2			19.4			5.3		10.3	8.8	
Level of Service		C			B			A		B	A	
Approach Delay (s)		29.2			19.4			5.3			9.4	
Approach LOS		C			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	59.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		

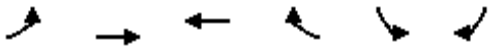
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	40	50	20	20	60	80	10	20	10	160	60	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	43	54	22	22	65	87	11	22	11	174	65	109

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	120	174	43	348
Volume Left (vph)	43	22	11	174
Volume Right (vph)	22	87	11	109
Hadj (s)	0.13	-0.10	0.07	0.08
Departure Headway (s)	5.3	5.0	5.2	4.8
Degree Utilization, x	0.18	0.24	0.06	0.47
Capacity (veh/h)	623	666	625	712
Control Delay (s)	9.4	9.5	8.6	11.9
Approach Delay (s)	9.4	9.5	8.6	11.9
Approach LOS	A	A	A	B

Intersection Summary			
Delay	10.7		
Level of Service	B		
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		



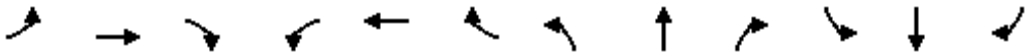
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	340	710	460	100	70	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00	1.00	0.99	0.99	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	0.93	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.97	1.00
Satd. Flow (prot)	3183	3282	4715	1448	3019	1317
Flt Permitted	0.95	1.00	1.00	1.00	0.97	1.00
Satd. Flow (perm)	3183	3282	4715	1448	3019	1317
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	370	772	500	109	76	130
RTOR Reduction (vph)	0	0	0	72	57	59
Lane Group Flow (vph)	370	772	500	37	83	7
Confl. Peds. (#/hr)				3		
Confl. Bikes (#/hr)				1		1
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	5.2	23.2	13.3	13.3	4.4	4.4
Effective Green, g (s)	5.2	23.2	13.3	13.3	4.4	4.4
Actuated g/C Ratio	0.13	0.60	0.34	0.34	0.11	0.11
Clearance Time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Vehicle Extension (s)	2.0	5.8	5.8	5.8	2.0	2.0
Lane Grp Cap (vph)	425	1957	1612	495	341	148
v/s Ratio Prot	c0.12	c0.24	0.11		c0.03	
v/s Ratio Perm				0.03		0.01
v/c Ratio	0.87	0.39	0.31	0.08	0.24	0.05
Uniform Delay, d1	16.5	4.1	9.4	8.6	15.7	15.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	16.9	0.4	0.3	0.2	0.1	0.1
Delay (s)	33.4	4.5	9.7	8.8	15.9	15.4
Level of Service	C	A	A	A	B	B
Approach Delay (s)		13.9	9.6		15.7	
Approach LOS		B	A		B	

Intersection Summary			
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	38.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	37.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	270	130	150	300	100	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	293	141	163	326	109	65

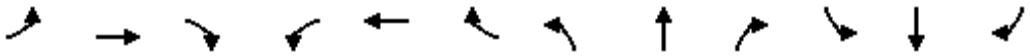
Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total (vph)	435	163	326	174
Volume Left (vph)	0	163	0	109
Volume Right (vph)	141	0	0	65
Hadj (s)	-0.03	0.67	0.17	0.07
Departure Headway (s)	5.2	6.2	5.7	6.1
Degree Utilization, x	0.62	0.28	0.52	0.30
Capacity (veh/h)	675	562	614	530
Control Delay (s)	16.4	10.5	13.5	11.7
Approach Delay (s)	16.4	12.5		11.7
Approach LOS	C	B		B

Intersection Summary			
Delay	13.9		
Level of Service	B		
Intersection Capacity Utilization	49.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	350	20	200	730	0	50	0	50	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		4.4	4.9		4.9		4.9		4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00		1.00		1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00		0.98		0.97	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		1.00		1.00	
Frt	1.00	0.99		1.00	1.00		1.00		0.85		0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95		1.00		1.00	
Satd. Flow (prot)	1641	4645		1641	4715		1636		1440		1451	
Flt Permitted	0.95	1.00		0.95	1.00		0.74		1.00		1.00	
Satd. Flow (perm)	1641	4645		1641	4715		1275		1440		1451	
Peak-hour factor, PHF	0.69	0.69	0.69	0.94	0.94	0.94	0.62	0.62	0.62	0.38	0.38	0.38
Adj. Flow (vph)	29	507	29	213	777	0	81	0	81	0	0	26
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	71	0	23	0
Lane Group Flow (vph)	29	529	0	213	777	0	81	0	10	0	3	0
Confl. Peds. (#/hr)			90			22	4		16	16		4
Confl. Bikes (#/hr)			19			4						2
Turn Type	Prot	NA		Prot	NA		Perm		Perm		NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	0.9	16.8		10.1	26.0		6.1		6.1		6.1	
Effective Green, g (s)	0.9	16.8		10.1	26.0		6.1		6.1		6.1	
Actuated g/C Ratio	0.02	0.36		0.21	0.55		0.13		0.13		0.13	
Clearance Time (s)	4.4	4.9		4.4	4.9		4.9		4.9		4.9	
Vehicle Extension (s)	2.0	6.1		2.0	5.1		2.0		2.0		2.0	
Lane Grp Cap (vph)	31	1653		351	2597		164		186		187	
v/s Ratio Prot	0.02	0.11		c0.13	c0.16						0.00	
v/s Ratio Perm							c0.06		0.01			
v/c Ratio	0.94	0.32		0.61	0.30		0.49		0.06		0.02	
Uniform Delay, d1	23.1	11.0		16.8	5.7		19.1		18.0		17.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00		1.00		1.00	
Incremental Delay, d2	132.4	0.3		2.0	0.1		0.9		0.0		0.0	
Delay (s)	155.5	11.4		18.8	5.8		20.0		18.1		17.9	
Level of Service	F	B		B	A		B		B		B	
Approach Delay (s)		18.8			8.6			19.0			17.9	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	47.2	Sum of lost time (s)	14.2
Intersection Capacity Utilization	57.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



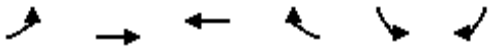
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	350	40	250	840	180	50	30	130	80	60	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00	1.00		0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.96		0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		0.99	
Frt	1.00	0.98		1.00	0.97			1.00	0.85		0.94	
Flt Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.98	
Satd. Flow (prot)	1641	4631		1641	4591			1671	1415		2984	
Flt Permitted	0.95	1.00		0.95	1.00			0.66	1.00		0.82	
Satd. Flow (perm)	1641	4631		1641	4591			1144	1415		2477	
Peak-hour factor, PHF	0.66	0.66	0.66	0.90	0.90	0.90	0.67	0.67	0.67	0.96	0.96	0.96
Adj. Flow (vph)	15	530	61	278	933	200	75	45	194	83	62	104
RTOR Reduction (vph)	0	13	0	0	21	0	0	0	154	0	83	0
Lane Group Flow (vph)	15	578	0	278	1112	0	0	120	40	0	166	0
Confl. Peds. (#/hr)			16				11		43	43		11
Confl. Bikes (#/hr)			1						3			1
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	1.1	21.3		16.6	36.2			13.5	13.5		13.5	
Effective Green, g (s)	1.1	21.3		16.6	36.2			13.5	13.5		13.5	
Actuated g/C Ratio	0.02	0.32		0.25	0.55			0.21	0.21		0.21	
Clearance Time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Vehicle Extension (s)	2.0	8.0		2.0	6.7			4.4	4.4		4.4	
Lane Grp Cap (vph)	27	1503		415	2533			235	291		509	
v/s Ratio Prot	0.01	0.12		c0.17	c0.24							
v/s Ratio Perm								c0.10	0.03		0.07	
v/c Ratio	0.56	0.38		0.67	0.44			0.51	0.14		0.33	
Uniform Delay, d1	32.0	17.1		22.0	8.7			23.1	21.3		22.2	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	13.3	0.7		3.2	0.4			3.0	0.4		0.6	
Delay (s)	45.3	17.8		25.2	9.1			26.1	21.6		22.8	
Level of Service	D	B		C	A			C	C		C	
Approach Delay (s)		18.5			12.3			23.3			22.8	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	16.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	65.6	Sum of lost time (s)	14.8
Intersection Capacity Utilization	85.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	460	100	160	1270	0	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1		5.1	3.0		5.1
Lane Util. Factor	0.91		0.97	0.91		0.88
Frpb, ped/bikes	1.00		1.00	1.00		1.00
Flpb, ped/bikes	1.00		1.00	1.00		1.00
Frt	0.97		1.00	1.00		0.85
Flt Protected	1.00		0.95	1.00		1.00
Satd. Flow (prot)	4575		3183	4715		2584
Flt Permitted	1.00		0.95	1.00		1.00
Satd. Flow (perm)	4575		3183	4715		2584
Peak-hour factor, PHF	0.80	0.80	0.91	0.91	0.87	0.87
Adj. Flow (vph)	575	125	176	1396	0	575
RTOR Reduction (vph)	74	0	0	0	0	448
Lane Group Flow (vph)	626	0	176	1396	0	127
Confl. Peds. (#/hr)		21				
Turn Type	NA		Prot	NA		Over
Protected Phases	2		1	6		1
Permitted Phases						1
Actuated Green, G (s)	11.3		6.1	27.6		6.1
Effective Green, g (s)	11.3		6.1	27.6		6.1
Actuated g/C Ratio	0.41		0.22	1.00		0.22
Clearance Time (s)	5.1		5.1	3.0		5.1
Vehicle Extension (s)	3.9		2.0	0.9		2.0
Lane Grp Cap (vph)	1873		703	4715		571
v/s Ratio Prot	0.14		0.06	c0.30		0.05
v/s Ratio Perm						
v/c Ratio	0.33		0.25	0.30		0.22
Uniform Delay, d1	5.6		8.9	0.0		8.8
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	0.1		0.1	0.0		0.1
Delay (s)	5.7		8.9	0.0		8.9
Level of Service	A		A	A		A
Approach Delay (s)	5.7			1.0	8.9	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	3.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	27.6	Sum of lost time (s)	10.2
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		

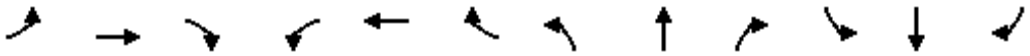
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Volume (veh/h)	0	960	930	0	0	500
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.89	0.89	0.73	0.73
Hourly flow rate (vph)	0	1129	1045	0	0	685
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		269	396			
pX, platoon unblocked						
vC, conflicting volume	1045				1421	348
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1045				1421	348
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	0
cM capacity (veh/h)	616				118	625

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	376	376	376	348	348	348	685
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	685
cSH	1700	1700	1700	1700	1700	1700	625
Volume to Capacity	0.22	0.22	0.22	0.20	0.20	0.20	1.10
Queue Length 95th (ft)	0	0	0	0	0	0	505
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	89.8
Lane LOS							F
Approach Delay (s)	0.0			0.0			89.8
Approach LOS							F

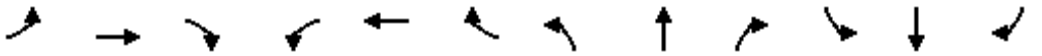
Intersection Summary			
Average Delay	21.5		
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	200	760	0	0	710	640	220	10	350	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Lane Util. Factor	0.97	0.91			0.86	0.86		1.00	0.88			
Frpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			0.95	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (prot)	3183	4715			4249	1263		1648	2584			
Flt Permitted	0.95	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (perm)	3183	4715			4249	1263		1648	2584			
Peak-hour factor, PHF	0.85	0.85	0.85	0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	235	894	0	0	798	719	253	11	402	0	0	0
RTOR Reduction (vph)	0	0	0	0	124	233	0	0	183	0	0	0
Lane Group Flow (vph)	235	894	0	0	1034	126	0	264	219	0	0	0
Confl. Bikes (#/hr)			4									
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Actuated Green, G (s)	10.1	36.2			21.4	21.4		14.8	14.8			
Effective Green, g (s)	10.1	36.2			21.4	21.4		14.8	14.8			
Actuated g/C Ratio	0.17	0.59			0.35	0.35		0.24	0.24			
Clearance Time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Vehicle Extension (s)	2.0	3.9			3.9	3.9		3.0	3.0			
Lane Grp Cap (vph)	525	2788			1485	441		398	624			
v/s Ratio Prot	c0.07	0.19			c0.24			c0.16				
v/s Ratio Perm						0.10			0.08			
v/c Ratio	0.45	0.32			0.70	0.28		0.66	0.35			
Uniform Delay, d1	23.0	6.3			17.1	14.4		21.0	19.2			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	0.2	0.1			1.5	0.5		4.1	0.3			
Delay (s)	23.3	6.4			18.7	14.8		25.1	19.6			
Level of Service	C	A			B	B		C	B			
Approach Delay (s)		9.9			17.8			21.8			0.0	
Approach LOS		A			B			C			A	

Intersection Summary			
HCM 2000 Control Delay	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	61.2	Sum of lost time (s)	14.9
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		

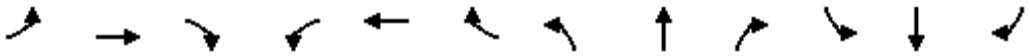
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	110	240	200	10	70	50	50	70	10	70	140	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	120	261	217	11	76	54	54	76	11	76	152	109

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	120	478	11	130	54	87	228	109
Volume Left (vph)	120	0	11	0	54	0	76	0
Volume Right (vph)	0	217	0	54	0	11	0	109
Hadj (s)	0.67	-0.15	0.67	-0.12	0.67	0.08	0.34	-0.53
Departure Headway (s)	6.9	6.1	7.5	6.8	7.8	7.2	7.1	6.3
Degree Utilization, x	0.23	0.81	0.02	0.24	0.12	0.17	0.45	0.19
Capacity (veh/h)	504	580	446	499	429	462	480	540
Control Delay (s)	10.7	28.3	9.5	10.7	10.6	10.5	14.7	9.5
Approach Delay (s)	24.8		10.6		10.6		13.0	
Approach LOS	C		B		B		B	

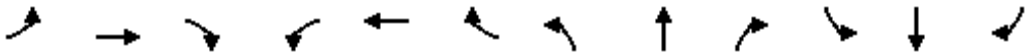
Intersection Summary				
Delay	18.2			
Level of Service	C			
Intersection Capacity Utilization	51.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	160	320	240	30	40	20	150	70	110	60	60	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.98		1.00		1.00	1.00			0.99	
Flpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85		0.97		1.00	0.91			0.94	
Flt Protected	0.95	1.00	1.00		0.98		0.95	1.00			0.99	
Satd. Flow (prot)	1681	1717	1546		1747		1762	1692			1698	
Flt Permitted	0.95	1.00	1.00		0.98		0.59	1.00			0.86	
Satd. Flow (perm)	1681	1717	1546		1747		1088	1692			1478	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	348	261	33	43	22	163	76	120	65	65	120
RTOR Reduction (vph)	0	0	177	0	15	0	0	79	0	0	46	0
Lane Group Flow (vph)	157	365	84	0	83	0	163	117	0	0	204	0
Confl. Peds. (#/hr)			1	1			7					7
Confl. Bikes (#/hr)			2			3						
Heavy Vehicles (%)	2%	5%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Split	NA	Perm	Split	NA		Perm	NA		Perm	NA	
Protected Phases	2	2		1	1			8			4	
Permitted Phases			2				8			4		
Actuated Green, G (s)	17.2	17.2	17.2		6.4		15.0	15.0			14.7	
Effective Green, g (s)	17.2	17.2	17.2		6.4		15.0	15.0			14.7	
Actuated g/C Ratio	0.32	0.32	0.32		0.12		0.28	0.28			0.28	
Clearance Time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Vehicle Extension (s)	2.9	2.9	2.9		2.9		3.8	3.8			4.5	
Lane Grp Cap (vph)	542	554	498		209		306	476			407	
v/s Ratio Prot	0.09	c0.21			c0.05			0.07				
v/s Ratio Perm			0.05				c0.15				0.14	
v/c Ratio	0.29	0.66	0.17		0.40		0.53	0.25			0.50	
Uniform Delay, d1	13.5	15.5	12.9		21.7		16.2	14.8			16.2	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.3	2.8	0.2		1.2		2.2	0.3			1.7	
Delay (s)	13.8	18.3	13.1		22.8		18.4	15.1			17.9	
Level of Service	B	B	B		C		B	B			B	
Approach Delay (s)		15.7			22.8			16.6			17.9	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	53.3	Sum of lost time (s)	15.0
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		

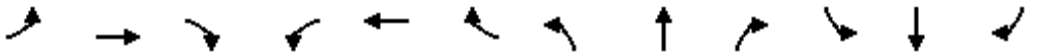
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	350	140	350	730	280	40	10	30	10	10	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	5.4		4.4	5.6		4.4	4.9	4.9	4.4	4.9	
Lane Util. Factor	1.00	0.95		0.97	0.91		1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	0.99	1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.96		1.00	0.96		1.00	1.00	0.85	1.00	0.89	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3374		3433	4833		1769	1863	1562	1767	1638	
Flt Permitted	0.95	1.00		0.95	1.00		1.00	1.00	1.00	1.00	1.00	
Satd. Flow (perm)	1770	3374		3433	4833		1862	1863	1562	1860	1638	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	380	152	380	793	304	43	11	33	11	11	33
RTOR Reduction (vph)	0	38	0	0	57	0	0	0	31	0	31	0
Lane Group Flow (vph)	87	494	0	380	1040	0	43	11	2	11	13	0
Confl. Peds. (#/hr)			3			6	1		3	3		1
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	3.7	21.1		5.4	22.6		4.5	3.4	3.4	3.3	2.8	
Effective Green, g (s)	3.7	21.1		5.4	22.6		4.5	3.4	3.4	3.3	2.8	
Actuated g/C Ratio	0.07	0.43		0.11	0.46		0.09	0.07	0.07	0.07	0.06	
Clearance Time (s)	4.4	5.4		4.4	5.6		4.4	4.9	4.9	4.4	4.9	
Vehicle Extension (s)	2.0	5.4		2.0	5.4		2.0	5.6	5.6	2.0	2.0	
Lane Grp Cap (vph)	132	1438		374	2206		167	127	107	123	92	
v/s Ratio Prot	0.05	0.15		c0.11	c0.22		c0.01	0.01		0.00	0.01	
v/s Ratio Perm							c0.02		0.00	0.01		
v/c Ratio	0.66	0.34		1.02	0.47		0.26	0.09	0.02	0.09	0.14	
Uniform Delay, d1	22.3	9.5		22.1	9.3		21.0	21.6	21.5	21.7	22.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.7	0.3		50.7	0.4		0.3	0.7	0.2	0.1	0.3	
Delay (s)	31.0	9.9		72.7	9.7		21.3	22.3	21.7	21.8	22.5	
Level of Service	C	A		E	A		C	C	C	C	C	
Approach Delay (s)		12.9			25.9			21.6			22.3	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	22.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	49.5	Sum of lost time (s)	19.3
Intersection Capacity Utilization	48.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	10	980	390	680	10	600	440	200	290	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1559	3335	3539	1562	1770	3539	1538	3433	3539	1560
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1559	3335	3539	1562	1770	3539	1538	3433	3539	1560
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	1065	424	739	11	652	478	217	315	33
RTOR Reduction (vph)	0	0	10	0	0	228	0	0	177	0	0	21
Lane Group Flow (vph)	11	11	1	1065	424	511	11	652	301	217	315	12
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)			5			1						4
Heavy Vehicles (%)	2%	2%	2%	5%	2%	2%	2%	2%	5%	2%	2%	2%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.7	7.6	11.3	39.1	43.9	43.9	3.7	30.4	69.5	12.7	39.4	39.4
Effective Green, g (s)	1.7	7.6	11.3	39.1	43.9	43.9	3.7	30.4	69.5	12.7	39.4	39.4
Actuated g/C Ratio	0.02	0.07	0.10	0.35	0.39	0.39	0.03	0.27	0.62	0.11	0.35	0.35
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Vehicle Extension (s)	2.0	2.0	2.0	3.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0
Lane Grp Cap (vph)	26	239	157	1163	1385	611	58	959	953	388	1243	548
v/s Ratio Prot	0.01	0.00	0.00	c0.32	0.12		0.01	c0.18	0.11	c0.06	0.09	
v/s Ratio Perm			0.00			c0.33			0.09			0.01
v/c Ratio	0.42	0.05	0.01	0.92	0.31	0.84	0.19	0.68	0.32	0.56	0.25	0.02
Uniform Delay, d1	54.7	48.9	45.4	34.9	23.6	30.8	52.7	36.5	10.1	47.1	25.9	23.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.0	0.0	0.0	11.1	0.0	9.3	0.6	1.9	0.2	1.0	0.1	0.0
Delay (s)	58.7	48.9	45.4	46.1	23.6	40.1	53.3	38.4	10.3	48.0	26.0	23.8
Level of Service	E	D	D	D	C	D	D	D	B	D	C	C
Approach Delay (s)		51.0			39.8			26.8			34.3	
Approach LOS		D			D			C			C	

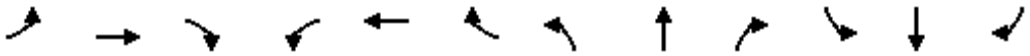
Intersection Summary			
HCM 2000 Control Delay	35.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	112.1	Sum of lost time (s)	23.4
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	150	10	350	220	700	0	0	280	1000
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.1	5.1	4.7	5.1			5.1	
Lane Util. Factor					1.00	1.00	1.00	0.91			0.91	
Frpb, ped/bikes					1.00	1.00	1.00	1.00			0.97	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.88	
Flt Protected					0.96	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1729	1538	1719	4940			4241	
Flt Permitted					0.96	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1729	1538	1719	4940			4241	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	163	11	380	239	761	0	0	304	1087
RTOR Reduction (vph)	0	0	0	0	0	162	0	0	0	0	438	0
Lane Group Flow (vph)	0	0	0	0	174	218	239	761	0	0	953	0
Confl. Peds. (#/hr)												9
Confl. Bikes (#/hr)												5
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8						
Actuated Green, G (s)					12.3	12.3	9.1	35.6			21.8	
Effective Green, g (s)					12.3	12.3	9.1	35.6			21.8	
Actuated g/C Ratio					0.21	0.21	0.16	0.61			0.38	
Clearance Time (s)					5.1	5.1	4.7	5.1			5.1	
Vehicle Extension (s)					3.0	3.0	2.0	3.0			3.0	
Lane Grp Cap (vph)					366	325	269	3026			1591	
v/s Ratio Prot							c0.14	0.15			c0.22	
v/s Ratio Perm					0.10	c0.14						
v/c Ratio					0.48	0.67	0.89	0.25			1.08dr	
Uniform Delay, d1					20.1	21.0	24.0	5.2			14.6	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					1.0	5.2	27.1	0.0			0.6	
Delay (s)					21.0	26.2	51.1	5.2			15.2	
Level of Service					C	C	D	A			B	
Approach Delay (s)		0.0			24.6			16.2			15.2	
Approach LOS		A			C			B			B	

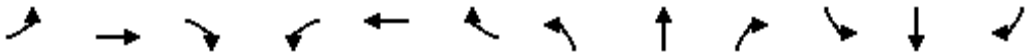
Intersection Summary			
HCM 2000 Control Delay	17.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	58.1	Sum of lost time (s)	14.9
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	540	10	250	0	0	0	0	380	400	110	320	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1						5.1		4.7	5.1	
Lane Util. Factor	1.00	1.00						0.91		1.00	0.95	
Frpb, ped/bikes	1.00	1.00						0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00						1.00		1.00	1.00	
Frt	1.00	0.86						0.92		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (prot)	1641	1478						4291		1641	3282	
Flt Permitted	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (perm)	1641	1478						4291		1641	3282	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	587	11	272	0	0	0	0	413	435	120	348	0
RTOR Reduction (vph)	0	159	0	0	0	0	0	301	0	0	0	0
Lane Group Flow (vph)	587	124	0	0	0	0	0	547	0	120	348	0
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)									4			
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4											
Actuated Green, G (s)	25.7	25.7						14.9		6.4	26.0	
Effective Green, g (s)	25.7	25.7						14.9		6.4	26.0	
Actuated g/C Ratio	0.42	0.42						0.24		0.10	0.42	
Clearance Time (s)	5.1	5.1						5.1		4.7	5.1	
Vehicle Extension (s)	3.0	3.0						3.0		2.0	3.0	
Lane Grp Cap (vph)	681	613						1032		169	1378	
v/s Ratio Prot		0.08						c0.13		c0.07	0.11	
v/s Ratio Perm	c0.36											
v/c Ratio	0.86	0.20						0.53		0.71	0.25	
Uniform Delay, d1	16.5	11.6						20.5		26.9	11.6	
Progression Factor	1.00	1.00						1.00		1.00	1.00	
Incremental Delay, d2	10.9	0.2						0.5		11.1	0.1	
Delay (s)	27.4	11.7						20.9		37.9	11.7	
Level of Service	C	B						C		D	B	
Approach Delay (s)		22.3			0.0			20.9			18.5	
Approach LOS		C			A			C			B	

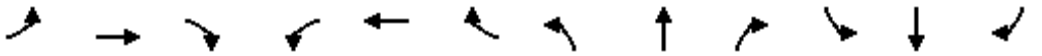
Intersection Summary			
HCM 2000 Control Delay	20.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	61.9	Sum of lost time (s)	14.9
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	211	10	100	100	10	300	40	281	40	100	150	325
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	229	11	109	109	11	326	43	305	43	109	163	353

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	153	196	109	337	43	349	109	516
Volume Left (vph)	153	76	109	0	43	0	109	0
Volume Right (vph)	0	109	0	326	0	43	0	353
Hadj (s)	0.58	-0.11	0.67	-0.51	0.58	0.08	0.67	-0.37
Departure Headway (s)	9.2	8.5	9.0	7.9	8.9	8.5	8.8	7.8
Degree Utilization, x	0.39	0.46	0.27	0.74	0.11	0.82	0.27	1.0
Capacity (veh/h)	373	403	388	444	392	418	400	473
Control Delay (s)	16.7	17.4	14.2	29.0	11.8	38.6	13.7	102.2
Approach Delay (s)	17.1		25.4		35.6		86.8	
Approach LOS	C		D		E		F	

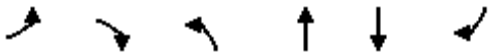
Intersection Summary				
Delay	47.2			
Level of Service	E			
Intersection Capacity Utilization	72.9%	ICU Level of Service		C
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	520	80	0	940	530	0	0	10	0	0	60
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	565	87	0	1022	576	0	0	11	0	0	65
Pedestrians		1									1	
Lane Width (ft)		12.0									12.0	
Walking Speed (ft/s)		4.0									4.0	
Percent Blockage		0									0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1599			652			1015	2208	232	1222	1675	343
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1599			652			1015	2208	232	1222	1675	343
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	100	99	100	100	90
cM capacity (veh/h)	370			878			162	39	746	125	87	630

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	226	226	200	341	341	341	576	11	65
Volume Left	0	0	0	0	0	0	0	0	0
Volume Right	0	0	87	0	0	0	576	11	65
cSH	1700	1700	1700	1700	1700	1700	1700	746	630
Volume to Capacity	0.13	0.13	0.12	0.20	0.20	0.20	0.34	0.01	0.10
Queue Length 95th (ft)	0	0	0	0	0	0	0	1	9
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9	11.4
Lane LOS								A	B
Approach Delay (s)	0.0			0.0				9.9	11.4
Approach LOS								A	B

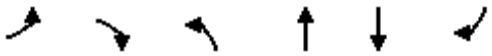
Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	36.3%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	110	90	320	1160	1090	330
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	120	98	348	1261	1185	359

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	120	98	348	1261	1185	359
Volume Left (vph)	120	0	348	0	0	0
Volume Right (vph)	0	98	0	0	0	359
Hadj (s)	0.53	-0.67	0.53	0.17	0.17	-0.67
Departure Headway (s)	8.7	7.5	7.1	6.8	6.8	6.0
Degree Utilization, x	0.29	0.20	0.69	1.0	1.0	0.60
Capacity (veh/h)	399	459	493	543	537	580
Control Delay (s)	14.0	11.3	23.3	636.8	584.1	16.4
Approach Delay (s)	12.8		504.2		452.2	
Approach LOS	B		F		F	

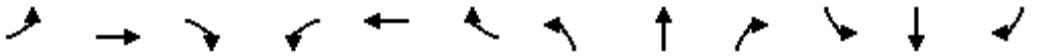
Intersection Summary			
Delay	448.6		
Level of Service	F		
Intersection Capacity Utilization	91.2%	ICU Level of Service	F
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	70	280	700	260	240	80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	76	304	761	283	261	87

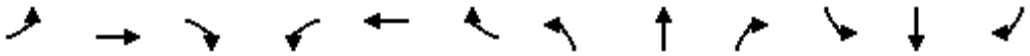
Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total (vph)	380	761	283	348
Volume Left (vph)	76	761	0	0
Volume Right (vph)	304	0	0	87
Hadj (s)	-0.27	0.67	0.17	0.02
Departure Headway (s)	6.2	7.1	6.6	6.3
Degree Utilization, x	0.66	1.0	0.52	0.61
Capacity (veh/h)	566	509	541	548
Control Delay (s)	20.5	254.5	15.3	18.9
Approach Delay (s)	20.5	189.7		18.9
Approach LOS	C	F		C

Intersection Summary			
Delay	119.8		
Level of Service	F		
Intersection Capacity Utilization	87.7%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	1100	150	250	1200	600	200	100	100	300	100	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.97	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1418	3183	4715	1420	1641	1582		1641	1727	2584
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1418	3183	4715	1420	1641	1582		1641	1727	2584
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	272	1196	163	272	1304	652	217	109	109	326	109	435
RTOR Reduction (vph)	0	0	112	0	0	371	0	31	0	0	0	138
Lane Group Flow (vph)	272	1196	51	272	1304	281	217	187	0	326	109	297
Confl. Peds. (#/hr)						11			1			
Confl. Bikes (#/hr)			12			13			5			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	11.0	35.8	35.8	12.0	37.1	37.1	19.0	19.6		25.1	25.7	36.7
Effective Green, g (s)	11.0	35.8	35.8	12.0	37.1	37.1	19.0	19.6		25.1	25.7	36.7
Actuated g/C Ratio	0.10	0.31	0.31	0.11	0.33	0.33	0.17	0.17		0.22	0.23	0.32
Clearance Time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	2.0	4.1	4.1	2.0	4.5	4.5	2.0	4.3		2.0	3.7	2.0
Lane Grp Cap (vph)	307	1483	446	335	1537	462	273	272		361	390	833
v/s Ratio Prot	c0.09	0.25		0.09	c0.28		0.13	c0.12		c0.20	0.06	0.03
v/s Ratio Perm			0.04			0.20						0.08
v/c Ratio	0.89	0.81	0.11	0.81	0.85	0.61	0.79	0.69		0.90	0.28	0.36
Uniform Delay, d1	50.8	35.8	27.7	49.8	35.7	32.2	45.5	44.2		43.2	36.4	29.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	24.3	3.5	0.2	13.2	4.9	3.0	13.8	7.9		24.4	0.5	0.1
Delay (s)	75.0	39.4	27.9	63.0	40.7	35.2	59.3	52.1		67.6	36.9	29.6
Level of Service	E	D	C	E	D	D	E	D		E	D	C
Approach Delay (s)		44.2			41.8			55.7			44.7	
Approach LOS		D			D			E			D	

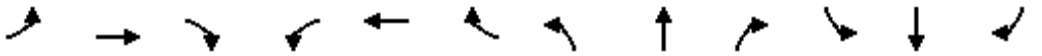
Intersection Summary			
HCM 2000 Control Delay	44.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	113.8	Sum of lost time (s)	21.3
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	0	0	0	0	60	0	190	0	30	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	0	0	0	0	65	0	207	0	33	0	0

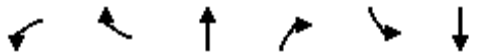
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	11	65	207	33
Volume Left (vph)	11	0	0	33
Volume Right (vph)	0	65	0	0
Hadj (s)	0.37	-0.43	0.17	0.37
Departure Headway (s)	4.9	4.0	4.3	4.7
Degree Utilization, x	0.01	0.07	0.25	0.04
Capacity (veh/h)	685	842	822	741
Control Delay (s)	8.0	7.3	8.7	7.9
Approach Delay (s)	8.0	7.3	8.7	7.9
Approach LOS	A	A	A	A

Intersection Summary				
Delay	8.3			
Level of Service	A			
Intersection Capacity Utilization	30.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	1520	100	100	1980	40	100	40	100	40	30	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.5		4.0	6.5		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	4664		1641	4699		1641	1727	1468	1641	1727	1468
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1641	4664		1641	4699		1641	1727	1468	1641	1727	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	1652	109	109	2152	43	109	43	109	43	33	43
RTOR Reduction (vph)	0	4	0	0	1	0	0	0	99	0	0	41
Lane Group Flow (vph)	54	1757	0	109	2194	0	109	43	10	43	33	2
Confl. Peds. (#/hr)			1									
Confl. Bikes (#/hr)			5			7						
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			4
Actuated Green, G (s)	8.3	90.0		19.7	101.4		15.3	14.4	14.4	7.4	6.5	6.5
Effective Green, g (s)	8.3	90.0		19.7	101.4		15.3	14.4	14.4	7.4	6.5	6.5
Actuated g/C Ratio	0.06	0.60		0.13	0.68		0.10	0.10	0.10	0.05	0.04	0.04
Clearance Time (s)	4.0	6.5		4.0	6.5		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	2.0	5.3		2.0	5.3		3.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	90	2798		215	3176		167	165	140	80	74	63
v/s Ratio Prot	0.03	0.38		c0.07	c0.47		c0.07	0.02		0.03	c0.02	
v/s Ratio Perm									0.01			0.00
v/c Ratio	0.60	0.63		0.51	0.69		0.65	0.26	0.07	0.54	0.45	0.03
Uniform Delay, d1	69.2	19.3		60.6	14.8		64.8	62.9	61.7	69.6	70.0	68.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.0	1.1		0.7	1.3		8.8	0.3	0.1	3.4	1.6	0.1
Delay (s)	76.2	20.3		61.3	16.0		73.6	63.2	61.8	73.1	71.5	68.8
Level of Service	E	C		E	B		E	E	E	E	E	E
Approach Delay (s)		22.0			18.2			67.0			71.1	
Approach LOS		C			B			E			E	

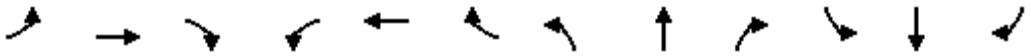
Intersection Summary			
HCM 2000 Control Delay	23.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	90	250	10	130	160	40
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	98	272	11	141	174	43
Pedestrians	1		1			
Lane Width (ft)	12.0		12.0			
Walking Speed (ft/s)	4.0		4.0			
Percent Blockage	0		0			
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	475	83			153	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	475	83			153	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	79	72			87	
cM capacity (veh/h)	466	955			1379	

Direction, Lane #	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	98	136	136	152	217
Volume Left	98	0	0	0	174
Volume Right	0	136	136	141	0
cSH	466	955	955	1700	1379
Volume to Capacity	0.21	0.14	0.14	0.09	0.13
Queue Length 95th (ft)	20	12	12	0	11
Control Delay (s)	14.8	9.4	9.4	0.0	6.6
Lane LOS	B	A	A		A
Approach Delay (s)	10.8			0.0	6.6
Approach LOS	B				

Intersection Summary			
Average Delay	7.3		
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		



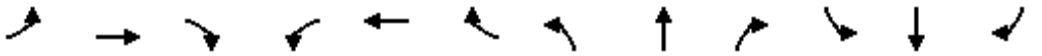
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	10	20	0	10	10	100	120	20	70	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	11	22	0	11	11	109	130	22	76	11

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	11	33	250	109
Volume Left (vph)	0	22	11	22
Volume Right (vph)	11	11	130	11
Hadj (s)	-0.52	0.10	-0.14	0.14
Departure Headway (s)	4.2	4.8	4.0	4.4
Degree Utilization, x	0.01	0.04	0.28	0.13
Capacity (veh/h)	776	690	885	803
Control Delay (s)	7.2	8.0	8.5	8.1
Approach Delay (s)	7.2	8.0	8.5	8.1
Approach LOS	A	A	A	A

Intersection Summary				
Delay	8.3			
Level of Service	A			
Intersection Capacity Utilization	29.0%	ICU Level of Service	A	
Analysis Period (min)	15			

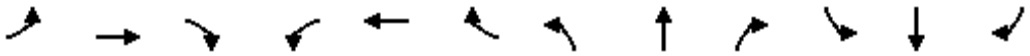
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1560	490	380	1700	660	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	1641	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	1641	4715	3183	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1696	533	413	1848	717	293
RTOR Reduction (vph)	0	345	0	0	0	219
Lane Group Flow (vph)	1696	188	413	1848	717	74
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	31.8	31.8	21.0	56.8	22.7	22.7
Effective Green, g (s)	31.8	31.8	21.0	56.8	22.7	22.7
Actuated g/C Ratio	0.35	0.35	0.23	0.63	0.25	0.25
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	1665	518	382	2975	802	370
v/s Ratio Prot	c0.36		c0.25	0.39	c0.23	
v/s Ratio Perm		0.13				0.05
v/c Ratio	1.02	0.36	1.08	0.62	0.89	0.20
Uniform Delay, d1	29.1	21.6	34.5	10.1	32.5	26.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	26.8	2.0	69.5	1.0	12.1	0.1
Delay (s)	55.9	23.6	104.0	11.1	44.6	26.6
Level of Service	E	C	F	B	D	C
Approach Delay (s)	48.2			28.0	39.4	
Approach LOS	D			C	D	

Intersection Summary			
HCM 2000 Control Delay	38.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



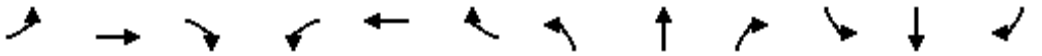
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	135	10	140	645	250	0	0	535	700
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1	4.7	5.1			5.1	5.1
Lane Util. Factor				1.00	0.95	0.95	0.97	0.91			0.91	1.00
Frpb, ped/bikes				1.00	0.99	0.99	1.00	1.00			1.00	0.99
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	0.87	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1641	1411	1375	3183	4715			4715	1450
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1641	1411	1375	3183	4715			4715	1450
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	147	11	152	701	272	0	0	582	761
RTOR Reduction (vph)	0	0	0	0	60	68	0	0	0	0	0	406
Lane Group Flow (vph)	0	0	0	147	22	13	701	272	0	0	582	355
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)												1
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				8.4	8.4	8.4	10.1	34.5			19.7	19.7
Effective Green, g (s)				8.4	8.4	8.4	10.1	34.5			19.7	19.7
Actuated g/C Ratio				0.16	0.16	0.16	0.19	0.65			0.37	0.37
Clearance Time (s)				5.1	5.1	5.1	4.7	5.1			5.1	5.1
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				259	223	217	605	3063			1749	537
v/s Ratio Prot					0.02		c0.22	0.06			0.12	
v/s Ratio Perm				c0.09		0.01						c0.24
v/c Ratio				0.57	0.10	0.06	1.16	0.09			0.33	0.66
Uniform Delay, d1				20.7	19.1	19.0	21.5	3.5			12.0	13.9
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				2.8	0.2	0.1	88.9	0.0			0.1	3.0
Delay (s)				23.5	19.3	19.1	110.4	3.5			12.1	17.0
Level of Service				C	B	B	F	A			B	B
Approach Delay (s)		0.0			21.2			80.5			14.9	
Approach LOS		A			C			F			B	

Intersection Summary			
HCM 2000 Control Delay	39.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	53.1	Sum of lost time (s)	14.9
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



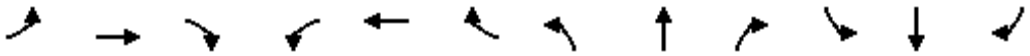
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	225	10	515	0	0	0	0	670	260	180	490	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1	5.1					5.1		4.7	5.1	
Lane Util. Factor		1.00	0.88					0.95		0.97	0.91	
Frt		1.00	0.85					0.96		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1648	2584					3144		3183	4715	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		1648	2584					3144		3183	4715	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	245	11	560	0	0	0	0	728	283	196	533	0
RTOR Reduction (vph)	0	0	423	0	0	0	0	69	0	0	0	0
Lane Group Flow (vph)	0	256	137	0	0	0	0	942	0	196	533	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)		13.6	13.6					21.3		5.6	31.6	
Effective Green, g (s)		13.6	13.6					21.3		5.6	31.6	
Actuated g/C Ratio		0.25	0.25					0.38		0.10	0.57	
Clearance Time (s)		5.1	5.1					5.1		4.7	5.1	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		404	634					1208		321	2689	
v/s Ratio Prot								c0.30		c0.06	0.11	
v/s Ratio Perm		0.16	0.05									
v/c Ratio		0.63	0.22					0.78		0.61	0.20	
Uniform Delay, d1		18.7	16.7					15.0		23.9	5.8	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		3.2	0.2					3.3		3.4	0.0	
Delay (s)		21.9	16.8					18.2		27.3	5.8	
Level of Service		C	B					B		C	A	
Approach Delay (s)		18.4			0.0			18.2			11.6	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	55.4	Sum of lost time (s)	14.9
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	200	100	60	215	200	370	10	360	50	220	585	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99			1.00	0.99	1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.94			1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	1622			1684	1447	1641	3222		1641	1727	1450
Flt Permitted	0.95	1.00			0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1641	1622			1684	1447	1641	3222		1641	1727	1450
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	109	65	234	217	402	11	391	54	239	636	217
RTOR Reduction (vph)	0	19	0	0	0	252	0	9	0	0	0	113
Lane Group Flow (vph)	217	155	0	0	451	150	11	436	0	239	636	104
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)			1			1						1
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	15.9	15.9			31.9	31.9	0.9	25.3		17.4	41.6	41.6
Effective Green, g (s)	15.9	15.9			31.9	31.9	0.9	25.3		17.4	41.6	41.6
Actuated g/C Ratio	0.14	0.14			0.29	0.29	0.01	0.23		0.16	0.38	0.38
Clearance Time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Vehicle Extension (s)	2.0	2.0			3.7	3.7	2.0	3.8		2.0	3.8	3.8
Lane Grp Cap (vph)	236	233			487	418	13	739		258	651	546
v/s Ratio Prot	c0.13	0.10			c0.27		0.01	0.14		c0.15	c0.37	
v/s Ratio Perm						0.10						0.07
v/c Ratio	0.92	0.67			0.93	0.36	0.85	0.59		0.93	0.98	0.19
Uniform Delay, d1	46.6	44.7			38.1	31.1	54.6	37.9		45.8	33.9	23.1
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	36.4	5.5			23.9	0.7	162.2	1.4		36.0	29.3	0.2
Delay (s)	83.0	50.2			62.0	31.7	216.8	39.2		81.8	63.2	23.3
Level of Service	F	D			E	C	F	D		F	E	C
Approach Delay (s)		68.4			47.7			43.5			59.3	
Approach LOS		E			D			D			E	

