

TRANSPORTATION STUDY
OTAY MAJESTIC PROJECT
San Diego County, California
October 26, 2023

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1.0 INTRODUCTION

Linscott, Law & Greenspan, Engineers (LLG) has prepared the following Transportation Study to determine and evaluate the potential impacts to the local roadway system due to the proposed Otay Majestic project (Project). The Project site is located near the northeast quadrant of the Otay Mesa Road / SR-125 Interchange in the County of San Diego. The Project proposes a Specific Plan Amendment (SPA) to the East Otay Mesa Business Park Specific Plan, Tentative Parcel Map, and a Site Plan to establish a new Light Industrial Master Planned Business Park.

Senate Bill 743 (SB 743) was passed in 2013, which required that by July 1, 2020, a project's transportation impacts be evaluated based on a Vehicle Miles Traveled (VMT) measure, instead of evaluating impacts based on Level of Service (LOS) criteria. The Natural Resources Agency finalized updates to the CEQA Guidelines in January 2019 that were approved by the Office of Administrative Law and are currently in effect. CEQA Guidelines § 15064.3(b) now includes specific considerations for evaluating a project's transportation impacts using a VMT measure, instead of evaluating impacts based on LOS criteria, as required by SB 743. However, the appropriate methodology for analyzing the project evaluated herein remains LOS, for the following reasons.

LOS was used as the basis for determining the significance of traffic impacts as standard practice in CEQA documents for decades, including at the time the East Otay Mesa Specific Plan Environmental Impact Report (EIR) was certified in 1994 and its various Supplemental EIRs were prepared through 2018. Although as of July 1, 2020, LOS can no longer be the basis for determining an environmental effect under CEQA, CEQA Guidelines § 15064.3(c) is clear that “[t]he provisions of [§ 15064.3] shall apply prospectively as described in [CEQA Guidelines] section 15007.” CEQA Guidelines § 15007(c) specifically states: “[i]f a document meets the content requirements in effect when the document is sent out for public review, the document shall not need to be revised to conform to any new content requirements in Guideline amendments taking effect before the document is finally approved.” As noted above, the Guidelines changes with respect to VMT took effect on July 1, 2020, while the East Otay Mesa Specific Plan EIR was certified in 1994 and its various Supplemental EIRs were approved through 2018. As such, and in accordance with CEQA Guidelines §§ 15064.3(c) and 15007(c), revisions to the previously certified EIR are not required under CEQA in order to conform to the new requirements established by CEQA Guidelines § 15064.3. See *A Local & Regional Monitor v. City of Los Angeles* (1993) 12 Cal.App.4th 1773, 1801. Furthermore, potential effects associated with VMT were known or should have been known at the time the EIR and its Supplemental EIRs were adopted, and the adoption of the requirement to analyze VMT does not constitute significant new information requiring preparation of a subsequent or supplemental EIR. See *Concerned Dublin Citizens v. City of Dublin* (2013) 214 Cal.App.4th

1301, 1320. Because the anticipated CEQA compliance document for the currently proposed project is an EIR Addendum, LOS remains the appropriate analysis metric.

The following items are included in this transportation study:

- Project Description
- Analysis Methodology & Thresholds
- Existing Conditions Discussion
- Analysis of Existing Conditions
- Project Trip Generation, Distribution, and Assignment
- Opening Year Conditions
- Analysis of Opening Year Scenarios
- Site Access
- Active Transportation Review
- Conclusions and Recommendations

2.0 PROJECT DESCRIPTION

2.1 Project Location

The Project site is approximately 250 gross acres in the East Otay Mesa area of the County of San Diego and is currently undeveloped. The site is located near the northeast quadrant of the Otay Mesa Road / SR-125 interchange.

Figure 2–1 shows the general vicinity of the Project and **Figure 2–2** illustrates, in more detail, the site location.

2.2 Project Description

The Project proposes a Specific Plan Amendment (SPA) to the East Otay Mesa Business Park Specific Plan, Tentative Parcel Map, and a Site Plan to establish a new Light Industrial Master Planned Business Park. The SPA would designate the site for Light Industrial and Conservation land uses. The Project would allow for development on approximately 183.5 acres and include approximately 51.3 acres of permanent biological open space in the northeastern portion of the Project site. Additionally, the Project includes approximately 15.83 acres for conservation of vernal pools on-site. Grading would occur on approximately 183.5 acres of the Project site.

The SPA would allow for up to 2,850,000 square feet (SF) of Class A industrial buildings. However, it should be noted that the currently proposed Site Plan proposes 2,402,229 square feet of development spread out over five (5) proposed phases. To provide a conservative assessment of the potential impacts of the SPA, 2,850,000 SF of warehousing/industrial space was analyzed in this study, including 1,533,250 SF of “Warehousing” uses and 1,296,750 SF of “High-Cube Transload and Short-Term Storage Warehouse” uses based on the Project’s expected use and land use categories provided in the *Institute of Transportation Engineers’ Trip Generation Manual*.

Figure 2–3 shows the Project’s conceptual site plan.