Intersection Summary			
HCM 2000 Control Delay	54.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	110.3	Sum of lost time (s)	20.0
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

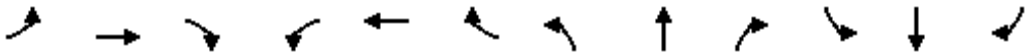


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	210	35	75	150	80	10	120	10	30	180	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00		0.97	0.95	
Frpb, ped/bikes		1.00			1.00	0.99	1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.99			1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected		0.98			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3179			1699	1447	1641	1707		3183	3173	
Flt Permitted		0.76			0.11	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		2447			197	1447	1641	1707		3183	3173	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	228	38	82	163	87	11	130	11	33	196	43
RTOR Reduction (vph)	0	5	0	0	0	44	0	3	0	0	15	0
Lane Group Flow (vph)	0	413	0	0	245	43	11	138	0	33	224	0
Confl. Peds. (#/hr)												1
Confl. Bikes (#/hr)						5						5
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			1		3	8		7	4	
Permitted Phases	2			1		1						
Actuated Green, G (s)		22.9			60.3	60.3	0.8	17.2		2.3	18.7	
Effective Green, g (s)		22.9			60.3	60.3	0.8	17.2		2.3	18.7	
Actuated g/C Ratio		0.19			0.50	0.50	0.01	0.14		0.02	0.15	
Clearance Time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Vehicle Extension (s)		4.8			4.8	4.8	2.0	3.3		2.0	4.4	
Lane Grp Cap (vph)		460			97	716	10	241		60	487	
v/s Ratio Prot							0.01	c0.08		c0.01	0.07	
v/s Ratio Perm		c0.17			c1.25	0.03						
v/c Ratio		0.90			2.53	0.06	1.10	0.57		0.55	0.46	
Uniform Delay, d1		48.3			30.8	16.0	60.5	48.9		59.2	46.9	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		20.9			716.1	0.1	321.8	3.4		6.1	1.1	
Delay (s)		69.2			746.8	16.1	382.3	52.3		65.3	48.1	
Level of Service		E			F	B	F	D		E	D	
Approach Delay (s)		69.2			555.3			76.2			50.2	
Approach LOS		E			F			E			D	

Intersection Summary			
HCM 2000 Control Delay	203.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.78		
Actuated Cycle Length (s)	121.8	Sum of lost time (s)	19.1
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	840	210	230	940	50	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		5.7	7.2	6.1	6.1
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4574		1641	4715	1641	1468
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4574		1641	4715	1641	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	913	228	250	1022	54	11
RTOR Reduction (vph)	33	0	0	0	0	10
Lane Group Flow (vph)	1108	0	250	1022	54	1
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	27.2		8.8	41.7	5.1	5.1
Effective Green, g (s)	27.2		8.8	41.7	5.1	5.1
Actuated g/C Ratio	0.45		0.15	0.69	0.08	0.08
Clearance Time (s)	7.2		5.7	7.2	6.1	6.1
Vehicle Extension (s)	6.9		2.0	6.9	2.0	2.0
Lane Grp Cap (vph)	2070		240	3271	139	124
v/s Ratio Prot	c0.24		c0.15	0.22	c0.03	
v/s Ratio Perm						0.00
v/c Ratio	0.54		1.04	0.31	0.39	0.01
Uniform Delay, d1	11.9		25.6	3.6	26.0	25.2
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8		69.4	0.2	0.7	0.0
Delay (s)	12.7		95.1	3.8	26.7	25.2
Level of Service	B		F	A	C	C
Approach Delay (s)	12.7			21.7	26.4	
Approach LOS	B			C	C	

Intersection Summary			
HCM 2000 Control Delay	17.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	60.1	Sum of lost time (s)	19.0
Intersection Capacity Utilization	57.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



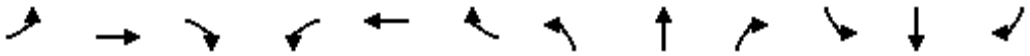
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	250	200	550	400	150	100	200	600	100	350	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.89		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	4715	1444	1641	4523		1641	1516		3183	1649	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1641	4715	1444	1641	4523		1641	1516		3183	1649	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	272	217	598	435	163	109	217	652	109	380	163
RTOR Reduction (vph)	0	0	194	0	49	0	0	69	0	0	10	0
Lane Group Flow (vph)	109	272	23	598	549	0	109	800	0	109	533	0
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)			2						2			
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	13.6	15.9	15.9	39.0	41.3		15.3	62.7		12.5	60.8	
Effective Green, g (s)	13.6	15.9	15.9	39.0	41.3		15.3	62.7		12.5	60.8	
Actuated g/C Ratio	0.09	0.11	0.11	0.26	0.28		0.10	0.42		0.08	0.41	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	3.2		2.0	5.3	
Lane Grp Cap (vph)	148	499	153	426	1245		167	633		265	668	
v/s Ratio Prot	0.07	c0.06		c0.36	0.12		c0.07	c0.53		0.03	0.32	
v/s Ratio Perm			0.02									
v/c Ratio	0.74	0.55	0.15	1.40	0.44		0.65	1.26		0.41	0.80	
Uniform Delay, d1	66.5	63.6	60.9	55.5	44.8		64.8	43.6		65.3	39.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	15.1	4.2	2.1	195.4	1.1		6.8	130.9		0.4	7.7	
Delay (s)	81.5	67.9	63.0	250.9	46.0		71.6	174.5		65.6	46.9	
Level of Service	F	E	E	F	D		E	F		E	D	
Approach Delay (s)		68.6			148.4			163.1			50.1	
Approach LOS		E			F			F			D	

Intersection Summary			
HCM 2000 Control Delay	119.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	106.2%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	180	100	40	120	250	40	260	10	370	270	280
Future Volume (vph)	160	180	100	40	120	250	40	260	10	370	270	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frpb, ped/bikes		1.00			0.99			1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	
Frt		0.97			0.92			1.00		1.00	0.92	
Flt Protected		0.98			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1637			1564			1709		1641	1585	
Flt Permitted		0.66			0.93			0.77		0.52	1.00	
Satd. Flow (perm)		1106			1463			1318		890	1585	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	196	109	43	130	272	43	283	11	402	293	304
RTOR Reduction (vph)	0	18	0	0	94	0	0	2	0	0	62	0
Lane Group Flow (vph)	0	461	0	0	351	0	0	335	0	402	535	0
Confl. Peds. (#/hr)							1					1
Confl. Bikes (#/hr)			1			3						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		26.0			26.0			26.0		26.0	26.0	
Effective Green, g (s)		26.0			26.0			26.0		26.0	26.0	
Actuated g/C Ratio		0.43			0.43			0.43		0.43	0.43	
Clearance Time (s)		4.0			4.0			4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		479			633			571		385	686	
v/s Ratio Prot											0.34	
v/s Ratio Perm		c0.42			0.24			0.25		c0.45		
v/c Ratio		0.96			0.55			0.59		1.04	0.78	
Uniform Delay, d1		16.5			12.7			12.9		17.0	14.5	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		31.7			1.1			4.4		57.8	8.5	
Delay (s)		48.2			13.7			17.3		74.8	23.1	
Level of Service		D			B			B		E	C	
Approach Delay (s)		48.2			13.7			17.3			43.9	
Approach LOS		D			B			B			D	

Intersection Summary			
HCM 2000 Control Delay	34.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	109.5%	ICU Level of Service	H
Analysis Period (min)	15		

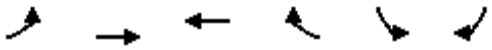
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	90	50	35	90	110	0	70	10	120	90	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	98	54	38	98	120	0	76	11	130	98	109

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	163	255	87	337
Volume Left (vph)	11	38	0	130
Volume Right (vph)	54	120	11	109
Hadj (s)	-0.02	-0.08	0.09	0.05
Departure Headway (s)	5.5	5.3	5.7	5.3
Degree Utilization, x	0.25	0.37	0.14	0.49
Capacity (veh/h)	596	633	550	646
Control Delay (s)	10.3	11.4	9.6	13.2
Approach Delay (s)	10.3	11.4	9.6	13.2
Approach LOS	B	B	A	B

Intersection Summary				
Delay	11.7			
Level of Service	B			
Intersection Capacity Utilization	53.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	190	420	670	110	100	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00	1.00	0.99	0.99	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	0.93	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (prot)	3183	3282	4715	1447	2997	1312
Flt Permitted	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (perm)	3183	3282	4715	1447	2997	1312
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	207	457	728	120	109	217
RTOR Reduction (vph)	0	0	0	74	93	92
Lane Group Flow (vph)	207	457	728	46	125	16
Confl. Bikes (#/hr)				4		4
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	5.1	26.8	17.0	17.0	6.5	6.5
Effective Green, g (s)	5.1	26.8	17.0	17.0	6.5	6.5
Actuated g/C Ratio	0.11	0.60	0.38	0.38	0.15	0.15
Clearance Time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Vehicle Extension (s)	2.0	5.8	5.8	5.8	2.0	2.0
Lane Grp Cap (vph)	363	1972	1797	551	436	191
v/s Ratio Prot	c0.07	0.14	c0.15		c0.04	
v/s Ratio Perm				0.03		0.01
v/c Ratio	0.57	0.23	0.41	0.08	0.29	0.08
Uniform Delay, d1	18.7	4.1	10.1	8.8	17.0	16.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	0.2	0.4	0.2	0.1	0.1
Delay (s)	20.1	4.3	10.5	9.0	17.1	16.5
Level of Service	C	A	B	A	B	B
Approach Delay (s)		9.2	10.3		16.9	
Approach LOS		A	B		B	

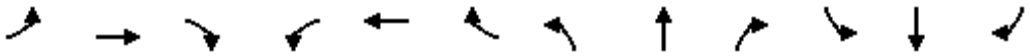
Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	44.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	36.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	360	220	170	430	90	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	391	239	185	467	98	65

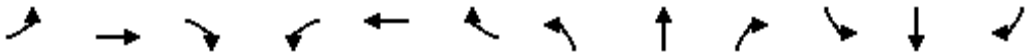
Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total (vph)	630	185	467	163
Volume Left (vph)	0	185	0	98
Volume Right (vph)	239	0	0	65
Hadj (s)	-0.06	0.67	0.17	0.05
Departure Headway (s)	5.4	6.5	6.0	6.9
Degree Utilization, x	0.94	0.33	0.78	0.31
Capacity (veh/h)	664	544	589	509
Control Delay (s)	44.0	11.5	25.6	12.9
Approach Delay (s)	44.0	21.6		12.9
Approach LOS	E	C		B

Intersection Summary			
Delay	30.4		
Level of Service	D		
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	500	20	40	780	0	30	0	40	10	10	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9		4.4	4.9		4.9		4.9		4.9	
Lane Util. Factor		0.91		1.00	0.91		1.00		1.00		1.00	
Frpb, ped/bikes		1.00		1.00	1.00		1.00		0.98		0.94	
Flpb, ped/bikes		1.00		1.00	1.00		1.00		1.00		1.00	
Frt		0.99		1.00	1.00		1.00		0.85		0.93	
Flt Protected		1.00		0.95	1.00		0.95		1.00		0.99	
Satd. Flow (prot)		4678		1641	4715		1641		1434		1499	
Flt Permitted		1.00		0.95	1.00		1.00		1.00		0.91	
Satd. Flow (perm)		4678		1641	4715		1727		1434		1385	
Peak-hour factor, PHF	0.74	0.74	0.74	0.94	0.94	0.94	0.81	0.81	0.81	0.60	0.60	0.60
Adj. Flow (vph)	0	676	27	43	830	0	37	0	49	17	17	33
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	44	0	30	0
Lane Group Flow (vph)	0	698	0	43	830	0	37	0	5	0	37	0
Confl. Peds. (#/hr)			49			10			6	6		
Confl. Bikes (#/hr)			3						4			25
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)		14.3		1.3	20.0		3.1		3.1		3.1	
Effective Green, g (s)		14.3		1.3	20.0		3.1		3.1		3.1	
Actuated g/C Ratio		0.43		0.04	0.61		0.09		0.09		0.09	
Clearance Time (s)		4.9		4.4	4.9		4.9		4.9		4.9	
Vehicle Extension (s)		6.1		2.0	5.1		2.0		2.0		2.0	
Lane Grp Cap (vph)		2033		64	2866		162		135		130	
v/s Ratio Prot		c0.15		0.03	c0.18							
v/s Ratio Perm							0.02		0.00		c0.03	
v/c Ratio		0.34		0.67	0.29		0.23		0.03		0.29	
Uniform Delay, d1		6.2		15.6	3.1		13.8		13.5		13.9	
Progression Factor		1.00		1.00	1.00		1.00		1.00		1.00	
Incremental Delay, d2		0.3		19.6	0.1		0.3		0.0		0.4	
Delay (s)		6.5		35.2	3.2		14.1		13.6		14.3	
Level of Service		A		D	A		B		B		B	
Approach Delay (s)		6.5			4.8			13.8			14.3	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	6.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	32.9	Sum of lost time (s)	14.2
Intersection Capacity Utilization	41.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



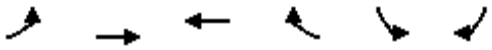
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	400	70	250	660	150	60	60	280	190	70	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00	1.00		0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.96		0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		0.99	
Frt	1.00	0.98		1.00	0.97			1.00	0.85		0.96	
Flt Protected	0.95	1.00		0.95	1.00			0.98	1.00		0.97	
Satd. Flow (prot)	1641	4611		1641	4566			1683	1412		3009	
Flt Permitted	0.95	1.00		0.95	1.00			0.63	1.00		0.75	
Satd. Flow (perm)	1641	4611		1641	4566			1087	1412		2321	
Peak-hour factor, PHF	0.69	0.69	0.69	0.93	0.93	0.93	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	116	580	101	269	710	161	71	71	329	224	82	118
RTOR Reduction (vph)	0	23	0	0	30	0	0	0	242	0	49	0
Lane Group Flow (vph)	116	658	0	269	841	0	0	142	87	0	375	0
Confl. Peds. (#/hr)						1	10		46	46		10
Confl. Bikes (#/hr)						1			3			11
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	8.0	20.8		16.3	28.5			18.3	18.3		18.3	
Effective Green, g (s)	8.0	20.8		16.3	28.5			18.3	18.3		18.3	
Actuated g/C Ratio	0.11	0.30		0.23	0.41			0.26	0.26		0.26	
Clearance Time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Vehicle Extension (s)	2.0	8.0		2.0	6.7			4.4	4.4		4.4	
Lane Grp Cap (vph)	188	1378		384	1869			285	371		610	
v/s Ratio Prot	0.07	0.14		c0.16	c0.18							
v/s Ratio Perm								0.13	0.06		c0.16	
v/c Ratio	0.62	0.48		0.70	0.45			0.50	0.23		0.61	
Uniform Delay, d1	29.3	20.0		24.4	14.9			21.8	20.1		22.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	4.2	1.1		4.7	0.6			2.3	0.5		2.3	
Delay (s)	33.5	21.1		29.1	15.5			24.0	20.7		24.9	
Level of Service	C	C		C	B			C	C		C	
Approach Delay (s)		22.9			18.7			21.7			24.9	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	69.6	Sum of lost time (s)	14.8
Intersection Capacity Utilization	83.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	800	70	410	1060	0	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1		5.1	3.0		5.1
Lane Util. Factor	0.91		0.97	0.91		0.88
Frpb, ped/bikes	1.00		1.00	1.00		1.00
Flpb, ped/bikes	1.00		1.00	1.00		1.00
Frt	0.99		1.00	1.00		0.85
Flt Protected	1.00		0.95	1.00		1.00
Satd. Flow (prot)	4652		3183	4715		2584
Flt Permitted	1.00		0.95	1.00		1.00
Satd. Flow (perm)	4652		3183	4715		2584
Peak-hour factor, PHF	0.75	0.75	0.97	0.97	0.86	0.86
Adj. Flow (vph)	1067	93	423	1093	0	395
RTOR Reduction (vph)	22	0	0	0	0	149
Lane Group Flow (vph)	1138	0	423	1093	0	246
Confl. Peds. (#/hr)		20				
Turn Type	NA		Prot	NA		Over
Protected Phases	2		1	6		1
Permitted Phases						1
Actuated Green, G (s)	20.3		8.9	39.4		8.9
Effective Green, g (s)	20.3		8.9	39.4		8.9
Actuated g/C Ratio	0.52		0.23	1.00		0.23
Clearance Time (s)	5.1		5.1	3.0		5.1
Vehicle Extension (s)	3.9		2.0	0.9		2.0
Lane Grp Cap (vph)	2396		719	4715		583
v/s Ratio Prot	c0.24		c0.13	0.23		0.10
v/s Ratio Perm						
v/c Ratio	0.48		0.59	0.23		0.42
Uniform Delay, d1	6.1		13.6	0.0		13.1
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	0.2		0.8	0.0		0.2
Delay (s)	6.3		14.4	0.0		13.2
Level of Service	A		B	A		B
Approach Delay (s)	6.3			4.0	13.2	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	6.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	39.4	Sum of lost time (s)	10.2
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		

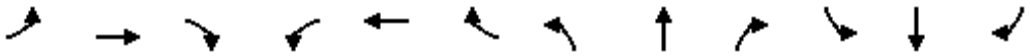
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Volume (veh/h)	0	1140	1070	0	0	400
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.82	0.82	0.87	0.87	0.91	0.91
Hourly flow rate (vph)	0	1390	1230	0	0	440
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		269	396			
pX, platoon unblocked					0.89	
vC, conflicting volume	1230				1693	410
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1230				1343	410
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	23
cM capacity (veh/h)	520				119	569

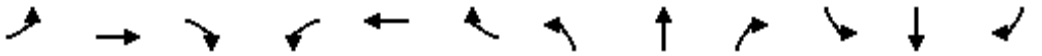
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	463	463	463	410	410	410	440
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	440
cSH	1700	1700	1700	1700	1700	1700	569
Volume to Capacity	0.27	0.27	0.27	0.24	0.24	0.24	0.77
Queue Length 95th (ft)	0	0	0	0	0	0	177
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	29.6
Lane LOS							D
Approach Delay (s)	0.0			0.0			29.6
Approach LOS							D

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	78.4%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	540	600	0	0	1010	1120	60	10	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Lane Util. Factor	0.97	0.91			0.86	0.86		1.00	0.88			
Frpb, ped/bikes	1.00	1.00			0.99	0.98		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			0.95	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.96	1.00			
Satd. Flow (prot)	3183	4715			4191	1240		1656	2584			
Flt Permitted	0.95	1.00			1.00	1.00		0.96	1.00			
Satd. Flow (perm)	3183	4715			4191	1240		1656	2584			
Peak-hour factor, PHF	0.82	0.82	0.82	0.92	0.92	0.92	0.75	0.75	0.75	0.92	0.92	0.92
Adj. Flow (vph)	659	732	0	0	1098	1217	80	13	307	0	0	0
RTOR Reduction (vph)	0	0	0	0	125	304	0	0	264	0	0	0
Lane Group Flow (vph)	659	732	0	0	1582	304	0	93	43	0	0	0
Confl. Peds. (#/hr)						2	3					
Confl. Bikes (#/hr)			3			8						
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Actuated Green, G (s)	14.3	48.9			29.9	29.9		9.7	9.7			
Effective Green, g (s)	14.3	48.9			29.9	29.9		9.7	9.7			
Actuated g/C Ratio	0.21	0.71			0.43	0.43		0.14	0.14			
Clearance Time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Vehicle Extension (s)	2.0	3.9			3.9	3.9		3.0	3.0			
Lane Grp Cap (vph)	661	3351			1821	538		233	364			
v/s Ratio Prot	c0.21	0.16			c0.38			c0.06				
v/s Ratio Perm						0.25			0.02			
v/c Ratio	1.00	0.22			0.87	0.56		0.40	0.12			
Uniform Delay, d1	27.2	3.4			17.7	14.6		26.9	25.8			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	34.0	0.0			4.9	1.6		1.1	0.1			
Delay (s)	61.2	3.5			22.5	16.2		28.0	26.0			
Level of Service	E	A			C	B		C	C			
Approach Delay (s)		30.8			20.9			26.4			0.0	
Approach LOS		C			C			C			A	

Intersection Summary			
HCM 2000 Control Delay	24.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	68.8	Sum of lost time (s)	14.9
Intersection Capacity Utilization	78.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	170	180	100	10	190	100	60	120	10	40	80	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	185	196	109	11	207	109	65	130	11	43	87	43

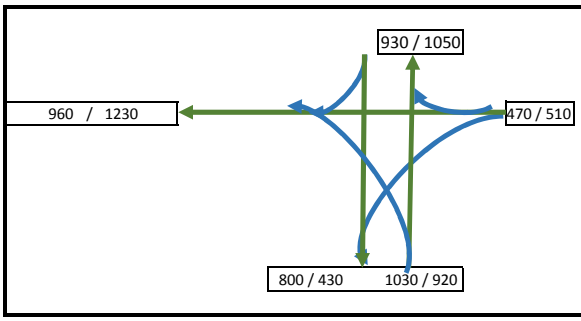
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	185	304	11	315	65	141	130	43
Volume Left (vph)	185	0	11	0	65	0	43	0
Volume Right (vph)	0	109	0	109	0	11	0	43
Hadj (s)	0.67	-0.08	0.67	-0.07	0.67	0.12	0.34	-0.53
Departure Headway (s)	6.9	6.2	7.1	6.4	7.7	7.1	7.4	6.6
Degree Utilization, x	0.36	0.52	0.02	0.56	0.14	0.28	0.27	0.08
Capacity (veh/h)	500	564	478	543	438	472	451	505
Control Delay (s)	12.5	14.5	9.1	16.0	10.7	11.7	11.9	8.9
Approach Delay (s)	13.7		15.8		11.4		11.2	
Approach LOS	B		C		B		B	

Intersection Summary				
Delay	13.5			
Level of Service	B			
Intersection Capacity Utilization	52.4%	ICU Level of Service	A	
Analysis Period (min)	15			

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION:	Caliente Avenue and 905 WB Ramps	DIST. CO. RTE	SR-905
ALTERNATIVE:	Near-Term Conditions	PM:	
		DATE:	1/27/2016
		TIME:	

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	160	870	0
SB:	0	400	790
EB:	0	0	0
WB:	400	10	60

PM

	Left	Throu	Right
NB:	220	700	0
SB:	0	280	1000
EB:	0	0	0
WB:	150	10	350

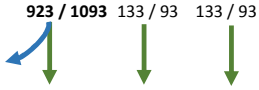
LANE VOLUMES (ILV/HR)

PHASE I

AM 160
PM 220

PHASE II

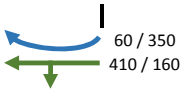
AM 923
PM 1093



Remaining NB Through 130 / 13

PHASE III

AM 410
PM 350



PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
1493	1663

TOTAL OPERATING LEVEL (ILV/HR):

AM:	1493	At Capacity
PM:	1663	**Over Capacity**

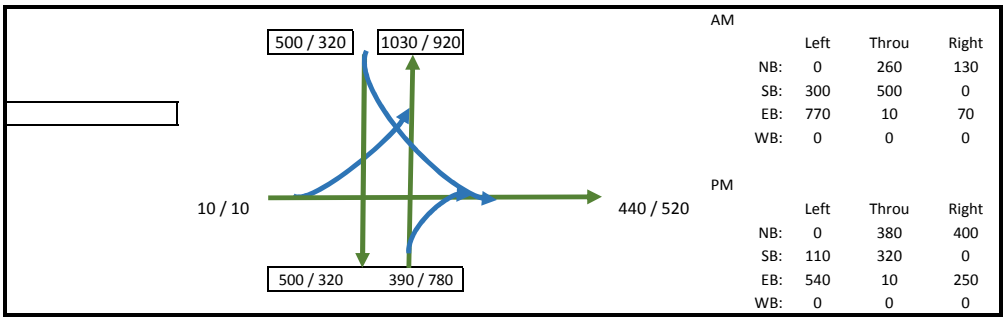
< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION: Caliente Avenue and 905 EB Ramps
ALTERNATIVE: Near-Term Conditions

DIST. CO. RTE: SR-905
PM:
DATE: 1/27/2016
TIME:

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	0	260	130
SB:	300	500	0
EB:	770	10	70
WB:	0	0	0

PM

	Left	Throu	Right
NB:	0	380	400
SB:	110	320	0
EB:	540	10	250
WB:	0	0	0

LANE VOLUMES (ILV/HR)

PHASE I

AM 300
PM 110

250 / 160 | 250 / 160 | **300 / 110**

PHASE II

AM 217
PM 527

Remaining SB Through: 0 / 50

87 / 127 | 87 / 127 | **217 / 527**

PHASE III

AM 770
PM 540

770 / 540
80 / 260

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
1287	1177

TOTAL OPERATING LEVEL (ILV/HR):

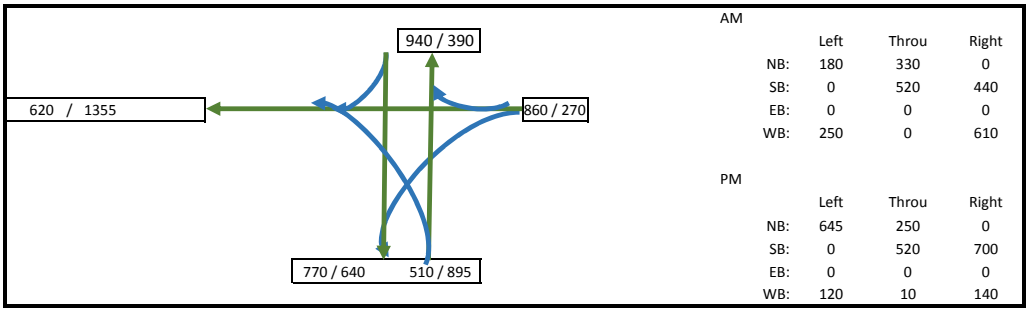
AM:	1287	At Capacity
PM:	1177	Under Capacity

< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION:	Britannia Boulevard and SR-905 WB Ramps	DIST. CO. RTE	SR-905
ALTERNATIVE:	Near-Term Conditions	PM:	
		DATE:	1/27/2016
		TIME:	

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	180	330	0
SB:	0	520	440
EB:	0	0	0
WB:	250	0	610

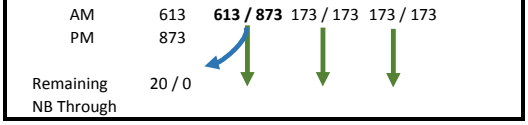
PM

	Left	Throu	Right
NB:	645	250	0
SB:	0	520	700
EB:	0	0	0
WB:	120	10	140

LANE VOLUMES (ILV/HR)

PHASE I

PHASE II



PHASE III

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
1008	1316

TOTAL OPERATING LEVEL (ILV/HR):

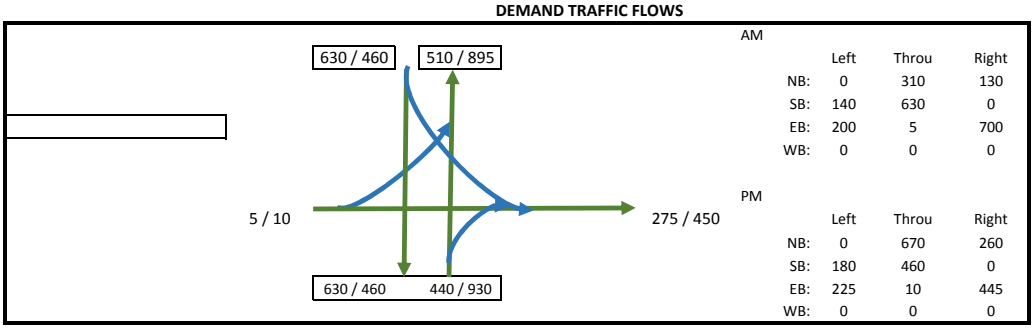
AM:	1008	Under Capacity
PM:	1316	At Capacity

< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION:	Britannia Boulevard and 905 EB Ramps	DIST. CO. RTE	SR-905
ALTERNATIVE:	Near-Term Conditions	PM:	
		DATE:	1/27/2016
		TIME:	

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	0	310	130
SB:	140	630	0
EB:	200	5	700
WB:	0	0	0

PM

	Left	Throu	Right
NB:	0	670	260
SB:	180	460	0
EB:	225	10	445
WB:	0	0	0

LANE VOLUMES (ILV/HR)

PHASE I

AM **70**
PM **90**

210 / 153 | 210 / 153 | 210 / 153 | 70 / 90 | **70 / 90**

PHASE II

AM 285
PM 595

Remaining SB Through 140 / 63

155 / 335 | **285 / 595**

PHASE III

AM 350
PM 223

205 / 235

350 / 223
350 / 223

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
705	908

TOTAL OPERATING LEVEL (ILV/HR):

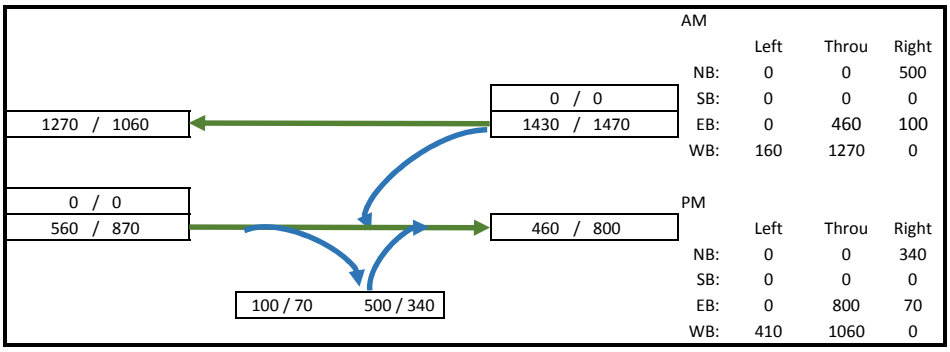
AM:	705	Under Capacity
PM:	908	Under Capacity

< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION:	905 / Siempre Viva Road	DIST. CO. RTE	SR-905
ALTERNATIVE:	Near-Term Conditions	PM:	
		DATE:	1/27/2016
		TIME:	

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	0	0	500
SB:	0	0	0
EB:	0	460	100
WB:	160	1270	0

PM

	Left	Throu	Right
NB:	0	0	340
SB:	0	0	0
EB:	0	800	70
WB:	410	1060	0

LANE VOLUMES (ILV/HR)

PHASE I		
AM	80	423 / 353
PM	205	423 / 353
		423 / 353
		80 / 205
		80 / 205

PHASE II		
AM	343	153 / 267
PM	337	153 / 267
		253 / 337
Remaining WB Through		**343 / 148**

PHASE III			
AM	250		
PM	170		
		250 / 170	250 / 170

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PHASE II
673	712

TOTAL OPERATING LEVEL (ILV/HR):

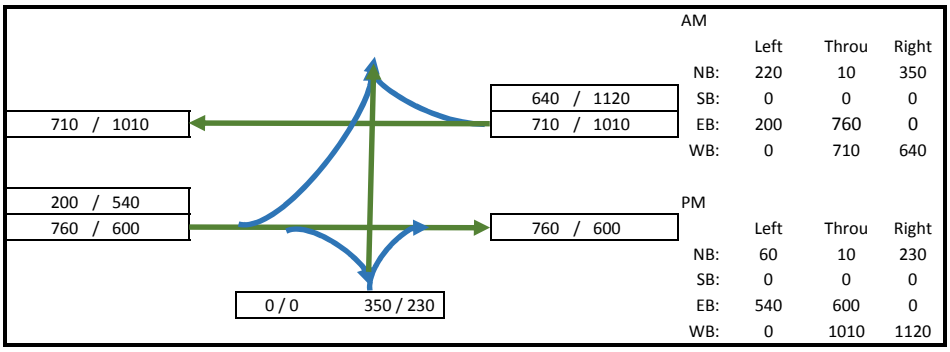
AM:	673	Under Capacity
PM:	712	Under Capacity

< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION:	905 / Siempre Viva Road	DIST. CO. RTE	SR-905
ALTERNATIVE:	Near-Term Conditions	PM:	
		DATE:	1/27/2016
		TIME:	

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	220	10	350
SB:	0	0	0
EB:	200	760	0
WB:	0	710	640

PM

	Left	Throu	Right
NB:	60	10	230
SB:	0	0	0
EB:	540	600	0
WB:	0	1010	1120

LANE VOLUMES (ILV/HR)

PHASE I

AM	100	**100 / 270**
PM	270	100 / 270
		253 / 200
		253 / 200
		253 / 200

PHASE II

AM	557	320 / 560
PM	897	**557 / 897**
		237 / 337
Remaining EB Through	**153 / 0**	237 / 337

PHASE III

AM	230	**230 / 70**	175 / 115	**175 / 115**
PM	115			

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

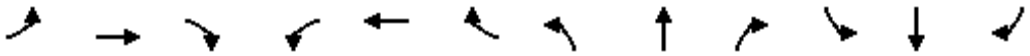
AM	PHASE II
887	1282

TOTAL OPERATING LEVEL (ILV/HR):

AM:	887	Under Capacity
PM:	1282	At Capacity

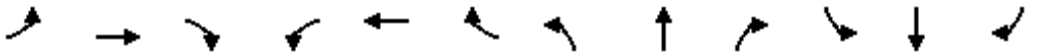
< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

Appendix J
Peak Hour Intersection LOS & ILV Worksheets – Cumulative Plus Project Conditions



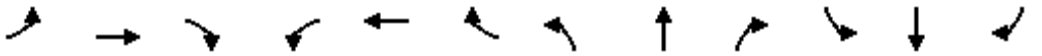
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	178	290	220	40	50	29	80	59	60	89	89	169
Future Volume (vph)	178	290	220	40	50	29	80	59	60	89	89	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.98		1.00		1.00	0.99			0.99	
Flpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85		0.97		1.00	0.92			0.93	
Flt Protected	0.95	1.00	1.00		0.98		0.95	1.00			0.99	
Satd. Flow (prot)	1681	1717	1547		1741		1768	1708			1695	
Flt Permitted	0.95	1.00	1.00		0.98		0.48	1.00			0.88	
Satd. Flow (perm)	1681	1717	1547		1741		885	1708			1507	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	193	315	239	43	54	32	87	64	65	97	97	184
RTOR Reduction (vph)	0	0	171	0	17	0	0	43	0	0	44	0
Lane Group Flow (vph)	174	334	68	0	112	0	87	86	0	0	334	0
Confl. Peds. (#/hr)	1		1	1		1	2					2
Confl. Bikes (#/hr)			1			4			6			5
Heavy Vehicles (%)	2%	5%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Split	NA	Perm	Split	NA		Perm	NA		Perm	NA	
Protected Phases	2	2		1	1			8			4	
Permitted Phases			2				8			4		
Actuated Green, G (s)	16.6	16.6	16.6		7.5		19.7	19.7			19.4	
Effective Green, g (s)	16.6	16.6	16.6		7.5		19.7	19.7			19.4	
Actuated g/C Ratio	0.28	0.28	0.28		0.13		0.34	0.34			0.33	
Clearance Time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Vehicle Extension (s)	2.9	2.9	2.9		2.9		3.8	3.8			4.5	
Lane Grp Cap (vph)	477	487	438		223		298	575			499	
v/s Ratio Prot	0.10	c0.19			c0.06			0.05				
v/s Ratio Perm			0.04				0.10				c0.22	
v/c Ratio	0.36	0.69	0.15		0.50		0.29	0.15			0.67	
Uniform Delay, d1	16.7	18.6	15.7		23.8		14.3	13.5			16.8	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.5	3.9	0.2		1.7		0.7	0.2			4.1	
Delay (s)	17.2	22.6	15.9		25.5		15.0	13.7			20.9	
Level of Service	B	C	B		C		B	B			C	
Approach Delay (s)		19.2			25.5			14.2			20.9	
Approach LOS		B			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	19.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	58.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	275	40	139	397	120	60	0	59	15	10	30
Future Volume (vph)	50	275	40	139	397	120	60	0	59	15	10	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	5.4		4.4	5.6		4.4		4.9	4.4	4.9	
Lane Util. Factor	1.00	0.95		0.97	0.91		1.00		1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00		0.99	1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		1.00	1.00	1.00	
Frt	1.00	0.98		1.00	0.97		1.00		0.85	1.00	0.89	
Flt Protected	0.95	1.00		0.95	1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)	1770	3466		3433	4883		1770		1563	1768	1629	
Flt Permitted	0.95	1.00		0.95	1.00		1.00		1.00	1.00	1.00	
Satd. Flow (perm)	1770	3466		3433	4883		1863		1563	1861	1629	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	299	43	151	432	130	65	0	64	16	11	33
RTOR Reduction (vph)	0	11	0	0	43	0	0	0	59	0	31	0
Lane Group Flow (vph)	54	331	0	151	519	0	65	0	5	16	13	0
Confl. Peds. (#/hr)			3						2	2		
Confl. Bikes (#/hr)			1			3						2
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		pm+pt		Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	2.1	19.8		5.3	22.8		4.8		3.6	3.6	3.0	
Effective Green, g (s)	2.1	19.8		5.3	22.8		4.8		3.6	3.6	3.0	
Actuated g/C Ratio	0.04	0.41		0.11	0.47		0.10		0.07	0.07	0.06	
Clearance Time (s)	4.4	5.4		4.4	5.6		4.4		4.9	4.4	4.9	
Vehicle Extension (s)	2.0	5.4		2.0	5.4		2.0		5.6	2.0	2.0	
Lane Grp Cap (vph)	76	1417		375	2300		182		116	137	100	
v/s Ratio Prot	0.03	0.10		c0.04	c0.11		c0.01			0.00	0.01	
v/s Ratio Perm							c0.03		0.00	0.01		
v/c Ratio	0.71	0.23		0.40	0.23		0.36		0.04	0.12	0.13	
Uniform Delay, d1	22.8	9.3		20.1	7.6		20.3		20.8	20.9	21.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00		1.00	1.00	1.00	
Incremental Delay, d2	22.8	0.2		0.3	0.1		0.4		0.4	0.1	0.2	
Delay (s)	45.6	9.5		20.3	7.7		20.7		21.2	21.1	21.7	
Level of Service	D	A		C	A		C		C	C	C	
Approach Delay (s)		14.5			10.4			20.9			21.5	
Approach LOS		B			B			C			C	

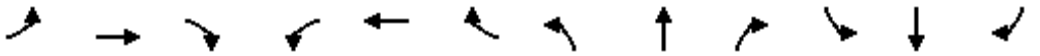
Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	48.4	Sum of lost time (s)	19.3
Intersection Capacity Utilization	37.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	10	770	110	597	10	130	790	254	410	40
Future Volume (vph)	10	10	10	770	110	597	10	130	790	254	410	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1575	3335	3539	1563	1770	3539	1538	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1575	3335	3539	1563	1770	3539	1538	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	837	120	649	11	141	859	276	446	43
RTOR Reduction (vph)	0	0	10	0	0	503	0	0	429	0	0	27
Lane Group Flow (vph)	11	11	1	837	120	146	11	141	430	276	446	16
Confl. Peds. (#/hr)			1			2						
Heavy Vehicles (%)	2%	2%	2%	5%	2%	2%	2%	2%	5%	2%	2%	2%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.5	2.8	6.6	15.5	15.7	15.7	3.8	17.3	32.8	12.1	25.6	25.6
Effective Green, g (s)	1.5	2.8	6.6	15.5	15.7	15.7	3.8	17.3	32.8	12.1	25.6	25.6
Actuated g/C Ratio	0.02	0.04	0.09	0.22	0.22	0.22	0.05	0.25	0.47	0.17	0.37	0.37
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Vehicle Extension (s)	2.0	2.0	2.0	3.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0
Lane Grp Cap (vph)	37	141	148	738	793	350	96	874	720	593	1294	578
v/s Ratio Prot	0.01	0.00	0.00	c0.25	0.03		0.01	0.04	c0.13	c0.08	0.13	
v/s Ratio Perm			0.00			c0.09			0.15			0.01
v/c Ratio	0.30	0.08	0.01	1.13	0.15	0.42	0.11	0.16	0.60	0.47	0.34	0.03
Uniform Delay, d1	33.7	32.4	28.7	27.2	21.8	23.2	31.5	20.7	13.7	26.0	16.1	14.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	0.1	0.0	76.6	0.0	0.3	0.2	0.1	1.3	0.2	0.2	0.0
Delay (s)	35.4	32.4	28.7	103.9	21.8	23.5	31.7	20.7	15.1	26.3	16.3	14.2
Level of Service	D	C	C	F	C	C	C	C	B	C	B	B
Approach Delay (s)		32.2			65.3			16.0			19.8	
Approach LOS		C			E			B			B	

Intersection Summary			
HCM 2000 Control Delay	40.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	23.4
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

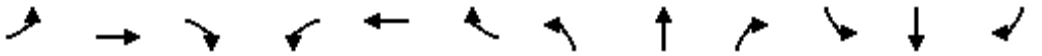


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	535	10	60	160	870	0	0	400	790
Future Volume (vph)	0	0	0	535	10	60	160	870	0	0	400	790
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.1	5.1	4.7	5.1			5.1	
Lane Util. Factor					1.00	1.00	1.00	0.91			0.91	
Frpb, ped/bikes					1.00	1.00	1.00	1.00			0.98	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.90	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1725	1538	1719	4940			4368	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1725	1538	1719	4940			4368	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	582	11	65	174	946	0	0	435	859
RTOR Reduction (vph)	0	0	0	0	0	40	0	0	0	0	461	0
Lane Group Flow (vph)	0	0	0	0	593	25	174	946	0	0	833	0
Confl. Peds. (#/hr)												4
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8						
Actuated Green, G (s)					28.2	28.2	9.2	36.1			22.2	
Effective Green, g (s)					28.2	28.2	9.2	36.1			22.2	
Actuated g/C Ratio					0.38	0.38	0.12	0.48			0.30	
Clearance Time (s)					5.1	5.1	4.7	5.1			5.1	
Vehicle Extension (s)					3.0	3.0	2.0	3.0			3.0	
Lane Grp Cap (vph)					652	582	212	2393			1301	
v/s Ratio Prot							c0.10	0.19			c0.19	
v/s Ratio Perm					0.34	0.02						
v/c Ratio					0.91	0.04	0.82	0.40			0.94dr	
Uniform Delay, d1					21.9	14.6	31.8	12.2			22.7	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					16.6	0.0	20.9	0.1			1.1	
Delay (s)					38.5	14.7	52.7	12.3			23.8	
Level of Service					D	B	D	B			C	
Approach Delay (s)		0.0			36.2			18.6			23.8	
Approach LOS		A			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	24.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	74.5	Sum of lost time (s)	14.9
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		

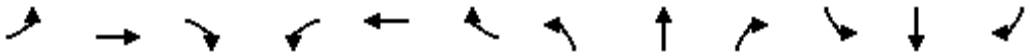
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	770	10	70	0	0	0	0	260	191	300	635	0
Future Volume (vph)	770	10	70	0	0	0	0	260	191	300	635	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1						5.1		4.7	5.1	
Lane Util. Factor	1.00	1.00						0.91		1.00	0.95	
Frpb, ped/bikes	1.00	1.00						0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00						1.00		1.00	1.00	
Frt	1.00	0.87						0.94		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (prot)	1641	1501						4368		1641	3282	
Flt Permitted	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (perm)	1641	1501						4368		1641	3282	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	837	11	76	0	0	0	0	283	208	326	690	0
RTOR Reduction (vph)	0	36	0	0	0	0	0	118	0	0	0	0
Lane Group Flow (vph)	837	51	0	0	0	0	0	373	0	326	690	0
Confl. Peds. (#/hr)									2			
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4											
Actuated Green, G (s)	60.0	60.0						15.5		23.6	43.8	
Effective Green, g (s)	60.0	60.0						15.5		23.6	43.8	
Actuated g/C Ratio	0.53	0.53						0.14		0.21	0.38	
Clearance Time (s)	5.1	5.1						5.1		4.7	5.1	
Vehicle Extension (s)	3.0	3.0						3.0		2.0	3.0	
Lane Grp Cap (vph)	863	790						593		339	1260	
v/s Ratio Prot		0.03						0.09		c0.20	c0.21	
v/s Ratio Perm	c0.51											
v/c Ratio	0.97	0.06						0.63		0.96	0.55	
Uniform Delay, d1	26.1	13.2						46.5		44.8	27.4	
Progression Factor	1.00	1.00						1.00		1.00	1.00	
Incremental Delay, d2	23.2	0.0						2.1		38.3	0.5	
Delay (s)	49.3	13.3						48.6		83.1	27.9	
Level of Service	D	B						D		F	C	
Approach Delay (s)		45.9			0.0			48.6			45.6	
Approach LOS		D			A			D			D	

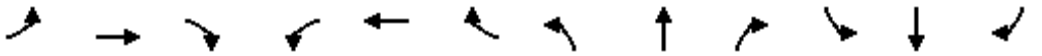
Intersection Summary			
HCM 2000 Control Delay	46.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	114.0	Sum of lost time (s)	14.9
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	205	10	150	100	10	120	20	126	50	100	278	327
Future Volume (vph)	205	10	150	100	10	120	20	126	50	100	278	327
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	223	11	163	109	11	130	22	137	54	109	302	355

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	149	248	109	141	22	191	109	657
Volume Left (vph)	149	74	109	0	22	0	109	0
Volume Right (vph)	0	163	0	130	0	54	0	355
Hadj (s)	0.58	-0.22	0.67	-0.48	0.58	-0.03	0.67	-0.25
Departure Headway (s)	8.1	7.3	8.5	7.3	8.3	7.7	7.7	6.7
Degree Utilization, x	0.33	0.50	0.26	0.29	0.05	0.41	0.23	1.23
Capacity (veh/h)	435	483	412	474	418	454	458	541
Control Delay (s)	13.9	16.3	13.2	12.1	10.5	14.6	11.7	139.5
Approach Delay (s)	15.4		12.6		14.2		121.3	
Approach LOS	C		B		B		F	

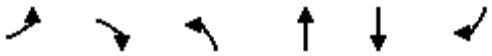
Intersection Summary				
Delay	64.7			
Level of Service	F			
Intersection Capacity Utilization	70.4%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	861	90	0	555	299	0	0	0	0	0	80
Future Volume (Veh/h)	0	861	90	0	555	299	0	0	0	0	0	80
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	936	98	0	603	325	0	0	0	0	0	87
Pedestrians											6	
Lane Width (ft)											12.0	
Walking Speed (ft/s)											4.0	
Percent Blockage											1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	934			1034			1273	1919	361	921	1643	207
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	934			1034			1273	1919	361	921	1643	207
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	100	100	100	100	89
cM capacity (veh/h)	678			622			103	60	613	212	91	771

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	374	374	285	201	201	201	325	0	87
Volume Left	0	0	0	0	0	0	0	0	0
Volume Right	0	0	98	0	0	0	325	0	87
cSH	1700	1700	1700	1700	1700	1700	1700	1700	771
Volume to Capacity	0.22	0.22	0.17	0.12	0.12	0.12	0.19	0.00	0.11
Queue Length 95th (ft)	0	0	0	0	0	0	0	0	9
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
Lane LOS								A	B
Approach Delay (s)	0.0			0.0				0.0	10.3
Approach LOS								A	B

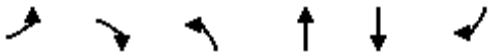
Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	22.8%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	200	100	100	812	1766	60
Future Volume (vph)	200	100	100	812	1766	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	217	109	109	883	1920	65

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	217	109	109	883	1920	65
Volume Left (vph)	217	0	109	0	0	0
Volume Right (vph)	0	109	0	0	0	65
Hadj (s)	0.53	-0.67	0.53	0.17	0.17	-0.67
Departure Headway (s)	8.1	7.0	7.1	6.8	6.9	6.0
Degree Utilization, x	0.49	0.21	0.22	1.66	3.66	0.11
Capacity (veh/h)	437	510	494	536	530	582
Control Delay (s)	17.5	10.6	10.9	323.7	1214.6	8.6
Approach Delay (s)	15.2		289.3		1175.2	
Approach LOS	C		F		F	

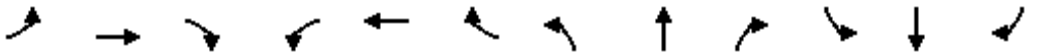
Intersection Summary			
Delay	794.6		
Level of Service	F		
Intersection Capacity Utilization	110.7%	ICU Level of Service	H
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	30	256	732	850	60	40
Future Volume (vph)	30	256	732	850	60	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	278	796	924	65	43

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total (vph)	311	796	924	108
Volume Left (vph)	33	796	0	0
Volume Right (vph)	278	0	0	43
Hadj (s)	-0.35	0.67	0.17	-0.07
Departure Headway (s)	5.6	6.3	5.8	5.8
Degree Utilization, x	0.49	1.39	1.49	0.18
Capacity (veh/h)	625	576	627	590
Control Delay (s)	13.9	204.4	242.5	10.1
Approach Delay (s)	13.9	224.9		10.1
Approach LOS	B	F		B

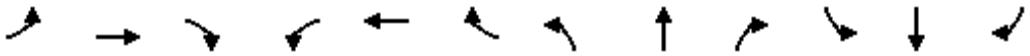
Intersection Summary			
Delay	183.3		
Level of Service	F		
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	1079	150	208	1124	532	200	50	126	505	100	300
Future Volume (vph)	200	1079	150	208	1124	532	200	50	126	505	100	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1468	3183	4715	1468	1641	1541		1641	1727	2584
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1468	3183	4715	1468	1641	1541		1641	1727	2584
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	1173	163	226	1222	578	217	54	137	549	109	326
RTOR Reduction (vph)	0	0	114	0	0	327	0	77	0	0	0	144
Lane Group Flow (vph)	217	1173	49	226	1222	251	217	114	0	549	109	182
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	8.0	35.8	35.8	8.0	36.1	36.1	19.7	15.4		39.1	34.8	42.8
Effective Green, g (s)	8.0	35.8	35.8	8.0	36.1	36.1	19.7	15.4		39.1	34.8	42.8
Actuated g/C Ratio	0.07	0.30	0.30	0.07	0.30	0.30	0.16	0.13		0.33	0.29	0.36
Clearance Time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	2.0	4.1	4.1	2.0	4.5	4.5	2.0	4.3		2.0	3.7	2.0
Lane Grp Cap (vph)	212	1411	439	212	1423	443	270	198		536	502	924
v/s Ratio Prot	0.07	0.25		c0.07	c0.26		0.13	c0.07		c0.33	0.06	0.01
v/s Ratio Perm			0.03			0.17						0.06
v/c Ratio	1.02	0.83	0.11	1.07	0.86	0.57	0.80	0.58		1.02	0.22	0.20
Uniform Delay, d1	55.8	39.1	30.4	55.8	39.3	35.1	48.1	49.0		40.2	32.1	26.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	68.1	4.6	0.2	80.4	5.8	2.4	14.9	5.3		45.2	0.3	0.0
Delay (s)	123.9	43.6	30.5	136.2	45.1	37.5	63.0	54.3		85.4	32.4	26.6
Level of Service	F	D	C	F	D	D	E	D		F	C	C
Approach Delay (s)		53.5			53.1			59.0			60.0	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	55.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	119.6	Sum of lost time (s)	21.3
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



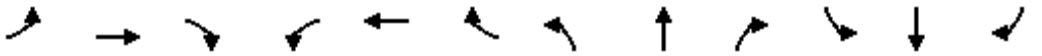
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	0	0	0	0	46	0	190	0	138	0	20
Future Volume (vph)	10	0	0	0	0	46	0	190	0	138	0	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	0	0	0	0	50	0	207	0	150	0	22

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	11	50	207	172
Volume Left (vph)	11	0	0	150
Volume Right (vph)	0	50	0	22
Hadj (s)	0.37	-0.43	0.17	0.27
Departure Headway (s)	5.2	4.4	4.4	4.5
Degree Utilization, x	0.02	0.06	0.25	0.22
Capacity (veh/h)	631	751	797	768
Control Delay (s)	8.3	7.6	8.9	8.8
Approach Delay (s)	8.3	7.6	8.9	8.8
Approach LOS	A	A	A	A

Intersection Summary				
Delay	8.7			
Level of Service	A			
Intersection Capacity Utilization	36.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	0	180	0	0	500
Future Volume (vph)	0	0	180	0	0	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.5			4.5
Lane Util. Factor			1.00			1.00
Frt			1.00			0.85
Flt Protected			0.95			1.00
Satd. Flow (prot)			1770			1583
Flt Permitted			0.76			1.00
Satd. Flow (perm)			1410			1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	196	0	0	543
RTOR Reduction (vph)	0	0	0	0	0	408
Lane Group Flow (vph)	0	0	196	0	0	135
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type			Perm		Perm	Perm
Protected Phases	4			8		
Permitted Phases			8		2	2
Actuated Green, G (s)			8.3			5.7
Effective Green, g (s)			8.3			5.7
Actuated g/C Ratio			0.36			0.25
Clearance Time (s)			4.5			4.5
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			508			392
v/s Ratio Prot						
v/s Ratio Perm			c0.14			c0.08
v/c Ratio			0.39			0.34
Uniform Delay, d1			5.5			7.1
Progression Factor			1.00			1.00
Incremental Delay, d2			0.5			0.5
Delay (s)			5.9			7.6
Level of Service			A			A
Approach Delay (s)	0.0			5.9	7.6	
Approach LOS	A			A	A	

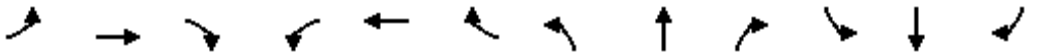
Intersection Summary			
HCM 2000 Control Delay	7.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	23.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	34.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	1910	100	247	1913	107	100	25	144	65	20	40
Future Volume (vph)	40	1910	100	247	1913	107	100	25	144	65	20	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.5		4.5	6.5		4.5	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	4680		1641	4673		1641	1727	1468	1641	1727	1468
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1641	4680		1641	4673		1641	1727	1468	1641	1727	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	2076	109	268	2079	116	109	27	157	71	22	43
RTOR Reduction (vph)	0	4	0	0	3	0	0	0	141	0	0	41
Lane Group Flow (vph)	43	2181	0	268	2192	0	109	27	16	71	22	2
Confl. Peds. (#/hr)						2						
Confl. Bikes (#/hr)						1						
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			4
Actuated Green, G (s)	7.3	68.2		31.7	93.1		15.2	14.1	14.1	7.0	5.4	5.4
Effective Green, g (s)	7.3	68.2		31.7	93.1		15.2	14.1	14.1	7.0	5.4	5.4
Actuated g/C Ratio	0.05	0.49		0.23	0.66		0.11	0.10	0.10	0.05	0.04	0.04
Clearance Time (s)	4.0	6.5		4.5	6.5		4.5	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	2.0	5.3		3.0	5.3		3.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	85	2279		371	3107		178	173	147	82	66	56
v/s Ratio Prot	0.03	c0.47		c0.16	0.47		c0.07	0.02		c0.04	c0.01	
v/s Ratio Perm									0.01			0.00
v/c Ratio	0.51	0.96		0.72	0.71		0.61	0.16	0.11	0.87	0.33	0.03
Uniform Delay, d1	64.6	34.5		50.1	14.8		59.6	57.5	57.2	66.0	65.5	64.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.7	11.2		6.8	1.4		6.1	0.2	0.1	55.3	1.1	0.1
Delay (s)	66.3	45.7		56.9	16.2		65.7	57.7	57.3	121.3	66.6	64.9
Level of Service	E	D		E	B		E	E	E	F	E	E
Approach Delay (s)		46.1			20.6			60.5			94.6	
Approach LOS		D			C			E			F	

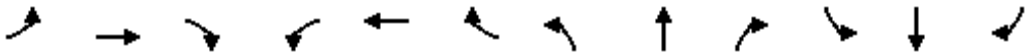
Intersection Summary			
HCM 2000 Control Delay	35.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	77.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	995	65	132	303	472	132	19	85	624	20	30
Future Volume (vph)	10	995	65	132	303	472	132	19	85	624	20	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.97	0.86	0.86	0.97	0.91	0.88	1.00	1.00		0.97	0.91	0.91
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.88		1.00	0.94	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	4801	1362	3433	5085	2787	1770	1635		3433	3176	1441
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	4801	1362	3433	5085	2787	1770	1635		3433	3176	1441
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	1082	71	143	329	513	143	21	92	678	22	33
RTOR Reduction (vph)	0	1	41	0	0	283	0	70	0	0	14	15
Lane Group Flow (vph)	11	1088	23	143	329	230	143	43	0	678	24	2
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2			6						8
Actuated Green, G (s)	0.7	32.6	32.6	8.1	40.0	40.0	19.5	9.8		20.8	11.1	11.1
Effective Green, g (s)	0.7	32.6	32.6	8.1	40.0	40.0	19.5	9.8		20.8	11.1	11.1
Actuated g/C Ratio	0.01	0.37	0.37	0.09	0.45	0.45	0.22	0.11		0.23	0.12	0.12
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	26	1752	497	311	2277	1248	386	179		799	394	179
v/s Ratio Prot	0.00	c0.23		c0.04	0.06		0.08	c0.03		c0.20	0.01	
v/s Ratio Perm			0.02			0.08						0.00
v/c Ratio	0.42	0.62	0.05	0.46	0.14	0.18	0.37	0.24		0.85	0.06	0.01
Uniform Delay, d1	44.1	23.3	18.3	38.5	14.6	14.8	29.7	36.3		32.7	34.5	34.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	10.7	0.7	0.0	1.1	0.0	0.1	0.6	0.7		8.4	0.1	0.0
Delay (s)	54.8	24.0	18.4	39.6	14.6	14.9	30.3	37.0		41.1	34.6	34.3
Level of Service	D	C	B	D	B	B	C	D		D	C	C
Approach Delay (s)		24.0			18.4			33.3			40.6	
Approach LOS		C			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	26.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	89.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	60	0	124	0	49	50	281	109	0
Future Volume (vph)	0	0	0	60	0	124	0	49	50	281	109	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	65	0	135	0	53	54	305	118	0

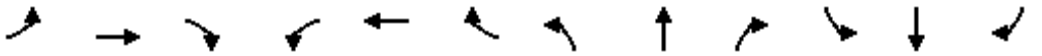
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	0	200	107	423
Volume Left (vph)	0	65	0	305
Volume Right (vph)	0	135	54	0
Hadj (s)	0.00	-0.17	-0.13	0.31
Departure Headway (s)	5.6	5.0	4.9	4.9
Degree Utilization, x	0.00	0.28	0.14	0.58
Capacity (veh/h)	572	653	693	712
Control Delay (s)	8.6	10.0	8.7	14.3
Approach Delay (s)	0.0	10.0	8.7	14.3
Approach LOS	A	A	A	B

Intersection Summary			
Delay	12.3		
Level of Service	B		
Intersection Capacity Utilization	45.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1620	729	234	1370	947	411
Future Volume (vph)	1620	729	234	1370	947	411
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	1641	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	1641	4715	3183	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1761	792	254	1489	1029	447
RTOR Reduction (vph)	0	500	0	0	0	187
Lane Group Flow (vph)	1761	292	254	1489	1029	260
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	29.5	29.5	12.0	45.5	24.0	24.0
Effective Green, g (s)	29.5	29.5	12.0	45.5	24.0	24.0
Actuated g/C Ratio	0.37	0.37	0.15	0.57	0.30	0.30
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	1738	541	246	2681	954	440
v/s Ratio Prot	c0.37		c0.15	0.32	c0.32	
v/s Ratio Perm		0.20				0.18
v/c Ratio	1.01	0.54	1.03	0.56	1.08	0.59
Uniform Delay, d1	25.2	19.9	34.0	10.9	28.0	23.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	24.9	3.8	66.1	0.8	52.7	1.4
Delay (s)	50.2	23.7	100.1	11.7	80.7	25.2
Level of Service	D	C	F	B	F	C
Approach Delay (s)	42.0			24.6	63.9	
Approach LOS	D			C	E	

Intersection Summary			
HCM 2000 Control Delay	42.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		

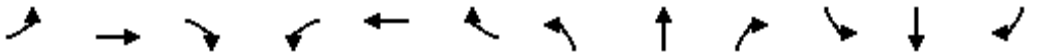
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	269	0	610	566	1218	0	0	933	440
Future Volume (vph)	0	0	0	269	0	610	566	1218	0	0	933	440
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1	4.7	5.1			5.1	5.1
Lane Util. Factor				1.00	0.95	0.95	0.97	0.91			0.91	1.00
Frt				1.00	0.85	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1641	1395	1395	3183	4715			4715	1468
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1641	1395	1395	3183	4715			4715	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	292	0	663	615	1324	0	0	1014	478
RTOR Reduction (vph)	0	0	0	0	76	76	0	0	0	0	0	320
Lane Group Flow (vph)	0	0	0	292	256	255	615	1324	0	0	1014	158
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				16.6	16.6	16.6	16.5	44.8			23.6	23.6
Effective Green, g (s)				16.6	16.6	16.6	16.5	44.8			23.6	23.6
Actuated g/C Ratio				0.23	0.23	0.23	0.23	0.63			0.33	0.33
Clearance Time (s)				5.1	5.1	5.1	4.7	5.1			5.1	5.1
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				380	323	323	733	2950			1554	483
v/s Ratio Prot					c0.18		c0.19	0.28			c0.22	
v/s Ratio Perm				0.18		0.18						0.11
v/c Ratio				0.77	0.79	0.79	0.84	0.45			0.65	0.33
Uniform Delay, d1				25.7	25.9	25.9	26.3	7.0			20.5	18.0
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				9.0	12.5	12.1	8.4	0.1			1.0	0.4
Delay (s)				34.7	38.4	37.9	34.6	7.1			21.5	18.4
Level of Service				C	D	D	C	A			C	B
Approach Delay (s)		0.0			37.1			15.8			20.5	
Approach LOS		A			D			B			C	

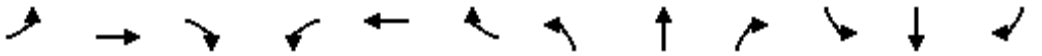
Intersection Summary			
HCM 2000 Control Delay	22.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	71.6	Sum of lost time (s)	14.9
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



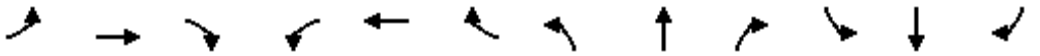
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	5	925	0	0	0	0	1584	149	140	1062	0
Future Volume (vph)	200	5	925	0	0	0	0	1584	149	140	1062	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1	5.1					5.1		4.7	5.1	
Lane Util. Factor		1.00	0.88					0.95		0.97	0.91	
Frpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Frt		1.00	0.85					0.99		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1647	2584					3239		3183	4715	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		1647	2584					3239		3183	4715	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	5	1005	0	0	0	0	1722	162	152	1154	0
RTOR Reduction (vph)	0	0	108	0	0	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	222	897	0	0	0	0	1879	0	152	1154	0
Confl. Bikes (#/hr)												2
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)		43.9	43.9					74.9		6.3	85.9	
Effective Green, g (s)		43.9	43.9					74.9		6.3	85.9	
Actuated g/C Ratio		0.31	0.31					0.54		0.04	0.61	
Clearance Time (s)		5.1	5.1					5.1		4.7	5.1	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		516	810					1732		143	2892	
v/s Ratio Prot								c0.58		c0.05	0.24	
v/s Ratio Perm		0.13	c0.35									
v/c Ratio		0.43	1.11					1.08		1.06	0.40	
Uniform Delay, d1		38.1	48.1					32.5		66.8	13.8	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		0.6	65.1					48.6		93.0	0.1	
Delay (s)		38.7	113.1					81.2		159.9	13.9	
Level of Service		D	F					F		F	B	
Approach Delay (s)		99.7			0.0			81.2			30.9	
Approach LOS		F			A			F			C	

Intersection Summary			
HCM 2000 Control Delay	71.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.9
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1344	273	102	110	358	160	65	230	30	480	625	887
Future Volume (vph)	1344	273	102	110	358	160	65	230	30	480	625	887
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.99	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96			1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	1657			1707	1449	1641	3215		1641	1727	1468
Flt Permitted	0.95	1.00			0.79	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1641	1657			1372	1449	1641	3215		1641	1727	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1461	297	111	120	389	174	71	250	33	522	679	964
RTOR Reduction (vph)	0	6	0	0	0	123	0	7	0	0	0	388
Lane Group Flow (vph)	1461	402	0	0	509	51	71	276	0	522	679	576
Confl. Peds. (#/hr)	1					1			2			
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	46.7	85.9			34.0	34.0	4.6	28.9		15.6	39.7	39.7
Effective Green, g (s)	46.7	85.9			34.0	34.0	4.6	28.9		15.6	39.7	39.7
Actuated g/C Ratio	0.32	0.59			0.23	0.23	0.03	0.20		0.11	0.27	0.27
Clearance Time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Vehicle Extension (s)	2.0	2.0			3.7	3.7	2.0	3.8		2.0	3.8	3.8
Lane Grp Cap (vph)	528	981			321	339	52	640		176	472	401
v/s Ratio Prot	c0.89	0.24					0.04	0.09		c0.32	c0.39	
v/s Ratio Perm					c0.37	0.04						0.39
v/c Ratio	2.77	0.41			1.59	0.15	1.37	0.43		2.97	1.44	1.44
Uniform Delay, d1	49.1	15.9			55.5	44.0	70.2	50.8		64.7	52.6	52.6
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	800.5	0.1			277.9	0.3	249.6	0.6		899.8	209.2	210.4
Delay (s)	849.6	16.0			333.4	44.3	319.8	51.5		964.5	261.8	263.1
Level of Service	F	B			F	D	F	D		F	F	F
Approach Delay (s)		667.6			259.8			105.3			431.8	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	472.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.19		
Actuated Cycle Length (s)	145.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	152.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



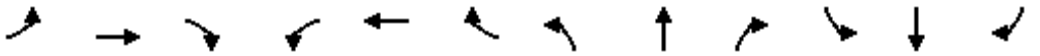
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	341	25	70	254	70	10	88	10	40	244	80
Future Volume (vph)	50	341	25	70	254	70	10	88	10	40	244	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00		0.97	0.95	
Frpb, ped/bikes		1.00			1.00	0.99	1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.99			1.00	0.85	1.00	0.98		1.00	0.96	
Flt Protected		0.99			0.99	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3230			1709	1450	1641	1701		3183	3138	
Flt Permitted		0.85			0.13	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		2759			219	1450	1641	1701		3183	3138	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	371	27	76	276	76	11	96	11	43	265	87
RTOR Reduction (vph)	0	3	0	0	0	39	0	3	0	0	25	0
Lane Group Flow (vph)	0	449	0	0	352	37	11	104	0	43	327	0
Confl. Peds. (#/hr)			1	1								2
Confl. Bikes (#/hr)			2			1						1
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			1		3	8		7	4	
Permitted Phases	2			1		1						
Actuated Green, G (s)		22.9			60.3	60.3	0.7	17.8		3.2	20.3	
Effective Green, g (s)		22.9			60.3	60.3	0.7	17.8		3.2	20.3	
Actuated g/C Ratio		0.19			0.49	0.49	0.01	0.14		0.03	0.16	
Clearance Time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Vehicle Extension (s)		4.8			4.8	4.8	2.0	3.3		2.0	4.4	
Lane Grp Cap (vph)		512			107	709	9	245		82	516	
v/s Ratio Prot							0.01	0.06		c0.01	c0.10	
v/s Ratio Perm		c0.16			c1.61	0.03						
v/c Ratio		0.88			3.29	0.05	1.22	0.42		0.52	0.63	
Uniform Delay, d1		48.8			31.5	16.5	61.3	48.1		59.3	48.0	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		16.5			1054.0	0.1	385.4	1.3		2.8	3.1	
Delay (s)		65.3			1085.5	16.6	446.7	49.4		62.1	51.1	
Level of Service		E			F	B	F	D		E	D	
Approach Delay (s)		65.3			895.7			86.4			52.3	
Approach LOS		E			F			F			D	

Intersection Summary			
HCM 2000 Control Delay	318.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.23		
Actuated Cycle Length (s)	123.3	Sum of lost time (s)	19.1
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	896	228	250	853	66	10
Future Volume (vph)	896	228	250	853	66	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		5.7	7.2	6.1	6.1
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4572		1641	4715	1641	1449
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4572		1641	4715	1641	1449
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	974	248	272	927	72	11
RTOR Reduction (vph)	32	0	0	0	0	10
Lane Group Flow (vph)	1190	0	272	927	72	1
Confl. Peds. (#/hr)						2
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	30.9		18.7	55.3	7.6	7.6
Effective Green, g (s)	30.9		18.7	55.3	7.6	7.6
Actuated g/C Ratio	0.41		0.25	0.73	0.10	0.10
Clearance Time (s)	7.2		5.7	7.2	6.1	6.1
Vehicle Extension (s)	6.9		2.0	6.9	2.0	2.0
Lane Grp Cap (vph)	1854		402	3421	163	144
v/s Ratio Prot	c0.26		c0.17	0.20	c0.04	
v/s Ratio Perm						0.00
v/c Ratio	0.64		0.68	0.27	0.44	0.01
Uniform Delay, d1	18.2		26.0	3.6	32.3	30.9
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4		3.5	0.1	0.7	0.0
Delay (s)	19.6		29.5	3.7	33.0	30.9
Level of Service	B		C	A	C	C
Approach Delay (s)	19.6			9.6	32.7	
Approach LOS	B			A	C	

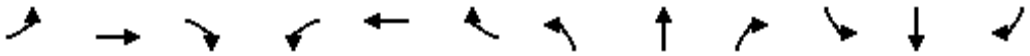
Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	76.2	Sum of lost time (s)	19.0
Intersection Capacity Utilization	62.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	339	507	260	400	275	170	100	250	840	100	400	218
Future Volume (vph)	339	507	260	400	275	170	100	250	840	100	400	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.88		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	4715	1441	1641	4445		1641	1509		3183	1636	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1641	4715	1441	1641	4445		1641	1509		3183	1636	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	368	551	283	435	299	185	109	272	913	109	435	237
RTOR Reduction (vph)	0	0	236	0	84	0	0	86	0	0	13	0
Lane Group Flow (vph)	368	551	47	435	400	0	109	1099	0	109	659	0
Confl. Peds. (#/hr)			3						3			
Confl. Bikes (#/hr)			1						1			
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	19.0	23.2	23.2	22.0	26.2		12.4	66.8		8.1	63.4	
Effective Green, g (s)	19.0	23.2	23.2	22.0	26.2		12.4	66.8		8.1	63.4	
Actuated g/C Ratio	0.14	0.17	0.17	0.16	0.19		0.09	0.48		0.06	0.45	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	3.2		2.0	5.3	
Lane Grp Cap (vph)	222	781	238	257	831		145	720		184	740	
v/s Ratio Prot	0.22	c0.12		c0.27	c0.09		c0.07	c0.73		0.03	0.40	
v/s Ratio Perm			0.03									
v/c Ratio	1.66	0.71	0.20	1.69	0.48		0.75	1.53		0.59	0.89	
Uniform Delay, d1	60.5	55.2	50.4	59.0	50.8		62.3	36.6		64.3	35.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	315.1	5.3	1.8	327.9	2.0		17.5	243.7		3.4	13.9	
Delay (s)	375.6	60.5	52.2	386.9	52.8		79.8	280.3		67.7	49.0	
Level of Service	F	E	D	F	D		E	F		E	D	
Approach Delay (s)		155.0			211.0			263.5			51.6	
Approach LOS		F			F			F			D	

Intersection Summary			
HCM 2000 Control Delay	181.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	128.0%	ICU Level of Service	H
Analysis Period (min)	15		

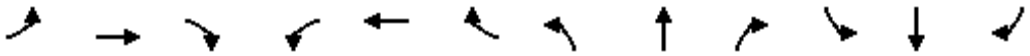
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	158	70	20	116	90	30	100	10	370	255	280
Future Volume (vph)	80	158	70	20	116	90	30	100	10	370	255	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frpb, ped/bikes		0.99			1.00			1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	
Frt		0.97			0.95			0.99		1.00	0.92	
Flt Protected		0.99			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1644			1627			1692		1641	1592	
Flt Permitted		0.84			0.96			0.86		0.71	1.00	
Satd. Flow (perm)		1391			1572			1477		1227	1592	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	172	76	22	126	98	33	109	11	402	277	304
RTOR Reduction (vph)	0	18	0	0	39	0	0	4	0	0	55	0
Lane Group Flow (vph)	0	317	0	0	207	0	0	149	0	402	526	0
Confl. Bikes (#/hr)			2									
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		17.2			17.2			35.2		35.2	35.2	
Effective Green, g (s)		17.2			17.2			35.2		35.2	35.2	
Actuated g/C Ratio		0.28			0.28			0.58		0.58	0.58	
Clearance Time (s)		4.0			4.0			4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		396			447			860		715	927	
v/s Ratio Prot											c0.33	
v/s Ratio Perm		c0.23			0.13			0.10		0.33		
v/c Ratio		0.80			0.46			0.17		0.56	0.57	
Uniform Delay, d1		20.0			17.8			5.8		7.8	7.9	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		11.1			0.8			0.4		3.2	2.5	
Delay (s)		31.1			18.6			6.3		11.0	10.4	
Level of Service		C			B			A		B	B	
Approach Delay (s)		31.1			18.6			6.3			10.6	
Approach LOS		C			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	15.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		

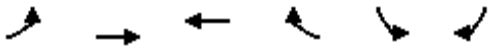
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	98	224	20	20	139	80	10	20	10	160	60	126
Future Volume (vph)	98	224	20	20	139	80	10	20	10	160	60	126
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	107	243	22	22	151	87	11	22	11	174	65	137

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	372	260	44	376
Volume Left (vph)	107	22	11	174
Volume Right (vph)	22	87	11	137
Hadj (s)	0.19	-0.01	0.07	0.04
Departure Headway (s)	5.9	5.9	6.8	5.9
Degree Utilization, x	0.61	0.43	0.08	0.62
Capacity (veh/h)	582	564	422	578
Control Delay (s)	17.8	13.3	10.4	17.9
Approach Delay (s)	17.8	13.3	10.4	17.9
Approach LOS	C	B	B	C

Intersection Summary				
Delay	16.4			
Level of Service	C			
Intersection Capacity Utilization	68.2%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	340	729	469	100	70	120
Future Volume (vph)	340	729	469	100	70	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00	1.00	0.99	0.99	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	0.93	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.97	1.00
Satd. Flow (prot)	3183	3282	4715	1448	3019	1317
Flt Permitted	0.95	1.00	1.00	1.00	0.97	1.00
Satd. Flow (perm)	3183	3282	4715	1448	3019	1317
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	370	792	510	109	76	130
RTOR Reduction (vph)	0	0	0	72	57	59
Lane Group Flow (vph)	370	792	510	37	83	7
Confl. Peds. (#/hr)				3		
Confl. Bikes (#/hr)				1		1
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	5.2	23.3	13.4	13.4	4.4	4.4
Effective Green, g (s)	5.2	23.3	13.4	13.4	4.4	4.4
Actuated g/C Ratio	0.13	0.60	0.34	0.34	0.11	0.11
Clearance Time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Vehicle Extension (s)	2.0	5.8	5.8	5.8	2.0	2.0
Lane Grp Cap (vph)	424	1960	1620	497	340	148
v/s Ratio Prot	c0.12	c0.24	0.11		c0.03	
v/s Ratio Perm				0.03		0.01
v/c Ratio	0.87	0.40	0.31	0.08	0.24	0.05
Uniform Delay, d1	16.6	4.2	9.4	8.6	15.8	15.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	17.1	0.4	0.3	0.2	0.1	0.1
Delay (s)	33.7	4.5	9.7	8.8	15.9	15.5
Level of Service	C	A	A	A	B	B
Approach Delay (s)		13.8	9.6		15.8	
Approach LOS		B	A		B	

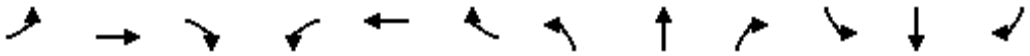
Intersection Summary			
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	39.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	38.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	289	130	150	309	100	60
Future Volume (vph)	289	130	150	309	100	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	314	141	163	336	109	65

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total (vph)	455	163	336	174
Volume Left (vph)	0	163	0	109
Volume Right (vph)	141	0	0	65
Hadj (s)	-0.02	0.67	0.17	0.07
Departure Headway (s)	5.2	6.3	5.8	6.2
Degree Utilization, x	0.66	0.28	0.54	0.30
Capacity (veh/h)	672	559	611	524
Control Delay (s)	17.6	10.5	14.0	11.8
Approach Delay (s)	17.6	12.9		11.8
Approach LOS	C	B		B

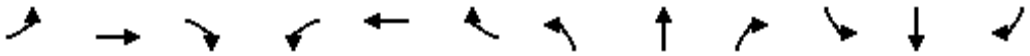
Intersection Summary			
Delay	14.6		
Level of Service	B		
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	408	59	200	756	0	68	0	50	0	0	19
Future Volume (vph)	39	408	59	200	756	0	68	0	50	0	0	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		4.4	4.9		4.9		4.9		4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00		1.00		1.00	
Frpb, ped/bikes	1.00	0.98		1.00	1.00		1.00		0.98		0.97	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		1.00		1.00	
Frt	1.00	0.98		1.00	1.00		1.00		0.85		0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95		1.00		1.00	
Satd. Flow (prot)	1641	4548		1641	4715		1636		1440		1453	
Flt Permitted	0.95	1.00		0.95	1.00		0.72		1.00		1.00	
Satd. Flow (perm)	1641	4548		1641	4715		1248		1440		1453	
Peak-hour factor, PHF	0.69	0.69	0.69	0.94	0.94	0.94	0.62	0.62	0.62	0.38	0.38	0.38
Adj. Flow (vph)	57	591	86	213	804	0	110	0	81	0	0	50
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	69	0	42	0
Lane Group Flow (vph)	57	655	0	213	804	0	110	0	12	0	8	0
Confl. Peds. (#/hr)			90			22	4		16	16		4
Confl. Bikes (#/hr)			19			4						2
Turn Type	Prot	NA		Prot	NA		Perm		Perm		NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	3.7	16.9		10.1	23.3		7.3		7.3		7.3	
Effective Green, g (s)	3.7	16.9		10.1	23.3		7.3		7.3		7.3	
Actuated g/C Ratio	0.08	0.35		0.21	0.48		0.15		0.15		0.15	
Clearance Time (s)	4.4	4.9		4.4	4.9		4.9		4.9		4.9	
Vehicle Extension (s)	2.0	6.1		2.0	5.1		2.0		2.0		2.0	
Lane Grp Cap (vph)	125	1584		341	2265		187		216		218	
v/s Ratio Prot	0.03	c0.14		c0.13	0.17						0.01	
v/s Ratio Perm							c0.09		0.01			
v/c Ratio	0.46	0.41		0.62	0.35		0.59		0.06		0.03	
Uniform Delay, d1	21.4	12.0		17.5	7.9		19.2		17.6		17.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00		1.00		1.00	
Incremental Delay, d2	1.0	0.5		2.6	0.2		3.0		0.0		0.0	
Delay (s)	22.4	12.5		20.0	8.1		22.2		17.7		17.6	
Level of Service	C	B		C	A		C		B		B	
Approach Delay (s)		13.3			10.6			20.3			17.6	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	48.5	Sum of lost time (s)	14.2
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



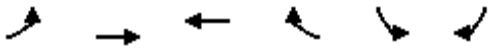
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	389	40	250	855	180	50	30	130	80	60	109
Future Volume (vph)	29	389	40	250	855	180	50	30	130	80	60	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00	1.00		0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.96		0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		0.99	
Frt	1.00	0.99		1.00	0.97			1.00	0.85		0.93	
Flt Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.98	
Satd. Flow (prot)	1641	4638		1641	4592			1671	1415		2976	
Flt Permitted	0.95	1.00		0.95	1.00			0.66	1.00		0.82	
Satd. Flow (perm)	1641	4638		1641	4592			1134	1415		2480	
Peak-hour factor, PHF	0.66	0.66	0.66	0.90	0.90	0.90	0.67	0.67	0.67	0.96	0.96	0.96
Adj. Flow (vph)	44	589	61	278	950	200	75	45	194	83	62	114
RTOR Reduction (vph)	0	12	0	0	23	0	0	0	153	0	90	0
Lane Group Flow (vph)	44	638	0	278	1127	0	0	120	41	0	170	0
Confl. Peds. (#/hr)			16				11		43	43		11
Confl. Bikes (#/hr)			1						3			1
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	4.1	20.5		16.7	32.5			13.7	13.7		13.7	
Effective Green, g (s)	4.1	20.5		16.7	32.5			13.7	13.7		13.7	
Actuated g/C Ratio	0.06	0.31		0.26	0.50			0.21	0.21		0.21	
Clearance Time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Vehicle Extension (s)	2.0	8.0		2.0	6.7			4.4	4.4		4.4	
Lane Grp Cap (vph)	103	1460		420	2292			238	297		521	
v/s Ratio Prot	0.03	0.14		c0.17	c0.25							
v/s Ratio Perm								c0.11	0.03		0.07	
v/c Ratio	0.43	0.44		0.66	0.49			0.50	0.14		0.33	
Uniform Delay, d1	29.4	17.7		21.7	10.8			22.7	20.9		21.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	1.0	0.9		3.0	0.6			2.8	0.4		0.6	
Delay (s)	30.4	18.6		24.7	11.4			25.5	21.2		22.4	
Level of Service	C	B		C	B			C	C		C	
Approach Delay (s)		19.4			14.0			22.9			22.4	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	17.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	65.1	Sum of lost time (s)	14.8
Intersection Capacity Utilization	85.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	499	100	160	1285	0	500
Future Volume (vph)	499	100	160	1285	0	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1		5.1	3.0		5.1
Lane Util. Factor	0.91		0.97	0.91		0.88
Frpb, ped/bikes	1.00		1.00	1.00		1.00
Flpb, ped/bikes	1.00		1.00	1.00		1.00
Frt	0.97		1.00	1.00		0.85
Flt Protected	1.00		0.95	1.00		1.00
Satd. Flow (prot)	4584		3183	4715		2584
Flt Permitted	1.00		0.95	1.00		1.00
Satd. Flow (perm)	4584		3183	4715		2584
Peak-hour factor, PHF	0.80	0.80	0.91	0.91	0.87	0.87
Adj. Flow (vph)	624	125	176	1412	0	575
RTOR Reduction (vph)	61	0	0	0	0	317
Lane Group Flow (vph)	688	0	176	1412	0	258
Confl. Peds. (#/hr)		21				
Turn Type	NA		Prot	NA		Over
Protected Phases	2		1	6		1
Permitted Phases						1
Actuated Green, G (s)	13.1		7.3	30.6		7.3
Effective Green, g (s)	13.1		7.3	30.6		7.3
Actuated g/C Ratio	0.43		0.24	1.00		0.24
Clearance Time (s)	5.1		5.1	3.0		5.1
Vehicle Extension (s)	3.9		2.0	0.9		2.0
Lane Grp Cap (vph)	1962		759	4715		616
v/s Ratio Prot	0.15		0.06	c0.30		0.10
v/s Ratio Perm						
v/c Ratio	0.35		0.23	0.30		0.42
Uniform Delay, d1	5.9		9.4	0.0		9.9
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	0.1		0.1	0.0		0.2
Delay (s)	6.0		9.4	0.0		10.0
Level of Service	A		A	A		B
Approach Delay (s)	6.0			1.1	10.0	
Approach LOS	A			A	B	