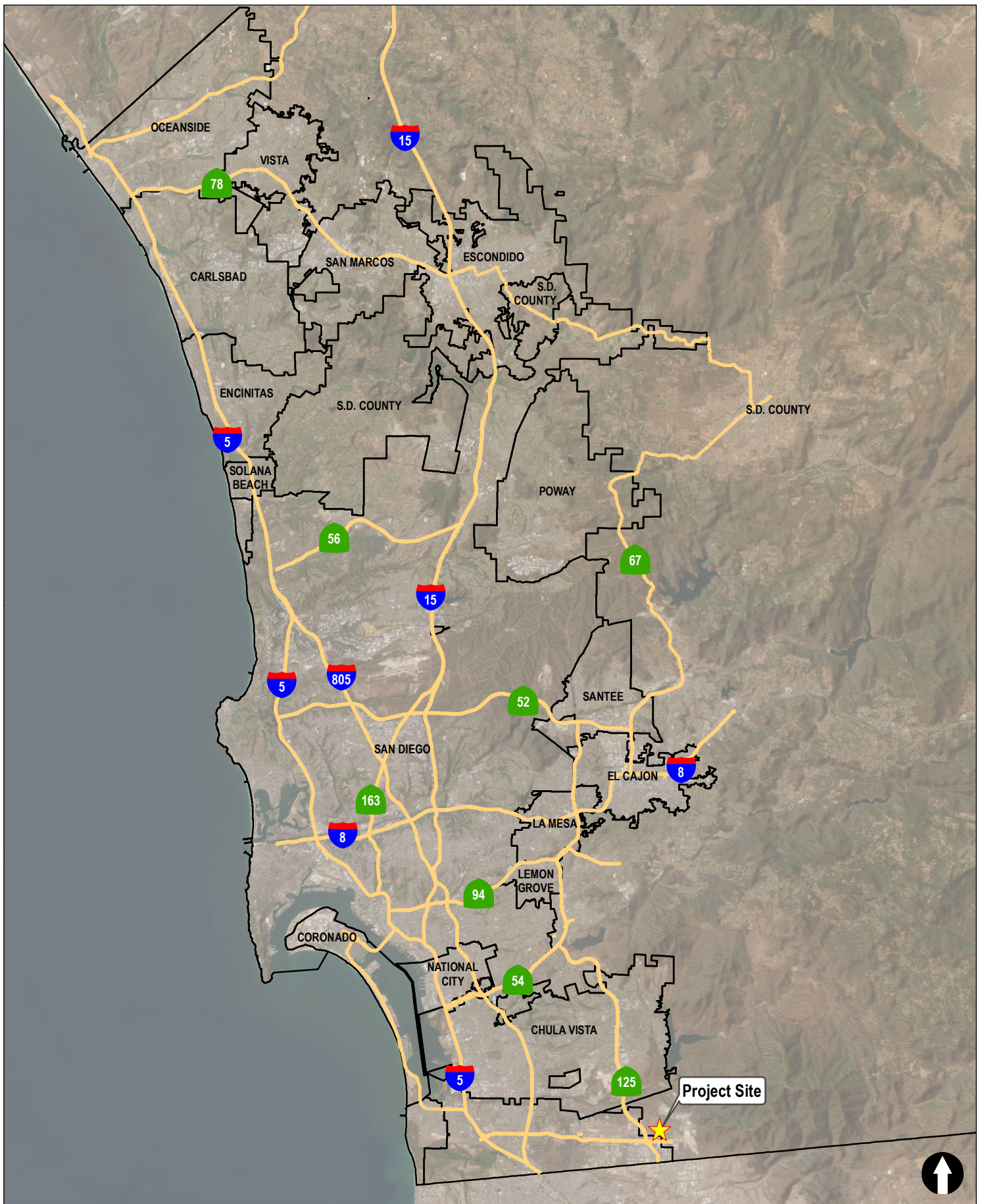
2.3 Project Access

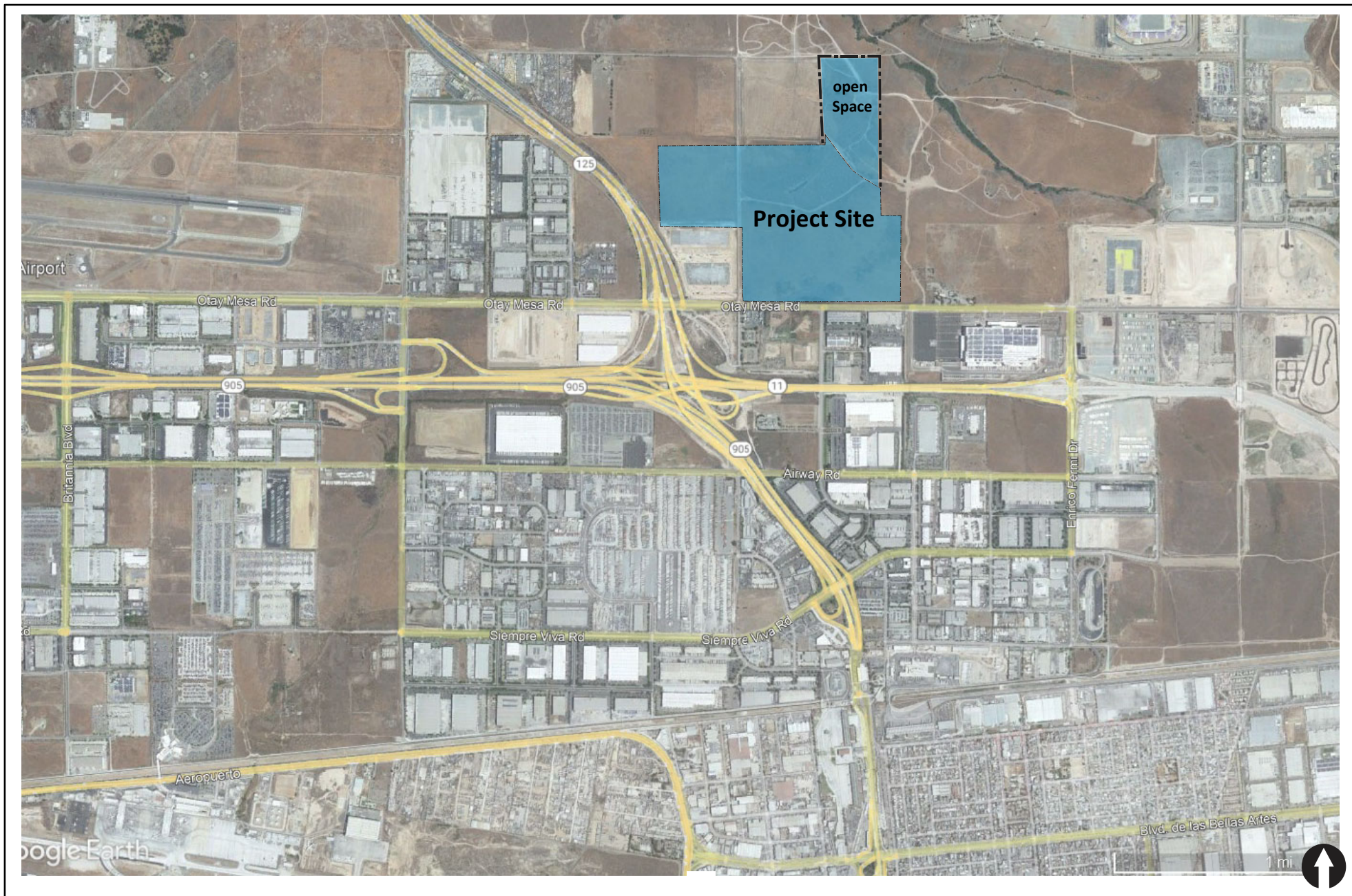
The Project will be primarily served by three access points to Otay Mesa Road at Harvest Road, Sanyo Avenue and Vann Centre Boulevard. The following improvements at the Projects’ access intersections are included as Project features:

- Intersection #5: Otay Mesa Road / Harvest Road
 - The Project will signalize the intersection.
 - The Project will restripe the eastbound approach to provide one dedicated left-turn lane, one through lane, and one shared through/right-turn lane.
 - The Project will restripe the southbound approach to provide one dedicated right-turn lane with overlap signal phasing and one shared through/left-turn lane.
- Intersection #6: Otay Mesa Road / Sanyo Avenue
 - The Project will construct the north leg of the intersection to provide one northbound lane into the site and the following striping at the southbound approach: one dedicated left-turn lane, one through lane, and one dedicated right-turn lane with overlap signal phasing.

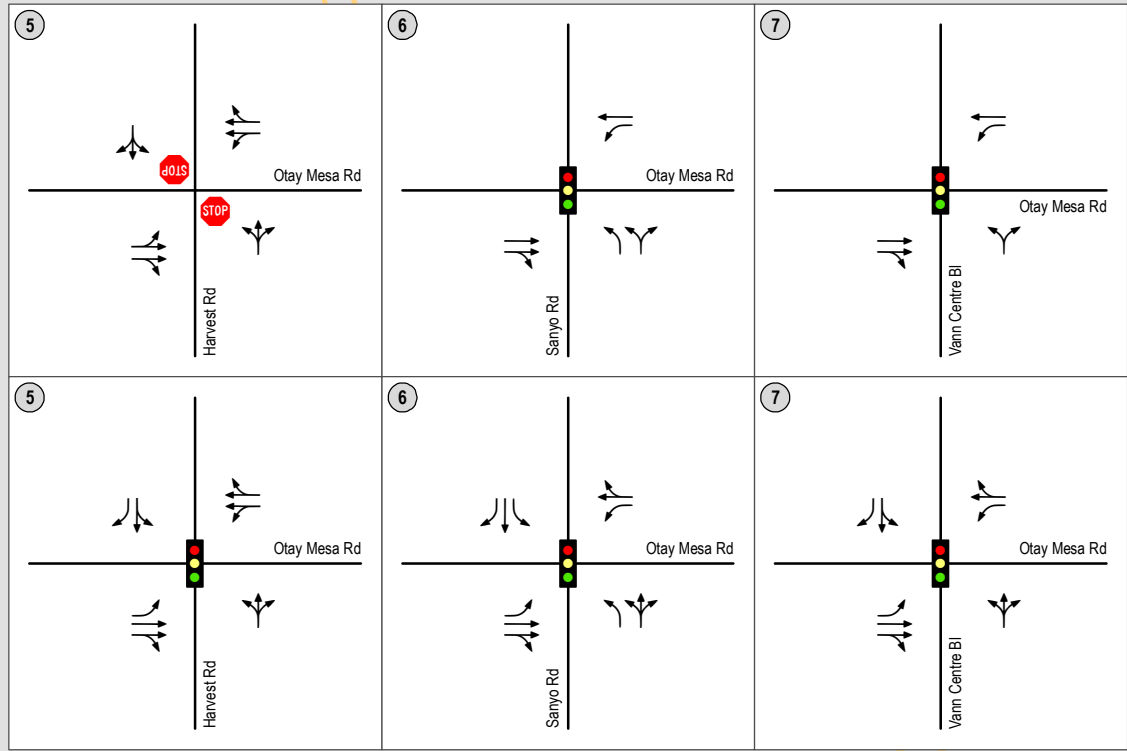
- The Project will restripe the westbound approach to provide one dedicated left-turn lane and one shared through/right-turn lane.
 - The Project will restripe the northbound approach to provide one dedicated left-turn lane and one shared left-turn/through/right-turn lane.
 - The Project will restripe the eastbound approach to provide one dedicated left-turn lane, one through lane, and one shared through/right-turn lane.
- Intersection #7: Otay Mesa Rd / Vann Centre Boulevard
 - The Project will construct the north leg of the intersection to provide one northbound lane into the site and the following striping at the southbound approach: one dedicated right-turn lane with overlap signal phasing and one shared through/left-turn lane.
 - The Project will restripe the westbound approach to provide one dedicated left-turn lane and one shared through/right-turn lane.
 - The Project will restripe the northbound approach to provide one shared left-turn/through/right-turn lane.
 - The Project will restripe the eastbound approach to provide one dedicated left-turn lane, one through lane, and one shared through/right-turn lane.

Figure 2–4 shows the existing and proposed conditions at the Project’s access intersections.









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Study Intersection

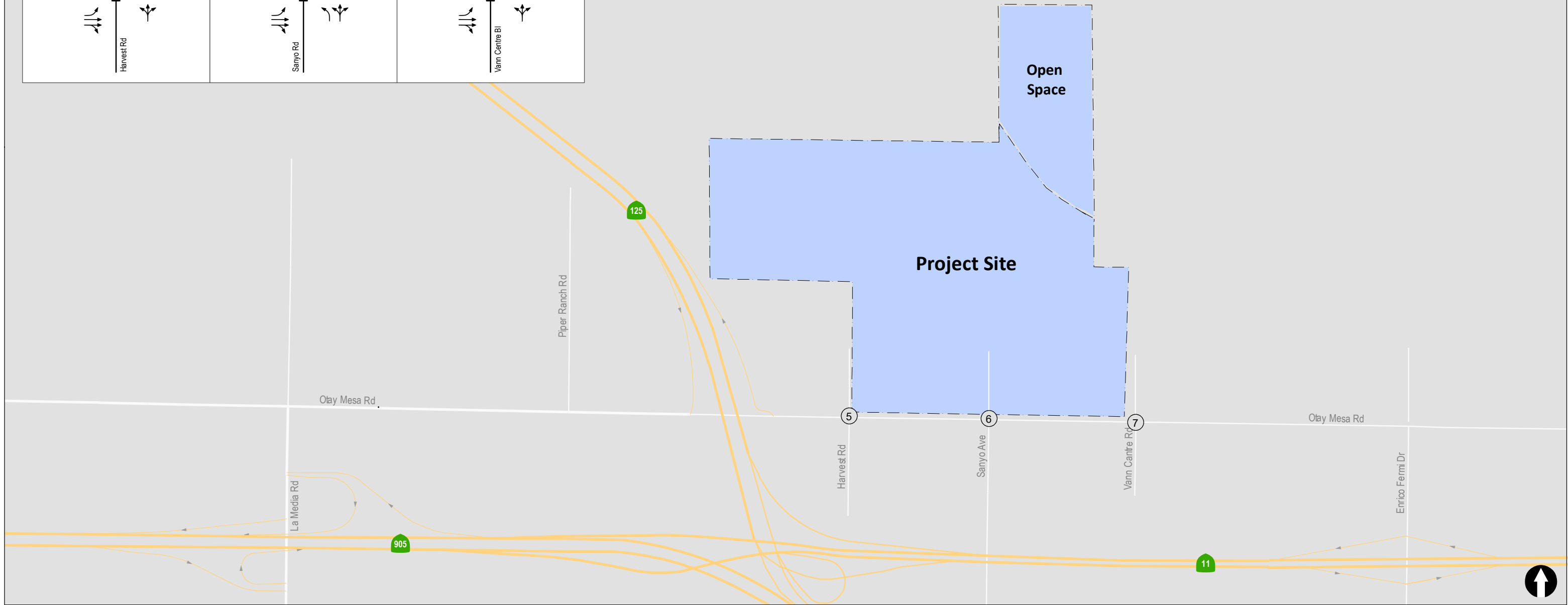
Traffic Signal

Stop Sign

Turning Movements

Existing Conditions

Proposed Conditions



3.0 ANALYSIS METHODOLOGY & THRESHOLDS

The following methods and thresholds from the County's *Transportation Study Guidelines* (adopted September 2022) were used to evaluate the Project.

3.1 Study Area

The following criterion described below was used to determine the project study area:

500 or greater daily trips - Site access driveways and intersections where at least 50 project peak hour trips are added or have known operational concerns (if the project does not contribute 50 peak hour trips total to any intersection, then the study intersections will be intersections that receive 50% or more of the total peak hour project generated trips).

Based on this criterion, the intersections included in the study area are listed below.

1. Otay Mesa Rd / La Media Rd
2. Otay Mesa Rd / Piper Ranch Rd
3. Otay Mesa Rd / SR-125 SB Off Ramp
4. Otay Mesa Rd / SR-125 NB On Ramp
5. Otay Mesa Rd / Harvest Rd
6. Otay Mesa Rd / Sanyo Ave
7. Otay Mesa Rd / Vann Centre Bl
8. Otay Mesa Rd / Enrico Fermi Rd
9. St Andrews Ave / SR-905 WB Ramps / La Media Rd
10. SR-905 EB Ramps/ Le Media Rd

3.2 Study Scenarios

The following scenarios are evaluated in this Transportation Study:

Existing Conditions – Establishes the existing baseline of traffic conditions within the study area.

Opening Year Conditions – Represents near-term cumulative traffic conditions for a project's anticipated Opening Year, including existing baseline traffic and anticipated future traffic growth. For the purposes of the analysis presented in this study, the Project's Opening Year is assumed as the opening of Phase 1 of the Project, which is expected to occur in 2026. Full buildout of the Project is expected to occur around 2036.

Opening Year + Project Conditions – The Project's generated traffic is added to the Opening Year Conditions to evaluate the *plus project* conditions. For the purposes of the analysis presented in this study, full buildout of the Project is assumed under Opening Year + Project conditions.

Build-Out/Horizon Year Conditions – Based on coordination with County staff, a Build-Out/Horizon Year analysis was deemed unnecessary for the reasons discussed below.

- A traffic study for a previous processing of the Project site was prepared for the Otay 250 project in 2016 and ultimately approved. The Otay 250 project was calculated to generate 34,124 ADT with 2,785 AM peak hour trips and 3,474 PM peak hour trips. The amount of traffic generated by the currently proposed Project (analyzed in this study) is substantially lower than what was analyzed in the approved Otay 250 Traffic Study. As further discussed in *Section 6* of this study, the currently proposed Project is calculated to generate 6,569 ADT with 428 AM peak hour trips and 462 PM peak hour trips; 27,555 fewer ADT than what was considered in the Otay 250 traffic study. Therefore, the Project does not trigger the need for analysis of Build-Out/Horizon Year conditions. **Appendix A** includes additional information regarding the trip generation calculations for the Otay 250 project and the currently proposed Otay Majestic project.
- The proposed Project does not require the need to upgrade the Mobility Element or Specific Plan roadway classifications since the ADTs have significantly decreased as compared to the approved Otay 250 project and there is sufficient capacity in the planned roadway system.

3.3 Methodology

Level of service (LOS) is the term used to denote the different operating conditions which occur on a given intersection under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis considering factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. Level of service provides an index to the operational qualities of an intersection. Level of service designations ranges from A to F, with LOS A representing the best-operating conditions and LOS F representing the worst operating conditions. Level of service designation is reported differently for signalized intersections and unsignalized intersections.

Signalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay was determined to utilize the methodology found in Chapter 19 of the *Highway Capacity Manual 6th Edition (HCM 6)*, with the assistance of the *Synchro* (version 11) computer software. The delay values (represented in seconds) were qualified with a corresponding intersection Level of Service (LOS).

Unsignalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay and LOS was determined based upon the procedures found in Chapter 19 and Chapter 20 of the *HCM 6*, with the assistance of *Synchro* (version 11) computer software.

3.4 Thresholds

The following is a summary of the thresholds used in this study.

Signalized Intersections

An improvement is required at signalized intersections if any of the following are triggered.

- Any intersection that is operating at an acceptable LOS or better without project traffic in which the addition of project traffic causes the intersection to degrade to a LOS E or F should identify improvements to improve operations to LOS D or better.
- Any signalized intersection that is operating at LOS E or F without project traffic where the project increased delay by 5.0 or more seconds should identify improvements to offset the increase in delay.
- If the left-turn volume exceeds 100 vehicles per hour, an exclusive left-turn lane is recommended.
- If the left-turn volume exceeds 150 vehicles per hour and posted speed 45 mph or greater, a protected left-turn phasing is recommended.
- If the left-turn volume exceeds 300 vehicles per hour, a second left-turn lane is recommended.
- If the right-turn volume exceeds 150 vehicles per hour, a dedicated right-turn lane is recommended.
- The project causes the 95th percentile queue at a turn lane to exceed the existing turn lane length/storage.

Unsignalized Intersections

An improvement is required at unsignalized intersections if any of the following are triggered.

Side-Street Stop Intersection

- The project causes the average intersection delay to degrade to an LOS E or F during the peak hour.
- If the worst-case movement is currently operating at LOS E or F
 - The project adds five (5) or more seconds to the overall intersection, AND
 - The project adds ten (10) or more trips to the worst-case movements or 50 or more trips to the overall intersection.
- The intersection meets the peak hour traffic signal warrants after the addition of project traffic per the *California Manual on Uniform Traffic Control Devices (CA MUTCD*–latest edition). An investigation of the need for a traffic control signal may also include an analysis of factors related to the existing operations and safety at a study intersection and the potential to improve these conditions. A warrant analysis is not required for right-turn in/right-turn out only intersections or driveways that are physically restricted by a raised center median.

All-Way Stop and Roundabout Intersection

- The project causes the average intersection delay to degrade to an LOS E or F during the peak hour.

- The project adds five (5) or more seconds of delay to an intersection that is currently operating at LOS E or F during the peak hour.
- The intersection meets the peak hour traffic signal warrants after the addition of project traffic per the *California Manual on Uniform Traffic Control Devices (CA MUTCD*—latest edition). An investigation of the need for a traffic control signal may also include an analysis of factors related to the existing operations and safety at a study intersection and the potential to improve these conditions. A warrant analysis is not required for a right turn in/right turn out only intersections or driveways that are physically restricted by a raised center median.

4.0 EXISTING CONDITIONS

4.1 Existing Roadway Network

The following is a description of the existing off-site roadway network in the study area. **Figure 4–1** shows an existing conditions diagram.

State Route 905 (SR 905) is a 6-lane freeway, opened in July 2012, that provides a direct east-west connection from I-5 to the Otay Mesa Port of Entry. The posted speed limit is 55mph.

The State Route 905 (SR-905) is part of an ongoing effort to construct a transportation facility from Interstate 5 to the Otay Mesa Port of Entry (POE) at the US - Mexico Border to provide for more efficient transportation of people, goods, and services within the Otay Mesa region of San Diego. The corridor is being built in multiple phases with Phases 1A and 1B, the mainlines of the freeway, already constructed and open to traffic. Phase 2 improvements to the I-805 / SR 905 interchange have also been completed. Phase 3A, which constructed the northbound connectors between SR 905 and SR 125, was completed with funding from the Trade Corridor Improvement Fund (TCIF). Phase 3B, which constructed the southbound connectors between SR 905 and SR 125 has also been completed. Based on the most current information available from Caltrans, funding for Phase 4, which will construct an interchange at Heritage Road, has not yet been secured.