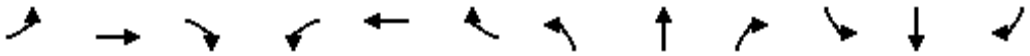
Intersection Summary			
HCM 2000 Control Delay	4.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	30.6	Sum of lost time (s)	10.2
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Traffic Volume (veh/h)	0	999	945	0	0	500
Future Volume (Veh/h)	0	999	945	0	0	500
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.89	0.89	0.73	0.73
Hourly flow rate (vph)	0	1175	1062	0	0	685
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		269	396			
pX, platoon unblocked					1.00	
vC, conflicting volume	1062				1454	354
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1062				1439	354
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	0
cM capacity (veh/h)	606				114	620

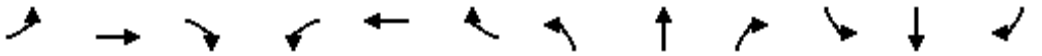
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	392	392	392	354	354	354	685
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	685
cSH	1700	1700	1700	1700	1700	1700	620
Volume to Capacity	0.23	0.23	0.23	0.21	0.21	0.21	1.11
Queue Length 95th (ft)	0	0	0	0	0	0	515
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	93.3
Lane LOS							F
Approach Delay (s)	0.0			0.0			93.3
Approach LOS							F

Intersection Summary			
Average Delay	21.9		
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	799	0	0	725	640	220	10	350	0	0	0
Future Volume (vph)	200	799	0	0	725	640	220	10	350	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Lane Util. Factor	0.97	0.91			0.86	0.86		1.00	0.88			
Frpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			0.95	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (prot)	3183	4715			4252	1263		1648	2584			
Flt Permitted	0.95	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (perm)	3183	4715			4252	1263		1648	2584			
Peak-hour factor, PHF	0.85	0.85	0.85	0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	235	940	0	0	815	719	253	11	402	0	0	0
RTOR Reduction (vph)	0	0	0	0	122	230	0	0	175	0	0	0
Lane Group Flow (vph)	235	940	0	0	1053	129	0	264	227	0	0	0
Confl. Bikes (#/hr)			4									
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Actuated Green, G (s)	10.1	37.0			22.2	22.2		14.4	14.4			
Effective Green, g (s)	10.1	37.0			22.2	22.2		14.4	14.4			
Actuated g/C Ratio	0.16	0.60			0.36	0.36		0.23	0.23			
Clearance Time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Vehicle Extension (s)	2.0	3.9			3.9	3.9		3.0	3.0			
Lane Grp Cap (vph)	521	2832			1532	455		385	604			
v/s Ratio Prot	c0.07	0.20			c0.25			c0.16				
v/s Ratio Perm						0.10			0.09			
v/c Ratio	0.45	0.33			0.69	0.28		0.69	0.38			
Uniform Delay, d1	23.2	6.1			16.8	14.0		21.5	19.8			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	0.2	0.1			1.4	0.5		5.0	0.4			
Delay (s)	23.5	6.2			18.2	14.5		26.5	20.2			
Level of Service	C	A			B	B		C	C			
Approach Delay (s)		9.7			17.3			22.7			0.0	
Approach LOS		A			B			C			A	

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	61.6	Sum of lost time (s)	14.9
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	110	240	219	10	70	50	59	70	10	70	140	100
Future Volume (vph)	110	240	219	10	70	50	59	70	10	70	140	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	120	261	238	11	76	54	64	76	11	76	152	109

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	120	499	11	130	64	87	228	109
Volume Left (vph)	120	0	11	0	64	0	76	0
Volume Right (vph)	0	238	0	54	0	11	0	109
Hadj (s)	0.67	-0.16	0.67	-0.12	0.67	0.08	0.34	-0.53
Departure Headway (s)	6.9	6.1	7.6	6.8	7.9	7.3	7.2	6.3
Degree Utilization, x	0.23	0.85	0.02	0.25	0.14	0.18	0.46	0.19
Capacity (veh/h)	501	580	441	493	430	462	475	533
Control Delay (s)	10.8	32.5	9.6	10.9	10.9	10.6	14.9	9.7
Approach Delay (s)	28.3		10.8		10.8		13.2	
Approach LOS	D		B		B		B	

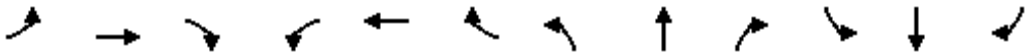
Intersection Summary				
Delay	20.1			
Level of Service	C			
Intersection Capacity Utilization	52.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	500	0	45	180	0	70
Future Volume (vph)	500	0	45	180	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frt	1.00		1.00	1.00	0.86	
Flt Protected	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	5085		1770	5085	1611	
Flt Permitted	1.00		0.95	1.00	1.00	
Satd. Flow (perm)	5085		1770	5085	1611	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	543	0	49	196	0	76
RTOR Reduction (vph)	0	0	0	0	70	0
Lane Group Flow (vph)	543	0	49	196	6	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	4	
Permitted Phases						
Actuated Green, G (s)	17.4		2.4	24.3	3.0	
Effective Green, g (s)	17.4		2.4	24.3	3.0	
Actuated g/C Ratio	0.48		0.07	0.67	0.08	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2437		117	3404	133	
v/s Ratio Prot	c0.11		c0.03	0.04	c0.00	
v/s Ratio Perm						
v/c Ratio	0.22		0.42	0.06	0.05	
Uniform Delay, d1	5.5		16.3	2.1	15.3	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.0		2.4	0.0	0.1	
Delay (s)	5.6		18.7	2.1	15.5	
Level of Service	A		B	A	B	
Approach Delay (s)	5.6			5.4	15.5	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	6.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	36.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	28.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

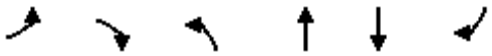
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	570	0	240	225	0	500
Future Volume (vph)	570	0	240	225	0	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frt	1.00		1.00	1.00	0.86	
Flt Protected	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	5085		1770	5085	1611	
Flt Permitted	1.00		0.95	1.00	1.00	
Satd. Flow (perm)	5085		1770	5085	1611	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	620	0	261	245	0	543
RTOR Reduction (vph)	0	0	0	0	145	0
Lane Group Flow (vph)	620	0	261	245	398	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	NA		Prot	NA	Perm	
Protected Phases	2		1	6		
Permitted Phases					4	
Actuated Green, G (s)	12.9		7.8	25.2	17.8	
Effective Green, g (s)	12.9		7.8	25.2	17.8	
Actuated g/C Ratio	0.25		0.15	0.48	0.34	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1261		265	2464	551	
v/s Ratio Prot	c0.12		c0.15	0.05		
v/s Ratio Perm					c0.25	
v/c Ratio	0.49		0.98	0.10	0.72	
Uniform Delay, d1	16.7		22.0	7.3	14.9	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.3		50.7	0.0	4.7	
Delay (s)	17.0		72.7	7.3	19.6	
Level of Service	B		E	A	B	
Approach Delay (s)	17.0			41.0	19.6	
Approach LOS	B			D	B	

Intersection Summary			
HCM 2000 Control Delay	25.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	52.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



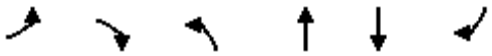
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	5	175	230	0	0	56	36	96	0	20	0
Future Volume (vph)	0	5	175	230	0	0	56	36	96	0	20	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5			4.5	
Lane Util. Factor		1.00			1.00		1.00	0.95			1.00	
Frt		0.87			1.00		1.00	0.89			1.00	
Flt Protected		1.00			0.95		0.95	1.00			1.00	
Satd. Flow (prot)		1618			1770		1770	3153			1863	
Flt Permitted		1.00			0.64		0.95	1.00			1.00	
Satd. Flow (perm)		1618			1183		1770	3153			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	5	190	250	0	0	61	39	104	0	22	0
RTOR Reduction (vph)	0	133	0	0	0	0	0	57	0	0	0	0
Lane Group Flow (vph)	0	62	0	0	250	0	61	86	0	0	22	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		10.7			10.7		1.9	16.2			9.8	
Effective Green, g (s)		10.7			10.7		1.9	16.2			9.8	
Actuated g/C Ratio		0.30			0.30		0.05	0.45			0.27	
Clearance Time (s)		4.5			4.5		4.5	4.5			4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		482			352		93	1422			508	
v/s Ratio Prot		0.04					c0.03	c0.03			0.01	
v/s Ratio Perm					c0.21							
v/c Ratio		0.13			0.71		0.66	0.06			0.04	
Uniform Delay, d1		9.2			11.2		16.7	5.6			9.6	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.1			6.6		15.4	0.0			0.0	
Delay (s)		9.3			17.8		32.1	5.6			9.6	
Level of Service		A			B		C	A			A	
Approach Delay (s)		9.3			17.8			13.5			9.6	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	35.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



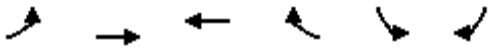
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	155	155	65	72	120	75
Future Volume (vph)	155	155	65	72	120	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	1.00	0.95	
Frt	0.93		1.00	1.00	0.94	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1695		1770	1863	3334	
Flt Permitted	0.98		0.95	1.00	1.00	
Satd. Flow (perm)	1695		1770	1863	3334	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	168	168	71	78	130	82
RTOR Reduction (vph)	60	0	0	0	62	0
Lane Group Flow (vph)	276	0	71	78	150	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	Prot		Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases						
Actuated Green, G (s)	11.1		3.7	17.2	9.0	
Effective Green, g (s)	11.1		3.7	17.2	9.0	
Actuated g/C Ratio	0.30		0.10	0.46	0.24	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	504		175	859	804	
v/s Ratio Prot	c0.16		c0.04	0.04	c0.04	
v/s Ratio Perm						
v/c Ratio	0.55		0.41	0.09	0.19	
Uniform Delay, d1	11.0		15.8	5.7	11.2	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.2		1.5	0.0	0.1	
Delay (s)	12.2		17.3	5.7	11.4	
Level of Service	B		B	A	B	
Approach Delay (s)	12.2			11.2	11.4	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	37.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	10	5	127	270	5
Future Volume (vph)	10	10	5	127	270	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	1.00	0.95	
Frt	0.93		1.00	1.00	1.00	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1695		1770	1863	3530	
Flt Permitted	0.98		0.95	1.00	1.00	
Satd. Flow (perm)	1695		1770	1863	3530	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	5	138	293	5
RTOR Reduction (vph)	11	0	0	0	1	0
Lane Group Flow (vph)	11	0	5	138	297	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	Prot		Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases						
Actuated Green, G (s)	0.9		0.8	27.5	22.2	
Effective Green, g (s)	0.9		0.8	27.5	22.2	
Actuated g/C Ratio	0.02		0.02	0.74	0.59	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	40		37	1369	2095	
v/s Ratio Prot	c0.01		0.00	c0.07	c0.08	
v/s Ratio Perm						
v/c Ratio	0.28		0.14	0.10	0.14	
Uniform Delay, d1	17.9		18.0	1.4	3.4	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	3.8		1.7	0.0	0.0	
Delay (s)	21.8		19.6	1.4	3.4	
Level of Service	C		B	A	A	
Approach Delay (s)	21.8			2.1	3.4	
Approach LOS	C			A	A	

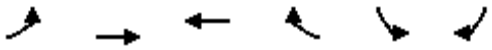
Intersection Summary			
HCM 2000 Control Delay	3.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.15		
Actuated Cycle Length (s)	37.4	Sum of lost time (s)	13.5
Intersection Capacity Utilization	18.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1465	474	28	0	19
Future Volume (Veh/h)	0	1465	474	28	0	19
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1592	515	30	0	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		725	660			
pX, platoon unblocked					0.65	
vC, conflicting volume	545				2122	187
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	545				2460	187
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	97
cM capacity (veh/h)	1020				16	824

Direction, Lane #	EB 1	WB 1	WB 2	WB 3	SB 1
Volume Total	1592	206	206	133	21
Volume Left	0	0	0	0	0
Volume Right	0	0	0	30	21
cSH	1700	1700	1700	1700	824
Volume to Capacity	0.94	0.12	0.12	0.08	0.03
Queue Length 95th (ft)	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	9.5
Lane LOS					A
Approach Delay (s)	0.0	0.0			9.5
Approach LOS					A

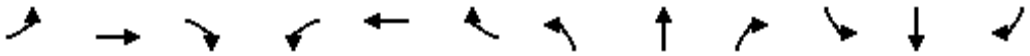
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	80.4%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	100	1365	483	30	100	19
Future Volume (vph)	100	1365	483	30	100	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1641	1727	1713		1641	1468
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1641	1727	1713		1641	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	1484	525	33	109	21
RTOR Reduction (vph)	0	0	1	0	0	19
Lane Group Flow (vph)	109	1484	557	0	109	2
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	14.4	126.0	107.6		13.7	13.7
Effective Green, g (s)	14.4	126.0	107.6		13.7	13.7
Actuated g/C Ratio	0.10	0.85	0.73		0.09	0.09
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	159	1473	1247		152	136
v/s Ratio Prot	0.07	c0.86	0.32		c0.07	
v/s Ratio Perm						0.00
v/c Ratio	0.69	1.01	0.45		0.72	0.01
Uniform Delay, d1	64.5	10.8	8.1		65.1	60.9
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	11.6	25.3	0.3		14.9	0.0
Delay (s)	76.0	36.1	8.3		80.0	60.9
Level of Service	E	D	A		F	E
Approach Delay (s)		38.9	8.3		76.9	
Approach LOS		D	A		E	

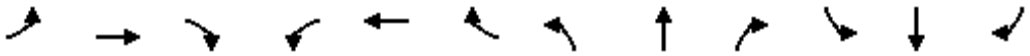
Intersection Summary			
HCM 2000 Control Delay	33.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	147.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



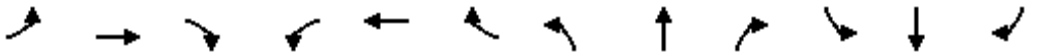
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	204	320	240	30	40	42	150	92	110	73	73	137
Future Volume (vph)	204	320	240	30	40	42	150	92	110	73	73	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.98		0.99		1.00	1.00			0.99	
Flpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85		0.95		1.00	0.92			0.93	
Flt Protected	0.95	1.00	1.00		0.99		0.95	1.00			0.99	
Satd. Flow (prot)	1681	1717	1546		1715		1762	1710			1696	
Flt Permitted	0.95	1.00	1.00		0.99		0.52	1.00			0.85	
Satd. Flow (perm)	1681	1717	1546		1715		972	1710			1462	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	222	348	261	33	43	46	163	100	120	79	79	149
RTOR Reduction (vph)	0	0	178	0	31	0	0	59	0	0	46	0
Lane Group Flow (vph)	200	370	83	0	91	0	163	161	0	0	261	0
Confl. Peds. (#/hr)			1	1			7					7
Confl. Bikes (#/hr)			2			3						
Heavy Vehicles (%)	2%	5%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Split	NA	Perm	Split	NA		Perm	NA		Perm	NA	
Protected Phases	2	2		1	1			8			4	
Permitted Phases			2				8			4		
Actuated Green, G (s)	17.8	17.8	17.8		6.8		17.0	17.0			16.7	
Effective Green, g (s)	17.8	17.8	17.8		6.8		17.0	17.0			16.7	
Actuated g/C Ratio	0.32	0.32	0.32		0.12		0.30	0.30			0.30	
Clearance Time (s)	4.9	4.9	4.9		4.9		4.9	4.9			5.2	
Vehicle Extension (s)	2.9	2.9	2.9		2.9		3.8	3.8			4.5	
Lane Grp Cap (vph)	531	542	488		207		293	516			433	
v/s Ratio Prot	0.12	c0.22			c0.05			0.09				
v/s Ratio Perm			0.05				0.17				c0.18	
v/c Ratio	0.38	0.68	0.17		0.44		0.56	0.31			0.60	
Uniform Delay, d1	14.9	16.8	13.9		23.0		16.5	15.1			17.0	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.4	3.5	0.2		1.4		2.7	0.5			3.1	
Delay (s)	15.4	20.3	14.1		24.4		19.2	15.6			20.1	
Level of Service	B	C	B		C		B	B			C	
Approach Delay (s)		17.1			24.4			17.1			20.1	
Approach LOS		B			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	56.3	Sum of lost time (s)	15.0
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



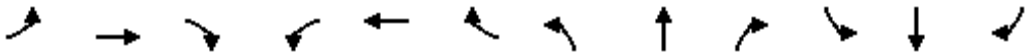
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	438	140	363	784	280	40	10	52	10	10	30
Future Volume (vph)	80	438	140	363	784	280	40	10	52	10	10	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	5.4		4.4	5.6		4.4	4.9	4.9	4.4	4.9	
Lane Util. Factor	1.00	0.95		0.97	0.91		1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	0.99	1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.96		1.00	0.96		1.00	1.00	0.85	1.00	0.89	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3399		3433	4846		1769	1863	1562	1768	1638	
Flt Permitted	0.95	1.00		0.95	1.00		0.77	1.00	1.00	0.87	1.00	
Satd. Flow (perm)	1770	3399		3433	4846		1432	1863	1562	1618	1638	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	476	152	395	852	304	43	11	57	11	11	33
RTOR Reduction (vph)	0	29	0	0	59	0	0	0	51	0	30	0
Lane Group Flow (vph)	87	599	0	395	1097	0	43	11	6	11	14	0
Confl. Peds. (#/hr)			3			6	1		3	3		1
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	4.5	19.7		5.3	20.3		6.4	5.2	5.2	5.2	4.6	
Effective Green, g (s)	4.5	19.7		5.3	20.3		6.4	5.2	5.2	5.2	4.6	
Actuated g/C Ratio	0.09	0.39		0.11	0.41		0.13	0.10	0.10	0.10	0.09	
Clearance Time (s)	4.4	5.4		4.4	5.6		4.4	4.9	4.9	4.4	4.9	
Vehicle Extension (s)	2.0	5.4		2.0	5.4		2.0	5.6	5.6	2.0	2.0	
Lane Grp Cap (vph)	159	1341		364	1971		191	194	162	170	150	
v/s Ratio Prot	0.05	0.18		c0.12	c0.23		c0.01	0.01		0.00	0.01	
v/s Ratio Perm							c0.02		0.00	0.01		
v/c Ratio	0.55	0.45		1.09	0.56		0.23	0.06	0.04	0.06	0.09	
Uniform Delay, d1	21.7	11.1		22.3	11.3		19.4	20.1	20.1	20.1	20.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.1	0.6		71.9	0.6		0.2	0.3	0.2	0.1	0.1	
Delay (s)	23.8	11.7		94.2	12.0		19.7	20.4	20.3	20.2	20.8	
Level of Service	C	B		F	B		B	C	C	C	C	
Approach Delay (s)		13.1			32.9			20.1			20.7	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	49.9	Sum of lost time (s)	19.3
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	10	980	390	747	10	600	440	310	290	30
Future Volume (vph)	10	10	10	980	390	747	10	600	440	310	290	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1559	3335	3539	1562	1770	3539	1538	3433	3539	1560
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1559	3335	3539	1562	1770	3539	1538	3433	3539	1560
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	1065	424	812	11	652	478	337	315	33
RTOR Reduction (vph)	0	0	10	0	0	207	0	0	174	0	0	22
Lane Group Flow (vph)	11	11	1	1065	424	605	11	652	304	337	315	11
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)			5			1						4
Heavy Vehicles (%)	2%	2%	2%	5%	2%	2%	2%	2%	5%	2%	2%	2%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.8	7.7	11.7	45.1	49.9	49.9	4.0	30.1	75.2	12.9	39.0	39.0
Effective Green, g (s)	1.8	7.7	11.7	45.1	49.9	49.9	4.0	30.1	75.2	12.9	39.0	39.0
Actuated g/C Ratio	0.02	0.07	0.10	0.38	0.42	0.42	0.03	0.25	0.64	0.11	0.33	0.33
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Vehicle Extension (s)	2.0	2.0	2.0	3.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0
Lane Grp Cap (vph)	26	230	154	1273	1495	659	59	901	979	374	1168	515
v/s Ratio Prot	0.01	0.00	0.00	c0.32	0.12		0.01	c0.18	0.12	c0.10	0.09	
v/s Ratio Perm			0.00			c0.39			0.08			0.01
v/c Ratio	0.42	0.05	0.01	0.84	0.28	0.92	0.19	0.72	0.31	0.90	0.27	0.02
Uniform Delay, d1	57.6	51.8	48.0	33.2	22.4	32.2	55.5	40.2	9.7	52.0	29.1	26.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.0	0.0	0.0	4.9	0.0	17.5	0.6	2.9	0.2	23.5	0.1	0.0
Delay (s)	61.6	51.8	48.0	38.1	22.4	49.6	56.0	43.1	9.9	75.5	29.2	26.7
Level of Service	E	D	D	D	C	D	E	D	A	E	C	C
Approach Delay (s)		53.8			39.3			29.3			51.9	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	38.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	118.1	Sum of lost time (s)	23.4
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

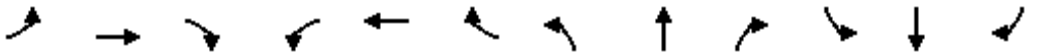


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	244	10	350	220	700	0	0	280	1000
Future Volume (vph)	0	0	0	244	10	350	220	700	0	0	280	1000
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.1	5.1	4.7	5.1			5.1	
Lane Util. Factor					1.00	1.00	1.00	0.91			0.91	
Frpb, ped/bikes					1.00	1.00	1.00	1.00			0.97	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.88	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1727	1538	1719	4940			4235	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1727	1538	1719	4940			4235	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	265	11	380	239	761	0	0	304	1087
RTOR Reduction (vph)	0	0	0	0	0	150	0	0	0	0	461	0
Lane Group Flow (vph)	0	0	0	0	276	230	239	761	0	0	930	0
Confl. Peds. (#/hr)												9
Confl. Bikes (#/hr)												5
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8						
Actuated Green, G (s)					16.2	16.2	11.7	39.7			23.3	
Effective Green, g (s)					16.2	16.2	11.7	39.7			23.3	
Actuated g/C Ratio					0.25	0.25	0.18	0.60			0.35	
Clearance Time (s)					5.1	5.1	4.7	5.1			5.1	
Vehicle Extension (s)					3.0	3.0	2.0	3.0			3.0	
Lane Grp Cap (vph)					423	376	304	2966			1492	
v/s Ratio Prot							c0.14	0.15			c0.22	
v/s Ratio Perm					0.16	0.15						
v/c Ratio					0.65	0.61	0.79	0.26			1.10dr	
Uniform Delay, d1					22.4	22.2	26.0	6.2			17.8	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					3.6	2.9	11.7	0.0			0.8	
Delay (s)					26.0	25.1	37.7	6.3			18.6	
Level of Service					C	C	D	A			B	
Approach Delay (s)		0.0			25.5			13.8			18.6	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	66.1	Sum of lost time (s)	14.9
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

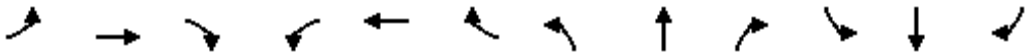
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	540	10	250	0	0	0	0	380	554	110	414	0
Future Volume (vph)	540	10	250	0	0	0	0	380	554	110	414	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1						5.1		4.7	5.1	
Lane Util. Factor	1.00	1.00						0.91		1.00	0.95	
Frpb, ped/bikes	1.00	1.00						0.98		1.00	1.00	
Flpb, ped/bikes	1.00	1.00						1.00		1.00	1.00	
Frt	1.00	0.86						0.91		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (prot)	1641	1478						4227		1641	3282	
Flt Permitted	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (perm)	1641	1478						4227		1641	3282	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	587	11	272	0	0	0	0	413	602	120	450	0
RTOR Reduction (vph)	0	160	0	0	0	0	0	367	0	0	0	0
Lane Group Flow (vph)	587	123	0	0	0	0	0	648	0	120	450	0
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)									4			
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4											
Actuated Green, G (s)	27.9	27.9						17.8		7.1	29.6	
Effective Green, g (s)	27.9	27.9						17.8		7.1	29.6	
Actuated g/C Ratio	0.41	0.41						0.26		0.10	0.44	
Clearance Time (s)	5.1	5.1						5.1		4.7	5.1	
Vehicle Extension (s)	3.0	3.0						3.0		2.0	3.0	
Lane Grp Cap (vph)	676	609						1111		172	1434	
v/s Ratio Prot		0.08						c0.15		c0.07	0.14	
v/s Ratio Perm	c0.36											
v/c Ratio	0.87	0.20						0.58		0.70	0.31	
Uniform Delay, d1	18.2	12.8						21.7		29.3	12.4	
Progression Factor	1.00	1.00						1.00		1.00	1.00	
Incremental Delay, d2	11.4	0.2						0.8		9.5	0.1	
Delay (s)	29.6	12.9						22.5		38.8	12.6	
Level of Service	C	B						C		D	B	
Approach Delay (s)		24.2			0.0			22.5			18.1	
Approach LOS		C			A			C			B	

Intersection Summary			
HCM 2000 Control Delay	22.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	67.7	Sum of lost time (s)	14.9
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		

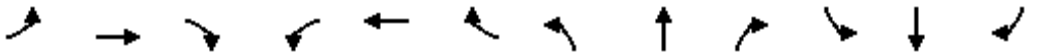
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	299	10	100	100	10	300	40	347	40	100	190	379
Future Volume (vph)	299	10	100	100	10	300	40	347	40	100	190	379
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	325	11	109	109	11	326	43	377	43	109	207	412

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	217	228	109	337	43	420	109	619
Volume Left (vph)	217	108	109	0	43	0	109	0
Volume Right (vph)	0	109	0	326	0	43	0	412
Hadj (s)	0.58	-0.01	0.67	-0.51	0.67	0.02	0.67	-0.35
Departure Headway (s)	9.6	9.1	9.7	8.5	9.4	8.8	9.3	8.4
Degree Utilization, x	0.58	0.57	0.29	0.80	0.11	1.02	0.28	1.44
Capacity (veh/h)	363	385	366	415	375	410	380	442
Control Delay (s)	23.9	22.4	15.4	36.7	12.4	79.9	14.8	230.9
Approach Delay (s)	23.2		31.5		73.7		198.6	
Approach LOS	C		D		F		F	

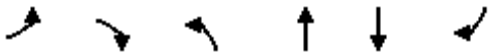
Intersection Summary				
Delay	97.5			
Level of Service	F			
Intersection Capacity Utilization	80.8%	ICU Level of Service	D	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	674	80	0	1034	557	0	0	10	0	0	100
Future Volume (Veh/h)	0	674	80	0	1034	557	0	0	10	0	0	100
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	733	87	0	1124	605	0	0	11	0	0	109
Pedestrians		1									1	
Lane Width (ft)		12.0									12.0	
Walking Speed (ft/s)		4.0									4.0	
Percent Blockage		0									0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1730			820			1261	2506	288	1380	1945	377
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1730			820			1261	2506	288	1380	1945	377
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	100	98	100	100	82
cM capacity (veh/h)	327			755			97	25	685	95	58	598

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	293	293	234	375	375	375	605	11	109
Volume Left	0	0	0	0	0	0	0	0	0
Volume Right	0	0	87	0	0	0	605	11	109
cSH	1700	1700	1700	1700	1700	1700	1700	685	598
Volume to Capacity	0.17	0.17	0.14	0.22	0.22	0.22	0.36	0.02	0.18
Queue Length 95th (ft)	0	0	0	0	0	0	0	1	17
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3	12.4
Lane LOS								B	B
Approach Delay (s)	0.0			0.0				10.3	12.4
Approach LOS								B	B

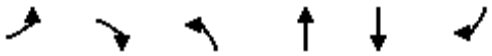
Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	37.9%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	110	90	320	1308	1332	330
Future Volume (vph)	110	90	320	1308	1332	330
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	120	98	348	1422	1448	359

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	120	98	348	1422	1448	359
Volume Left (vph)	120	0	348	0	0	0
Volume Right (vph)	0	98	0	0	0	359
Hadj (s)	0.53	-0.67	0.53	0.17	0.17	-0.67
Departure Headway (s)	8.7	7.5	7.1	6.8	6.8	6.0
Degree Utilization, x	0.29	0.21	0.69	2.67	2.75	0.60
Capacity (veh/h)	399	459	493	535	530	580
Control Delay (s)	14.1	11.3	23.3	772.9	808.4	16.4
Approach Delay (s)	12.8		625.5		651.0	
Approach LOS	B		F		F	

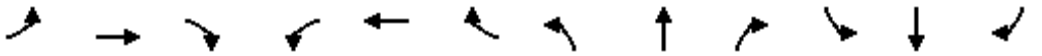
Intersection Summary			
Delay	602.5		
Level of Service	F		
Intersection Capacity Utilization	103.9%	ICU Level of Service	G
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	70	511	840	260	240	80
Future Volume (vph)	70	511	840	260	240	80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	76	555	913	283	261	87

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total (vph)	631	913	283	348
Volume Left (vph)	76	913	0	0
Volume Right (vph)	555	0	0	87
Hadj (s)	-0.33	0.67	0.17	0.02
Departure Headway (s)	6.3	7.9	7.4	7.1
Degree Utilization, x	1.10	2.00	0.58	0.69
Capacity (veh/h)	565	464	475	498
Control Delay (s)	91.1	473.8	18.9	24.1
Approach Delay (s)	91.1	366.2		24.1
Approach LOS	F	F		C

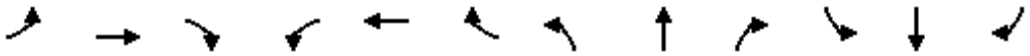
Intersection Summary			
Delay	231.7		
Level of Service	F		
Intersection Capacity Utilization	109.7%	ICU Level of Service	H
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	250	1298	150	290	1321	761	200	100	166	564	100	400
Future Volume (vph)	250	1298	150	290	1321	761	200	100	166	564	100	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.97	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.91		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1417	3183	4715	1417	1641	1548		1641	1727	2584
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1417	3183	4715	1417	1641	1548		1641	1727	2584
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	272	1411	163	315	1436	827	217	109	180	613	109	435
RTOR Reduction (vph)	0	0	115	0	0	410	0	45	0	0	0	137
Lane Group Flow (vph)	272	1411	48	315	1436	417	217	244	0	613	109	298
Confl. Peds. (#/hr)						11			1			
Confl. Bikes (#/hr)			12			13			5			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	8.0	38.8	38.8	10.0	41.1	41.1	21.2	26.4		34.1	39.3	47.3
Effective Green, g (s)	8.0	38.8	38.8	10.0	41.1	41.1	21.2	26.4		34.1	39.3	47.3
Actuated g/C Ratio	0.06	0.30	0.30	0.08	0.31	0.31	0.16	0.20		0.26	0.30	0.36
Clearance Time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	2.0	4.1	4.1	2.0	4.5	4.5	2.0	4.3		2.0	3.7	2.0
Lane Grp Cap (vph)	194	1400	420	243	1483	445	266	312		428	519	935
v/s Ratio Prot	0.09	0.30		c0.10	c0.30		0.13	c0.16		c0.37	0.06	0.02
v/s Ratio Perm			0.03			0.29						0.10
v/c Ratio	1.40	1.01	0.12	1.30	0.97	0.94	0.82	0.78		1.43	0.21	0.32
Uniform Delay, d1	61.3	45.9	33.4	60.3	44.1	43.5	52.8	49.4		48.2	34.1	30.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	208.9	26.0	0.2	160.3	16.4	27.6	16.5	13.0		207.6	0.3	0.1
Delay (s)	270.2	71.9	33.6	220.6	60.5	71.1	69.3	62.3		255.8	34.3	30.1
Level of Service	F	E	C	F	E	E	E	E		F	C	C
Approach Delay (s)		97.7			83.5			65.3			150.1	
Approach LOS		F			F			E			F	

Intersection Summary			
HCM 2000 Control Delay	99.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	130.6	Sum of lost time (s)	21.3
Intersection Capacity Utilization	98.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



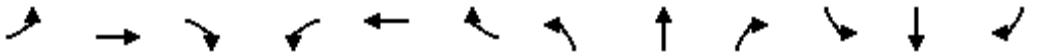
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	0	0	0	0	126	0	190	0	70	0	0
Future Volume (vph)	10	0	0	0	0	126	0	190	0	70	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	0	0	0	0	137	0	207	0	76	0	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	11	137	207	76
Volume Left (vph)	11	0	0	76
Volume Right (vph)	0	137	0	0
Hadj (s)	0.37	-0.43	0.17	0.37
Departure Headway (s)	5.1	4.2	4.5	4.8
Degree Utilization, x	0.02	0.16	0.26	0.10
Capacity (veh/h)	648	804	772	705
Control Delay (s)	8.2	7.9	9.1	8.4
Approach Delay (s)	8.2	7.9	9.1	8.4
Approach LOS	A	A	A	A

Intersection Summary				
Delay	8.6			
Level of Service	A			
Intersection Capacity Utilization	32.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	0	500	0	0	360
Future Volume (vph)	0	0	500	0	0	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.5			4.5
Lane Util. Factor			1.00			1.00
Frt			1.00			0.85
Flt Protected			0.95			1.00
Satd. Flow (prot)			1770			1583
Flt Permitted			0.76			1.00
Satd. Flow (perm)			1410			1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	543	0	0	391
RTOR Reduction (vph)	0	0	0	0	0	325
Lane Group Flow (vph)	0	0	543	0	0	66
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type			Perm		Perm	Perm
Protected Phases	4			8		
Permitted Phases			8		2	2
Actuated Green, G (s)			18.4			5.6
Effective Green, g (s)			18.4			5.6
Actuated g/C Ratio			0.56			0.17
Clearance Time (s)			4.5			4.5
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			786			268
v/s Ratio Prot						
v/s Ratio Perm			c0.38			c0.04
v/c Ratio			0.69			0.25
Uniform Delay, d1			5.3			11.9
Progression Factor			1.00			1.00
Incremental Delay, d2			2.6			0.5
Delay (s)			7.9			12.4
Level of Service			A			B
Approach Delay (s)	0.0			7.9	12.4	
Approach LOS	A			A	B	

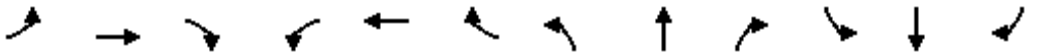
Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	33.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	31.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	2048	100	167	2303	94	100	40	210	128	30	40
Future Volume (vph)	50	2048	100	167	2303	94	100	40	210	128	30	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.5		4.0	6.5		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	4677		1641	4683		1641	1727	1468	1641	1727	1468
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1641	4677		1641	4683		1641	1727	1468	1641	1727	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	2226	109	182	2503	102	109	43	228	139	33	43
RTOR Reduction (vph)	0	3	0	0	2	0	0	0	140	0	0	40
Lane Group Flow (vph)	54	2332	0	182	2603	0	109	43	88	139	33	3
Confl. Peds. (#/hr)			1									
Confl. Bikes (#/hr)			5			7						
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			4
Actuated Green, G (s)	9.9	79.6		24.0	93.7		17.2	14.1	14.1	13.8	10.7	10.7
Effective Green, g (s)	9.9	79.6		24.0	93.7		17.2	14.1	14.1	13.8	10.7	10.7
Actuated g/C Ratio	0.07	0.53		0.16	0.62		0.11	0.09	0.09	0.09	0.07	0.07
Clearance Time (s)	4.0	6.5		4.0	6.5		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	2.0	5.3		2.0	5.3		3.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	108	2481		262	2925		188	162	137	150	123	104
v/s Ratio Prot	0.03	c0.50		c0.11	c0.56		0.07	0.02		c0.08	0.02	
v/s Ratio Perm									c0.06			0.00
v/c Ratio	0.50	0.94		0.69	0.89		0.58	0.27	0.64	0.93	0.27	0.03
Uniform Delay, d1	67.7	33.0		59.5	23.8		63.0	63.1	65.5	67.6	65.9	64.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	8.6		6.3	4.6		4.3	0.3	7.0	51.0	0.4	0.0
Delay (s)	69.0	41.6		65.8	28.3		67.3	63.5	72.5	118.6	66.4	64.9
Level of Service	E	D		E	C		E	E	E	F	E	E
Approach Delay (s)		42.2			30.8			70.0			99.8	
Approach LOS		D			C			E			F	

Intersection Summary			
HCM 2000 Control Delay	40.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		

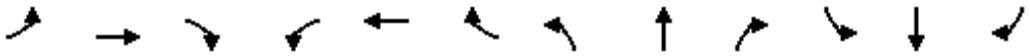
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	645	50	370	1156	662	50	17	250	424	49	20
Future Volume (vph)	50	645	50	370	1156	662	50	17	250	424	49	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.97	0.86	0.86	0.97	0.91	0.88	1.00	1.00		0.97	0.91	0.91
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.99	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	4801	1362	3433	5085	2787	1770	1601		3433	3372	1441
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	4801	1362	3433	5085	2787	1770	1601		3433	3372	1441
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	701	54	402	1257	720	54	18	272	461	53	22
RTOR Reduction (vph)	0	1	31	0	0	334	0	176	0	0	2	15
Lane Group Flow (vph)	54	705	18	402	1257	386	54	114	0	461	53	5
Confl. Peds. (#/hr)				1						1		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2			6						8
Actuated Green, G (s)	4.1	33.9	33.9	14.0	43.8	43.8	4.5	12.8		14.5	22.8	22.8
Effective Green, g (s)	4.1	33.9	33.9	14.0	43.8	43.8	4.5	12.8		14.5	22.8	22.8
Actuated g/C Ratio	0.04	0.36	0.36	0.15	0.47	0.47	0.05	0.14		0.16	0.24	0.24
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	151	1746	495	515	2389	1309	85	219		534	824	352
v/s Ratio Prot	0.02	0.15		c0.12	c0.25		0.03	c0.07		c0.13	0.02	
v/s Ratio Perm			0.01			0.14						0.00
v/c Ratio	0.36	0.40	0.04	0.78	0.53	0.29	0.64	0.52		0.86	0.06	0.01
Uniform Delay, d1	43.3	22.1	19.1	38.1	17.4	15.2	43.5	37.3		38.4	27.0	26.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.5	0.2	0.0	7.5	0.2	0.1	14.5	2.2		13.5	0.0	0.0
Delay (s)	44.7	22.3	19.1	45.7	17.6	15.3	58.1	39.6		51.9	27.1	26.7
Level of Service	D	C	B	D	B	B	E	D		D	C	C
Approach Delay (s)		23.6			21.7			42.5			48.4	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	27.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	93.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	10	20	0	296	10	122	120	195	83	10
Future Volume (vph)	0	0	10	20	0	296	10	122	120	195	83	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	11	22	0	322	11	133	130	212	90	11

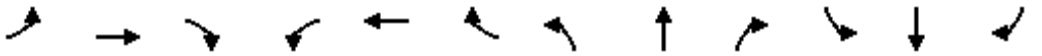
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	11	344	274	313
Volume Left (vph)	0	22	11	212
Volume Right (vph)	11	322	130	11
Hadj (s)	-0.52	-0.38	-0.11	0.28
Departure Headway (s)	5.6	5.1	5.3	5.6
Degree Utilization, x	0.02	0.49	0.40	0.48
Capacity (veh/h)	510	656	633	612
Control Delay (s)	8.7	12.9	11.7	13.7
Approach Delay (s)	8.7	12.9	11.7	13.7
Approach LOS	A	B	B	B

Intersection Summary				
Delay	12.8			
Level of Service	B			
Intersection Capacity Utilization	66.2%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1560	1200	650	1700	1100	445
Future Volume (vph)	1560	1200	650	1700	1100	445
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	1641	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	1641	4715	3183	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1696	1304	707	1848	1196	484
RTOR Reduction (vph)	0	456	0	0	0	291
Lane Group Flow (vph)	1696	848	707	1848	1196	194
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	28.5	28.5	20.0	52.5	27.0	27.0
Effective Green, g (s)	28.5	28.5	20.0	52.5	27.0	27.0
Actuated g/C Ratio	0.32	0.32	0.22	0.58	0.30	0.30
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	1493	464	364	2750	954	440
v/s Ratio Prot	0.36		c0.43	0.39	c0.38	
v/s Ratio Perm		c0.58				0.13
v/c Ratio	1.14	1.83	1.94	0.67	1.25	0.44
Uniform Delay, d1	30.8	30.8	35.0	12.8	31.5	25.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	70.0	381.0	434.0	1.3	122.8	0.3
Delay (s)	100.7	411.7	469.0	14.2	154.3	25.7
Level of Service	F	F	F	B	F	C
Approach Delay (s)	235.9			140.0	117.3	
Approach LOS	F			F	F	

Intersection Summary			
HCM 2000 Control Delay	174.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.65		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	119.1%	ICU Level of Service	H
Analysis Period (min)	15		

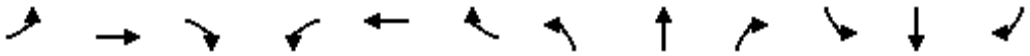
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	157	10	140	914	869	0	0	1547	700
Future Volume (vph)	0	0	0	157	10	140	914	869	0	0	1547	700
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.1	5.1	5.1	4.7	5.1			5.1	5.1
Lane Util. Factor				1.00	0.95	0.95	0.97	0.91			0.91	1.00
Frpb, ped/bikes				1.00	0.99	0.99	1.00	1.00			1.00	0.99
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	0.87	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1641	1410	1375	3183	4715			4715	1450
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1641	1410	1375	3183	4715			4715	1450
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	171	11	152	993	945	0	0	1682	761
RTOR Reduction (vph)	0	0	0	0	61	70	0	0	0	0	0	187
Lane Group Flow (vph)	0	0	0	171	21	11	993	945	0	0	1682	574
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)												1
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				14.6	14.6	14.6	34.3	83.8			44.8	44.8
Effective Green, g (s)				14.6	14.6	14.6	34.3	83.8			44.8	44.8
Actuated g/C Ratio				0.13	0.13	0.13	0.32	0.77			0.41	0.41
Clearance Time (s)				5.1	5.1	5.1	4.7	5.1			5.1	5.1
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				220	189	184	1005	3638			1945	598
v/s Ratio Prot					0.01		c0.31	0.20			0.36	
v/s Ratio Perm				c0.10		0.01						c0.40
v/c Ratio				0.78	0.11	0.06	0.99	0.26			0.86	0.96
Uniform Delay, d1				45.4	41.3	41.0	36.9	3.5			29.1	31.0
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				15.7	0.3	0.1	25.2	0.0			4.3	26.6
Delay (s)				61.2	41.5	41.1	62.2	3.6			33.4	57.6
Level of Service				E	D	D	E	A			C	E
Approach Delay (s)		0.0			51.5			33.6			41.0	
Approach LOS		A			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	38.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	108.6	Sum of lost time (s)	14.9
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		