Otay Mesa Road falls under the jurisdiction of the City of San Diego west of Piper Ranch Road and under the jurisdiction of the County of San Diego east of Piper Ranch Road. Within the study area, Otay Mesa Road west of Piper Ranch Road is classified as a 6-lane Prime Arterial with Class II bike lanes on the City's *Otay Mesa Community Plan Mobility Element*. On the County's General Plan *Otay Mobility Element*, Otay Mesa Road is classified as a Prime Arterial with Class II bike lanes between Piper Ranch Road and Enrico Fermi Drive, and as a Major Road with Class II bike lanes east of Enrico Fermi Drive.

Otay Mesa Road is currently constructed as a 6-lane Prime Arterial west of La Media Road, as a 5-lane Major Road between La Media Road and Piper Ranch Road, as a 6-lane Prime Arterial between Piper Ranch Road and SR 125, as a 5-lane Major Road between SR 125 and Harvest Road, as a 4-lane Major Road between Harvest Road and Sanyo Avenue, as a 3-lane Collector between Sanyo Avenue and Enrico Fermi Drive, and as a 4-lane Major Road east of Enrico Fermi Drive. Curbside parking is generally prohibited, and bike lanes are provided east of SR 125.

La Media Road falls under the jurisdiction of the City of San Diego. La Media Road is classified as a 6-lane Prime Arterial with Class II bike lanes from Otay Mesa Road to SR 905 on the City's *Otay Mesa Community Plan Mobility Element*. La Media Road is currently constructed as a 5-lane Major Road between Otay Mesa Road and SR 905. Curbside parking is prohibited, and bike lanes are not provided. The posted speed limit is 30 mph.

Harvest Road falls under the jurisdiction of the City of San Diego south of Otay Mesa Road and under the jurisdiction of the County of San Diego north of Otay Mesa Road. Harvest Road north of Otay Mesa Road is unclassified on the County's General Plan *Otay Mobility Element*, but is

classified as a 4-lane Road on the *East Otay Mesa Specific Plan 2021*. Harvest Road north of Otay Road is currently constructed as a 2-lane undivided roadway. Harvest Road north of Otay Mesa Road is proposed to be improved by the Project and will serve as one of the Project's main access points.

Sanyo Avenue falls under the jurisdiction of the City of San Diego south of Otay Mesa Road. South of Otay Mesa Road, Sanyo Avenue is classified as a 4-lane Collector with Class II bike lanes on the City's *Otay Mesa Community Plan Mobility Element*. It is currently constructed as a 4-lane Collector. Parking is prohibited and bike lanes are not provided. The posted speed limit is 35 mph. Sanyo Avenue north of Otay Mesa Road is proposed to be constructed by the Project and will serve as one of the Project's main access points. Sanyo Avenue north of Otay Mesa Road is classified as a Major Road on the County's General Plan *Otay Mobility Element*.

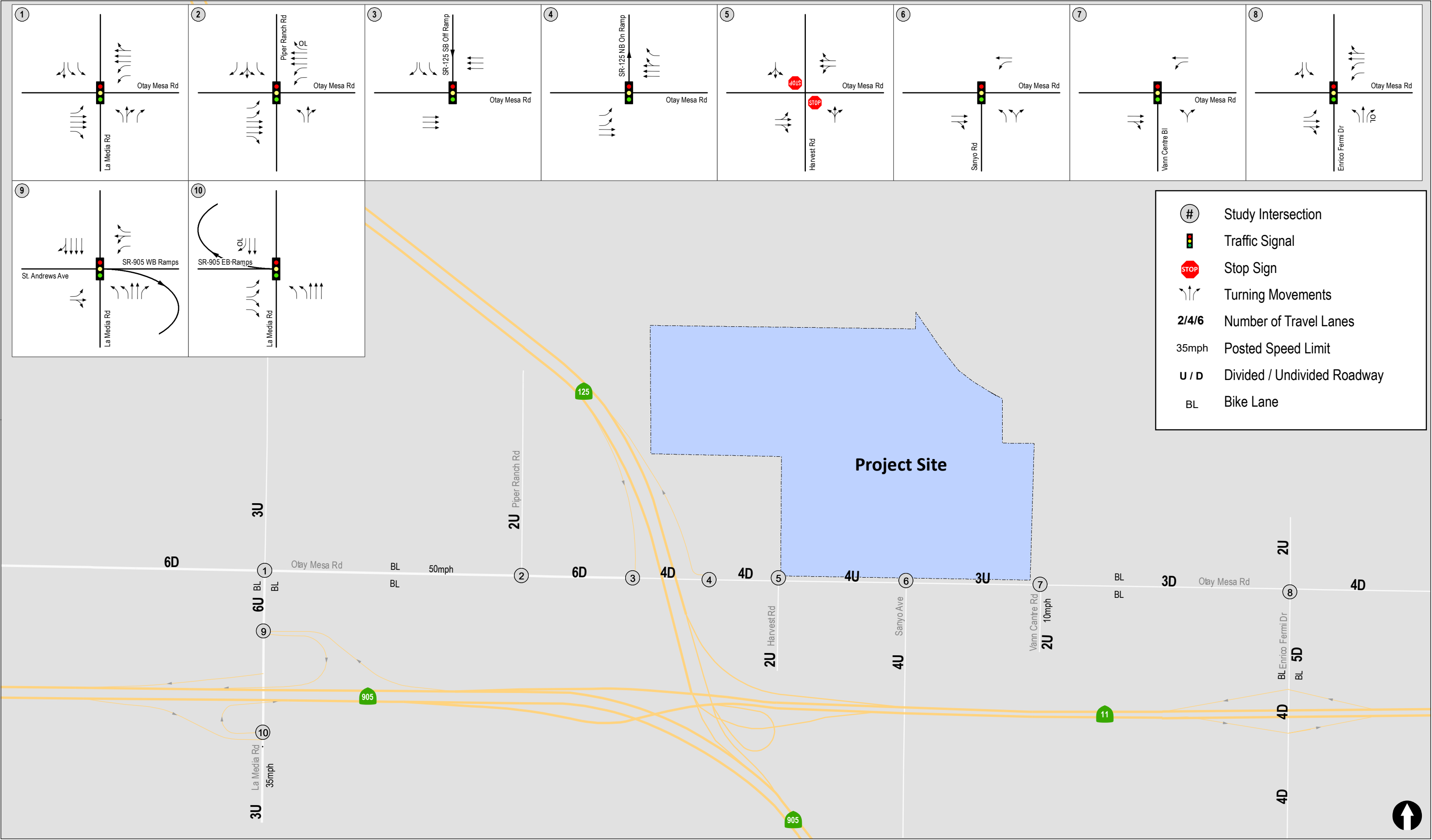
Vann Centre Boulevard north of Otay Mesa Road is proposed to be constructed by the Project and will serve as one of the Project's main access points. Vann Centre Boulevard north of Otay Mesa Road is classified as a 4-lane Road on the *East Otay Mesa Specific Plan 2021*.

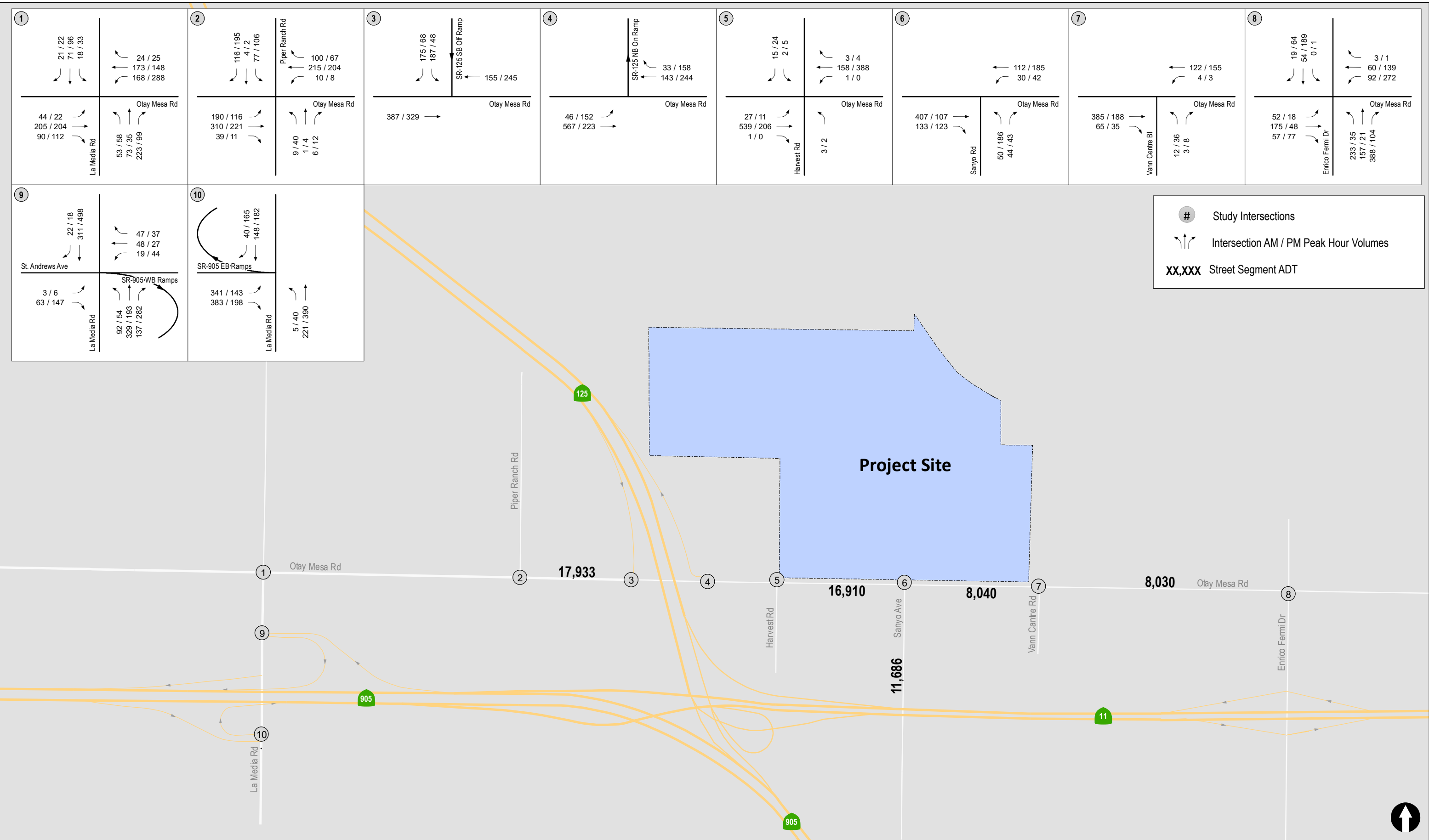
Enrico Fermi Drive falls under the jurisdiction of the County of San Diego. It is classified as a 4-lane Major Road with Class II bike lanes on the County's General Plan *Otay Mobility Element*. Enrico Fermi Drive is currently constructed as a 4-lane Major Road south of Otay Mesa Road. Class II bike lanes are provided between Otay Mesa Road and Airway Road.

4.2 Existing Traffic Volumes

Weekday AM/PM peak hour intersection turning movement traffic counts were conducted at the study area intersections on Tuesday, February 14, 2023. The peak hour counts were conducted during the commuter peak hours of 7:00-9:00 AM and 4:00-6:00 PM.

Figure 4–2 shows the Existing traffic volumes. **Appendix B** contains the peak hour traffic count sheets.





5.0 ANALYSIS OF EXISTING CONDITIONS

The following section presents the analysis of existing study area locations.

5.1 Peak Hour Intersection Analysis

Table 5–1 summarizes the peak hour intersection operations under Existing conditions in the study area. As shown, the study area intersections are calculated to currently operate acceptably at LOS D or better during the AM and PM peak hours.

Appendix C contains the Existing intersection analysis worksheets.

TABLE 5-1
EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing	
			Delay ^a	LOS ^b
1. Otay Mesa Rd / La Media Rd	Signal	AM PM	19.4 21.9	B C
2. Otay Mesa Rd / Piper Ranch Rd	Signal	AM PM	41.1 45.1	D D
3. Otay Mesa Rd / SR-125 SB Off Ramp	Signal	AM PM	8.7 7.9	A A
4. Otay Mesa Rd / SR-125 NB On Ramp	Signal	AM PM	2.9 6.2	A A
5. Otay Mesa Rd / Harvest Rd	TWSC ^c	AM PM	20.1 14.0	C B
6. Otay Mesa Rd / Sanyo Ave	Signal	AM PM	10.4 10.7	B B
7. Otay Mesa Rd / Vann Centre Bl	Signal	AM PM	10.7 9.2	B A
8. Otay Mesa Rd / Enrico Fermi Dr	Signal	AM PM	16.9 23.4	B C
9. St. Andrews Ave / SR-905 WB Ramps / La Media Rd	Signal	AM PM	12.9 17.0	B B
10. SR-905 EB Ramps/ La Media Rd	Signal	AM PM	13.2 8.5	B A

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. Two-Way Stop-Control. Worst turning movement delay reported.

SIGNALIZED		UNSIGNALIZED	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

6.0 PROJECT TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT

As described in *Section 2.2* of this study, the Project proposes to develop 2.85 million square feet of warehousing/industrial space including 1,533,250 SF of “Warehousing” uses and 1,296,750 SF of “High-Cube Transload and Short-Term Storage Warehouse” uses based on the Project’s expected use and the land use categories provided in the *Institute of Transportation Engineers’ Trip Generation Manual*, based on coordination with County staff.

6.1 Trip Generation

Trip generation rates for the Project’s proposed land uses were obtained from the *Institute of Transportation Engineers’ Trip Generation Manual*, 11th Edition. Traffic expected to be generated by both passenger vehicles and by heavy trucks was considered. A Passenger Car Equivalence (PCE) factor of 2.0 was applied to the Project’s heavy truck trips to account for the diminished performance characteristics of heavy trucks in traffic flow (as compared to passenger vehicles) based on data contained in the Highway Capacity Manual (HCM).

Table 6–1 summarizes the trip generation for the Project. As shown in *Table 6–1*, the Project is calculated to generate a total of 6,569 ADT (including the PCE factor applied to the heavy truck trips) with a total of 428 trips during the AM peak hour (299 inbound / 129 outbound trips) and 462 total trips during PM peak hour (156 inbound / 306 outbound trips).

6.2 Trip Distribution and Assignment

Project traffic was distributed and assigned to the street system based on the existing traffic counts, the Project’s access points and the proximity of the Project to SR-125, SR-11, and SR-905. Approximately 50% of the Project’s heavy truck trips are expected to be oriented to/from the Otay I and Otay II Ports of Entry. Because of the specialized heavy truck routes, two separate Project trip distribution figures were developed: one for passenger vehicles and one for heavy vehicles.

Figure 6-1a depicts the Project trip distribution for passenger vehicles, and **Figure 6-1b** depicts the Project trip distribution for heavy trucks.

Project trips were assigned to the three access intersections based on the size and layout of the Project’s proposed buildings on the currently proposed Site Plan shown on *Figure 2-3*, with 45% of the trips assumed at Harvest Road, 35% of the trips at Sanyo Avenue, and 20% of the trips at Vann Centre Boulevard.

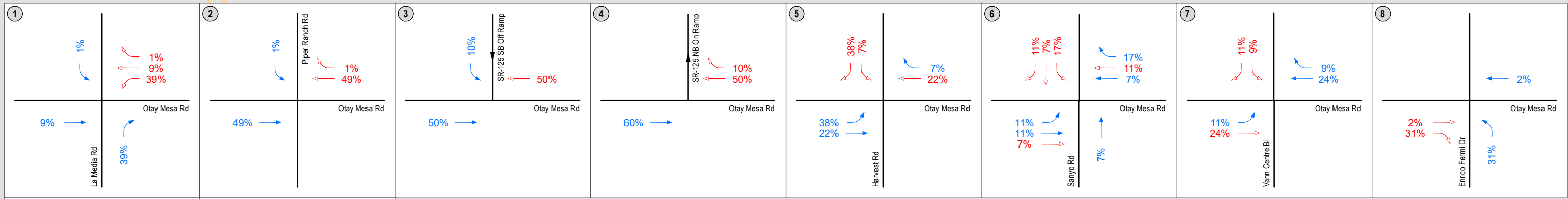
Figure 6-2a depicts the Project trip assignment for passenger vehicles and **Figure 6-2b** depicts the Project trip assignment for heavy trucks. **Figure 6-3** depicts the total Project trip assignment.

**TABLE 6-1
PROJECT TRIP GENERATION**

Land Use	Size (X)	PCE Factor ^b	Daily Trip Ends (ADTs)		AM Peak Hour					PM Peak Hour				
			Formula ^a	Volume	Formula	In:Out Split ^a	Volume			Formula	In:Out Split	Volume		
							In	Out	Total			In	Out	Total
Warehousing ^c														
Passenger Vehicles	1,553.25 KSF	1.0	1.58(X) + 38.29	2,492	0.12(X)+23.62	77:23	162	48	210	0.12(X)+26.48	28:72	60	153	213
Heavy Trucks (w/PCE) ^e		2.0	0.54(X) + 7.47	1,692	0.02(X)	52:48	32	30	62	0.03(X)	52:48	48	45	93
High-Cube Transload and Short-Term Storage Warehouse ^d														
Passenger Vehicles	1,296.75 KSF	1.0	1.4(X)	1,815	0.08(X)	77:23	80	24	104	0.1(X)	28:72	36	94	130
Heavy Trucks (w/PCE) ^e		2.0	0.22(X)	570	0.02(X)	49:51	25	27	52	0.01(X)	47:53	12	14	26
Total Trips				6,569			299	129	428			156	306	462

Footnotes:

- Rates are based on Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition. (See **Appendix D**)
- PCE = Passenger Car Equivalent
- Land Use 150 - Warehousing (ITE)
- Land Use 154 - High-Cube Transload and Short-Term Storage Warehouse (ITE)
- Heavy Vehicle Rate