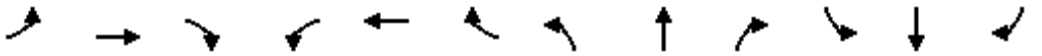
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	225	10	955	0	0	0	0	1558	273	180	1524	0
Future Volume (vph)	225	10	955	0	0	0	0	1558	273	180	1524	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1	5.1					5.1		4.7	5.1	
Lane Util. Factor		1.00	0.88					0.95		0.97	0.91	
Frt		1.00	0.85					0.98		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1648	2584					3208		3183	4715	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		1648	2584					3208		3183	4715	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	245	11	1038	0	0	0	0	1693	297	196	1657	0
RTOR Reduction (vph)	0	0	36	0	0	0	0	10	0	0	0	0
Lane Group Flow (vph)	0	256	1002	0	0	0	0	1980	0	196	1657	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)		43.9	43.9					73.9		7.3	85.9	
Effective Green, g (s)		43.9	43.9					73.9		7.3	85.9	
Actuated g/C Ratio		0.31	0.31					0.53		0.05	0.61	
Clearance Time (s)		5.1	5.1					5.1		4.7	5.1	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		516	810					1693		165	2892	
v/s Ratio Prot								c0.62		c0.06	0.35	
v/s Ratio Perm		0.16	c0.39									
v/c Ratio		0.50	1.24					1.17		1.19	0.57	
Uniform Delay, d1		39.1	48.1					33.0		66.3	16.1	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		0.8	117.0					82.9		129.6	0.3	
Delay (s)		39.8	165.1					116.0		195.9	16.4	
Level of Service		D	F					F		F	B	
Approach Delay (s)		140.3			0.0			116.0			35.4	
Approach LOS		F			A			F			D	

Intersection Summary			
HCM 2000 Control Delay	93.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.9
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		

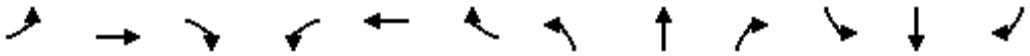
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1101	235	114	215	420	370	98	360	50	220	585	1674
Future Volume (vph)	1101	235	114	215	420	370	98	360	50	220	585	1674
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	0.98	1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.95			1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	1636			1699	1446	1641	3222		1641	1727	1437
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1641	1636			1699	1446	1641	3222		1641	1727	1437
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1197	255	124	234	457	402	107	391	54	239	636	1820
RTOR Reduction (vph)	0	12	0	0	0	107	0	8	0	0	0	417
Lane Group Flow (vph)	1197	367	0	0	691	295	107	437	0	239	636	1403
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)			1			1						1
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	39.7	39.7			41.8	41.8	7.6	33.1		10.6	35.9	35.9
Effective Green, g (s)	39.7	39.7			41.8	41.8	7.6	33.1		10.6	35.9	35.9
Actuated g/C Ratio	0.27	0.27			0.29	0.29	0.05	0.23		0.07	0.25	0.25
Clearance Time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Vehicle Extension (s)	2.0	2.0			3.7	3.7	2.0	3.8		2.0	3.8	3.8
Lane Grp Cap (vph)	449	447			489	416	86	735		119	427	355
v/s Ratio Prot	c0.73	0.22			c0.41		0.07	0.14		c0.15	0.37	
v/s Ratio Perm						0.20						c0.98
v/c Ratio	2.67	0.82			1.41	0.71	1.24	0.59		2.01	1.49	3.95
Uniform Delay, d1	52.6	49.3			51.6	46.1	68.7	50.0		67.2	54.5	54.5
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	756.0	10.9			197.7	5.7	176.3	1.5		482.1	232.4	1335.4
Delay (s)	808.7	60.3			249.3	51.9	245.0	51.4		549.3	287.0	1390.0
Level of Service	F	E			F	D	F	D		F	F	F
Approach Delay (s)		628.7			176.7			89.0			1055.1	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	689.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.60		
Actuated Cycle Length (s)	145.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	155.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	385	35	75	436	80	10	164	10	30	207	40
Future Volume (vph)	140	385	35	75	436	80	10	164	10	30	207	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00		0.97	0.95	
Frpb, ped/bikes		1.00			1.00	0.99	1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.99			1.00	0.85	1.00	0.99		1.00	0.98	
Flt Protected		0.99			0.99	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3211			1715	1447	1641	1712		3183	3185	
Flt Permitted		0.71			0.10	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		2298			173	1447	1641	1712		3183	3185	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	418	38	82	474	87	11	178	11	33	225	43
RTOR Reduction (vph)	0	3	0	0	0	41	0	2	0	0	12	0
Lane Group Flow (vph)	0	605	0	0	556	46	11	187	0	33	256	0
Confl. Peds. (#/hr)												1
Confl. Bikes (#/hr)						5						5
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			1		3	8		7	4	
Permitted Phases	2			1		1						
Actuated Green, G (s)		26.9			66.4	66.4	1.5	21.0		2.3	21.8	
Effective Green, g (s)		26.9			66.4	66.4	1.5	21.0		2.3	21.8	
Actuated g/C Ratio		0.20			0.49	0.49	0.01	0.15		0.02	0.16	
Clearance Time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Vehicle Extension (s)		4.8			4.8	4.8	2.0	3.3		2.0	4.4	
Lane Grp Cap (vph)		455			84	708	18	264		53	511	
v/s Ratio Prot							0.01	c0.11		c0.01	0.08	
v/s Ratio Perm		c0.26			c3.21	0.03						
v/c Ratio		1.33			6.62	0.06	0.61	0.71		0.62	0.50	
Uniform Delay, d1		54.4			34.6	18.3	66.8	54.5		66.3	52.0	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		162.7			2553.6	0.1	36.2	8.6		15.2	1.3	
Delay (s)		217.1			2588.2	18.3	103.0	63.1		81.5	53.3	
Level of Service		F			F	B	F	E		F	D	
Approach Delay (s)		217.1			2240.5			65.3			56.4	
Approach LOS		F			F			E			E	

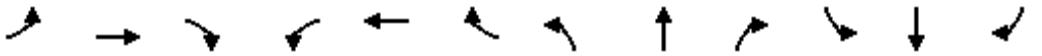
Intersection Summary			
HCM 2000 Control Delay	914.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	4.19		
Actuated Cycle Length (s)	135.7	Sum of lost time (s)	19.1
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	921	250	230	1072	116	10
Future Volume (vph)	921	250	230	1072	116	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		5.7	7.2	6.1	6.1
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4564		1641	4715	1641	1468
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4564		1641	4715	1641	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1001	272	250	1165	126	11
RTOR Reduction (vph)	38	0	0	0	0	9
Lane Group Flow (vph)	1235	0	250	1165	126	2
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	30.4		8.3	44.4	10.9	10.9
Effective Green, g (s)	30.4		8.3	44.4	10.9	10.9
Actuated g/C Ratio	0.44		0.12	0.65	0.16	0.16
Clearance Time (s)	7.2		5.7	7.2	6.1	6.1
Vehicle Extension (s)	6.9		2.0	6.9	2.0	2.0
Lane Grp Cap (vph)	2022		198	3051	260	233
v/s Ratio Prot	c0.27		c0.15	0.25	c0.08	
v/s Ratio Perm						0.00
v/c Ratio	0.61		1.26	0.38	0.48	0.01
Uniform Delay, d1	14.6		30.1	5.7	26.3	24.3
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1		152.1	0.3	0.5	0.0
Delay (s)	15.7		182.3	5.9	26.8	24.3
Level of Service	B		F	A	C	C
Approach Delay (s)	15.7			37.1	26.6	
Approach LOS	B			D	C	

Intersection Summary			
HCM 2000 Control Delay	26.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	68.6	Sum of lost time (s)	19.0
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	304	200	550	488	150	100	200	600	100	350	194
Future Volume (vph)	127	304	200	550	488	150	100	200	600	100	350	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.89		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	4715	1445	1641	4549		1641	1516		3183	1635	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1641	4715	1445	1641	4549		1641	1516		3183	1635	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	138	330	217	598	530	163	109	217	652	109	380	211
RTOR Reduction (vph)	0	0	192	0	39	0	0	70	0	0	13	0
Lane Group Flow (vph)	138	330	25	598	654	0	109	799	0	109	578	0
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)			2						2			
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	16.2	17.6	17.6	39.0	40.4		16.6	61.3		12.2	57.8	
Effective Green, g (s)	16.2	17.6	17.6	39.0	40.4		16.6	61.3		12.2	57.8	
Actuated g/C Ratio	0.11	0.12	0.12	0.26	0.27		0.11	0.41		0.08	0.39	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	3.2		2.0	5.3	
Lane Grp Cap (vph)	177	553	169	426	1225		181	619		258	630	
v/s Ratio Prot	0.08	0.07		c0.36	c0.14		c0.07	c0.53		0.03	0.35	
v/s Ratio Perm			0.02									
v/c Ratio	0.78	0.60	0.15	1.40	0.53		0.60	1.29		0.42	0.92	
Uniform Delay, d1	65.2	62.8	59.5	55.5	46.8		63.6	44.4		65.5	43.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	17.7	4.7	1.9	195.4	1.7		3.8	142.4		0.4	19.3	
Delay (s)	82.9	67.5	61.4	250.9	48.4		67.4	186.8		66.0	63.1	
Level of Service	F	E	E	F	D		E	F		E	E	
Approach Delay (s)		68.7			142.2			173.5			63.6	
Approach LOS		E			F			F			E	

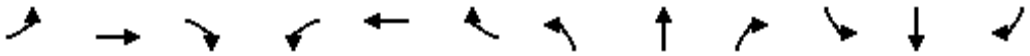
Intersection Summary			
HCM 2000 Control Delay	121.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	106.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	220	100	40	186	250	40	260	10	370	270	280
Future Volume (vph)	160	220	100	40	186	250	40	260	10	370	270	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frpb, ped/bikes		1.00			0.99			1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	
Frt		0.97			0.93			1.00		1.00	0.92	
Flt Protected		0.98			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1644			1587			1709		1641	1585	
Flt Permitted		0.61			0.94			0.76		0.52	1.00	
Satd. Flow (perm)		1019			1495			1306		896	1585	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	239	109	43	202	272	43	283	11	402	293	304
RTOR Reduction (vph)	0	14	0	0	62	0	0	2	0	0	57	0
Lane Group Flow (vph)	0	508	0	0	455	0	0	335	0	402	540	0
Confl. Peds. (#/hr)							1					1
Confl. Bikes (#/hr)			1			3						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		27.5			27.5			28.5		28.5	28.5	
Effective Green, g (s)		27.5			27.5			28.5		28.5	28.5	
Actuated g/C Ratio		0.42			0.42			0.44		0.44	0.44	
Clearance Time (s)		4.5			4.5			4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		431			632			572		392	694	
v/s Ratio Prot											0.34	
v/s Ratio Perm		c0.50			0.30			0.26		c0.45		
v/c Ratio		1.18			0.72			0.59		1.03	0.78	
Uniform Delay, d1		18.8			15.6			13.8		18.2	15.6	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		101.7			4.0			4.4		52.1	8.4	
Delay (s)		120.5			19.6			18.1		70.4	23.9	
Level of Service		F			B			B		E	C	
Approach Delay (s)		120.5			19.6			18.1			42.6	
Approach LOS		F			B			B			D	

Intersection Summary			
HCM 2000 Control Delay	51.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	116.7%	ICU Level of Service	H
Analysis Period (min)	15		

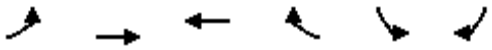
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	50	211	50	35	288	110	0	70	10	120	90	166
Future Volume (vph)	50	211	50	35	288	110	0	70	10	120	90	166
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	54	229	54	38	313	120	0	76	11	130	98	180

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	337	471	87	408
Volume Left (vph)	54	38	0	130
Volume Right (vph)	54	120	11	180
Hadj (s)	0.11	0.03	0.09	-0.03
Departure Headway (s)	7.0	6.6	8.1	6.8
Degree Utilization, x	0.65	0.87	0.20	0.77
Capacity (veh/h)	480	527	377	496
Control Delay (s)	22.3	38.5	13.1	29.4
Approach Delay (s)	22.3	38.5	13.1	29.4
Approach LOS	C	E	B	D

Intersection Summary				
Delay	29.8			
Level of Service	D			
Intersection Capacity Utilization	63.2%	ICU Level of Service	B	
Analysis Period (min)	15			



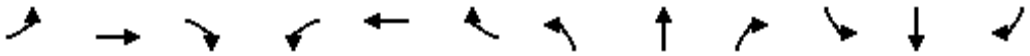
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	190	433	692	110	100	200
Future Volume (vph)	190	433	692	110	100	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00	1.00	0.99	0.99	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	0.93	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (prot)	3183	3282	4715	1447	2997	1312
Flt Permitted	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (perm)	3183	3282	4715	1447	2997	1312
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	207	471	752	120	109	217
RTOR Reduction (vph)	0	0	0	73	93	92
Lane Group Flow (vph)	207	471	752	47	125	16
Confl. Bikes (#/hr)				4		4
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	5.1	27.4	17.6	17.6	6.5	6.5
Effective Green, g (s)	5.1	27.4	17.6	17.6	6.5	6.5
Actuated g/C Ratio	0.11	0.61	0.39	0.39	0.14	0.14
Clearance Time (s)	4.7	6.2	6.2	6.2	5.1	5.1
Vehicle Extension (s)	2.0	5.8	5.8	5.8	2.0	2.0
Lane Grp Cap (vph)	359	1989	1835	563	430	188
v/s Ratio Prot	c0.07	0.14	c0.16		c0.04	
v/s Ratio Perm				0.03		0.01
v/c Ratio	0.58	0.24	0.41	0.08	0.29	0.08
Uniform Delay, d1	19.0	4.1	10.0	8.7	17.3	16.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	0.2	0.4	0.2	0.1	0.1
Delay (s)	20.4	4.3	10.4	8.9	17.4	16.8
Level of Service	C	A	B	A	B	B
Approach Delay (s)		9.2	10.2		17.2	
Approach LOS		A	B		B	

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	45.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	37.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	373	220	170	452	90	60
Future Volume (vph)	373	220	170	452	90	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	405	239	185	491	98	65

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total (vph)	644	185	491	163
Volume Left (vph)	0	185	0	98
Volume Right (vph)	239	0	0	65
Hadj (s)	-0.05	0.67	0.17	0.05
Departure Headway (s)	5.4	6.5	6.0	6.9
Degree Utilization, x	0.97	0.34	0.82	0.31
Capacity (veh/h)	660	542	588	508
Control Delay (s)	49.7	11.6	29.6	13.1
Approach Delay (s)	49.7	24.7		13.1
Approach LOS	E	C		B

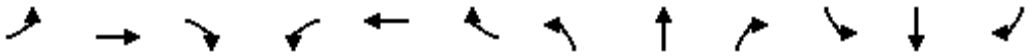
Intersection Summary			
Delay	34.2		
Level of Service	D		
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	540	47	40	846	0	74	0	40	10	10	42
Future Volume (vph)	13	540	47	40	846	0	74	0	40	10	10	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		4.4	4.9		4.9		4.9		4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00		1.00		1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		0.98		0.93	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00		1.00		1.00	
Frt	1.00	0.99		1.00	1.00		1.00		0.85		0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95		1.00		0.99	
Satd. Flow (prot)	1641	4636		1641	4715		1641		1437		1453	
Flt Permitted	0.95	1.00		0.95	1.00		0.91		1.00		0.94	
Satd. Flow (perm)	1641	4636		1641	4715		1570		1437		1380	
Peak-hour factor, PHF	0.74	0.74	0.74	0.94	0.94	0.94	0.81	0.81	0.81	0.60	0.60	0.60
Adj. Flow (vph)	18	730	64	43	900	0	91	0	49	17	17	70
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	43	0	62	0
Lane Group Flow (vph)	18	783	0	43	900	0	91	0	6	0	42	0
Confl. Peds. (#/hr)			49			10			6	6		4
Confl. Bikes (#/hr)			3						4			25
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	0.5	16.9		1.2	17.6		4.4		4.4		4.4	
Effective Green, g (s)	0.5	16.9		1.2	17.6		4.4		4.4		4.4	
Actuated g/C Ratio	0.01	0.46		0.03	0.48		0.12		0.12		0.12	
Clearance Time (s)	4.4	4.9		4.4	4.9		4.9		4.9		4.9	
Vehicle Extension (s)	2.0	6.1		2.0	5.1		2.0		2.0		2.0	
Lane Grp Cap (vph)	22	2134		53	2261		188		172		165	
v/s Ratio Prot	0.01	0.17		c0.03	c0.19							
v/s Ratio Perm							c0.06		0.00		0.03	
v/c Ratio	0.82	0.37		0.81	0.40		0.48		0.03		0.26	
Uniform Delay, d1	18.1	6.4		17.6	6.1		15.1		14.3		14.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00		1.00		1.00	
Incremental Delay, d2	105.7	0.3		57.4	0.3		0.7		0.0		0.3	
Delay (s)	123.8	6.7		75.0	6.4		15.8		14.3		15.0	
Level of Service	F	A		E	A		B		B		B	
Approach Delay (s)		9.3			9.5			15.3			15.0	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	36.7	Sum of lost time (s)	14.2
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



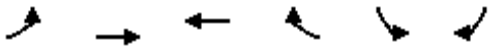
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	427	70	250	704	150	60	60	280	190	70	122
Future Volume (vph)	93	427	70	250	704	150	60	60	280	190	70	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00	1.00		0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.96		0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		0.99	
Frt	1.00	0.98		1.00	0.97			1.00	0.85		0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.98	1.00		0.98	
Satd. Flow (prot)	1641	4616		1641	4573			1683	1412		2992	
Flt Permitted	0.95	1.00		0.95	1.00			0.61	1.00		0.76	
Satd. Flow (perm)	1641	4616		1641	4573			1047	1412		2327	
Peak-hour factor, PHF	0.69	0.69	0.69	0.93	0.93	0.93	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	135	619	101	269	757	161	71	71	329	224	82	144
RTOR Reduction (vph)	0	22	0	0	28	0	0	0	242	0	68	0
Lane Group Flow (vph)	135	698	0	269	890	0	0	142	87	0	382	0
Confl. Peds. (#/hr)						1	10		46	46		10
Confl. Bikes (#/hr)						1			3			11
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	10.4	20.3		16.5	25.8			18.4	18.4		18.4	
Effective Green, g (s)	10.4	20.3		16.5	25.8			18.4	18.4		18.4	
Actuated g/C Ratio	0.15	0.29		0.24	0.37			0.27	0.27		0.27	
Clearance Time (s)	4.4	4.9		4.4	5.5			4.9	4.9		4.9	
Vehicle Extension (s)	2.0	8.0		2.0	6.7			4.4	4.4		4.4	
Lane Grp Cap (vph)	245	1350		390	1700			277	374		616	
v/s Ratio Prot	0.08	0.15		c0.16	c0.19							
v/s Ratio Perm								0.14	0.06		c0.16	
v/c Ratio	0.55	0.52		0.69	0.52			0.51	0.23		0.62	
Uniform Delay, d1	27.3	20.5		24.1	17.0			21.7	20.0		22.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	1.5	1.3		4.0	0.9			2.5	0.5		2.3	
Delay (s)	28.9	21.8		28.1	17.9			24.2	20.5		24.8	
Level of Service	C	C		C	B			C	C		C	
Approach Delay (s)		22.9			20.2			21.6			24.8	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	21.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	69.4	Sum of lost time (s)	14.8
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	827	70	410	1104	0	340
Future Volume (vph)	827	70	410	1104	0	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1		5.1	3.0		5.1
Lane Util. Factor	0.91		0.97	0.91		0.88
Frpb, ped/bikes	1.00		1.00	1.00		1.00
Flpb, ped/bikes	1.00		1.00	1.00		1.00
Frt	0.99		1.00	1.00		0.85
Flt Protected	1.00		0.95	1.00		1.00
Satd. Flow (prot)	4653		3183	4715		2584
Flt Permitted	1.00		0.95	1.00		1.00
Satd. Flow (perm)	4653		3183	4715		2584
Peak-hour factor, PHF	0.75	0.75	0.97	0.97	0.86	0.86
Adj. Flow (vph)	1103	93	423	1138	0	395
RTOR Reduction (vph)	17	0	0	0	0	107
Lane Group Flow (vph)	1179	0	423	1138	0	288
Confl. Peds. (#/hr)		20				
Turn Type	NA		Prot	NA		Over
Protected Phases	2		1	6		1
Permitted Phases						1
Actuated Green, G (s)	22.6		10.5	43.3		10.5
Effective Green, g (s)	22.6		10.5	43.3		10.5
Actuated g/C Ratio	0.52		0.24	1.00		0.24
Clearance Time (s)	5.1		5.1	3.0		5.1
Vehicle Extension (s)	3.9		2.0	0.9		2.0
Lane Grp Cap (vph)	2428		771	4715		626
v/s Ratio Prot	c0.25		c0.13	0.24		0.11
v/s Ratio Perm						
v/c Ratio	0.49		0.55	0.24		0.46
Uniform Delay, d1	6.6		14.3	0.0		14.0
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	0.2		0.4	0.0		0.2
Delay (s)	6.8		14.8	0.0		14.2
Level of Service	A		B	A		B
Approach Delay (s)	6.8			4.0	14.2	
Approach LOS	A			A	B	

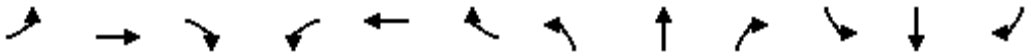
Intersection Summary			
HCM 2000 Control Delay	6.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	43.3	Sum of lost time (s)	10.2
Intersection Capacity Utilization	43.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Traffic Volume (veh/h)	0	1167	1114	0	0	400
Future Volume (Veh/h)	0	1167	1114	0	0	400
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.82	0.82	0.87	0.87	0.91	0.91
Hourly flow rate (vph)	0	1423	1280	0	0	440
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		269	396			
pX, platoon unblocked					0.88	
vC, conflicting volume	1280				1754	427
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1280				1375	427
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	21
cM capacity (veh/h)	497				112	555

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	474	474	474	427	427	427	440
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	440
cSH	1700	1700	1700	1700	1700	1700	555
Volume to Capacity	0.28	0.28	0.28	0.25	0.25	0.25	0.79
Queue Length 95th (ft)	0	0	0	0	0	0	189
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	31.9
Lane LOS							D
Approach Delay (s)	0.0			0.0			31.9
Approach LOS							D

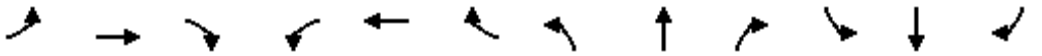
Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	78.4%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	540	627	0	0	1054	1120	60	10	230	0	0	0
Future Volume (vph)	540	627	0	0	1054	1120	60	10	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Lane Util. Factor	0.97	0.91			0.86	0.86		1.00	0.88			
Frpb, ped/bikes	1.00	1.00			0.99	0.98		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			0.95	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.96	1.00			
Satd. Flow (prot)	3183	4715			4198	1240		1656	2584			
Flt Permitted	0.95	1.00			1.00	1.00		0.96	1.00			
Satd. Flow (perm)	3183	4715			4198	1240		1656	2584			
Peak-hour factor, PHF	0.82	0.82	0.82	0.92	0.92	0.92	0.75	0.75	0.75	0.92	0.92	0.92
Adj. Flow (vph)	659	765	0	0	1146	1217	80	13	307	0	0	0
RTOR Reduction (vph)	0	0	0	0	100	241	0	0	269	0	0	0
Lane Group Flow (vph)	659	765	0	0	1655	367	0	93	38	0	0	0
Confl. Peds. (#/hr)						2	3					
Confl. Bikes (#/hr)			3			8						
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Actuated Green, G (s)	19.6	63.2			38.9	38.9		10.4	10.4			
Effective Green, g (s)	19.6	63.2			38.9	38.9		10.4	10.4			
Actuated g/C Ratio	0.23	0.75			0.46	0.46		0.12	0.12			
Clearance Time (s)	4.7	5.1			5.1	5.1		5.1	5.1			
Vehicle Extension (s)	2.0	3.9			3.9	3.9		3.0	3.0			
Lane Grp Cap (vph)	744	3555			1948	575		205	320			
v/s Ratio Prot	c0.21	0.16			c0.39			c0.06				
v/s Ratio Perm						0.30			0.01			
v/c Ratio	0.89	0.22			0.85	0.64		0.45	0.12			
Uniform Delay, d1	31.0	3.0			19.9	17.1		34.1	32.6			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	11.9	0.0			3.8	2.6		1.6	0.2			
Delay (s)	43.0	3.1			23.7	19.7		35.7	32.8			
Level of Service	D	A			C	B		D	C			
Approach Delay (s)		21.5			22.6			33.5			0.0	
Approach LOS		C			C			C			A	

Intersection Summary			
HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	83.8	Sum of lost time (s)	14.9
Intersection Capacity Utilization	78.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	170	180	113	10	190	100	82	120	10	40	80	40
Future Volume (vph)	170	180	113	10	190	100	82	120	10	40	80	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	185	196	123	11	207	109	89	130	11	43	87	43

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	185	319	11	316	89	141	130	43
Volume Left (vph)	185	0	11	0	89	0	43	0
Volume Right (vph)	0	123	0	109	0	11	0	43
Hadj (s)	0.67	-0.10	0.67	-0.07	0.67	0.12	0.34	-0.53
Departure Headway (s)	7.0	6.2	7.3	6.5	7.7	7.2	7.5	6.7
Degree Utilization, x	0.36	0.55	0.02	0.57	0.19	0.28	0.27	0.08
Capacity (veh/h)	492	558	470	524	436	469	445	496
Control Delay (s)	12.7	15.5	9.2	16.6	11.4	11.8	12.1	9.0
Approach Delay (s)	14.5		16.4		11.6		11.3	
Approach LOS	B		C		B		B	

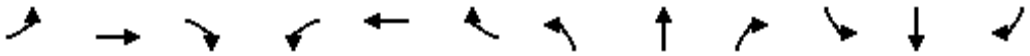
Intersection Summary				
Delay	14.0			
Level of Service	B			
Intersection Capacity Utilization	52.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	360	0	183	500	0	45
Future Volume (vph)	360	0	183	500	0	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frt	1.00		1.00	1.00	0.86	
Flt Protected	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	5085		1770	5085	1611	
Flt Permitted	1.00		0.95	1.00	1.00	
Satd. Flow (perm)	5085		1770	5085	1611	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	391	0	199	543	0	49
RTOR Reduction (vph)	0	0	0	0	48	0
Lane Group Flow (vph)	391	0	199	543	1	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	4	
Permitted Phases						
Actuated Green, G (s)	11.4		7.8	23.7	0.9	
Effective Green, g (s)	11.4		7.8	23.7	0.9	
Actuated g/C Ratio	0.34		0.23	0.71	0.03	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1725		410	3586	43	
v/s Ratio Prot	c0.08		c0.11	0.11	c0.00	
v/s Ratio Perm						
v/c Ratio	0.23		0.49	0.15	0.03	
Uniform Delay, d1	7.9		11.2	1.6	15.9	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.1		0.9	0.0	0.3	
Delay (s)	8.0		12.1	1.7	16.2	
Level of Service	A		B	A	B	
Approach Delay (s)	8.0			4.4	16.2	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	6.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	33.6	Sum of lost time (s)	13.5
Intersection Capacity Utilization	31.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

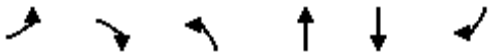
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	405	0	543	683	0	340
Future Volume (vph)	405	0	543	683	0	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frt	1.00		1.00	1.00	0.86	
Flt Protected	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	5085		1770	5085	1611	
Flt Permitted	1.00		0.95	1.00	1.00	
Satd. Flow (perm)	5085		1770	5085	1611	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	440	0	590	742	0	370
RTOR Reduction (vph)	0	0	0	0	337	0
Lane Group Flow (vph)	440	0	590	742	33	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	NA		Prot	NA	Perm	
Protected Phases	2		1	6		
Permitted Phases					4	
Actuated Green, G (s)	11.5		30.7	46.7	5.5	
Effective Green, g (s)	11.5		30.7	46.7	5.5	
Actuated g/C Ratio	0.19		0.50	0.76	0.09	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	955		887	3880	144	
v/s Ratio Prot	c0.09		c0.33	0.15		
v/s Ratio Perm					c0.02	
v/c Ratio	0.46		0.67	0.19	0.23	
Uniform Delay, d1	22.1		11.4	2.0	25.9	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.4		1.9	0.0	0.8	
Delay (s)	22.4		13.3	2.0	26.7	
Level of Service	C		B	A	C	
Approach Delay (s)	22.4			7.0	26.7	
Approach LOS	C			A	C	

Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	61.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



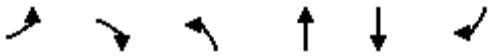
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	10	120	160	0	0	200	216	260	0	213	0
Future Volume (vph)	0	10	120	160	0	0	200	216	260	0	213	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5			4.5	
Lane Util. Factor		1.00			1.00		1.00	0.95			1.00	
Frt		0.88			1.00		1.00	0.92			1.00	
Flt Protected		1.00			0.95		0.95	1.00			1.00	
Satd. Flow (prot)		1631			1770		1770	3249			1863	
Flt Permitted		1.00			0.67		0.95	1.00			1.00	
Satd. Flow (perm)		1631			1243		1770	3249			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	11	130	174	0	0	217	235	283	0	232	0
RTOR Reduction (vph)	0	104	0	0	0	0	0	108	0	0	0	0
Lane Group Flow (vph)	0	37	0	0	174	0	217	410	0	0	232	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		9.6			9.6		8.8	30.0			16.7	
Effective Green, g (s)		9.6			9.6		8.8	30.0			16.7	
Actuated g/C Ratio		0.20			0.20		0.18	0.62			0.34	
Clearance Time (s)		4.5			4.5		4.5	4.5			4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		322			245		320	2005			640	
v/s Ratio Prot		0.02					c0.12	0.13			c0.12	
v/s Ratio Perm					c0.14							
v/c Ratio		0.11			0.71		0.68	0.20			0.36	
Uniform Delay, d1		16.0			18.2		18.6	4.1			12.0	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.2			9.3		5.6	0.1			0.4	
Delay (s)		16.2			27.5		24.2	4.1			12.3	
Level of Service		B			C		C	A			B	
Approach Delay (s)		16.2			27.5			10.0			12.3	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	48.6	Sum of lost time (s)	13.5
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



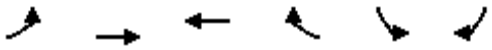
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	103	100	168	204	245	175
Future Volume (vph)	103	100	168	204	245	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	1.00	0.95	
Frt	0.93		1.00	1.00	0.94	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1696		1770	1863	3318	
Flt Permitted	0.98		0.95	1.00	1.00	
Satd. Flow (perm)	1696		1770	1863	3318	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	112	109	183	222	266	190
RTOR Reduction (vph)	62	0	0	0	126	0
Lane Group Flow (vph)	159	0	183	222	330	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	Prot		Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases						
Actuated Green, G (s)	7.7		7.8	27.0	14.7	
Effective Green, g (s)	7.7		7.8	27.0	14.7	
Actuated g/C Ratio	0.18		0.18	0.62	0.34	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	298		315	1151	1116	
v/s Ratio Prot	c0.09		c0.10	0.12	c0.10	
v/s Ratio Perm						
v/c Ratio	0.53		0.58	0.19	0.30	
Uniform Delay, d1	16.4		16.5	3.6	10.7	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.8		2.7	0.1	0.1	
Delay (s)	18.2		19.2	3.7	10.8	
Level of Service	B		B	A	B	
Approach Delay (s)	18.2			10.7	10.8	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	43.7	Sum of lost time (s)	13.5
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	10	8	362	337	8
Future Volume (vph)	10	10	8	362	337	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	1.00	0.95	
Frt	0.93		1.00	1.00	1.00	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1695		1770	1863	3526	
Flt Permitted	0.98		0.95	1.00	1.00	
Satd. Flow (perm)	1695		1770	1863	3526	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	9	393	366	9
RTOR Reduction (vph)	11	0	0	0	2	0
Lane Group Flow (vph)	11	0	9	393	373	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Turn Type	Prot		Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases						
Actuated Green, G (s)	0.9		0.9	28.7	23.3	
Effective Green, g (s)	0.9		0.9	28.7	23.3	
Actuated g/C Ratio	0.02		0.02	0.74	0.60	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	39		41	1385	2128	
v/s Ratio Prot	c0.01		0.01	c0.21	0.11	
v/s Ratio Perm						
v/c Ratio	0.29		0.22	0.28	0.18	
Uniform Delay, d1	18.5		18.5	1.6	3.4	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	4.1		2.7	0.1	0.0	
Delay (s)	22.6		21.2	1.7	3.4	
Level of Service	C		C	A	A	
Approach Delay (s)	22.6			2.2	3.4	
Approach LOS	C			A	A	

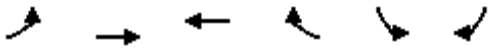
Intersection Summary			
HCM 2000 Control Delay	3.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	38.6	Sum of lost time (s)	13.5
Intersection Capacity Utilization	29.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1162	1847	84	0	15
Future Volume (Veh/h)	0	1162	1847	84	0	15
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1263	2008	91	0	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		775	610			
pX, platoon unblocked					0.79	
vC, conflicting volume	2099				3316	715
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2099				3791	715
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	96
cM capacity (veh/h)	259				2	373

Direction, Lane #	EB 1	WB 1	WB 2	WB 3	SB 1
Volume Total	1263	803	803	493	16
Volume Left	0	0	0	0	0
Volume Right	0	0	0	91	16
cSH	1700	1700	1700	1700	373
Volume to Capacity	0.74	0.47	0.47	0.29	0.04
Queue Length 95th (ft)	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	15.1
Lane LOS					C
Approach Delay (s)	0.0	0.0			15.1
Approach LOS					C

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	100	1062	1916	87	70	15
Future Volume (vph)	100	1062	1916	87	70	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1641	1727	1717		1641	1468
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1641	1727	1717		1641	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	1154	2083	95	76	16
RTOR Reduction (vph)	0	0	1	0	0	15
Lane Group Flow (vph)	109	1154	2177	0	76	1
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	8.0	125.1	113.1		12.0	12.0
Effective Green, g (s)	8.0	125.1	113.1		12.0	12.0
Actuated g/C Ratio	0.06	0.86	0.78		0.08	0.08
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	90	1488	1338		135	121
v/s Ratio Prot	c0.07	0.67	c1.27		c0.05	
v/s Ratio Perm						0.00
v/c Ratio	1.21	0.78	1.63		0.56	0.01
Uniform Delay, d1	68.5	4.2	16.0		64.0	61.1
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	162.2	2.6	285.7		5.3	0.0
Delay (s)	230.8	6.8	301.7		69.3	61.1
Level of Service	F	A	F		E	E
Approach Delay (s)		26.1	301.7		67.9	
Approach LOS		C	F		E	

Intersection Summary			
HCM 2000 Control Delay	197.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.51		
Actuated Cycle Length (s)	145.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.7%	ICU Level of Service	H
Analysis Period (min)	15		

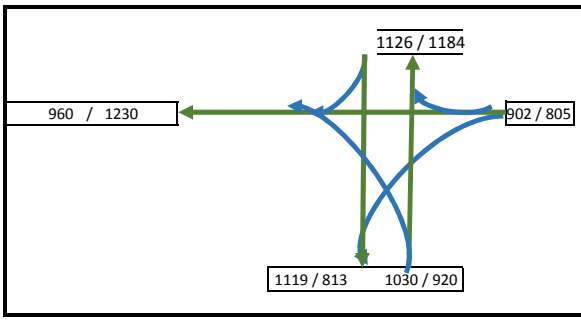
c Critical Lane Group

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION: Caliente Avenue and 905 WB Ramps
ALTERNATIVE: Near-Term + Project Conditions

DIST. CO. RTE: SR-905
PM:
DATE: 1/27/2016
TIME:

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	160	870	0
SB:	0	483	790
EB:	0	0	0
WB:	636	10	256

PM

	Left	Throu	Right
NB:	220	700	0
SB:	0	502	1000
EB:	0	0	0
WB:	311	10	484

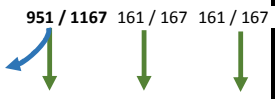
LANE VOLUMES (ILV/HR)

PHASE I

AM 160
PM 220

PHASE II

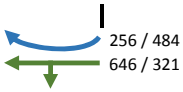
AM 951
PM 1167



Remaining NB Through 130 / 13

PHASE III

AM 646
PM 484



PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
1757	1871

TOTAL OPERATING LEVEL (ILV/HR):

AM:	1757	Over Capacity
PM:	1871	Over Capacity

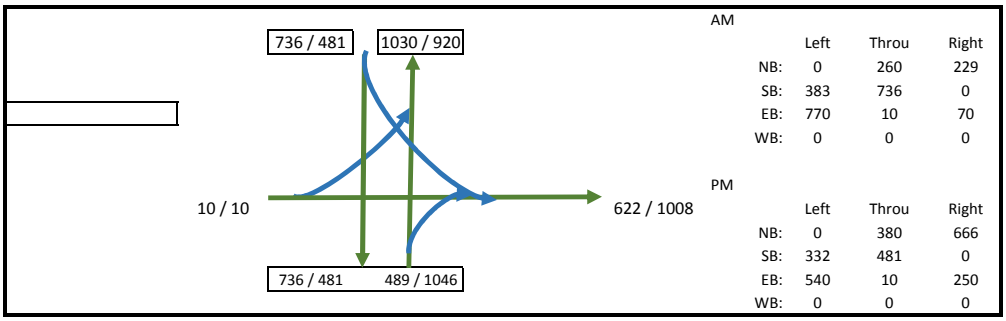
< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION: Caliente Avenue and 905 EB Ramps
ALTERNATIVE: Near-Term + Project Conditions

DIST. CO. RTE: SR-905
PM:
DATE: 1/27/2016
TIME:

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	0	260	229
SB:	383	736	0
EB:	770	10	70
WB:	0	0	0

PM

	Left	Throu	Right
NB:	0	380	666
SB:	332	481	0
EB:	540	10	250
WB:	0	0	0

LANE VOLUMES (ILV/HR)

PHASE I

AM 383
PM 332

368 / 241 368 / 241 **383 / 332**

PHASE II

AM 316
PM 793

Remaining SB Through 0 / 91

87 / 127 87 / 127 **316 / 793**

PHASE III

AM 770
PM 540

770 / 540
80 / 260

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
1469	1665

TOTAL OPERATING LEVEL (ILV/HR):

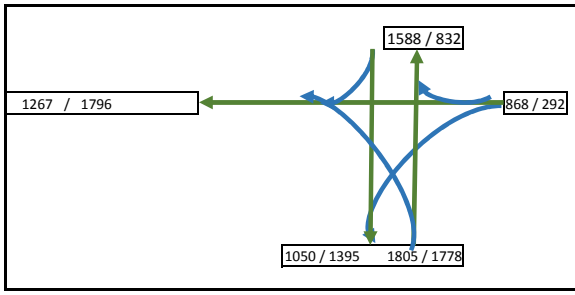
AM:	1469	At Capacity
PM:	1665	Over Capacity

< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION:	Britannia Boulevard and SR-905 WB Ramps	DIST. CO. RTE	SR-905
ALTERNATIVE:	Near-Term + Project Conditions	PM:	
		DATE:	1/27/2016
		TIME:	

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	827	978	0
SB:	0	792	440
EB:	0	0	0
WB:	258	0	610

PM

	Left	Throu	Right
NB:	1086	692	0
SB:	0	1253	700
EB:	0	0	0
WB:	142	10	140

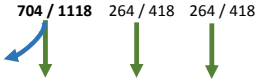
LANE VOLUMES (ILV/HR)

PHASE I

AM 414
PM 543

PHASE II

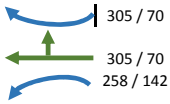
AM 704 **704 / 1118** 264 / 418 264 / 418
PM 1118



Remaining NB Through 0 / 0

PHASE III

AM 258
PM 142



PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
1376	1803

TOTAL OPERATING LEVEL (ILV/HR):

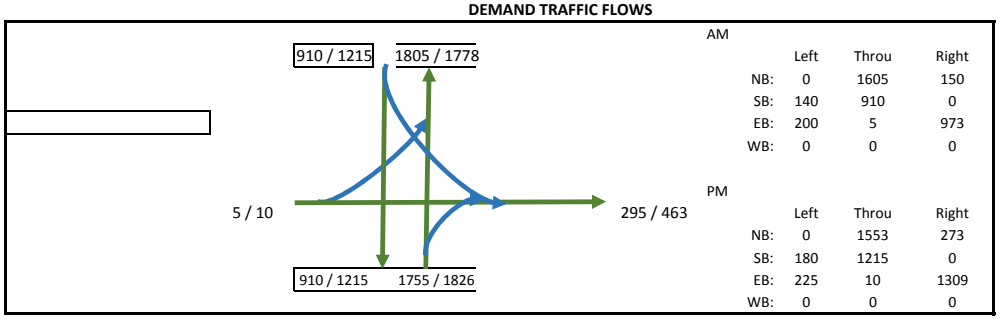
AM:	1376	At Capacity
PM:	1803	Over Capacity

< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION:	Britannia Boulevard and 905 EB Ramps	DIST. CO. RTE	SR-905
ALTERNATIVE:	Near-Term + Project Conditions	PM:	
		DATE:	1/27/2016
		TIME:	

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	0	1605	150
SB:	140	910	0
EB:	200	5	973
WB:	0	0	0