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Study Intersection

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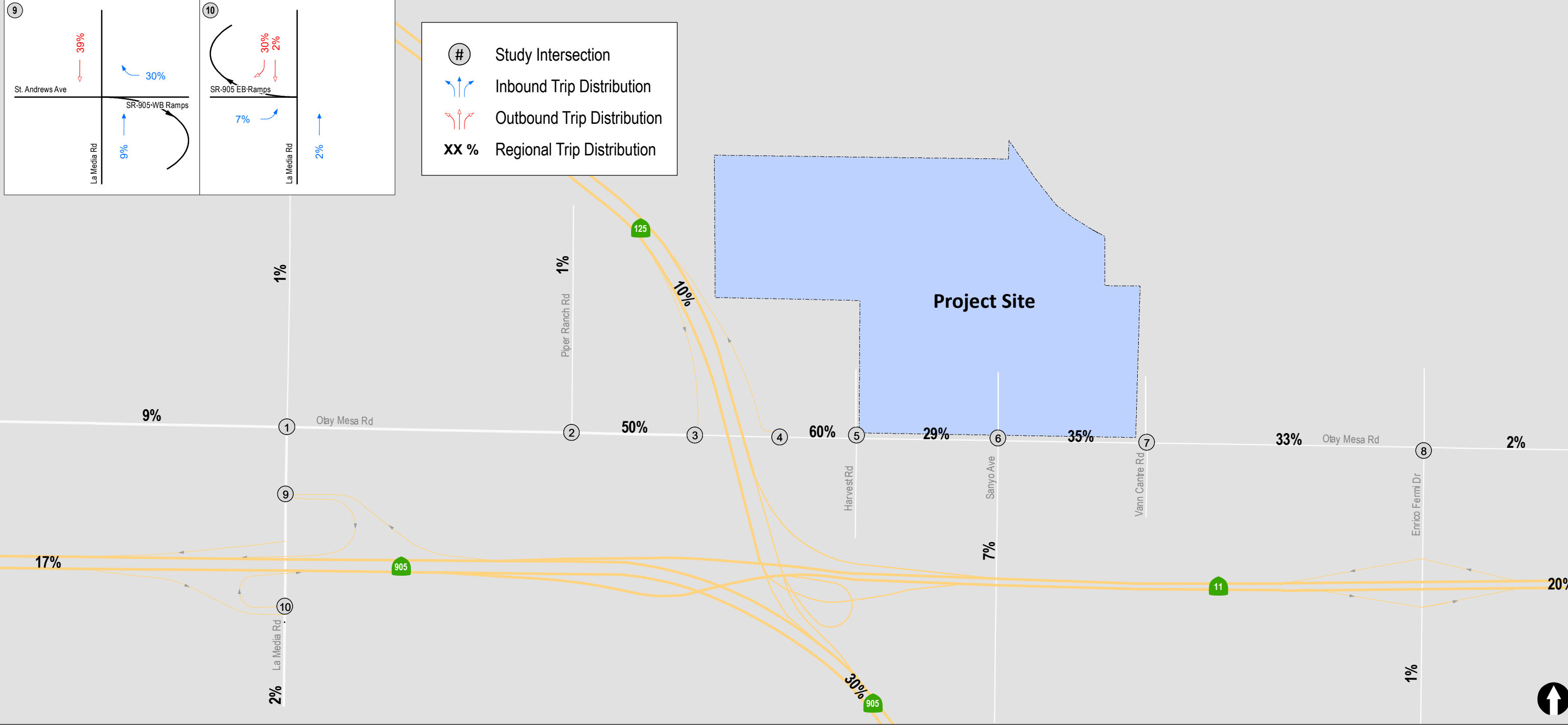
Inbound Trip Distribution

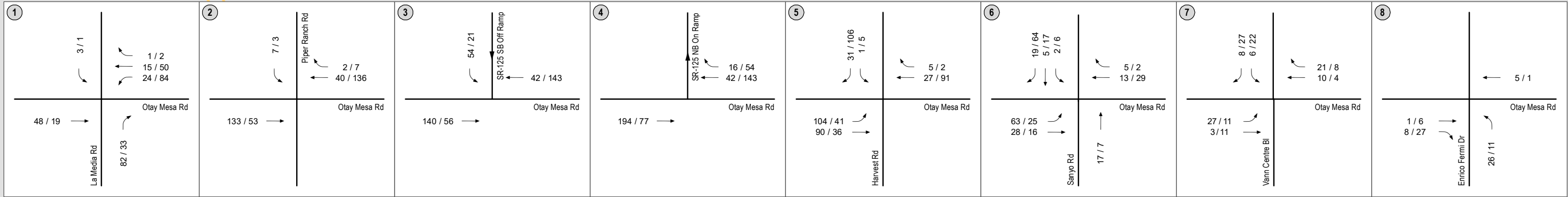
↗↗↗

Outbound Trip Distribution

xx %

Regional Trip Distribution



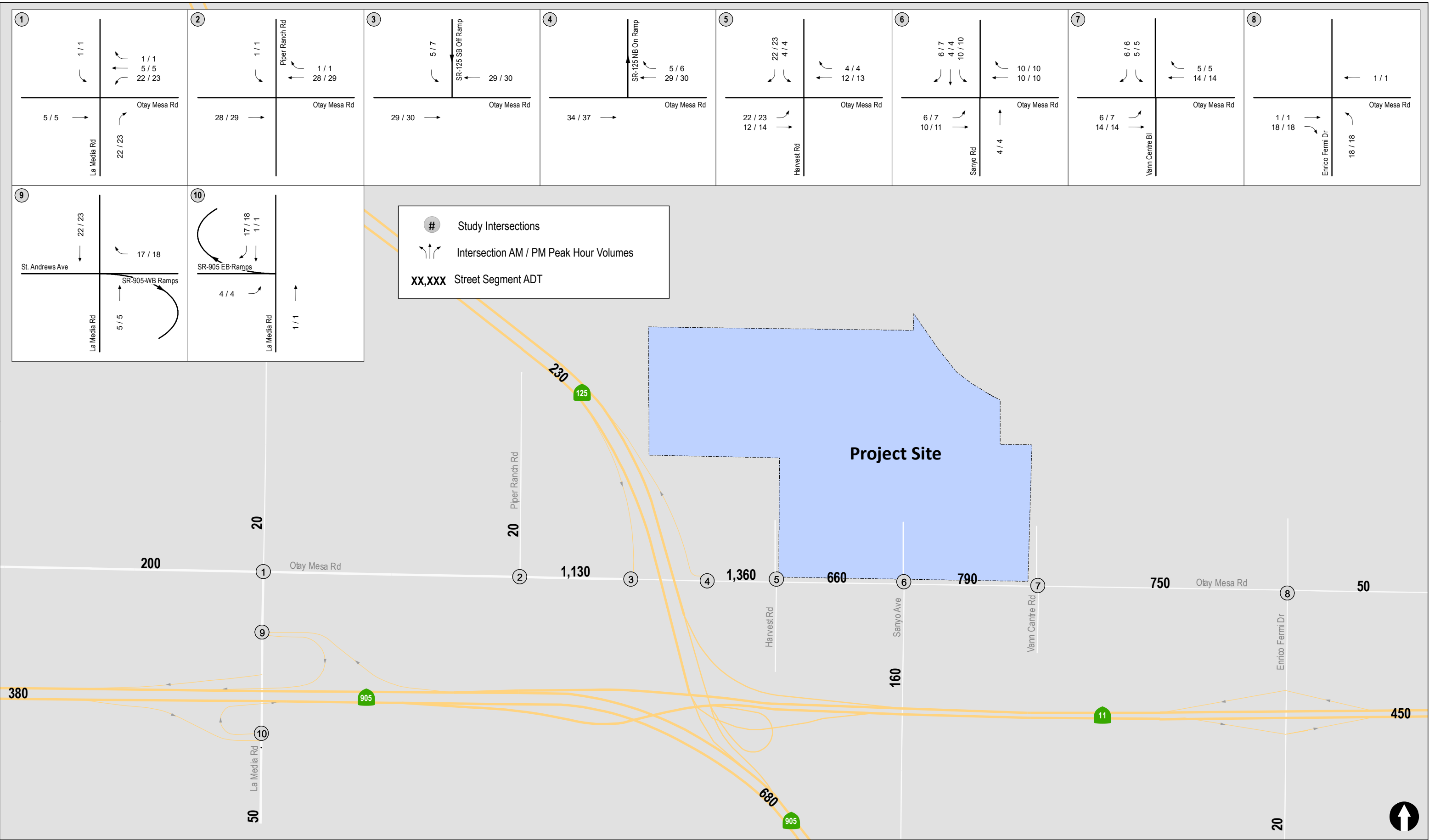


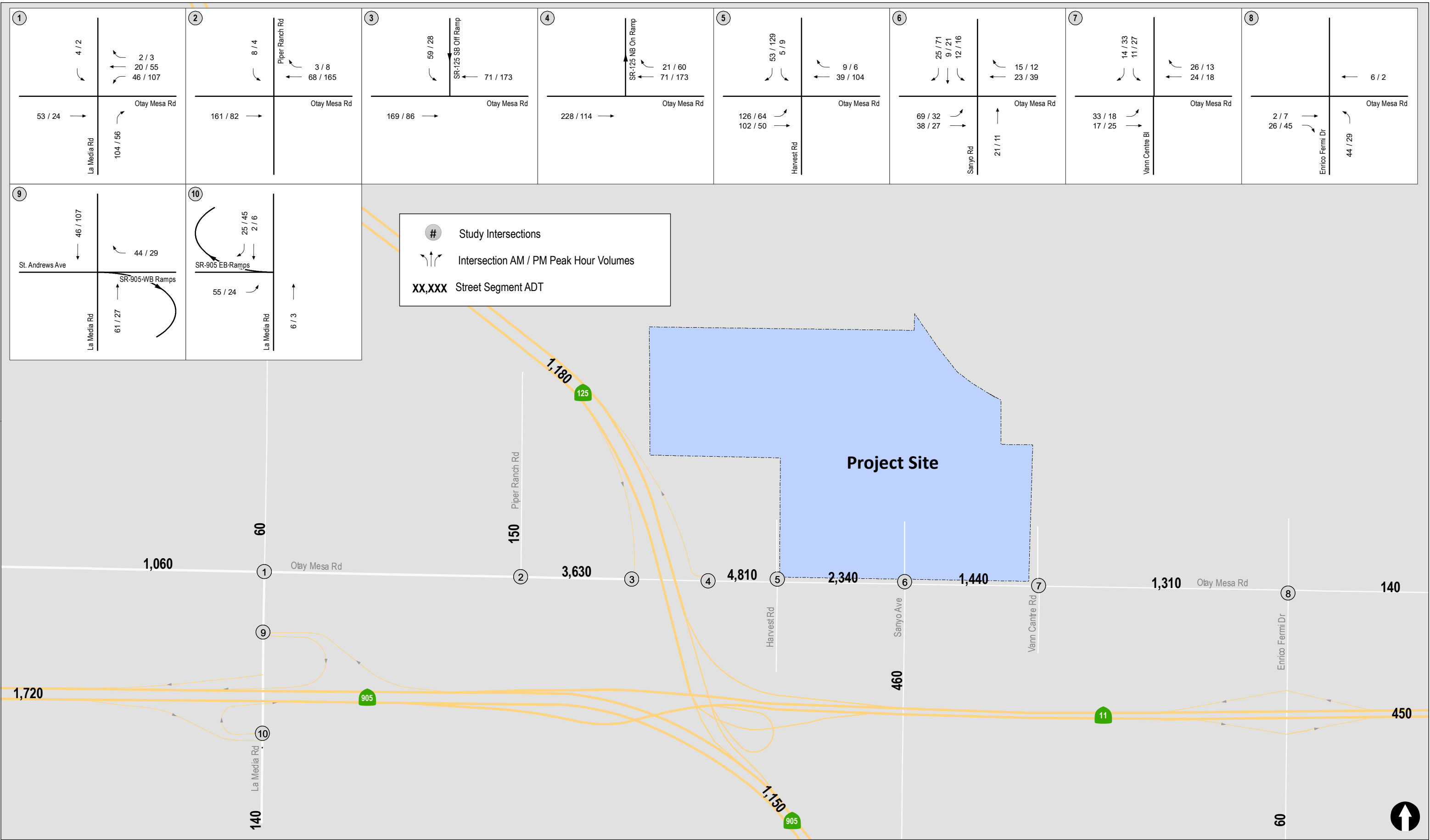
Study Intersections

Intersection AM / PM Peak Hour Volumes

XX,XXX Street Segment ADT







7.0 ANALYSIS OF OPENING YEAR (YEAR 2026) CONDITIONS

The following section presents the analysis of the study area intersections under Opening Year conditions. For the purposes of the analysis presented in this study, the Project's Opening Year is assumed as the opening of Phase 1 of the Project, which is expected to occur in late 2026. It should be noted that while full buildout of the Project is assumed under Opening Year + Project conditions, the site will be developed incrementally over time, with full buildout of the Project expected to occur around 2036.

7.1 Opening Year without Project Traffic Volumes

The Project's Opening Year is assumed as the opening of Phase 1 of the Project, which is expected to occur in late 2026. In order to forecast Opening Year (2026) volumes, a growth factor was applied to the existing traffic volumes to account for future development. A growth factor of 2% per year for three (3) years from 2023 to 2026, was applied, based on other traffic studies prepared in the area.

Figure 7–1 shows the Opening Year without Project traffic volumes. **Figure 7–2** shows the Opening Year + Project traffic volumes.

7.2 Opening Year (2026) without Project Analysis

Table 7–1 summarizes the intersection operations under the Opening Year 2026 scenario. As shown in **Table 7–1**, the study intersections are calculated to operate acceptably at LOS D or better during the AM and PM peak hours.

Appendix E contains the Opening Year without Project intersection analysis worksheets.

7.3 Opening Year (2026) + Project Analysis

Table 7–1 also summarizes Opening Year 2026 + Project intersection operations. As seen in **Table 7–1**, with the addition of the Project traffic and Project feature improvements at the access intersections #5, 6, and 7, the study intersections are calculated to continue to operate acceptably at LOS D or better during the AM and PM peak hours.

Appendix F contains the Opening Year + Project intersection analysis worksheets.

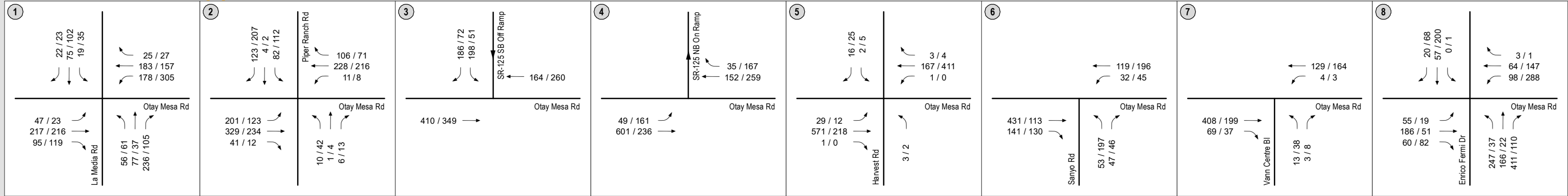
TABLE 7-1
OPENING YEAR INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Opening Year without Project		Opening Year + Project		Delay Δ^c	Threshold Met?
			Delay	LOS	Delay	LOS		
1. Otay Mesa Rd / La Media Rd	Signal	AM	19.7	B	19.7 ^f	B	0.0	No
		PM	22.3	C	24.5	C	2.2	
2. Otay Mesa Rd / Piper Ranch Rd	Signal	AM	44.1	D	44.1 ^f	D	0.0	No
		PM	45.1	D	45.4	D	0.3	
3. Otay Mesa Rd / SR-125 SB Off Ramp	Signal	AM	8.7	A	9.1	A	0.4	No
		PM	8.1	A	8.7	A	0.6	
4. Otay Mesa Rd / SR-125 NB On Ramp	Signal	AM	2.9	A	3.0	A	0.1	No
		PM	6.3	A	6.4	A	0.1	
5. Otay Mesa Rd / Harvest Rd	TWSC ^d / Signal ^e	AM	21.4	C	22.1	C	0.7	No
		PM	14.5	B	14.5 ^f	B	0.0	
6. Otay Mesa Rd / Sanyo Ave	Signal	AM	10.6	B	16.4	B	5.8	No
		PM	11.2	B	18.5	B	7.3	
7. Otay Mesa Rd / Vann Centre Bl	Signal	AM	11.5	B	13.3	B	1.8	No
		PM	9.2	A	14.4	B	5.2	
8. Otay Mesa Rd / Enrico Fermi Rd	Signal	AM	17.4	B	18.7	B	1.3	No
		PM	24.8	C	28.3	C	3.5	
9. St. Andrews Ave / SR-905 WB Ramps / La Media Rd	Signal	AM	13.3	B	14.5	B	1.2	No
		PM	18.6	B	19.1	B	0.5	
10. SR-905 EB Ramps/ La Media Rd	Signal	AM	13.7	B	13.8	B	0.1	No
		PM	8.6	A	8.6	A	0.0	

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. Δ denotes the increase in delay due to Project.
- d. Two-Way Stop Control. Worst turning movement delay reported.
- e. Intersection will be signalized as a Project feature.
- f. A Project induced decrease in delay was calculated at this intersection with the addition of Project trips. Additional information is provided in **Appendix H**.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F