PM

	Left	Throu	Right
NB:	0	1553	273
SB:	180	1215	0
EB:	225	10	1309
WB:	0	0	0

LANE VOLUMES (ILV/HR)

PHASE I

AM **70**
PM **90**

303 / 405 303 / 405 303 / 405 70 / 90 **70 / 90**

PHASE II

AM 953
PM 1050

Remaining SB Through 233 / 315

803 / 777 **953 / 1050**

PHASE III

AM 487
PM 655

205 / 235
487 / 655
487 / 655

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PM
1509	1794

TOTAL OPERATING LEVEL (ILV/HR):

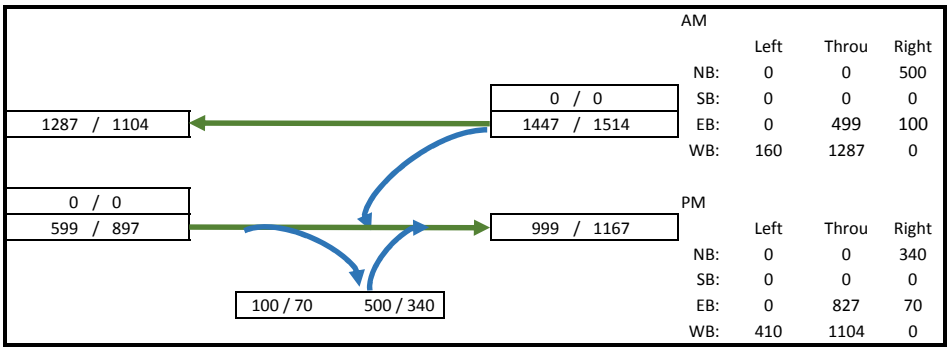
AM:	1509	Over Capacity
PM:	1794	Over Capacity

< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION:	905 / Siempre Viva Road	DIST. CO. RTE	SR-905
ALTERNATIVE:	Near-Term + Project Conditions	PM:	
		DATE:	1/27/2016
		TIME:	

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	0	0	500
SB:	0	0	0
EB:	0	499	100
WB:	160	1287	0

PM

	Left	Throu	Right
NB:	0	0	340
SB:	0	0	0
EB:	0	827	70
WB:	410	1104	0

LANE VOLUMES (ILV/HR)

PHASE I

AM	80	429 / 368
PM	205	429 / 368
		429 / 368
		80 / 205
		80 / 205

PHASE II

AM	349	166 / 276
PM	346	166 / 276
		266 / 346
Remaining EB Through		**349 / 163**

PHASE III

AM	250
PM	170
	250 / 170
	250 / 170

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

AM	PHASE II
679	721

TOTAL OPERATING LEVEL (ILV/HR):

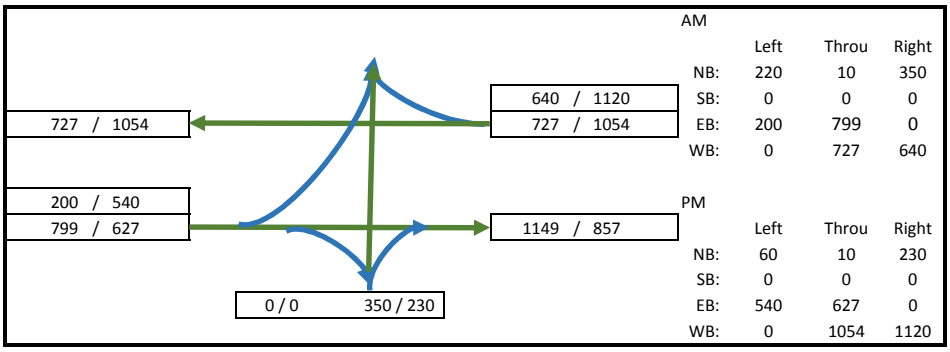
AM:	679	Under Capacity
PM:	721	Under Capacity

< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

SIGNALIZED INTERSECTION
CAPACITY ANALYSIS

INTERSECTION:	905 / Siempre Viva Road	DIST. CO. RTE	SR-905
ALTERNATIVE:	Near-Term + Project Conditions	PM:	
		DATE:	1/27/2016
		TIME:	

DEMAND TRAFFIC FLOWS



AM

	Left	Throu	Right
NB:	220	10	350
SB:	0	0	0
EB:	200	799	0
WB:	0	727	640

PM

	Left	Throu	Right
NB:	60	10	230
SB:	0	0	0
EB:	540	627	0
WB:	0	1054	1120

LANE VOLUMES (ILV/HR)

PHASE I

AM	100	**100 / 270**
PM	270	100 / 270
		266 / 209
		266 / 209
		266 / 209

PHASE II

AM	562	320 / 560
PM	911	**562 / 911**
		242 / 351
Remaining EB Through	**166 / 0**	242 / 351

PHASE III

AM	230	**230 / 70**	175 / 115	**175 / 115**
PM	115			

PHASE IV

CRITICAL LANE VOLUMES PER HOUR

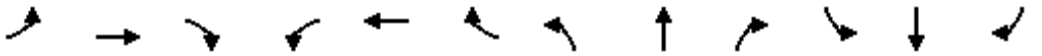
AM	PHASE II
892	1296

TOTAL OPERATING LEVEL (ILV/HR):

AM:	892	Under Capacity
PM:	1296	At Capacity

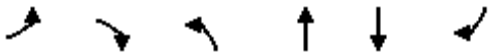
< 1,200 ILV/HR	**Under Capacity**
> 1,200 BUT < 1,500 ILV/HR	**At Capacity**
> 1,500 ILV/HR (CAPACITY)	**Over Capacity**

Appendix K
Improvements Worksheets, Triggers, Fair share calculations, and Signal Warrants
- Year 2025 Cumulative Plus Project Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	205	10	150	100	10	120	20	126	50	100	278	327
Future Volume (vph)	205	10	150	100	10	120	20	126	50	100	278	327
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	0.95	0.95		1.00	0.91		1.00	0.91		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.88		1.00	0.86		1.00	0.96		1.00	0.92	
Flt Protected	0.95	0.99		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1633	1496		1641	4023		1719	4488		1641	3062	
Flt Permitted	0.95	0.99		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1633	1496		1641	4023		1719	4488		1641	3062	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	223	11	163	109	11	130	22	137	54	109	302	355
RTOR Reduction (vph)	0	127	0	0	113	0	0	41	0	0	246	0
Lane Group Flow (vph)	201	69	0	109	28	0	22	150	0	109	411	0
Confl. Peds. (#/hr)	1					1	6		1	1		6
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	5%	5%	5%	10%	5%	10%	5%	10%	10%	10%	10%	5%
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	12.7	12.7		7.4	7.4		1.2	13.3		5.4	17.5	
Effective Green, g (s)	12.7	12.7		7.4	7.4		1.2	13.3		5.4	17.5	
Actuated g/C Ratio	0.22	0.22		0.13	0.13		0.02	0.23		0.10	0.31	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	365	334		213	524		36	1050		156	943	
v/s Ratio Prot	c0.12	0.05		c0.07	0.01		0.01	0.03		c0.07	c0.13	
v/s Ratio Perm												
v/c Ratio	0.55	0.21		0.51	0.05		0.61	0.14		0.70	0.44	
Uniform Delay, d1	19.5	18.0		23.0	21.6		27.6	17.2		24.9	15.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.8	0.3		2.1	0.0		27.0	0.1		12.8	0.3	
Delay (s)	21.3	18.3		25.1	21.7		54.5	17.3		37.7	16.0	
Level of Service	C	B		C	C		D	B		D	B	
Approach Delay (s)		19.8			23.2			21.1			19.1	
Approach LOS		B			C			C			B	

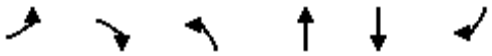
Intersection Summary			
HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	56.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	200	100	100	812	1766	60
Future Volume (vph)	200	100	100	812	1766	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583	1770	4715	4715	1583
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583	1770	4715	4715	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	109	109	883	1920	65
RTOR Reduction (vph)	0	87	0	0	0	31
Lane Group Flow (vph)	217	22	109	883	1920	34
Confl. Peds. (#/hr)			1			
Heavy Vehicles (%)	2%	2%	2%	10%	10%	2%
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	13.0	13.0	5.1	43.9	34.3	34.3
Effective Green, g (s)	13.0	13.0	5.1	43.9	34.3	34.3
Actuated g/C Ratio	0.20	0.20	0.08	0.67	0.52	0.52
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	349	312	136	3140	2454	823
v/s Ratio Prot	c0.12		c0.06	0.19	c0.41	
v/s Ratio Perm		0.01				0.02
v/c Ratio	0.62	0.07	0.80	0.28	0.78	0.04
Uniform Delay, d1	24.2	21.5	29.9	4.5	12.8	7.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.4	0.1	27.7	0.0	1.7	0.0
Delay (s)	27.6	21.6	57.6	4.6	14.5	7.8
Level of Service	C	C	E	A	B	A
Approach Delay (s)	25.6			10.4	14.3	
Approach LOS	C			B	B	

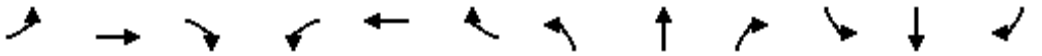
Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	65.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	62.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	30	256	732	850	60	40
Future Volume (vph)	30	256	732	850	60	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.0	4.5	4.5	4.5	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.94	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1641	1468	1641	4715	4407	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1641	1468	1641	4715	4407	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	278	796	924	65	43
RTOR Reduction (vph)	0	278	0	0	39	0
Lane Group Flow (vph)	33	0	796	924	69	0
Confl. Peds. (#/hr)			3			3
Turn Type	Prot	custom	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases						
Actuated Green, G (s)	2.8	0.0	40.7	51.8	6.6	
Effective Green, g (s)	2.8	0.0	40.7	51.8	6.6	
Actuated g/C Ratio	0.04	0.00	0.64	0.81	0.10	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	72	0	1050	3840	457	
v/s Ratio Prot	c0.02		c0.49	c0.20	0.02	
v/s Ratio Perm						
v/c Ratio	0.46	0.00	0.76	0.24	0.15	
Uniform Delay, d1	29.7	31.8	8.0	1.4	26.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	4.6	0.0	3.2	0.0	0.2	
Delay (s)	34.2	31.8	11.2	1.4	26.1	
Level of Service	C	C	B	A	C	
Approach Delay (s)	32.1			5.9	26.1	
Approach LOS	C			A	C	

Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	63.6	Sum of lost time (s)	13.5
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	1079	150	208	1124	532	200	50	126	505	100	300
Future Volume (vph)	200	1079	150	208	1124	532	200	50	126	505	100	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	0.88	1.00	1.00		0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1468	3183	4715	2584	1641	1541		3183	4715	1468
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1468	3183	4715	2584	1641	1541		3183	4715	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	1173	163	226	1222	578	217	54	137	549	109	326
RTOR Reduction (vph)	0	0	109	0	0	372	0	94	0	0	0	88
Lane Group Flow (vph)	217	1173	54	226	1222	206	217	97	0	549	109	238
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	9.0	31.7	31.7	9.0	32.0	32.0	16.5	13.0		20.1	16.6	25.6
Effective Green, g (s)	9.0	31.7	31.7	9.0	32.0	32.0	16.5	13.0		20.1	16.6	25.6
Actuated g/C Ratio	0.09	0.33	0.33	0.09	0.34	0.34	0.17	0.14		0.21	0.17	0.27
Clearance Time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	2.0	4.1	4.1	2.0	4.5	4.5	2.0	4.3		2.0	3.7	2.0
Lane Grp Cap (vph)	301	1571	489	301	1586	869	284	210		672	823	395
v/s Ratio Prot	0.07	0.25		c0.07	c0.26		0.13	0.06		c0.17	0.02	c0.06
v/s Ratio Perm			0.04			0.08						0.10
v/c Ratio	0.72	0.75	0.11	0.75	0.77	0.24	0.76	0.46		0.82	0.13	0.60
Uniform Delay, d1	41.8	28.1	21.9	42.0	28.3	22.7	37.4	37.8		35.7	33.2	30.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.0	2.1	0.1	9.0	2.7	0.2	10.5	2.5		7.2	0.1	1.8
Delay (s)	48.9	30.3	22.1	51.0	30.9	23.0	47.9	40.4		43.0	33.3	32.1
Level of Service	D	C	C	D	C	C	D	D		D	C	C
Approach Delay (s)		32.0			30.9			44.4			38.3	
Approach LOS		C			C			D			D	

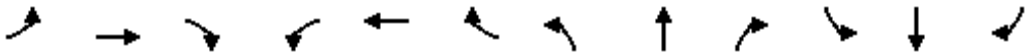
Intersection Summary			
HCM 2000 Control Delay	33.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	95.1	Sum of lost time (s)	21.3
Intersection Capacity Utilization	69.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1620	440	234	1370	310	411
Future Volume (vph)	1620	440	234	1370	310	411
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	0.97	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	3183	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	3183	4715	3183	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1761	478	254	1489	337	447
RTOR Reduction (vph)	0	246	0	0	0	212
Lane Group Flow (vph)	1761	232	254	1489	337	235
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	38.8	38.8	10.3	53.1	16.4	16.4
Effective Green, g (s)	38.8	38.8	10.3	53.1	16.4	16.4
Actuated g/C Ratio	0.48	0.48	0.13	0.66	0.20	0.20
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	2286	711	409	3129	652	300
v/s Ratio Prot	c0.37		c0.08	0.32	0.11	
v/s Ratio Perm		0.16				c0.16
v/c Ratio	0.77	0.33	0.62	0.48	0.52	0.78
Uniform Delay, d1	16.9	12.6	33.0	6.6	28.3	30.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	1.2	2.1	0.5	0.3	11.6
Delay (s)	19.5	13.8	35.1	7.1	28.6	41.7
Level of Service	B	B	D	A	C	D
Approach Delay (s)	18.3			11.2	36.0	
Approach LOS	B			B	D	

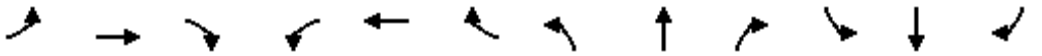
Intersection Summary			
HCM 2000 Control Delay	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



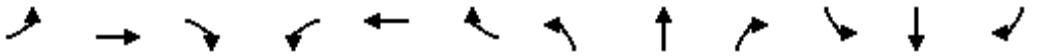
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	5	925	0	0	0	0	947	149	140	772	0
Future Volume (vph)	200	5	925	0	0	0	0	947	149	140	772	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1	5.1					5.1		4.7	5.1	
Lane Util. Factor		1.00	0.88					0.95		0.97	0.91	
Frpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Frt		1.00	0.85					0.98		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1647	2584					3215		3183	4715	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		1647	2584					3215		3183	4715	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	5	1005	0	0	0	0	1029	162	152	839	0
RTOR Reduction (vph)	0	0	202	0	0	0	0	10	0	0	0	0
Lane Group Flow (vph)	0	222	803	0	0	0	0	1181	0	152	839	0
Confl. Bikes (#/hr)												2
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)		42.2	42.2					51.8		6.4	62.9	
Effective Green, g (s)		42.2	42.2					51.8		6.4	62.9	
Actuated g/C Ratio		0.37	0.37					0.45		0.06	0.55	
Clearance Time (s)		5.1	5.1					5.1		4.7	5.1	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		602	945					1444		176	2572	
v/s Ratio Prot								c0.37		c0.05	0.18	
v/s Ratio Perm		0.13	c0.31									
v/c Ratio		0.37	0.85					0.82		0.86	0.33	
Uniform Delay, d1		26.8	33.6					27.6		54.0	14.5	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		0.4	7.2					3.7		32.8	0.1	
Delay (s)		27.2	40.9					31.4		86.8	14.6	
Level of Service		C	D					C		F	B	
Approach Delay (s)		38.4			0.0			31.4			25.6	
Approach LOS		D			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	32.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	115.3	Sum of lost time (s)	14.9
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1344	273	102	110	358	160	65	230	30	480	625	887
Future Volume (vph)	1344	273	102	110	358	160	65	230	30	480	625	887
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9	4.4	4.4	5.1	4.4	4.4	4.9	4.4	4.4	5.1	4.4
Lane Util. Factor	0.97	0.91	1.00	0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	0.88
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1468	3183	3282	2559	3183	4715	1455	3183	4715	2584
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1468	3183	3282	2559	3183	4715	1455	3183	4715	2584
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1461	297	111	120	389	174	71	250	33	522	679	964
RTOR Reduction (vph)	0	0	35	0	0	87	0	0	27	0	0	38
Lane Group Flow (vph)	1461	297	76	120	389	87	71	250	6	522	679	926
Confl. Peds. (#/hr)	1					1			2			
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Actuated Green, G (s)	58.6	67.9	74.7	8.9	18.0	39.6	6.8	12.9	21.8	21.6	27.5	86.1
Effective Green, g (s)	58.6	67.9	74.7	8.9	18.0	39.6	6.8	12.9	21.8	21.6	27.5	86.1
Actuated g/C Ratio	0.45	0.52	0.58	0.07	0.14	0.30	0.05	0.10	0.17	0.17	0.21	0.66
Clearance Time (s)	4.4	4.9	4.4	4.4	5.1	4.4	4.4	4.9	4.4	4.4	5.1	4.4
Vehicle Extension (s)	2.0	3.8	2.0	2.0	3.8	2.0	2.0	3.8	2.0	2.0	3.8	2.0
Lane Grp Cap (vph)	1435	2464	844	218	454	780	166	468	244	529	998	1712
v/s Ratio Prot	c0.46	0.06	0.00	0.04	c0.12	0.02	0.02	0.05	0.00	c0.16	c0.14	0.24
v/s Ratio Perm			0.05			0.02			0.00			0.11
v/c Ratio	1.02	0.12	0.09	0.55	0.86	0.11	0.43	0.53	0.02	0.99	0.68	0.54
Uniform Delay, d1	35.7	15.8	12.4	58.6	54.7	32.5	59.7	55.6	45.2	54.0	47.2	11.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	28.4	0.0	0.0	1.7	15.1	0.0	0.6	1.4	0.0	35.3	2.1	0.2
Delay (s)	64.0	15.8	12.4	60.3	69.8	32.5	60.3	57.1	45.2	89.3	49.2	11.7
Level of Service	E	B	B	E	E	C	E	E	D	F	D	B
Approach Delay (s)		53.3			58.6			56.6			42.2	
Approach LOS		D			E			E			D	

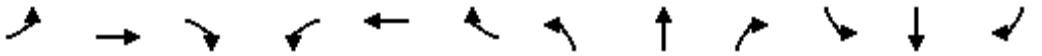
Intersection Summary			
HCM 2000 Control Delay	49.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	129.9	Sum of lost time (s)	19.0
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	341	25	70	254	70	10	88	10	40	244	80
Future Volume (vph)	50	341	25	70	254	70	10	88	10	40	244	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.9	4.9		4.4	4.9		4.4	4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		0.97	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.97		1.00	0.98		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	4662		1641	4550		1641	1701		3183	3139	
Flt Permitted	0.53	1.00		0.13	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	920	4662		227	4550		1641	1701		3183	3139	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	371	27	76	276	76	11	96	11	43	265	87
RTOR Reduction (vph)	0	7	0	0	38	0	0	4	0	0	34	0
Lane Group Flow (vph)	54	391	0	76	314	0	11	103	0	43	318	0
Confl. Peds. (#/hr)			1	1								2
Confl. Bikes (#/hr)			2			1						1
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		2			1		3	8		7	4	
Permitted Phases	2			1								
Actuated Green, G (s)	13.4	13.4		30.5	30.5		0.7	14.5		2.2	16.0	
Effective Green, g (s)	13.4	13.4		30.5	30.5		0.7	14.5		2.2	16.0	
Actuated g/C Ratio	0.17	0.17		0.38	0.38		0.01	0.18		0.03	0.20	
Clearance Time (s)	4.9	4.9		4.9	4.9		4.4	4.9		4.4	4.9	
Vehicle Extension (s)	4.8	4.8		4.8	4.8		2.0	3.3		2.0	4.4	
Lane Grp Cap (vph)	154	783		86	1741		14	309		87	630	
v/s Ratio Prot		c0.08			0.07		0.01	0.06		c0.01	c0.10	
v/s Ratio Perm	0.06			c0.34								
v/c Ratio	0.35	0.50		0.88	0.18		0.79	0.33		0.49	0.51	
Uniform Delay, d1	29.3	30.1		22.9	16.3		39.4	28.4		38.2	28.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.7	1.0		62.8	0.1		123.8	0.7		1.6	1.1	
Delay (s)	32.0	31.1		85.7	16.4		163.3	29.1		39.8	29.4	
Level of Service	C	C		F	B		F	C		D	C	
Approach Delay (s)		31.2			28.7			41.6			30.5	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	31.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	79.7	Sum of lost time (s)	19.1
Intersection Capacity Utilization	35.0%	ICU Level of Service	A
Analysis Period (min)	15		

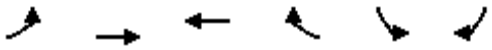
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	339	507	260	400	275	170	100	250	840	100	400	218
Future Volume (vph)	339	507	260	400	275	170	100	250	840	100	400	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	0.95		0.97	0.95	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.88		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	4715	1443	1641	4445		1641	2868		3183	3108	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1641	4715	1443	1641	4445		1641	2868		3183	3108	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	368	551	283	435	299	185	109	272	913	109	435	237
RTOR Reduction (vph)	0	0	172	0	108	0	0	349	0	0	65	0
Lane Group Flow (vph)	368	551	111	435	376	0	109	836	0	109	607	0
Confl. Peds. (#/hr)			3						3			
Confl. Bikes (#/hr)			1						1			
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	26.3	20.1	20.1	27.8	21.6		11.0	34.4		7.8	32.1	
Effective Green, g (s)	26.3	20.1	20.1	27.8	21.6		11.0	34.4		7.8	32.1	
Actuated g/C Ratio	0.24	0.18	0.18	0.25	0.20		0.10	0.31		0.07	0.29	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	3.2		2.0	5.3	
Lane Grp Cap (vph)	392	861	263	414	872		164	896		225	906	
v/s Ratio Prot	0.22	c0.12		c0.27	0.08		c0.07	c0.29		0.03	0.20	
v/s Ratio Perm			0.08									
v/c Ratio	0.94	0.64	0.42	1.05	0.43		0.66	1.14dr		0.48	0.67	
Uniform Delay, d1	41.1	41.6	39.8	41.1	38.8		47.7	36.7		49.2	34.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	29.6	3.6	4.9	58.2	1.6		7.6	16.2		0.6	2.6	
Delay (s)	70.7	45.2	44.7	99.3	40.4		55.3	52.9		49.8	36.9	
Level of Service	E	D	D	F	D		E	D		D	D	
Approach Delay (s)		52.9			68.2			53.1			38.7	
Approach LOS		D			E			D			D	

Intersection Summary			
HCM 2000 Control Delay	53.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	97.2%	ICU Level of Service	F
Analysis Period (min)	15		

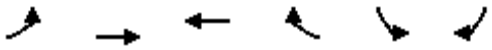
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Traffic Volume (vph)	0	999	945	0	0	500
Future Volume (vph)	0	999	945	0	0	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5			4.5
Lane Util. Factor		0.91	0.91			1.00
Frt		1.00	1.00			0.86
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		4715	4715			1494
Flt Permitted		1.00	1.00			1.00
Satd. Flow (perm)		4715	4715			1494
Peak-hour factor, PHF	0.85	0.85	0.89	0.89	0.73	0.73
Adj. Flow (vph)	0	1175	1062	0	0	685
RTOR Reduction (vph)	0	0	0	0	0	7
Lane Group Flow (vph)	0	1175	1062	0	0	678
Turn Type		NA	NA			Perm
Protected Phases		4	8			
Permitted Phases						6
Actuated Green, G (s)		17.7	17.7			26.1
Effective Green, g (s)		17.7	17.7			26.1
Actuated g/C Ratio		0.34	0.34			0.49
Clearance Time (s)		4.5	4.5			4.5
Vehicle Extension (s)		3.0	3.0			3.0
Lane Grp Cap (vph)		1580	1580			738
v/s Ratio Prot		c0.25	0.23			
v/s Ratio Perm						c0.45
v/c Ratio		0.74	0.67			0.92
Uniform Delay, d1		15.5	15.1			12.4
Progression Factor		1.00	1.00			1.00
Incremental Delay, d2		1.9	1.1			16.3
Delay (s)		17.5	16.2			28.7
Level of Service		B	B			C
Approach Delay (s)		17.5	16.2		28.7	
Approach LOS		B	B		C	

Intersection Summary			
HCM 2000 Control Delay	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	52.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		

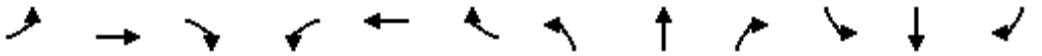
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	100	1365	483	30	100	19
Future Volume (vph)	100	1365	483	30	100	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1641	1727	4674		1641	1468
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1641	1727	4674		1641	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	1484	525	33	109	21
RTOR Reduction (vph)	0	0	4	0	0	19
Lane Group Flow (vph)	109	1484	554	0	109	2
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	14.5	122.6	103.6		14.5	14.5
Effective Green, g (s)	14.5	122.6	103.6		14.5	14.5
Actuated g/C Ratio	0.10	0.84	0.71		0.10	0.10
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	162	1449	3314		162	145
v/s Ratio Prot	0.07	c0.86	0.12		c0.07	
v/s Ratio Perm						0.00
v/c Ratio	0.67	1.02	0.17		0.67	0.01
Uniform Delay, d1	63.5	11.8	7.0		63.5	59.4
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	10.5	30.0	0.0		10.5	0.0
Delay (s)	74.0	41.7	7.0		74.0	59.4
Level of Service	E	D	A		E	E
Approach Delay (s)		43.9	7.0		71.6	
Approach LOS		D	A		E	

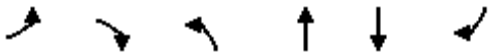
Intersection Summary			
HCM 2000 Control Delay	36.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	146.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	299	10	100	100	10	300	40	347	40	100	190	379
Future Volume (vph)	299	10	100	100	10	300	40	347	40	100	190	379
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	0.95	0.95		1.00	0.91		1.00	0.91		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.93		1.00	0.85		1.00	0.98		1.00	0.90	
Flt Protected	0.95	0.98		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1633	1555		1641	3985		1641	4829		1641	3018	
Flt Permitted	0.95	0.98		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1633	1555		1641	3985		1641	4829		1641	3018	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	325	11	109	109	11	326	43	377	43	109	207	412
RTOR Reduction (vph)	0	45	0	0	240	0	0	18	0	0	297	0
Lane Group Flow (vph)	227	173	0	109	97	0	43	402	0	109	322	0
Confl. Peds. (#/hr)							2		2	2		2
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	5%	5%	5%	10%	5%	10%	10%	5%	10%	10%	10%	5%
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	13.4	13.4		10.2	10.2		2.1	13.5		5.5	16.9	
Effective Green, g (s)	13.4	13.4		10.2	10.2		2.1	13.5		5.5	16.9	
Actuated g/C Ratio	0.22	0.22		0.17	0.17		0.03	0.22		0.09	0.28	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	361	343		276	670		56	1075		148	841	
v/s Ratio Prot	c0.14	0.11		c0.07	0.02		0.03	0.08		c0.07	c0.11	
v/s Ratio Perm												
v/c Ratio	0.63	0.50		0.39	0.15		0.77	0.37		0.74	0.38	
Uniform Delay, d1	21.4	20.7		22.5	21.5		29.0	20.0		26.8	17.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.4	1.2		0.9	0.1		46.0	0.2		17.3	0.3	
Delay (s)	24.8	21.9		23.4	21.6		75.1	20.2		44.1	17.9	
Level of Service	C	C		C	C		E	C		D	B	
Approach Delay (s)		23.3			22.0			25.3			21.9	
Approach LOS		C			C			C			C	

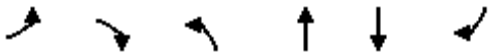
Intersection Summary			
HCM 2000 Control Delay	23.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	60.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	110	90	320	1308	1332	330
Future Volume (vph)	110	90	320	1308	1332	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583	1770	4715	4715	1583
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583	1770	4715	4715	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	98	348	1422	1448	359
RTOR Reduction (vph)	0	86	0	0	0	212
Lane Group Flow (vph)	120	12	348	1422	1448	147
Confl. Peds. (#/hr)			2			
Heavy Vehicles (%)	2%	2%	2%	10%	10%	2%
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	8.0	8.0	16.1	46.8	26.2	26.2
Effective Green, g (s)	8.0	8.0	16.1	46.8	26.2	26.2
Actuated g/C Ratio	0.13	0.13	0.25	0.73	0.41	0.41
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	221	198	446	3458	1936	650
v/s Ratio Prot	c0.07		c0.20	0.30	c0.31	
v/s Ratio Perm		0.01				0.09
v/c Ratio	0.54	0.06	0.78	0.41	0.75	0.23
Uniform Delay, d1	26.2	24.6	22.2	3.2	16.0	12.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.7	0.1	8.6	0.1	1.6	0.2
Delay (s)	28.9	24.7	30.8	3.3	17.6	12.4
Level of Service	C	C	C	A	B	B
Approach Delay (s)	27.0			8.7	16.6	
Approach LOS	C			A	B	

Intersection Summary			
HCM 2000 Control Delay	13.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	63.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	60.8%	ICU Level of Service	B
Analysis Period (min)	15		

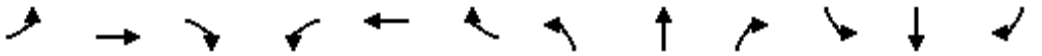
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	70	511	840	260	240	80
Future Volume (vph)	70	511	840	260	240	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.96	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1641	1468	1641	4715	4495	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1641	1468	1641	4715	4495	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	555	913	283	261	87
RTOR Reduction (vph)	0	491	0	0	58	0
Lane Group Flow (vph)	76	64	913	283	290	0
Confl. Peds. (#/hr)			10			10
Confl. Bikes (#/hr)						6
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	11.1	11.1	59.8	75.9	11.6	
Effective Green, g (s)	11.1	11.1	59.8	75.9	11.6	
Actuated g/C Ratio	0.12	0.12	0.62	0.79	0.12	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	189	169	1022	3727	543	
v/s Ratio Prot	c0.05		c0.56	0.06	c0.06	
v/s Ratio Perm		0.04				
v/c Ratio	0.40	0.38	0.89	0.08	0.53	
Uniform Delay, d1	39.4	39.3	15.4	2.2	39.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.4	1.4	10.1	0.0	1.0	
Delay (s)	40.8	40.7	25.4	2.2	40.7	
Level of Service	D	D	C	A	D	
Approach Delay (s)	40.7			20.0	40.7	
Approach LOS	D			B	D	

Intersection Summary			
HCM 2000 Control Delay	29.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	96.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	250	1298	150	290	1321	761	200	100	166	564	100	400
Future Volume (vph)	250	1298	150	290	1321	761	200	100	166	564	100	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	0.88	1.00	1.00		0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.97	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.91		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1439	3183	4715	2497	1641	1548		3183	4715	1468
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1439	3183	4715	2497	1641	1548		3183	4715	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	272	1411	163	315	1436	827	217	109	180	613	109	435
RTOR Reduction (vph)	0	0	109	0	0	408	0	45	0	0	0	71
Lane Group Flow (vph)	272	1411	54	315	1436	419	217	244	0	613	109	364
Confl. Peds. (#/hr)						11			1			
Confl. Bikes (#/hr)			12			13			5			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	12.0	43.5	43.5	14.1	45.9	45.9	21.2	26.4		25.1	30.3	42.3
Effective Green, g (s)	12.0	43.5	43.5	14.1	45.9	45.9	21.2	26.4		25.1	30.3	42.3
Actuated g/C Ratio	0.09	0.33	0.33	0.11	0.35	0.35	0.16	0.20		0.19	0.23	0.32
Clearance Time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	2.0	4.1	4.1	2.0	4.5	4.5	2.0	4.3		2.0	3.7	2.0
Lane Grp Cap (vph)	292	1572	480	344	1659	878	266	313		612	1095	476
v/s Ratio Prot	0.09	0.30		c0.10	c0.30		0.13	0.16		c0.19	0.02	c0.07
v/s Ratio Perm			0.04			0.17						0.18
v/c Ratio	0.93	0.90	0.11	0.92	0.87	0.48	0.82	0.78		1.00	0.10	0.76
Uniform Delay, d1	58.8	41.3	30.1	57.6	39.4	32.9	52.7	49.2		52.7	39.3	39.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	34.5	7.4	0.2	27.6	5.3	0.7	16.5	12.6		36.8	0.1	6.5
Delay (s)	93.3	48.7	30.2	85.1	44.7	33.6	69.2	61.8		89.4	39.4	46.1
Level of Service	F	D	C	F	D	C	E	E		F	D	D
Approach Delay (s)		53.6			46.1			65.0			68.4	
Approach LOS		D			D			E			E	

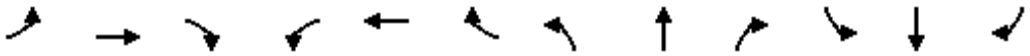
Intersection Summary			
HCM 2000 Control Delay	54.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	130.4	Sum of lost time (s)	21.3
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1560	490	380	1700	660	445
Future Volume (vph)	1560	490	380	1700	660	445
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	0.97	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	3183	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	3183	4715	3183	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1696	533	413	1848	717	484
RTOR Reduction (vph)	0	250	0	0	0	329
Lane Group Flow (vph)	1696	283	413	1848	717	155
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	52.2	52.2	21.6	77.8	41.7	41.7
Effective Green, g (s)	52.2	52.2	21.6	77.8	41.7	41.7
Actuated g/C Ratio	0.40	0.40	0.17	0.60	0.32	0.32
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	1893	589	528	2821	1021	470
v/s Ratio Prot	c0.36		c0.13	0.39	c0.23	
v/s Ratio Perm		0.19				0.11
v/c Ratio	0.90	0.48	0.78	0.66	0.70	0.33
Uniform Delay, d1	36.4	28.9	51.9	17.2	38.7	33.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.1	2.8	6.9	1.2	1.8	0.2
Delay (s)	43.5	31.7	58.8	18.4	40.5	33.7
Level of Service	D	C	E	B	D	C
Approach Delay (s)	40.6			25.8	37.8	
Approach LOS	D			C	D	

Intersection Summary			
HCM 2000 Control Delay	34.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	71.9%	ICU Level of Service	C
Analysis Period (min)	15		

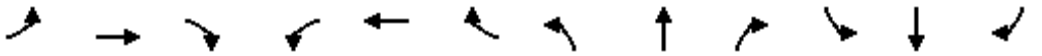
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	225	10	955	0	0	0	0	1110	273	180	790	0
Future Volume (vph)	225	10	955	0	0	0	0	1110	273	180	790	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1	5.1					5.1		4.7	5.1	
Lane Util. Factor		1.00	0.88					0.95		0.97	0.91	
Frt		1.00	0.85					0.97		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1648	2584					3185		3183	4715	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		1648	2584					3185		3183	4715	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	245	11	1038	0	0	0	0	1207	297	196	859	0
RTOR Reduction (vph)	0	0	184	0	0	0	0	18	0	0	0	0
Lane Group Flow (vph)	0	256	854	0	0	0	0	1486	0	196	859	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)		39.9	39.9					56.7		8.5	69.9	
Effective Green, g (s)		39.9	39.9					56.7		8.5	69.9	
Actuated g/C Ratio		0.33	0.33					0.47		0.07	0.58	
Clearance Time (s)		5.1	5.1					5.1		4.7	5.1	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		547	859					1504		225	2746	
v/s Ratio Prot								c0.47		c0.06	0.18	
v/s Ratio Perm		0.16	c0.33									
v/c Ratio		0.47	0.99					0.99		0.87	0.31	
Uniform Delay, d1		31.7	39.9					31.3		55.2	12.8	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		0.6	29.0					20.2		28.7	0.1	
Delay (s)		32.3	69.0					51.5		83.9	12.9	
Level of Service		C	E					D		F	B	
Approach Delay (s)		61.7			0.0			51.5			26.0	
Approach LOS		E			A			D			C	

Intersection Summary			
HCM 2000 Control Delay	48.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.9
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		

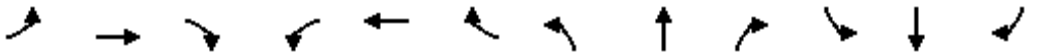
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1101	235	114	215	420	370	98	360	50	220	585	1674
Future Volume (vph)	1101	235	114	215	420	370	98	360	50	220	585	1674
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.4	4.9	4.4	4.4	5.1	4.4	4.4	4.9	4.4	4.4	5.1	4.4
Lane Util. Factor	0.97	0.91	1.00	0.97	0.95	0.88	0.97	0.91	1.00	0.97	0.91	0.88
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1456	3183	3282	2548	3183	4715	1468	3183	4715	2575
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1456	3183	3282	2548	3183	4715	1468	3183	4715	2575
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1197	255	124	234	457	402	107	391	54	239	636	1820
RTOR Reduction (vph)	0	0	68	0	0	65	0	0	19	0	0	38
Lane Group Flow (vph)	1197	255	56	234	457	337	107	391	35	239	636	1782
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)			1			1						1
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Actuated Green, G (s)	63.0	13.3	21.8	66.8	16.9	31.4	8.5	17.7	84.5	14.5	23.5	86.5
Effective Green, g (s)	63.0	13.3	21.8	66.8	16.9	31.4	8.5	17.7	84.5	14.5	23.5	86.5
Actuated g/C Ratio	0.48	0.10	0.17	0.51	0.13	0.24	0.06	0.14	0.65	0.11	0.18	0.66
Clearance Time (s)	4.4	4.9	4.4	4.4	5.1	4.4	4.4	4.9	4.4	4.4	5.1	4.4
Vehicle Extension (s)	2.0	3.8	2.0	2.0	3.8	2.0	2.0	3.8	2.0	2.0	3.8	2.0
Lane Grp Cap (vph)	1531	479	242	1624	423	611	206	637	947	352	846	1701
v/s Ratio Prot	0.38	0.05	0.01	c0.07	c0.14	0.06	0.03	0.08	0.02	c0.08	0.13	c0.50
v/s Ratio Perm			0.02			0.07			0.00			0.19
v/c Ratio	0.78	0.53	0.23	0.14	1.08	0.55	0.52	0.61	0.04	0.68	0.75	1.05
Uniform Delay, d1	28.2	55.8	47.3	16.9	57.0	43.6	59.2	53.4	8.4	56.0	50.9	22.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.5	1.4	0.2	0.0	67.0	0.6	0.9	1.9	0.0	4.1	4.0	35.5
Delay (s)	30.7	57.2	47.5	17.0	124.0	44.2	60.1	55.3	8.4	60.0	54.9	57.7
Level of Service	C	E	D	B	F	D	E	E	A	E	D	E
Approach Delay (s)		36.3			71.7			51.7			57.2	
Approach LOS		D			E			D			E	

Intersection Summary			
HCM 2000 Control Delay	53.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	130.9	Sum of lost time (s)	19.0
Intersection Capacity Utilization	85.1%	ICU Level of Service	E
Analysis Period (min)	15		

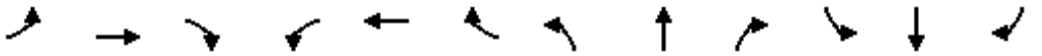
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	385	35	75	436	80	10	164	10	30	207	40
Future Volume (vph)	140	385	35	75	436	80	10	164	10	30	207	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.9	4.9		4.4	4.9		4.4	4.9	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		0.97	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	4657		1641	4595		1641	1712		3183	3187	
Flt Permitted	0.43	1.00		0.13	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	745	4657		227	4595		1641	1712		3183	3187	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	418	38	82	474	87	11	178	11	33	225	43
RTOR Reduction (vph)	0	9	0	0	22	0	0	2	0	0	17	0
Lane Group Flow (vph)	152	447	0	82	539	0	11	187	0	33	251	0
Confl. Peds. (#/hr)												1
Confl. Bikes (#/hr)						5						5
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		2			1		3	8		7	4	
Permitted Phases	2			1								
Actuated Green, G (s)	23.0	23.0		30.4	30.4		0.7	16.8		2.2	18.3	
Effective Green, g (s)	23.0	23.0		30.4	30.4		0.7	16.8		2.2	18.3	
Actuated g/C Ratio	0.25	0.25		0.33	0.33		0.01	0.18		0.02	0.20	
Clearance Time (s)	4.9	4.9		4.9	4.9		4.4	4.9		4.4	4.9	
Vehicle Extension (s)	4.8	4.8		4.8	4.8		2.0	3.3		2.0	4.4	
Lane Grp Cap (vph)	187	1170		75	1526		12	314		76	637	
v/s Ratio Prot		0.10			0.12		0.01	c0.11		c0.01	0.08	
v/s Ratio Perm	c0.20			c0.36								
v/c Ratio	0.81	0.38		1.09	0.35		0.92	0.59		0.43	0.39	
Uniform Delay, d1	32.2	28.4		30.6	23.1		45.4	34.2		44.0	31.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	25.2	0.4		131.7	0.3		209.7	3.1		1.4	0.7	
Delay (s)	57.4	28.8		162.2	23.4		255.1	37.3		45.5	32.5	
Level of Service	E	C		F	C		F	D		D	C	
Approach Delay (s)		35.9			41.1			49.3			33.9	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	39.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	91.5	Sum of lost time (s)	19.1
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

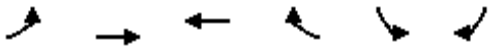


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	304	200	550	488	150	100	200	600	100	350	194
Future Volume (vph)	127	304	200	550	488	150	100	200	600	100	350	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	0.95		0.97	0.95	
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.89		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	4715	1446	1641	4549		1641	2880		3183	3106	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1641	4715	1446	1641	4549		1641	2880		3183	3106	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	138	330	217	598	530	163	109	217	652	109	380	211
RTOR Reduction (vph)	0	0	184	0	36	0	0	367	0	0	49	0
Lane Group Flow (vph)	138	330	33	598	657	0	109	502	0	109	542	0
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)			2						2			
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	16.6	23.0	23.0	60.5	66.9		14.7	36.4		10.2	32.8	
Effective Green, g (s)	16.6	23.0	23.0	60.5	66.9		14.7	36.4		10.2	32.8	
Actuated g/C Ratio	0.11	0.15	0.15	0.40	0.45		0.10	0.24		0.07	0.22	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	3.2		2.0	5.3	
Lane Grp Cap (vph)	181	722	221	661	2028		160	698		216	679	
v/s Ratio Prot	0.08	c0.07		c0.36	0.14		c0.07	0.17		0.03	c0.17	
v/s Ratio Perm			0.02									
v/c Ratio	0.76	0.46	0.15	0.90	0.32		0.68	0.91dr		0.50	0.80	
Uniform Delay, d1	64.8	57.8	55.0	42.0	26.9		65.4	52.1		67.5	55.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	15.6	2.1	1.4	15.6	0.4		9.1	3.6		0.7	7.6	
Delay (s)	80.4	59.9	56.5	57.6	27.3		74.5	55.7		68.1	63.0	
Level of Service	F	E	E	E	C		E	E		E	E	
Approach Delay (s)		62.9			41.3			57.8			63.8	
Approach LOS		E			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	54.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	83.9%	ICU Level of Service	E
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

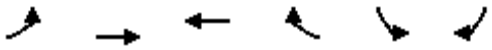
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Traffic Volume (vph)	0	1167	1114	0	0	400
Future Volume (vph)	0	1167	1114	0	0	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5			4.5
Lane Util. Factor		0.91	0.91			1.00
Frt		1.00	1.00			0.86
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		4715	4715			1494
Flt Permitted		1.00	1.00			1.00
Satd. Flow (perm)		4715	4715			1494
Peak-hour factor, PHF	0.82	0.82	0.87	0.87	0.91	0.91
Adj. Flow (vph)	0	1423	1280	0	0	440
RTOR Reduction (vph)	0	0	0	0	0	7
Lane Group Flow (vph)	0	1423	1280	0	0	433
Turn Type		NA	NA			Perm
Protected Phases		4	8			
Permitted Phases						6
Actuated Green, G (s)		23.7	23.7			20.4
Effective Green, g (s)		23.7	23.7			20.4
Actuated g/C Ratio		0.45	0.45			0.38
Clearance Time (s)		4.5	4.5			4.5
Vehicle Extension (s)		3.0	3.0			3.0
Lane Grp Cap (vph)		2104	2104			573
v/s Ratio Prot		c0.30	0.27			
v/s Ratio Perm						c0.29
v/c Ratio		0.68	0.61			0.75
Uniform Delay, d1		11.7	11.2			14.2
Progression Factor		1.00	1.00			1.00
Incremental Delay, d2		0.9	0.5			5.6
Delay (s)		12.5	11.7			19.8
Level of Service		B	B			B
Approach Delay (s)		12.5	11.7		19.8	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	53.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	78.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

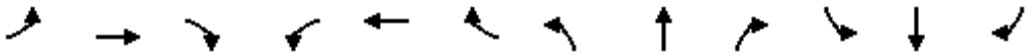


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	100	1062	1916	87	70	15
Future Volume (vph)	100	1062	1916	87	70	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1641	1727	4685		1641	1468
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1641	1727	4685		1641	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	1154	2083	95	76	16
RTOR Reduction (vph)	0	0	5	0	0	14
Lane Group Flow (vph)	109	1154	2173	0	76	2
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Actuated Green, G (s)	7.0	59.7	48.2		9.1	9.1
Effective Green, g (s)	7.0	59.7	48.2		9.1	9.1
Actuated g/C Ratio	0.09	0.77	0.62		0.12	0.12
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	147	1325	2902		191	171
v/s Ratio Prot	0.07	c0.67	0.46		c0.05	
v/s Ratio Perm						0.00
v/c Ratio	0.74	0.87	0.75		0.40	0.01
Uniform Delay, d1	34.5	6.3	10.5		31.8	30.4
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	18.1	6.5	1.1		1.4	0.0
Delay (s)	52.6	12.9	11.6		33.2	30.4
Level of Service	D	B	B		C	C
Approach Delay (s)		16.3	11.6		32.7	
Approach LOS		B	B		C	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	77.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

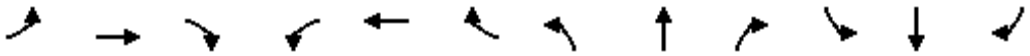
Intersection No.	6	Peak:	PM		Green = Manual Input			Control Type		AWSC	Base Delay	47.2
Project's Total Daily Trip Generation - Table 3.1 **[a]**	40126								SI Type	+2 sec	Max Delay	49.2
External Peak Hour Trip Generation - Table 3.1 **[b]**	In	2201	Out	1345								
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NT + P Peak Hour Turning Movements Volumes - Figure 8-4 **[c]**	40	347	40	100	190	379	299	10	100	100	10	100
Project Trip Assignment - Figure 3-4 **[d]**	0	66	0	0	40	54	88	0	0	0	0	0
Type of Turning Movement **[e]**		in			out	out	in					
Base Volume (c - d) **[f]**	40	281	40	100	150	325	211	10	100	100	10	100
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[g]**	2599		Delay (from Synchro)	49.2	LOS (from Synchro)	E						
Percent Reduction in Trip Gen. (g / a) **[h]**	93.5%											
Trip Assignment after Trip Gen reduction (d - h * d) **[i]**	0	4	0	0	3	3	6	0	0	0	0	0
Base Volume + Reduced Trip Assignment (f + i)	40	285	40	100	153	328	217	10	100	100	10	100
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[j]**	217	10	100	100	10	100	40	285	40	100	153	328
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Trigger ADT **[k]**	**2600**		Delay (from Synchro)	49.2	LOS (from Synchro)	E						
Percent Reduction in Trip Gen. (k / a) **[L]**	93.5%											
Trip Assignment after Trip Gen reduction (d - L * d) **[m]**	0	4	0	0	3	3	6	0	0	0	0	0
Base Volume + Reduced Trip Assignment (f + m)	40	285	40	100	153	328	217	10	100	100	10	100
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[n]**	217	10	100	100	10	100	40	285	40	100	153	328
Change when compare to previous ADT (n - j) **[o]**	0	0	0	0	0	0	0	0	0	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[p]**	2601		Delay (from Synchro)	49.5	LOS (from Synchro)	E						
Percent Reduction in Trip Gen. (p / a) **[q]**	93.5%											
Trip Assignment after Trip Gen reduction (d - q * d) **[r]**	0	4	0	0	3	4	6	0	0	0	0	0
Base Volume + Reduced Trip Assignment (f + r)	40	285	40	100	153	329	217	10	100	100	10	100
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[s]**	217	10	100	100	10	100	40	285	40	100	153	329
Change when compare to previous ADT (s - n) **[t]**	0	0	0	0	0	0	0	0	0	0	0	1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	217	10	100	100	10	300	40	285	40	100	153	328
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	236	11	109	109	11	326	43	310	43	109	166	357

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	157	198	109	337	43	353	109	523
Volume Left (vph)	157	79	109	0	43	0	109	0
Volume Right (vph)	0	109	0	326	0	43	0	357
Hadj (s)	0.58	-0.10	0.67	-0.51	0.67	0.01	0.67	-0.37
Departure Headway (s)	9.2	8.5	9.1	7.9	9.0	8.4	8.8	7.8
Degree Utilization, x	0.40	0.47	0.27	0.74	0.11	0.82	0.27	1.0
Capacity (veh/h)	373	402	387	443	388	421	399	473
Control Delay (s)	17.0	17.6	14.2	29.2	11.9	39.0	13.8	108.4
Approach Delay (s)	17.3		25.6		36.1		92.2	
Approach LOS	C		D		E		F	

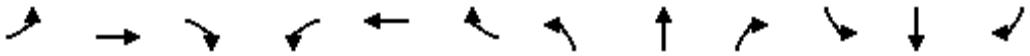
Intersection Summary				
Delay	49.2			
Level of Service	E			
Intersection Capacity Utilization	73.4%	ICU Level of Service	D	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	217	10	100	100	10	300	40	285	40	100	153	328
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	236	11	109	109	11	326	43	310	43	109	166	357

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	157	198	109	337	43	353	109	523
Volume Left (vph)	157	79	109	0	43	0	109	0
Volume Right (vph)	0	109	0	326	0	43	0	357
Hadj (s)	0.58	-0.10	0.67	-0.51	0.67	0.01	0.67	-0.37
Departure Headway (s)	9.2	8.5	9.1	7.9	9.0	8.4	8.8	7.8
Degree Utilization, x	0.40	0.47	0.27	0.74	0.11	0.82	0.27	1.0
Capacity (veh/h)	373	402	387	443	388	421	399	473
Control Delay (s)	17.0	17.6	14.2	29.2	11.9	39.0	13.8	108.4
Approach Delay (s)	17.3		25.6		36.1		92.2	
Approach LOS	C		D		E		F	

Intersection Summary				
Delay	49.2			
Level of Service	E			
Intersection Capacity Utilization	73.4%	ICU Level of Service	D	
Analysis Period (min)	15			

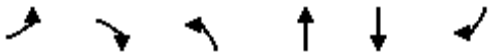


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	217	10	100	100	10	300	40	285	40	100	153	329
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	236	11	109	109	11	326	43	310	43	109	166	358

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	157	198	109	337	43	353	109	524
Volume Left (vph)	157	79	109	0	43	0	109	0
Volume Right (vph)	0	109	0	326	0	43	0	358
Hadj (s)	0.58	-0.10	0.67	-0.51	0.67	0.01	0.67	-0.37
Departure Headway (s)	9.2	8.5	9.1	7.9	9.0	8.4	8.8	7.8
Degree Utilization, x	0.40	0.47	0.27	0.74	0.11	0.82	0.27	1.0
Capacity (veh/h)	373	402	387	443	388	421	399	473
Control Delay (s)	17.0	17.6	14.2	29.2	11.9	39.0	13.8	109.2
Approach Delay (s)	17.3		25.6		36.1		92.8	
Approach LOS	C		D		E		F	

Intersection Summary				
Delay	49.5			
Level of Service	E			
Intersection Capacity Utilization	73.5%	ICU Level of Service		D
Analysis Period (min)	15			

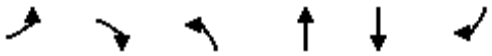
Intersection No.	8	Peak:	AM		Green = Manual Input			Control Type		AWSC	Base Delay	725.3
Project's Total Daily Trip Generation - Table 3.1 **[a]**	40126								SI Type	+1 sec	Max Delay	726.3
External Peak Hour Trip Generation - Table 3.1 **[b]**	In	876	Out	1931								
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NT + P Peak Hour Turning Movements Volumes - Figure 8-4 **[c]**	100	812			1766	60	200		100			
Project Trip Assignment - Figure 3-4 **[d]**		212			96							
Type of Turning Movement **[e]**		out			in							
Base Volume (c - d) **[f]**	100	600	0	0	1670	60	200	0	100	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[g]**	3133		Delay (from Synchro)	725.7	LOS (from Synchro)	F						
Percent Reduction in Trip Gen. (g / a) **[h]**	92.2%											
Trip Assignment after Trip Gen reduction (d - h * d) **[i]**	0	17	0	0	7	0	0	0	0	0	0	0
Base Volume + Reduced Trip Assignment (f + i)	100	617	0	0	1677	60	200	0	100	0	0	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[j]**	200	0	100	0	0	0	100	617	0	0	1677	60
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Trigger ADT **[k]**	**3134**		Delay (from Synchro)	725.7	LOS (from Synchro)	F						
Percent Reduction in Trip Gen. (k / a) **[L]**	92.2%											
Trip Assignment after Trip Gen reduction (d - L * d) **[m]**	0	17	0	0	7	0	0	0	0	0	0	0
Base Volume + Reduced Trip Assignment (f + m)	100	617	0	0	1677	60	200	0	100	0	0	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[n]**	200	0	100	0	0	0	100	617	0	0	1677	60
Change when compare to previous ADT (n - j) **[o]**	0	0	0	0	0	0	0	0	0	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[p]**	3135		Delay (from Synchro)	726.4	LOS (from Synchro)	F						
Percent Reduction in Trip Gen. (p / a) **[q]**	92.2%											
Trip Assignment after Trip Gen reduction (d - q * d) **[r]**	0	17	0	0	8	0	0	0	0	0	0	0
Base Volume + Reduced Trip Assignment (f + r)	100	617	0	0	1678	60	200	0	100	0	0	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[s]**	200	0	100	0	0	0	100	617	0	0	1678	60
Change when compare to previous ADT (s - n) **[t]**	0	0	0	0	0	0	0	0	0	0	1	0



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	200	100	100	617	1677	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	217	109	109	671	1823	65

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	217	109	109	671	1823	65
Volume Left (vph)	217	0	109	0	0	0
Volume Right (vph)	0	109	0	0	0	65
Hadj (s)	0.53	-0.67	0.53	0.17	0.17	-0.67
Departure Headway (s)	8.1	7.0	7.1	6.8	6.9	6.0
Degree Utilization, x	0.49	0.21	0.22	1.0	1.0	0.11
Capacity (veh/h)	437	510	494	538	530	582
Control Delay (s)	17.6	10.6	10.9	154.0	1131.4	8.6
Approach Delay (s)	15.2		134.1		1092.6	
Approach LOS	C		F		F	

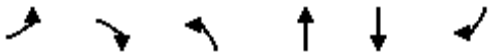
Intersection Summary			
Delay	725.7		
Level of Service	F		
Intersection Capacity Utilization	106.0%	ICU Level of Service	G
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	200	100	100	617	1677	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	217	109	109	671	1823	65

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	217	109	109	671	1823	65
Volume Left (vph)	217	0	109	0	0	0
Volume Right (vph)	0	109	0	0	0	65
Hadj (s)	0.53	-0.67	0.53	0.17	0.17	-0.67
Departure Headway (s)	8.1	7.0	7.1	6.8	6.9	6.0
Degree Utilization, x	0.49	0.21	0.22	1.0	1.0	0.11
Capacity (veh/h)	437	510	494	538	530	582
Control Delay (s)	17.6	10.6	10.9	154.0	1131.4	8.6
Approach Delay (s)	15.2		134.1		1092.6	
Approach LOS	C		F		F	

Intersection Summary			
Delay	725.7		
Level of Service	F		
Intersection Capacity Utilization	106.0%	ICU Level of Service	G
Analysis Period (min)	15		

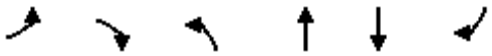


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	200	100	100	617	1678	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	217	109	109	671	1824	65

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	217	109	109	671	1824	65
Volume Left (vph)	217	0	109	0	0	0
Volume Right (vph)	0	109	0	0	0	65
Hadj (s)	0.53	-0.67	0.53	0.17	0.17	-0.67
Departure Headway (s)	8.1	7.0	7.1	6.8	6.9	6.0
Degree Utilization, x	0.49	0.21	0.22	1.0	1.0	0.11
Capacity (veh/h)	437	510	494	538	530	582
Control Delay (s)	17.6	10.6	10.9	154.0	1132.3	8.6
Approach Delay (s)	15.2		134.1		1093.5	
Approach LOS	C		F		F	

Intersection Summary			
Delay	726.4		
Level of Service	F		
Intersection Capacity Utilization	106.1%	ICU Level of Service	G
Analysis Period (min)	15		

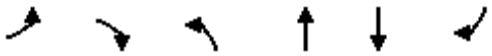
Intersection No.	9	Peak:	AM		Green = Manual Input			Control Type		AWSC	Base Delay	119.6
Project's Total Daily Trip Generation - Table 3.1 **[a]**	40126								SI Type	+1 sec	Max Delay	120.6
External Peak Hour Trip Generation - Table 3.1 **[b]**	In	876	Out	1931								
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NT + P Peak Hour Turning Movements Volumes - Figure 8-4 **[c]**	732	850			60	40	30		256			
Project Trip Assignment - Figure 3-4 **[d]**	212								96			
Type of Turning Movement **[e]**	out								in			
Base Volume (c - d) **[f]**	520	850	0	0	60	40	30	0	160	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[g]**	1418		Delay (from Synchro)	120.6	LOS (from Synchro)	F						
Percent Reduction in Trip Gen. (g / a) **[h]**	96.5%											
Trip Assignment after Trip Gen reduction (d - h * d) **[i]**	7	0	0	0	0	0	0	0	3	0	0	0
Base Volume + Reduced Trip Assignment (f + i)	527	850	0	0	60	40	30	0	163	0	0	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[j]**	30	0	163	0	0	0	527	850	0	0	60	40
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Trigger ADT **[k]**	**1419**		Delay (from Synchro)	120.6	LOS (from Synchro)	F						
Percent Reduction in Trip Gen. (k / a) **[L]**	96.5%											
Trip Assignment after Trip Gen reduction (d - L * d) **[m]**	7	0	0	0	0	0	0	0	3	0	0	0
Base Volume + Reduced Trip Assignment (f + m)	527	850	0	0	60	40	30	0	163	0	0	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[n]**	30	0	163	0	0	0	527	850	0	0	60	40
Change when compare to previous ADT (n - j) **[o]**	0	0	0	0	0	0	0	0	0	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[p]**	1420		Delay (from Synchro)	120.7	LOS (from Synchro)	F						
Percent Reduction in Trip Gen. (p / a) **[q]**	96.5%											
Trip Assignment after Trip Gen reduction (d - q * d) **[r]**	8	0	0	0	0	0	0	0	3	0	0	0
Base Volume + Reduced Trip Assignment (f + r)	528	850	0	0	60	40	30	0	163	0	0	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[s]**	30	0	163	0	0	0	528	850	0	0	60	40
Change when compare to previous ADT (s - n) **[t]**	0	0	0	0	0	0	1	0	0	0	0	0



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	30	163	527	850	60	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	177	573	924	65	43

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total (vph)	210	573	924	109
Volume Left (vph)	33	573	0	0
Volume Right (vph)	177	0	0	43
Hadj (s)	-0.31	0.67	0.17	-0.07
Departure Headway (s)	5.6	6.0	5.4	5.5
Degree Utilization, x	0.33	0.95	1.0	0.17
Capacity (veh/h)	619	597	665	634
Control Delay (s)	11.4	47.6	203.8	9.6
Approach Delay (s)	11.4	144.0		9.6
Approach LOS	B	F		A

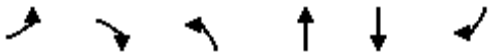
Intersection Summary			
Delay	120.6		
Level of Service	F		
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	30	163	527	850	60	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	177	573	924	65	43

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total (vph)	210	573	924	109
Volume Left (vph)	33	573	0	0
Volume Right (vph)	177	0	0	43
Hadj (s)	-0.31	0.67	0.17	-0.07
Departure Headway (s)	5.6	6.0	5.4	5.5
Degree Utilization, x	0.33	0.95	1.0	0.17
Capacity (veh/h)	619	597	665	634
Control Delay (s)	11.4	47.6	203.8	9.6
Approach Delay (s)	11.4	144.0		9.6
Approach LOS	B	F		A

Intersection Summary			
Delay	120.6		
Level of Service	F		
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		

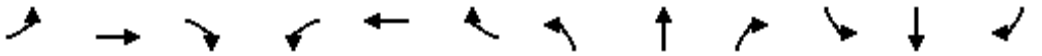


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	30	163	528	850	60	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	177	574	924	65	43

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total (vph)	210	574	924	109
Volume Left (vph)	33	574	0	0
Volume Right (vph)	177	0	0	43
Hadj (s)	-0.31	0.67	0.17	-0.07
Departure Headway (s)	5.6	6.0	5.4	5.5
Degree Utilization, x	0.33	0.95	1.0	0.17
Capacity (veh/h)	619	597	665	634
Control Delay (s)	11.4	47.9	203.8	9.6
Approach Delay (s)	11.4	144.1		9.6
Approach LOS	B	F		A

Intersection Summary			
Delay	120.7		
Level of Service	F		
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		

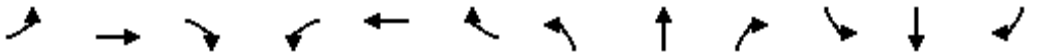
Intersection No.	10	Peak:	PM		Green = Manual Input			Control Type		Signal	Base Delay	44.2
Project's Total Daily Trip Generation - Table 3.1 **[a]**	40126								SI Type	LOS D	Max Delay	55
External Peak Hour Trip Generation - Table 3.1 **[b]**	In	2201	Out	1345								
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NT + P Peak Hour Turning Movements Volumes - Figure 8-4 **[c]**	200	100	166	564	100	400	250	1298	150	290	1321	761
Project Trip Assignment - Figure 3-4 **[d]**	0	0	66	264	0	0	0	198	0	40	121	161
Type of Turning Movement **[e]**			in	in		out	in	in		out	out	out
Base Volume (c - d) **[f]**	200	100	100	300	100	400	250	1100	150	250	1200	600
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[g]**	11018		Delay (from Synchro)	54.9	LOS (from Synchro)	D						
Percent Reduction in Trip Gen. (g / a) **[h]**	72.5%											
Trip Assignment after Trip Gen reduction (d - h * d) **[i]**	0	0	18	72	0	0	0	54	0	11	33	44
Base Volume + Reduced Trip Assignment (f + i)	200	100	118	372	100	400	250	1154	150	261	1233	644
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[j]**	250	1154	150	261	1233	644	200	100	118	372	100	400
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Trigger ADT **[k]**	**11019**		Delay (from Synchro)	54.9	LOS (from Synchro)	D						
Percent Reduction in Trip Gen. (k / a) **[L]**	72.5%											
Trip Assignment after Trip Gen reduction (d - L * d) **[m]**	0	0	18	72	0	0	0	54	0	11	33	44
Base Volume + Reduced Trip Assignment (f + m)	200	100	118	372	100	400	250	1154	150	261	1233	644
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[n]**	250	1154	150	261	1233	644	200	100	118	372	100	400
Change when compare to previous ADT (n - j) **[o]**	0	0	0	0	0	0	0	0	0	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[p]**	11020		Delay (from Synchro)	55	LOS (from Synchro)	E						
Percent Reduction in Trip Gen. (p / a) **[q]**	72.5%											
Trip Assignment after Trip Gen reduction (d - q * d) **[r]**	0	0	18	73	0	0	0	54	0	11	33	44
Base Volume + Reduced Trip Assignment (f + r)	200	100	118	373	100	400	250	1154	150	261	1233	644
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[s]**	250	1154	150	261	1233	644	200	100	118	373	100	400
Change when compare to previous ADT (s - n) **[t]**	0	0	0	0	0	0	0	0	0	1	0	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	1154	150	261	1233	644	200	100	118	372	100	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.97	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.92		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1438	3183	4715	1418	1641	1571		1641	1727	2584
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1438	3183	4715	1418	1641	1571		1641	1727	2584
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	272	1254	163	284	1340	700	217	109	128	404	109	435
RTOR Reduction (vph)	0	0	113	0	0	368	0	34	0	0	0	139
Lane Group Flow (vph)	272	1254	50	284	1340	332	217	203	0	404	109	296
Confl. Peds. (#/hr)						11			1			
Confl. Bikes (#/hr)			12			13			5			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	11.0	38.8	38.8	12.0	40.1	40.1	20.8	22.4		32.1	33.7	44.7
Effective Green, g (s)	11.0	38.8	38.8	12.0	40.1	40.1	20.8	22.4		32.1	33.7	44.7
Actuated g/C Ratio	0.09	0.31	0.31	0.09	0.32	0.32	0.16	0.18		0.25	0.27	0.35
Clearance Time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	2.0	4.1	4.1	2.0	4.5	4.5	2.0	4.3		2.0	3.7	2.0
Lane Grp Cap (vph)	276	1445	440	301	1493	449	269	277		416	459	912
v/s Ratio Prot	0.09	0.27		c0.09	c0.28		0.13	c0.13		c0.25	0.06	0.03
v/s Ratio Perm			0.03			0.23						0.09
v/c Ratio	0.99	0.87	0.11	0.94	0.90	0.74	0.81	0.73		0.97	0.24	0.32
Uniform Delay, d1	57.7	41.5	31.5	57.0	41.3	38.6	51.0	49.3		46.8	36.4	29.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	49.6	6.0	0.2	36.5	7.8	7.3	15.2	10.6		36.3	0.3	0.1
Delay (s)	107.4	47.5	31.7	93.5	49.1	45.9	66.2	59.9		83.1	36.7	30.0
Level of Service	F	D	C	F	D	D	E	E		F	D	C
Approach Delay (s)		55.6			53.6			62.9			53.4	
Approach LOS		E			D			E			D	

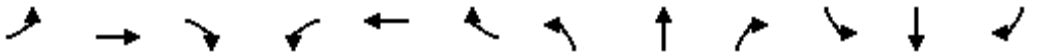
Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	126.6	Sum of lost time (s)	21.3
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	1154	150	261	1233	644	200	100	118	372	100	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.97	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.92		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1438	3183	4715	1418	1641	1571		1641	1727	2584
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1438	3183	4715	1418	1641	1571		1641	1727	2584
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	272	1254	163	284	1340	700	217	109	128	404	109	435
RTOR Reduction (vph)	0	0	113	0	0	368	0	34	0	0	0	139
Lane Group Flow (vph)	272	1254	50	284	1340	332	217	203	0	404	109	296
Confl. Peds. (#/hr)						11			1			
Confl. Bikes (#/hr)			12			13			5			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	11.0	38.8	38.8	12.0	40.1	40.1	20.8	22.4		32.1	33.7	44.7
Effective Green, g (s)	11.0	38.8	38.8	12.0	40.1	40.1	20.8	22.4		32.1	33.7	44.7
Actuated g/C Ratio	0.09	0.31	0.31	0.09	0.32	0.32	0.16	0.18		0.25	0.27	0.35
Clearance Time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	2.0	4.1	4.1	2.0	4.5	4.5	2.0	4.3		2.0	3.7	2.0
Lane Grp Cap (vph)	276	1445	440	301	1493	449	269	277		416	459	912
v/s Ratio Prot	0.09	0.27		c0.09	c0.28		0.13	c0.13		c0.25	0.06	0.03
v/s Ratio Perm			0.03			0.23						0.09
v/c Ratio	0.99	0.87	0.11	0.94	0.90	0.74	0.81	0.73		0.97	0.24	0.32
Uniform Delay, d1	57.7	41.5	31.5	57.0	41.3	38.6	51.0	49.3		46.8	36.4	29.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	49.6	6.0	0.2	36.5	7.8	7.3	15.2	10.6		36.3	0.3	0.1
Delay (s)	107.4	47.5	31.7	93.5	49.1	45.9	66.2	59.9		83.1	36.7	30.0
Level of Service	F	D	C	F	D	D	E	E		F	D	C
Approach Delay (s)		55.6			53.6			62.9			53.4	
Approach LOS		E			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	126.6	Sum of lost time (s)	21.3
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	1154	150	261	1233	644	200	100	118	373	100	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.97	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.92		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3183	4715	1438	3183	4715	1418	1641	1571		1641	1727	2584
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3183	4715	1438	3183	4715	1418	1641	1571		1641	1727	2584
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	272	1254	163	284	1340	700	217	109	128	405	109	435
RTOR Reduction (vph)	0	0	113	0	0	368	0	34	0	0	0	139
Lane Group Flow (vph)	272	1254	50	284	1340	332	217	203	0	405	109	296
Confl. Peds. (#/hr)						11			1			
Confl. Bikes (#/hr)			12			13			5			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	11.0	38.8	38.8	12.0	40.1	40.1	20.8	22.4		32.1	33.7	44.7
Effective Green, g (s)	11.0	38.8	38.8	12.0	40.1	40.1	20.8	22.4		32.1	33.7	44.7
Actuated g/C Ratio	0.09	0.31	0.31	0.09	0.32	0.32	0.16	0.18		0.25	0.27	0.35
Clearance Time (s)	4.0	7.4	7.4	4.0	7.1	7.1	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	2.0	4.1	4.1	2.0	4.5	4.5	2.0	4.3		2.0	3.7	2.0
Lane Grp Cap (vph)	276	1445	440	301	1493	449	269	277		416	459	912
v/s Ratio Prot	0.09	0.27		c0.09	c0.28		0.13	c0.13		c0.25	0.06	0.03
v/s Ratio Perm			0.03			0.23						0.09
v/c Ratio	0.99	0.87	0.11	0.94	0.90	0.74	0.81	0.73		0.97	0.24	0.32
Uniform Delay, d1	57.7	41.5	31.5	57.0	41.3	38.6	51.0	49.3		46.8	36.4	29.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	49.6	6.0	0.2	36.5	7.8	7.3	15.2	10.6		36.8	0.3	0.1
Delay (s)	107.4	47.5	31.7	93.5	49.1	45.9	66.2	59.9		83.6	36.7	30.0
Level of Service	F	D	C	F	D	D	E	E		F	D	C
Approach Delay (s)		55.6			53.6			62.9			53.7	
Approach LOS		E			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	126.6	Sum of lost time (s)	21.3
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection No.	16	Peak:	PM		Green = Manual Input			Control Type		Signal	Base Delay	38.3
Project's Total Daily Trip Generation - Table 3.1 **[a]**	40126								SI Type	LOS D	Max Delay	55
External Peak Hour Trip Generation - Table 3.1 **[b]**	In	2201	Out	1345								
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NT + P Peak Hour Turning Movements Volumes - Figure 8-4 **[c]**	1104	0	445	0	0	0	0	1560	1216	666	1700	0
Project Trip Assignment - Figure 3-4 **[d]**	444	0	175	0	0	0	0	0	726	286	0	0
Type of Turning Movement **[e]**	out		out						in	in		
Base Volume (c - d) **[f]**	660	0	270	0	0	0	0	1560	490	380	1700	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[g]**	12275		Delay (from Synchro)	54.9	LOS (from Synchro)	D						
Percent Reduction in Trip Gen. (g / a) **[h]**	69.4%											
Trip Assignment after Trip Gen reduction (d - h * d) **[i]**	136	0	54	0	0	0	0	0	222	87	0	0
Base Volume + Reduced Trip Assignment (f + i)	796	0	324	0	0	0	0	1560	712	467	1700	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[j]**	0	1560	712	467	1700	0	796	0	324	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Trigger ADT **[k]**	**12276**		Delay (from Synchro)	54.9	LOS (from Synchro)	D						
Percent Reduction in Trip Gen. (k / a) **[L]**	69.4%											
Trip Assignment after Trip Gen reduction (d - L * d) **[m]**	136	0	54	0	0	0	0	0	222	87	0	0
Base Volume + Reduced Trip Assignment (f + m)	796	0	324	0	0	0	0	1560	712	467	1700	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[n]**	0	1560	712	467	1700	0	796	0	324	0	0	0
Change when compare to previous ADT (n - j) **[o]**	0	0	0	0	0	0	0	0	0	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[p]**	12277		Delay (from Synchro)	55	LOS (from Synchro)	E						
Percent Reduction in Trip Gen. (p / a) **[q]**	69.4%											
Trip Assignment after Trip Gen reduction (d - q * d) **[r]**	136	0	54	0	0	0	0	0	222	88	0	0
Base Volume + Reduced Trip Assignment (f + r)	796	0	324	0	0	0	0	1560	712	468	1700	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[s]**	0	1560	712	468	1700	0	796	0	324	0	0	0
Change when compare to previous ADT (s - n) **[t]**	0	0	0	1	0	0	0	0	0	0	0	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1560	712	467	1700	796	324
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	1641	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	1641	4715	3183	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1696	774	508	1848	865	352
RTOR Reduction (vph)	0	370	0	0	0	260
Lane Group Flow (vph)	1696	404	508	1848	865	92
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	43.5	43.5	33.0	80.5	29.0	29.0
Effective Green, g (s)	43.5	43.5	33.0	80.5	29.0	29.0
Actuated g/C Ratio	0.36	0.36	0.28	0.67	0.24	0.24
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	1709	532	451	3162	769	354
v/s Ratio Prot	c0.36		c0.31	0.39	c0.27	
v/s Ratio Perm		0.28				0.06
v/c Ratio	0.99	0.76	1.13	0.58	1.12	0.26
Uniform Delay, d1	38.1	33.7	43.5	10.7	45.5	36.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	20.0	9.8	81.7	0.8	72.5	0.1
Delay (s)	58.1	43.5	125.2	11.5	118.0	37.0
Level of Service	E	D	F	B	F	D
Approach Delay (s)	53.5			36.0	94.6	
Approach LOS	D			D	F	

Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	90.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

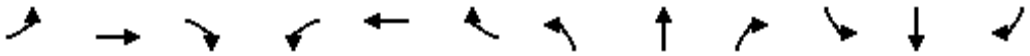
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1560	712	467	1700	796	324
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	1641	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	1641	4715	3183	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1696	774	508	1848	865	352
RTOR Reduction (vph)	0	370	0	0	0	260
Lane Group Flow (vph)	1696	404	508	1848	865	92
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	43.5	43.5	33.0	80.5	29.0	29.0
Effective Green, g (s)	43.5	43.5	33.0	80.5	29.0	29.0
Actuated g/C Ratio	0.36	0.36	0.28	0.67	0.24	0.24
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	1709	532	451	3162	769	354
v/s Ratio Prot	c0.36		c0.31	0.39	c0.27	
v/s Ratio Perm		0.28				0.06
v/c Ratio	0.99	0.76	1.13	0.58	1.12	0.26
Uniform Delay, d1	38.1	33.7	43.5	10.7	45.5	36.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	20.0	9.8	81.7	0.8	72.5	0.1
Delay (s)	58.1	43.5	125.2	11.5	118.0	37.0
Level of Service	E	D	F	B	F	D
Approach Delay (s)	53.5			36.0	94.6	
Approach LOS	D			D	F	

Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	90.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1560	712	468	1700	796	324
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4715	1468	1641	4715	3183	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4715	1468	1641	4715	3183	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1696	774	509	1848	865	352
RTOR Reduction (vph)	0	370	0	0	0	260
Lane Group Flow (vph)	1696	404	509	1848	865	92
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	43.5	43.5	33.0	80.5	29.0	29.0
Effective Green, g (s)	43.5	43.5	33.0	80.5	29.0	29.0
Actuated g/C Ratio	0.36	0.36	0.28	0.67	0.24	0.24
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	4.8	4.8	2.0	4.8	2.0	2.0
Lane Grp Cap (vph)	1709	532	451	3162	769	354
v/s Ratio Prot	c0.36		c0.31	0.39	c0.27	
v/s Ratio Perm		0.28				0.06
v/c Ratio	0.99	0.76	1.13	0.58	1.12	0.26
Uniform Delay, d1	38.1	33.7	43.5	10.7	45.5	36.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	20.0	9.8	82.5	0.8	72.5	0.1
Delay (s)	58.1	43.5	126.0	11.5	118.0	37.0
Level of Service	E	D	F	B	F	D
Approach Delay (s)	53.5			36.2	94.6	
Approach LOS	D			D	F	

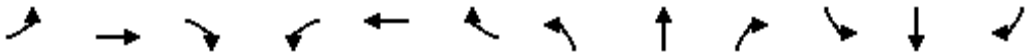
Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	90.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection No.	18	Peak:	PM		Green = Manual Input			Control Type		Signal	Base Delay	16.4
Project's Total Daily Trip Generation - Table 3.1 **[a]**	40126								SI Type	LOS D	Max Delay	55
External Peak Hour Trip Generation - Table 3.1 **[b]**	In	2201	Out	1345								
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NT + P Peak Hour Turning Movements Volumes - Figure 8-4 **[c]**	0	1558	273	180	1524	0	225	10	955	0	0	0
Project Trip Assignment - Figure 3-4 **[d]**	0	888	13	0	1034	0	0	0	440	0	0	0
Type of Turning Movement **[e]**		out	out		in				in			
Base Volume (c - d) **[f]**	0	670	260	180	490	0	225	10	515	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[g]**	27224		Delay (from Synchro)	54.9	LOS (from Synchro)	D						
Percent Reduction in Trip Gen. (g / a) **[h]**	32.2%											
Trip Assignment after Trip Gen reduction (d - h * d) **[i]**	0	602	9	0	702	0	0	0	299	0	0	0
Base Volume + Reduced Trip Assignment (f + i)	0	1272	269	180	1192	0	225	10	814	0	0	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[j]**	225	10	814	0	0	0	0	1272	269	180	1192	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Trigger ADT **[k]**	**27225**		Delay (from Synchro)	54.9	LOS (from Synchro)	D						
Percent Reduction in Trip Gen. (k / a) **[L]**	32.2%											
Trip Assignment after Trip Gen reduction (d - L * d) **[m]**	0	602	9	0	702	0	0	0	299	0	0	0
Base Volume + Reduced Trip Assignment (f + m)	0	1272	269	180	1192	0	225	10	814	0	0	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[n]**	225	10	814	0	0	0	0	1272	269	180	1192	0
Change when compare to previous ADT (n - j) **[o]**	0	0	0	0	0	0	0	0	0	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[p]**	27226		Delay (from Synchro)	55	LOS (from Synchro)	E						
Percent Reduction in Trip Gen. (p / a) **[q]**	32.1%											
Trip Assignment after Trip Gen reduction (d - q * d) **[r]**	0	603	9	0	702	0	0	0	299	0	0	0
Base Volume + Reduced Trip Assignment (f + r)	0	1273	269	180	1192	0	225	10	814	0	0	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[s]**	225	10	814	0	0	0	0	1273	269	180	1192	0
Change when compare to previous ADT (s - n) **[t]**	0	0	0	0	0	0	0	1	0	0	0	0



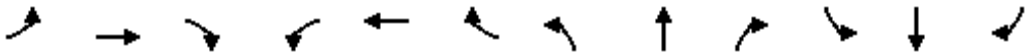
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	225	10	814	0	0	0	0	1272	273	180	1192	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1	5.1					5.1		4.7	5.1	
Lane Util. Factor		1.00	0.88					0.95		0.97	0.91	
Frt		1.00	0.85					0.97		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1648	2584					3195		3183	4715	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		1648	2584					3195		3183	4715	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	245	11	885	0	0	0	0	1383	297	196	1296	0
RTOR Reduction (vph)	0	0	91	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	256	794	0	0	0	0	1666	0	196	1296	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)		36.9	36.9					64.3		12.4	81.4	
Effective Green, g (s)		36.9	36.9					64.3		12.4	81.4	
Actuated g/C Ratio		0.29	0.29					0.50		0.10	0.63	
Clearance Time (s)		5.1	5.1					5.1		4.7	5.1	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		473	742					1598		307	2986	
v/s Ratio Prot								c0.52		c0.06	0.27	
v/s Ratio Perm		0.16	c0.31									
v/c Ratio		0.54	1.07					1.04		0.64	0.43	
Uniform Delay, d1		38.7	45.8					32.1		55.9	11.9	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		1.3	53.3					34.5		4.3	0.1	
Delay (s)		39.9	99.1					66.6		60.2	12.0	
Level of Service		D	F					E		E	B	
Approach Delay (s)		85.8			0.0			66.6			18.3	
Approach LOS		F			A			E			B	

Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	128.5	Sum of lost time (s)	14.9
Intersection Capacity Utilization	74.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	225	10	814	0	0	0	0	1272	273	180	1192	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1	5.1					5.1		4.7	5.1	
Lane Util. Factor		1.00	0.88					0.95		0.97	0.91	
Frt		1.00	0.85					0.97		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1648	2584					3195		3183	4715	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		1648	2584					3195		3183	4715	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	245	11	885	0	0	0	0	1383	297	196	1296	0
RTOR Reduction (vph)	0	0	91	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	256	794	0	0	0	0	1666	0	196	1296	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)		36.9	36.9					64.3		12.4	81.4	
Effective Green, g (s)		36.9	36.9					64.3		12.4	81.4	
Actuated g/C Ratio		0.29	0.29					0.50		0.10	0.63	
Clearance Time (s)		5.1	5.1					5.1		4.7	5.1	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		473	742					1598		307	2986	
v/s Ratio Prot								c0.52		c0.06	0.27	
v/s Ratio Perm		0.16	c0.31									
v/c Ratio		0.54	1.07					1.04		0.64	0.43	
Uniform Delay, d1		38.7	45.8					32.1		55.9	11.9	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		1.3	53.3					34.5		4.3	0.1	
Delay (s)		39.9	99.1					66.6		60.2	12.0	
Level of Service		D	F					E		E	B	
Approach Delay (s)		85.8			0.0			66.6			18.3	
Approach LOS		F			A			E			B	

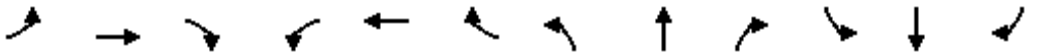
Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	128.5	Sum of lost time (s)	14.9
Intersection Capacity Utilization	74.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	225	10	814	0	0	0	0	1273	273	180	1192	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1	5.1					5.1		4.7	5.1	
Lane Util. Factor		1.00	0.88					0.95		0.97	0.91	
Frt		1.00	0.85					0.97		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1648	2584					3195		3183	4715	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		1648	2584					3195		3183	4715	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	245	11	885	0	0	0	0	1384	297	196	1296	0
RTOR Reduction (vph)	0	0	91	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	256	794	0	0	0	0	1667	0	196	1296	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)		36.9	36.9					64.3		12.4	81.4	
Effective Green, g (s)		36.9	36.9					64.3		12.4	81.4	
Actuated g/C Ratio		0.29	0.29					0.50		0.10	0.63	
Clearance Time (s)		5.1	5.1					5.1		4.7	5.1	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		473	742					1598		307	2986	
v/s Ratio Prot								c0.52		c0.06	0.27	
v/s Ratio Perm		0.16	c0.31									
v/c Ratio		0.54	1.07					1.04		0.64	0.43	
Uniform Delay, d1		38.7	45.8					32.1		55.9	11.9	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		1.3	53.3					34.7		4.3	0.1	
Delay (s)		39.9	99.1					66.8		60.2	12.0	
Level of Service		D	F					E		E	B	
Approach Delay (s)		85.8			0.0			66.8			18.3	
Approach LOS		F			A			E			B	

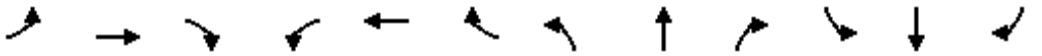
Intersection Summary			
HCM 2000 Control Delay	55.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	128.5	Sum of lost time (s)	14.9
Intersection Capacity Utilization	74.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection No.	19	Peak:	PM		Green = Manual Input			Control Type		Signal	Base Delay	54.5
Project's Total Daily Trip Generation - Table 3.1 **[a]**	40126								SI Type	LOS D	Max Delay	55
External Peak Hour Trip Generation - Table 3.1 **[b]**	In	2201	Out	1345								
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NT + P Peak Hour Turning Movements Volumes - Figure 8-4 **[c]**	98	360	50	220	585	1674	1101	235	114	215	420	370
Project Trip Assignment - Figure 3-4 **[d]**	88	0	0	0	0	1474	901	135	54	0	220	0
Type of Turning Movement **[e]**	in					in	out	out	out		in	
Base Volume (c - d) **[f]**	10	360	50	220	585	200	200	100	60	215	200	370
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[g]**	110		Delay (from Synchro)	54.9	LOS (from Synchro)	D						
Percent Reduction in Trip Gen. (g / a) **[h]**	99.7%											
Trip Assignment after Trip Gen reduction (d - h * d) **[i]**	0	0	0	0	0	4	2	0	0	0	1	0
Base Volume + Reduced Trip Assignment (f + i)	10	360	50	220	585	204	202	100	60	215	201	370
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[j]**	202	100	60	215	201	370	10	360	50	220	585	204
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Trigger ADT **[k]**	**111**		Delay (from Synchro)	54.9	LOS (from Synchro)	D						
Percent Reduction in Trip Gen. (k / a) **[L]**	99.7%											
Trip Assignment after Trip Gen reduction (d - L * d) **[m]**	0	0	0	0	0	4	2	0	0	0	1	0
Base Volume + Reduced Trip Assignment (f + m)	10	360	50	220	585	204	202	100	60	215	201	370
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[n]**	202	100	60	215	201	370	10	360	50	220	585	204
Change when compare to previous ADT (n - j) **[o]**	0	0	0	0	0	0	0	0	0	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[p]**	112		Delay (from Synchro)	55	LOS (from Synchro)	E						
Percent Reduction in Trip Gen. (p / a) **[q]**	99.7%											
Trip Assignment after Trip Gen reduction (d - q * d) **[r]**	0	0	0	0	0	4	3	0	0	0	1	0
Base Volume + Reduced Trip Assignment (f + r)	10	360	50	220	585	204	203	100	60	215	201	370
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[s]**	203	100	60	215	201	370	10	360	50	220	585	204
Change when compare to previous ADT (s - n) **[t]**	1	0	0	0	0	0	0	0	0	0	0	0



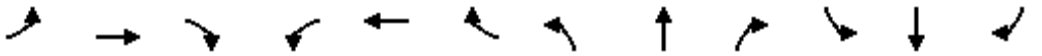
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	202	100	60	215	201	370	10	360	50	220	585	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99			1.00	0.99	1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.94			1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	1617			1684	1447	1641	3222		1641	1727	1437
Flt Permitted	0.95	1.00			0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1641	1617			1684	1447	1641	3222		1641	1727	1437
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	220	109	65	234	218	402	11	391	54	239	636	221
RTOR Reduction (vph)	0	19	0	0	0	252	0	9	0	0	0	115
Lane Group Flow (vph)	220	155	0	0	452	150	11	436	0	239	636	106
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)			1			1						1
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	16.0	16.0			31.9	31.9	0.9	25.3		17.4	41.6	41.6
Effective Green, g (s)	16.0	16.0			31.9	31.9	0.9	25.3		17.4	41.6	41.6
Actuated g/C Ratio	0.14	0.14			0.29	0.29	0.01	0.23		0.16	0.38	0.38
Clearance Time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Vehicle Extension (s)	2.0	2.0			3.7	3.7	2.0	3.8		2.0	3.8	3.8
Lane Grp Cap (vph)	237	234			486	418	13	738		258	650	541
v/s Ratio Prot	c0.13	0.10			c0.27		0.01	0.14		c0.15	c0.37	
v/s Ratio Perm						0.10						0.07
v/c Ratio	0.93	0.66			0.93	0.36	0.85	0.59		0.93	0.98	0.20
Uniform Delay, d1	46.6	44.7			38.2	31.1	54.7	37.9		45.9	34.0	23.2
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	38.4	5.4			24.8	0.7	162.2	1.4		36.0	29.7	0.2
Delay (s)	85.0	50.0			63.0	31.8	216.9	39.4		81.9	63.6	23.4
Level of Service	F	D			E	C	F	D		F	E	C
Approach Delay (s)		69.6			48.3			43.6			59.5	
Approach LOS		E			D			D			E	

Intersection Summary			
HCM 2000 Control Delay	54.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	110.4	Sum of lost time (s)	20.0
Intersection Capacity Utilization	84.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	202	100	60	215	201	370	10	360	50	220	585	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99			1.00	0.99	1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.94			1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	1617			1684	1447	1641	3222		1641	1727	1437
Flt Permitted	0.95	1.00			0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1641	1617			1684	1447	1641	3222		1641	1727	1437
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	220	109	65	234	218	402	11	391	54	239	636	221
RTOR Reduction (vph)	0	19	0	0	0	252	0	9	0	0	0	115
Lane Group Flow (vph)	220	155	0	0	452	150	11	436	0	239	636	106
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)			1			1						1
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	16.0	16.0			31.9	31.9	0.9	25.3		17.4	41.6	41.6
Effective Green, g (s)	16.0	16.0			31.9	31.9	0.9	25.3		17.4	41.6	41.6
Actuated g/C Ratio	0.14	0.14			0.29	0.29	0.01	0.23		0.16	0.38	0.38
Clearance Time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Vehicle Extension (s)	2.0	2.0			3.7	3.7	2.0	3.8		2.0	3.8	3.8
Lane Grp Cap (vph)	237	234			486	418	13	738		258	650	541
v/s Ratio Prot	c0.13	0.10			c0.27		0.01	0.14		c0.15	c0.37	
v/s Ratio Perm						0.10						0.07
v/c Ratio	0.93	0.66			0.93	0.36	0.85	0.59		0.93	0.98	0.20
Uniform Delay, d1	46.6	44.7			38.2	31.1	54.7	37.9		45.9	34.0	23.2
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	38.4	5.4			24.8	0.7	162.2	1.4		36.0	29.7	0.2
Delay (s)	85.0	50.0			63.0	31.8	216.9	39.4		81.9	63.6	23.4
Level of Service	F	D			E	C	F	D		F	E	C
Approach Delay (s)		69.6			48.3			43.6			59.5	
Approach LOS		E			D			D			E	

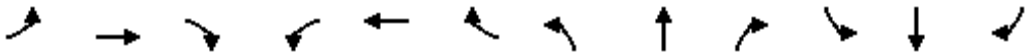
Intersection Summary			
HCM 2000 Control Delay	54.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	110.4	Sum of lost time (s)	20.0
Intersection Capacity Utilization	84.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	203	100	60	215	201	370	10	360	50	220	585	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99			1.00	0.99	1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.94			1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	1617			1684	1447	1641	3222		1641	1727	1437
Flt Permitted	0.95	1.00			0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1641	1617			1684	1447	1641	3222		1641	1727	1437
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	221	109	65	234	218	402	11	391	54	239	636	221
RTOR Reduction (vph)	0	19	0	0	0	252	0	9	0	0	0	115
Lane Group Flow (vph)	221	155	0	0	452	150	11	436	0	239	636	106
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)			1			1						1
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	16.0	16.0			31.9	31.9	0.9	25.3		17.4	41.6	41.6
Effective Green, g (s)	16.0	16.0			31.9	31.9	0.9	25.3		17.4	41.6	41.6
Actuated g/C Ratio	0.14	0.14			0.29	0.29	0.01	0.23		0.16	0.38	0.38
Clearance Time (s)	5.3	5.3			5.2	5.2	4.4	4.9		4.4	5.1	5.1
Vehicle Extension (s)	2.0	2.0			3.7	3.7	2.0	3.8		2.0	3.8	3.8
Lane Grp Cap (vph)	237	234			486	418	13	738		258	650	541
v/s Ratio Prot	c0.13	0.10			c0.27		0.01	0.14		c0.15	c0.37	
v/s Ratio Perm						0.10						0.07
v/c Ratio	0.93	0.66			0.93	0.36	0.85	0.59		0.93	0.98	0.20
Uniform Delay, d1	46.7	44.7			38.2	31.1	54.7	37.9		45.9	34.0	23.2
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	39.7	5.4			24.8	0.7	162.2	1.4		36.0	29.7	0.2
Delay (s)	86.4	50.0			63.0	31.8	216.9	39.4		81.9	63.6	23.4
Level of Service	F	D			E	C	F	D		F	E	C
Approach Delay (s)		70.4			48.3			43.6			59.5	
Approach LOS		E			D			D			E	

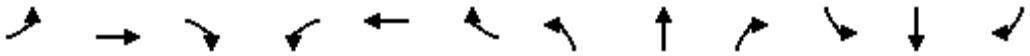
Intersection Summary			
HCM 2000 Control Delay	55.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	110.4	Sum of lost time (s)	20.0
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection No.	20	Peak:	PM		Green = Manual Input			Control Type		Signal	Base Delay	203.2
Project's Total Daily Trip Generation - Table 3.1 **[a]**	40126								SI Type	+1 sec	Max Delay	204.2
External Peak Hour Trip Generation - Table 3.1 **[b]**	In	2201	Out	1345								
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NT + P Peak Hour Turning Movements Volumes - Figure 8-4 **[c]**	10	164	10	30	207	40	140	385	35	75	436	80
Project Trip Assignment - Figure 3-4 **[d]**	0	44	0	0	27	0	0	175	0	0	286	0
Type of Turning Movement **[e]**	in					in	out	out	out		in	
Base Volume (c - d) **[f]**	10	120	10	30	180	40	140	210	35	75	150	80
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[g]**	69		Delay (from Synchro)	203.2	LOS (from Synchro)	F						
Percent Reduction in Trip Gen. (g / a) **[h]**	99.8%											
Trip Assignment after Trip Gen reduction (d - h * d) **[i]**	0	0	0	0	0	0	0	0	0	0	0	0
Base Volume + Reduced Trip Assignment (f + i)	10	120	10	30	180	40	140	210	35	75	150	80
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[j]**	140	210	35	75	150	80	10	120	10	30	180	40
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Trigger ADT **[k]**	**70**		Delay (from Synchro)	203.2	LOS (from Synchro)	F						
Percent Reduction in Trip Gen. (k / a) **[L]**	99.8%											
Trip Assignment after Trip Gen reduction (d - L * d) **[m]**	0	0	0	0	0	0	0	0	0	0	0	0
Base Volume + Reduced Trip Assignment (f + m)	10	120	10	30	180	40	140	210	35	75	150	80
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[n]**	140	210	35	75	150	80	10	120	10	30	180	40
Change when compare to previous ADT (n - j) **[o]**	0	0	0	0	0	0	0	0	0	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[p]**	71		Delay (from Synchro)	204.8	LOS (from Synchro)	F						
Percent Reduction in Trip Gen. (p / a) **[q]**	99.8%											
Trip Assignment after Trip Gen reduction (d - q * d) **[r]**	0	0	0	0	0	0	0	0	0	0	1	0
Base Volume + Reduced Trip Assignment (f + r)	10	120	10	30	180	40	140	210	35	75	151	80
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[s]**	140	210	35	75	151	80	10	120	10	30	180	40
Change when compare to previous ADT (s - n) **[t]**	0	0	0	0	1	0	0	0	0	0	0	0



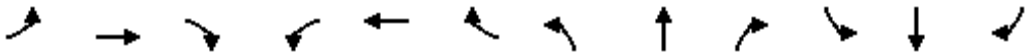
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	210	35	75	150	80	10	120	10	30	180	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00		0.97	0.95	
Frpb, ped/bikes		1.00			1.00	0.98	1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.99			1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected		0.98			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3179			1699	1433	1641	1707		3183	3173	
Flt Permitted		0.76			0.11	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		2447			197	1433	1641	1707		3183	3173	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	228	38	82	163	87	11	130	11	33	196	43
RTOR Reduction (vph)	0	5	0	0	0	44	0	3	0	0	15	0
Lane Group Flow (vph)	0	413	0	0	245	43	11	138	0	33	224	0
Confl. Peds. (#/hr)												1
Confl. Bikes (#/hr)						5						5
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			1		3	8		7	4	
Permitted Phases	2			1		1						
Actuated Green, G (s)		22.9			60.3	60.3	0.8	17.2		2.3	18.7	
Effective Green, g (s)		22.9			60.3	60.3	0.8	17.2		2.3	18.7	
Actuated g/C Ratio		0.19			0.50	0.50	0.01	0.14		0.02	0.15	
Clearance Time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Vehicle Extension (s)		4.8			4.8	4.8	2.0	3.3		2.0	4.4	
Lane Grp Cap (vph)		460			97	709	10	241		60	487	
v/s Ratio Prot							0.01	c0.08		c0.01	0.07	
v/s Ratio Perm		c0.17			c1.25	0.03						
v/c Ratio		0.90			2.53	0.06	1.10	0.57		0.55	0.46	
Uniform Delay, d1		48.3			30.8	16.0	60.5	48.9		59.2	46.9	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		20.9			716.1	0.1	321.8	3.4		6.1	1.1	
Delay (s)		69.2			746.8	16.1	382.3	52.3		65.3	48.1	
Level of Service		E			F	B	F	D		E	D	
Approach Delay (s)		69.2			555.3			76.2			50.2	
Approach LOS		E			F			E			D	

Intersection Summary			
HCM 2000 Control Delay	203.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.78		
Actuated Cycle Length (s)	121.8	Sum of lost time (s)	19.1
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	210	35	75	150	80	10	120	10	30	180	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00		0.97	0.95	
Frpb, ped/bikes		1.00			1.00	0.98	1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.99			1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected		0.98			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3179			1699	1433	1641	1707		3183	3173	
Flt Permitted		0.76			0.11	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		2447			197	1433	1641	1707		3183	3173	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	228	38	82	163	87	11	130	11	33	196	43
RTOR Reduction (vph)	0	5	0	0	0	44	0	3	0	0	15	0
Lane Group Flow (vph)	0	413	0	0	245	43	11	138	0	33	224	0
Confl. Peds. (#/hr)												1
Confl. Bikes (#/hr)						5						5
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			1		3	8		7	4	
Permitted Phases	2			1		1						
Actuated Green, G (s)		22.9			60.3	60.3	0.8	17.2		2.3	18.7	
Effective Green, g (s)		22.9			60.3	60.3	0.8	17.2		2.3	18.7	
Actuated g/C Ratio		0.19			0.50	0.50	0.01	0.14		0.02	0.15	
Clearance Time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Vehicle Extension (s)		4.8			4.8	4.8	2.0	3.3		2.0	4.4	
Lane Grp Cap (vph)		460			97	709	10	241		60	487	
v/s Ratio Prot							0.01	c0.08		c0.01	0.07	
v/s Ratio Perm		c0.17			c1.25	0.03						
v/c Ratio		0.90			2.53	0.06	1.10	0.57		0.55	0.46	
Uniform Delay, d1		48.3			30.8	16.0	60.5	48.9		59.2	46.9	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		20.9			716.1	0.1	321.8	3.4		6.1	1.1	
Delay (s)		69.2			746.8	16.1	382.3	52.3		65.3	48.1	
Level of Service		E			F	B	F	D		E	D	
Approach Delay (s)		69.2			555.3			76.2			50.2	
Approach LOS		E			F			E			D	

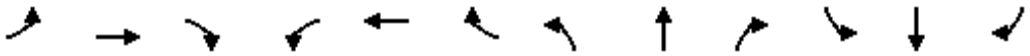
Intersection Summary			
HCM 2000 Control Delay	203.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.78		
Actuated Cycle Length (s)	121.8	Sum of lost time (s)	19.1
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	210	35	75	151	80	10	120	10	30	180	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00		0.97	0.95	
Frpb, ped/bikes		1.00			1.00	0.98	1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.99			1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected		0.98			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3179			1699	1433	1641	1707		3183	3173	
Flt Permitted		0.76			0.11	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		2446			197	1433	1641	1707		3183	3173	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	228	38	82	164	87	11	130	11	33	196	43
RTOR Reduction (vph)	0	5	0	0	0	44	0	3	0	0	15	0
Lane Group Flow (vph)	0	413	0	0	246	43	11	138	0	33	224	0
Confl. Peds. (#/hr)												1
Confl. Bikes (#/hr)						5						5
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			1		3	8		7	4	
Permitted Phases	2			1		1						
Actuated Green, G (s)		22.9			60.3	60.3	0.8	17.2		2.3	18.7	
Effective Green, g (s)		22.9			60.3	60.3	0.8	17.2		2.3	18.7	
Actuated g/C Ratio		0.19			0.50	0.50	0.01	0.14		0.02	0.15	
Clearance Time (s)		4.9			4.9	4.9	4.4	4.9		4.4	4.9	
Vehicle Extension (s)		4.8			4.8	4.8	2.0	3.3		2.0	4.4	
Lane Grp Cap (vph)		459			97	709	10	241		60	487	
v/s Ratio Prot							0.01	c0.08		c0.01	0.07	
v/s Ratio Perm		c0.17			c1.25	0.03						
v/c Ratio		0.90			2.54	0.06	1.10	0.57		0.55	0.46	
Uniform Delay, d1		48.3			30.8	16.0	60.5	48.9		59.2	46.9	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		21.4			720.6	0.1	321.8	3.4		6.1	1.1	
Delay (s)		69.7			751.4	16.1	382.3	52.3		65.3	48.1	
Level of Service		E			F	B	F	D		E	D	
Approach Delay (s)		69.7			559.3			76.2			50.2	
Approach LOS		E			F			E			D	

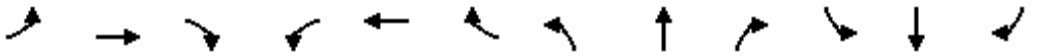
Intersection Summary			
HCM 2000 Control Delay	204.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.79		
Actuated Cycle Length (s)	121.8	Sum of lost time (s)	19.1
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection No.	22	Peak:	AM		Green = Manual Input			Control Type		Signal	Base Delay	172.2
Project's Total Daily Trip Generation - Table 3.1 **[a]**	40126								SI Type	+1 sec	Max Delay	173.2
External Peak Hour Trip Generation - Table 3.1 **[b]**	In	876	Out	1931								
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NT + P Peak Hour Turning Movements Volumes - Figure 8-4 **[c]**	100	250	840	100	400	218	339	507	260	400	275	170
Project Trip Assignment - Figure 3-4 **[d]**	0	0	0	0	0	18	39	77	0	0	35	0
Type of Turning Movement **[e]**						in	out	out			in	
Base Volume (c - d) **[f]**	100	250	840	100	400	200	300	430	260	400	240	170
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[g]**	5470		Delay (from Synchro)	172.9	LOS (from Synchro)	F						
Percent Reduction in Trip Gen. (g / a) **[h]**	86.4%											
Trip Assignment after Trip Gen reduction (d - h * d) **[i]**	0	0	0	0	0	2	5	10	0	0	5	0
Base Volume + Reduced Trip Assignment (f + i)	100	250	840	100	400	202	305	440	260	400	245	170
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[j]**	305	440	260	400	245	170	100	250	840	100	400	202
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Trigger ADT **[k]**	**5471**		Delay (from Synchro)	172.9	LOS (from Synchro)	F						
Percent Reduction in Trip Gen. (k / a) **[L]**	86.4%											
Trip Assignment after Trip Gen reduction (d - L * d) **[m]**	0	0	0	0	0	2	5	10	0	0	5	0
Base Volume + Reduced Trip Assignment (f + m)	100	250	840	100	400	202	305	440	260	400	245	170
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[n]**	305	440	260	400	245	170	100	250	840	100	400	202
Change when compare to previous ADT (n - j) **[o]**	0	0	0	0	0	0	0	0	0	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[p]**	5472		Delay (from Synchro)	173.3	LOS (from Synchro)	F						
Percent Reduction in Trip Gen. (p / a) **[q]**	86.4%											
Trip Assignment after Trip Gen reduction (d - q * d) **[r]**	0	0	0	0	0	2	5	11	0	0	5	0
Base Volume + Reduced Trip Assignment (f + r)	100	250	840	100	400	202	305	441	260	400	245	170
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[s]**	305	441	260	400	245	170	100	250	840	100	400	202
Change when compare to previous ADT (s - n) **[t]**	0	1	0	0	0	0	0	0	0	0	0	0



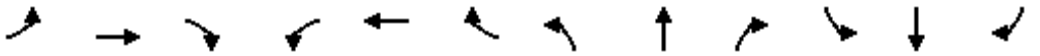
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	305	440	260	400	245	170	100	250	840	100	400	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.88		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	4715	1423	1641	4425		1641	1509		3183	1640	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1641	4715	1423	1641	4425		1641	1509		3183	1640	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	332	478	283	435	266	185	109	272	913	109	435	220
RTOR Reduction (vph)	0	0	240	0	93	0	0	71	0	0	12	0
Lane Group Flow (vph)	332	478	43	435	358	0	109	1114	0	109	643	0
Confl. Peds. (#/hr)			3						3			
Confl. Bikes (#/hr)			1						1			
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	29.4	21.1	21.1	31.0	22.7		13.2	58.8		9.2	55.7	
Effective Green, g (s)	29.4	21.1	21.1	31.0	22.7		13.2	58.8		9.2	55.7	
Actuated g/C Ratio	0.21	0.15	0.15	0.22	0.16		0.09	0.42		0.07	0.40	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	3.2		2.0	5.3	
Lane Grp Cap (vph)	344	710	214	363	717		154	633		209	652	
v/s Ratio Prot	0.20	c0.10		c0.27	0.08		c0.07	c0.74		0.03	0.39	
v/s Ratio Perm			0.03									
v/c Ratio	0.97	0.67	0.20	1.20	0.50		0.71	1.76		0.52	0.99	
Uniform Delay, d1	54.8	56.2	52.1	54.5	53.5		61.5	40.6		63.3	41.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	38.7	5.0	2.1	112.9	2.5		11.5	348.6		1.1	31.7	
Delay (s)	93.5	61.2	54.1	167.4	55.9		73.0	389.2		64.4	73.5	
Level of Service	F	E	D	F	E		E	F		E	E	
Approach Delay (s)		69.2			110.7			362.5			72.2	
Approach LOS		E			F			F			E	

Intersection Summary			
HCM 2000 Control Delay	172.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.35		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	128.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	305	440	260	400	245	170	100	250	840	100	400	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.88		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	4715	1423	1641	4425		1641	1509		3183	1640	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1641	4715	1423	1641	4425		1641	1509		3183	1640	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	332	478	283	435	266	185	109	272	913	109	435	220
RTOR Reduction (vph)	0	0	240	0	93	0	0	71	0	0	12	0
Lane Group Flow (vph)	332	478	43	435	358	0	109	1114	0	109	643	0
Confl. Peds. (#/hr)			3						3			
Confl. Bikes (#/hr)			1						1			
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	29.4	21.1	21.1	31.0	22.7		13.2	58.8		9.2	55.7	
Effective Green, g (s)	29.4	21.1	21.1	31.0	22.7		13.2	58.8		9.2	55.7	
Actuated g/C Ratio	0.21	0.15	0.15	0.22	0.16		0.09	0.42		0.07	0.40	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	3.2		2.0	5.3	
Lane Grp Cap (vph)	344	710	214	363	717		154	633		209	652	
v/s Ratio Prot	0.20	c0.10		c0.27	0.08		c0.07	c0.74		0.03	0.39	
v/s Ratio Perm			0.03									
v/c Ratio	0.97	0.67	0.20	1.20	0.50		0.71	1.76		0.52	0.99	
Uniform Delay, d1	54.8	56.2	52.1	54.5	53.5		61.5	40.6		63.3	41.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	38.7	5.0	2.1	112.9	2.5		11.5	348.6		1.1	31.7	
Delay (s)	93.5	61.2	54.1	167.4	55.9		73.0	389.2		64.4	73.5	
Level of Service	F	E	D	F	E		E	F		E	E	
Approach Delay (s)		69.2			110.7			362.5			72.2	
Approach LOS		E			F			F			E	

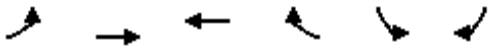
Intersection Summary			
HCM 2000 Control Delay	172.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.35		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	128.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	305	441	260	400	245	170	100	250	840	100	400	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.88		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	4715	1423	1641	4425		1641	1509		3183	1640	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1641	4715	1423	1641	4425		1641	1509		3183	1640	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	332	479	283	435	266	185	109	272	913	109	435	220
RTOR Reduction (vph)	0	0	240	0	93	0	0	71	0	0	12	0
Lane Group Flow (vph)	332	479	43	435	358	0	109	1114	0	109	643	0
Confl. Peds. (#/hr)			3						3			
Confl. Bikes (#/hr)			1						1			
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	29.4	21.2	21.2	31.0	22.8		13.2	58.7		9.2	55.6	
Effective Green, g (s)	29.4	21.2	21.2	31.0	22.8		13.2	58.7		9.2	55.6	
Actuated g/C Ratio	0.21	0.15	0.15	0.22	0.16		0.09	0.42		0.07	0.40	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	3.2		2.0	5.3	
Lane Grp Cap (vph)	344	713	215	363	720		154	632		209	651	
v/s Ratio Prot	0.20	c0.10		c0.27	0.08		c0.07	c0.74		0.03	0.39	
v/s Ratio Perm			0.03									
v/c Ratio	0.97	0.67	0.20	1.20	0.50		0.71	1.76		0.52	0.99	
Uniform Delay, d1	54.8	56.1	52.0	54.5	53.4		61.5	40.6		63.3	41.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	38.7	5.0	2.1	112.9	2.4		11.5	349.8		1.1	32.1	
Delay (s)	93.5	61.1	54.0	167.4	55.8		73.0	390.4		64.4	73.9	
Level of Service	F	E	D	F	E		E	F		E	E	
Approach Delay (s)		69.1			110.6			363.7			72.6	
Approach LOS		E			F			F			E	

Intersection Summary			
HCM 2000 Control Delay	173.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.35		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	128.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

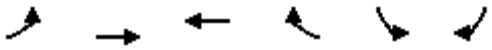
Intersection No.	30	Peak:	AM		Green = Manual Input			Control Type		SSSC	Base Delay	89.8
Project's Total Daily Trip Generation - Table 3.1 **[a]**	40126								SI Type	+1 sec	Max Delay	90.8
External Peak Hour Trip Generation - Table 3.1 **[b]**	In	876	Out	1931								
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NT + P Peak Hour Turning Movements Volumes - Figure 8-4 **[c]**	0	0	0	0	0	500	0	999	0		945	
Project Trip Assignment - Figure 3-4 **[d]**								39			15	
Type of Turning Movement **[e]**								out			in	
Base Volume (c - d) **[f]**	0	0	0	0	0	500	0	960	0	0	930	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[g]**	12036		Delay (from Synchro)	90.7	LOS (from Synchro)	F						
Percent Reduction in Trip Gen. (g / a) **[h]**	70.0%											
Trip Assignment after Trip Gen reduction (d - h * d) **[i]**	0	0	0	0	0	0	0	12	0	0	4	0
Base Volume + Reduced Trip Assignment (f + i)	0	0	0	0	0	500	0	972	0	0	934	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[j]**	0	972	0	0	934	0	0	0	0	0	0	500
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Trigger ADT **[k]**	**12037**		Delay (from Synchro)	90.7	LOS (from Synchro)	F						
Percent Reduction in Trip Gen. (k / a) **[L]**	70.0%											
Trip Assignment after Trip Gen reduction (d - L * d) **[m]**	0	0	0	0	0	0	0	12	0	0	4	0
Base Volume + Reduced Trip Assignment (f + m)	0	0	0	0	0	500	0	972	0	0	934	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[n]**	0	972	0	0	934	0	0	0	0	0	0	500
Change when compare to previous ADT (n - j) **[o]**	0	0	0	0	0	0	0	0	0	0	0	0
Trigger Calculation Testing Documentation (Multiple iterations)												
Project's Total Daily Trip Generation - Before Impact **[p]**	12038		Delay (from Synchro)	90.9	LOS (from Synchro)	F						
Percent Reduction in Trip Gen. (p / a) **[q]**	70.0%											
Trip Assignment after Trip Gen reduction (d - q * d) **[r]**	0	0	0	0	0	0	0	12	0	0	5	0
Base Volume + Reduced Trip Assignment (f + r)	0	0	0	0	0	500	0	972	0	0	935	0
Arrange to Synchro input order	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
(EB - WB - NB - SB) **[s]**	0	972	0	0	935	0	0	0	0	0	0	500
Change when compare to previous ADT (s - n) **[t]**	0	0	0	0	1	0	0	0	0	0	0	0



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Volume (veh/h)	0	972	934	0	0	500
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.89	0.89	0.73	0.73
Hourly flow rate (vph)	0	1144	1049	0	0	685
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1049				1431	350
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1049				1431	350
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	0
cM capacity (veh/h)	613				116	624

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	381	381	381	350	350	350	685
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	685
cSH	1700	1700	1700	1700	1700	1700	624
Volume to Capacity	0.22	0.22	0.22	0.21	0.21	0.21	1.10
Queue Length 95th (ft)	0	0	0	0	0	0	508
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	90.7
Lane LOS							F
Approach Delay (s)	0.0			0.0			90.7
Approach LOS							F

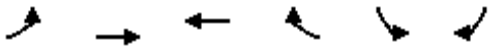
Intersection Summary			
Average Delay	21.6		
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Volume (veh/h)	0	972	934	0	0	500
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.89	0.89	0.73	0.73
Hourly flow rate (vph)	0	1144	1049	0	0	685
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1049				1431	350
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1049				1431	350
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	0
cM capacity (veh/h)	613				116	624

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	381	381	381	350	350	350	685
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	685
cSH	1700	1700	1700	1700	1700	1700	624
Volume to Capacity	0.22	0.22	0.22	0.21	0.21	0.21	1.10
Queue Length 95th (ft)	0	0	0	0	0	0	508
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	90.7
Lane LOS							F
Approach Delay (s)	0.0			0.0			90.7
Approach LOS							F

Intersection Summary			
Average Delay	21.6		
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Volume (veh/h)	0	972	935	0	0	500
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.89	0.89	0.73	0.73
Hourly flow rate (vph)	0	1144	1051	0	0	685
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1051				1432	350
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1051				1432	350
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	0
cM capacity (veh/h)	613				116	623

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	381	381	381	350	350	350	685
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	685
cSH	1700	1700	1700	1700	1700	1700	623
Volume to Capacity	0.22	0.22	0.22	0.21	0.21	0.21	1.10
Queue Length 95th (ft)	0	0	0	0	0	0	508
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	90.9
Lane LOS							F
Approach Delay (s)	0.0			0.0			90.9
Approach LOS							F

Intersection Summary			
Average Delay	21.6		
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		

FAIR SHARE CALCULATION

The volume shown below is the sum of all movements

Intersection No.	EXISTING AM	EXISTING PM	Cumulative Projects AM Trips	Cumulative Projects PM Trips	Project Assignment AM	Project Assignment Pm	Near-Term + Project AM	Near-Term + Project PM	AM Fair Share	PM Fair Share
6	260	444	1040	1223	196	248	1496	1915	16%	**17%**
8	432	667	2298	2433	308	390	3038	3490	12%	**14%**
9	462	860	1198	789	308	371	1968	2020	20%	**32%**
10	973	1437	2927	3313	674	850	4574	5600	19%	**20%**
16	971	1512	3049	3512	1291	1631	5311	6655	30%	**32%**
18	1444	1411	741	939	1880	2375	4065	4725	72%	**72%**
19	941	1265	1449	1305	2274	2872	4664	5442	61%	**69%**
20	370	386	490	694	422	532	1282	1612	**46%**	43%
22	1595	1716	2095	1434	169	213	3859	3363	7%	**13%**
30	1612	1779	778	831	54	71	2444	2681	6%	**8%**

Fair Share = Proposed Project Trips / (Cumulative Projects Trips + Proposed Project Trips)

Year 2025 Cumulative + Project Trigger Calculations

Roadway	From	To	Cross-Section	Threshold LOS E	Cumulative ADT	LOS w/o Project	Available Capacity	% of Project Trips	LOS w/ Project	Project's External Trip Generation at Time of Impact [1]	Projects Total ADT Generation at Time of Impact
Heritage Road	Avenida De Las Vistas	Datsun Street	2-Ln	6,500	31900	F	100	11%	F	909	1,003
	Datsun Street	Otay Mesa Road	2-Ln	6,500	38500	F	150	12%	F	1250	1,380
Cactus Road	Otay Mesa Road	SR-905	2-Ln	6,500	6200	D	300	5%	E	6000	6,623
Britannia Boulevard	SR-905 EB Ramps	Airway Road	5-Ln w/RM (2-NB, 3-SB)	45,840	25,090	B	20750	67%	E	30970	34,183
La Media	Northern Terminus	Otay Mesa Road	2-Ln	6,500	22,500	F	80	2%	F	4000	4,415
	Avenida De La Fuente	Siempre Viva Road	2-Ln	6,500	27,780	F	100	3%	F	3333	3,679
Airway Road	Cactus Road	Continental Road	2-Ln	6,500	8,700	F	333	83%	F	401	444
Airway Road	Continental Road	Britannia Blvd	2-Ln	6,500	8,700	F	80	83%	F	96	106
Airway Road	Brittania Blvd	La Media Road	2-Ln	6,500	14,170	F	80	10%	F	800	883
Airway Road	La Media Road	Avenida Costa Azul	2-Ln	6,500	10,300	F	80	3%	F	2667	2,944
Airway Road	Piper Ranch Road	Harvest Road	2-Ln w/CLTL	13,000	15,500	F	150	2%	F	7500	8,278
Airway Road	Harvest Road	Sanyo Avneue	2-Ln w/CLTL	13,000	14,100	E	300	1%	E	30000	33,113
Siempre Viva Road	Cactus Road	Britannia Blvd	2-Ln	6,500	6,400	D	100	13%	F	769	849
Siempre Viva Road	Britannia Blvd	La Media Road	2-Ln	6,500	9,270	F	80	13%	F	615	679

Notes:

90.6% of Total Trip Generation due to internal capture.

Intersection		CONDITION A - Minimum Vehicular Volume	CONDITION B - Interruption of Continuous Traffc	Combination of CONDITIONS A+B
6	Caliente Avenue / Airway Road	Yes	Yes	Yes
8	Heritage Road / Avenida De Las Vistas	Yes	Yes	Yes
9	Heritage Road / Datsun Street	Yes	Yes	Yes
30	SR-905 SB Off-Ramp / Siempre Viva Road	Yes	Yes	Yes

NEARTERM YEAR 2025 + PROJECT SIGNAL WARRANT

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

		COUNT DATE	NT 2025 + Project
Major St:	Caliente Avenue	# of Lanes:	2 or more
Minor St:	Airway Road	# of Lanes:	2 or more

Speed limit or critical speed on major street traffic > 64 km/h (40 mph) .....

In built up area of isolated community of < 10,000 population.....

or } **RURAL (R)**

URBAN (U)

Major St ADT (Total):	33500	Roadway Type:	Urban
Minor Street ADT (Highest Direction):	9150		

(Based on Estimated Average Daily Traffic - See Note)

CONDITION A - Minimum Vehicular Volume	Minimum Requirements EADT	
Satisfied X Not Satisfied	Vehichles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Number of lanes for moving traffic on each approach		
Major Street / Minor Street	Urban / Rural	Urban / Rural
1 / 1	8000 / 5,600	2,400 / 1,680
2 or more / 1	9,600 / 6,720	2,400 / 1,680
2 or more / 2 or more	9,600 / 6,720	3,200 / 2,240
1 / 2 or more	8,000 / 5,600	3,200 / 2,240
CONDITION B - Interruption of Continuous Traffc	Vehichles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Staisfied X Not Satisfied		
Number of lanes for moving traffic on each approach		
Major Street / Minor Street	Urban / Rural	Urban / Rural
1 / 1	12,000 / 8,400	1,200 / 850
2 or more / 1	14,400 / 10,080	1,200 / 850
2 or more / 2 or more	14,400 / 10,080	1,600 / 1,120
1 / 2 or more	12,000 / 8,400	1,600 / 1,120
Combination of CONDITIONS A+B		
Satisfied X Not Satisfied	2 CONDITIONS 80%	2 CONDITIONS 80%
No one condition satisfied, but following conditions fulfilled 80% or More — 286% A / 233% B		

Note: To be used only for NEW INTERSECTIONS or other locations wehre it is not reasonable to count actual traffic volumes.

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

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

		COUNT DATE	NT 2025 + Project
Major St:	Heritage Road	# of Lanes:	2 or more
Minor St:	Avenida De Las Vistas	# of Lanes:	2 or more

Speed limit or critical speed on major street traffic > 64 km/h (40 mph) .....

In built up area of isolated community of < 10,000 population.....

or } **RURAL (R)**

URBAN (U)

Major St ADT (Total):	40200	Roadway Type:	Urban
Minor Street ADT (Highest Direction):	7900		

(Based on Estimated Average Daily Traffic - See Note)

CONDITION A - Minimum Vehicular Volume	Minimum Requirements EADT	
Satisfied X Not Satisfied	Vehichles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Number of lanes for moving traffic on each approach		
Major Street / Minor Street	Urban / Rural	Urban / Rural
1 / 1	8000 / 5,600	2,400 / 1,680
2 or more / 1	9,600 / 6,720	2,400 / 1,680
2 or more / 2 or more	9,600 / 6,720	3,200 / 2,240
1 / 2 or more	8,000 / 5,600	3,200 / 2,240
CONDITION B - Interruption of Continuous Traffc	Vehichles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Staisfied X Not Satisfied		
Number of lanes for moving traffic on each approach		
Major Street / Minor Street	Urban / Rural	Urban / Rural
1 / 1	12,000 / 8,400	1,200 / 850
2 or more / 1	14,400 / 10,080	1,200 / 850
2 or more / 2 or more	14,400 / 10,080	1,600 / 1,120
1 / 2 or more	12,000 / 8,400	1,600 / 1,120
Combination of CONDITIONS A+B		
Satisfied X Not Satisfied	2 CONDITIONS 80%	2 CONDITIONS 80%
No one condition satisfied, but following conditions fulfilled 80% or More	247% A / 279% B	

Note: To be used only for NEW INTERSECTIONS or other locations wehre it is not reasonable to count actual traffic volumes.

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

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

		COUNT DATE	NT 2025 + Project
Major St:	Heritage Road	# of Lanes:	2 or more
Minor St:	Datsun Street	# of Lanes:	2 or more

Speed limit or critical speed on major street traffic > 64 km/h (40 mph) .....

In built up area of isolated community of < 10,000 population.....

or } **RURAL (R)**

URBAN (U)

Major St ADT (Total):	35800	Roadway Type:	Urban
Minor Street ADT (Highest Direction):	5200		

(Based on Estimated Average Daily Traffic - See Note)

CONDITION A - Minimum Vehicular Volume	Minimum Requirements EADT	
Satisfied X Not Satisfied	Vehichles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Number of lanes for moving traffic on each approach		
Major Street / Minor Street	Urban / Rural	Urban / Rural
1 / 1	8000 / 5,600	2,400 / 1,680
2 or more / 1	9,600 / 6,720	2,400 / 1,680
2 or more / 2 or more	9,600 / 6,720	3,200 / 2,240
1 / 2 or more	8,000 / 5,600	3,200 / 2,240
CONDITION B - Interruption of Continuous Traffc	Vehichles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Staisfied X Not Satisfied		
Number of lanes for moving traffic on each approach		
Major Street / Minor Street	Urban / Rural	Urban / Rural
1 / 1	12,000 / 8,400	1,200 / 850
2 or more / 1	14,400 / 10,080	1,200 / 850
2 or more / 2 or more	14,400 / 10,080	1,600 / 1,120
1 / 2 or more	12,000 / 8,400	1,600 / 1,120
Combination of CONDITIONS A+B		
Satisfied X Not Satisfied	2 CONDITIONS 80%	2 CONDITIONS 80%
No one condition satisfied, but following conditions fulfilled 80% or More — 163% A / 249% B		

Note: To be used only for NEW INTERSECTIONS or other locations wehre it is not reasonable to count actual traffic volumes.

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

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

		COUNT DATE	NT 2025 + Project
Major St:	SR-905 SB Off-Ramp	# of Lanes:	2 or more
Minor St:	Siempre Viva Road	# of Lanes:	2 or more

Speed limit or critical speed on major street traffic > 64 km/h (40 mph) .....

In built up area of isolated community of < 10,000 population.....

or } **RURAL (R)** / **URBAN (U)**

Major St ADT (Total):	41700	Roadway Type:	Urban
Minor Street ADT (Highest Direction):	4950		

(Based on Estimated Average Daily Traffic - See Note)

CONDITION A - Minimum Vehicular Volume	Minimum Requirements EADT	
Satisfied X Not Satisfied	Vehichles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Number of lanes for moving traffic on each approach		
Major Street / Minor Street	Urban / Rural	Urban / Rural
1 / 1	8000 / 5,600	2,400 / 1,680
2 or more / 1	9,600 / 6,720	2,400 / 1,680
2 or more / 2 or more	9,600 / 6,720	3,200 / 2,240
1 / 2 or more	8,000 / 5,600	3,200 / 2,240
CONDITION B - Interruption of Continuous Traffc	Vehichles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Staisfied X Not Satisfied		
Number of lanes for moving traffic on each approach		
Major Street / Minor Street	Urban / Rural	Urban / Rural
1 / 1	12,000 / 8,400	1,200 / 850
2 or more / 1	14,400 / 10,080	1,200 / 850
2 or more / 2 or more	14,400 / 10,080	1,600 / 1,120
1 / 2 or more	12,000 / 8,400	1,600 / 1,120
Combination of CONDITIONS A+B		
Satisfied X Not Satisfied	2 CONDITIONS 80%	2 CONDITIONS 80%
No one condition satisfied, but following conditions fulfilled 80% or More — 155% A / 290% B		

Note: To be used only for NEW INTERSECTIONS or other locations wehre it is not reasonable to count actual traffic volumes.

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