#

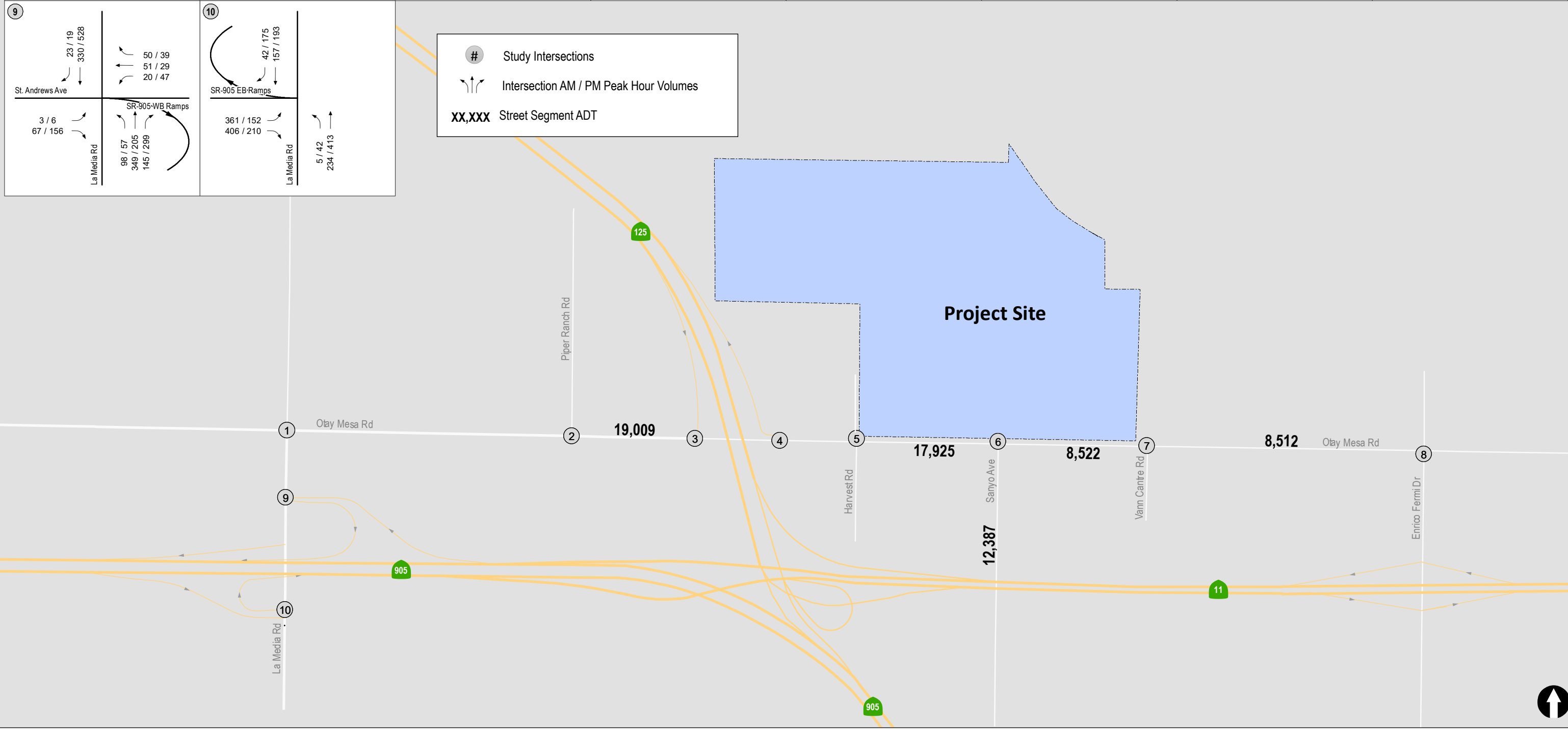
Study Intersections

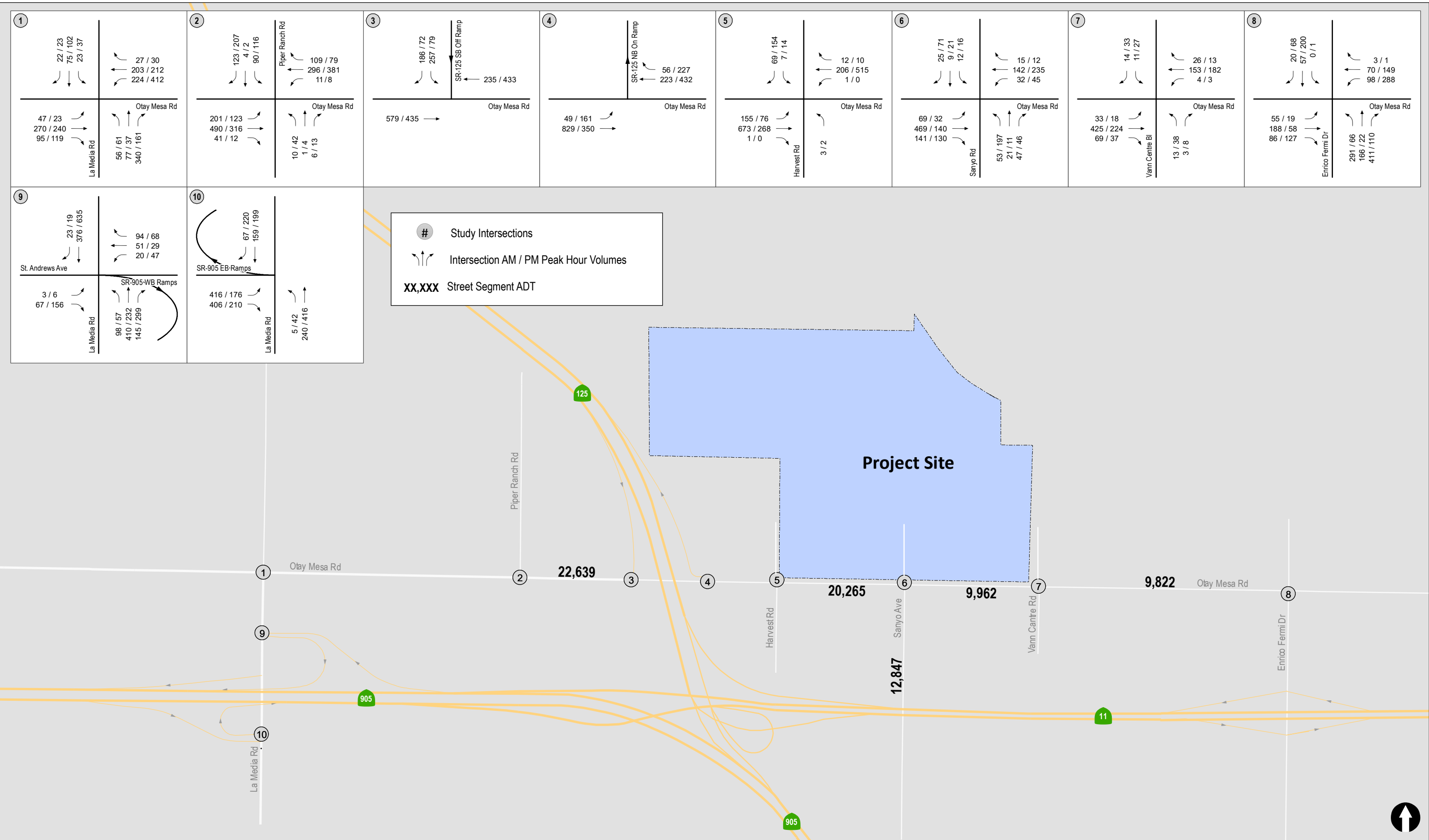
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Intersection AM / PM Peak Hour Volumes

XX,XXX

Street Segment ADT





8.0 SITE ACCESS

The Project will be primarily served by three access points at Harvest Road, Sanyo Avenue and Vann Centre Boulevard, north of Otay Mesa Road. The Existing north leg of Harvest Road at Otay Mesa Road is currently constructed as a two-lane undivided roadway that provides access to Lone Star Road to the north, serving very limited land uses. The north legs of Sanyo Avenue and Vann Centre Boulevard do not exist under Existing conditions.

The following improvements at the Projects' access intersections are proposed as features of the Project, and were assumed in place under Opening Year + Project conditions:

- Intersection #5: Otay Mesa Road / Harvest Road
 - The Project will signalize the intersection.
 - The Project will restripe the eastbound approach to provide one dedicated left-turn lane, one through lane, and one shared through/right-turn lane.
 - The Project will restripe the southbound approach to provide one dedicated right-turn lane with overlap signal phasing and one shared through/left-turn lane.
- Intersection #6: Otay Mesa Road / Sanyo Avenue
 - The Project will construct the north leg of the intersection to provide one northbound lane into the site and the following striping at the southbound approach: one dedicated left-turn lane, one through lane, and one dedicated right-turn lane with overlap signal phasing.
 - The Project will restripe the westbound approach to provide one dedicated left-turn lane and one shared through/right-turn lane.
 - The Project will restripe the northbound approach to provide one dedicated left-turn lane and one shared left-turn/through/right-turn lane.
 - The Project will restripe the eastbound approach to provide one dedicated left-turn lane, one through lane, and one shared through/right-turn lane.
- Intersection #7: Otay Mesa Rd / Vann Centre Boulevard
 - The Project will construct the north leg of the intersection to provide one northbound lane into the site and the following striping at the southbound approach: one dedicated right-turn lane with overlap signal phasing and one shared through/left-turn lane.
 - The Project will restripe the westbound approach to provide one dedicated left-turn lane and one shared through/right-turn lane.
 - The Project will restripe the northbound approach to provide one shared left-turn/through/right-turn lane.
 - The Project will restripe the eastbound approach to provide one dedicated left-turn lane, one through lane, and one shared through/right-turn lane.

Figure 2-4 shows the existing and proposed conditions at the Project's access intersections.

As shown on *Table 7-1*, with the addition of the Project traffic and Project the feature improvements listed above, the access intersections are calculated to continue to operate acceptably at LOS C or better during the AM and PM peak hours.

8.1 On-Site Circulation

The Project will construct a number of roadways within the Project site to facilitate internal circulation and comply with the existing East Otay Mesa Business Park Specific Plan. All on-site roadways will be designed and constructed per County of San Diego Public Road Standards.

The Project will also be responsible for making a ½ width dedication along Otay Mesa Road between Harvest Road and Vann Centre Boulevard to ultimately allow for the improvement of the roadway to 6-lane Prime Arterial standards per the County's Centerline Ordinance.

9.0 ACTIVE TRANSPORTATION REVIEW

9.1 Existing Bicycle Network

Class II bike lanes are provided in both directions of travel along Otay Mesa Road and La Media Road. Class II bike lanes are provided in both directions of travel along Enrico Fermi Drive south of Otay Mesa Road

9.2 Proposed Bicycle Network

Per the County of San Diego's *Bicycle Transportation Plan*, Class II bike lanes are proposed along Enrico Fermi Drive north of Otay Mesa Road. Additionally, per the *Otay Mesa Community Plan*, Class II bike lanes are proposed along Harvest Road and Sanyo Road south of Otay Mesa Road.

9.3 Existing Pedestrian Conditions

Pedestrian sidewalks are generally provided throughout the study area, except for at the following locations:

- Otay Mesa Road, between SR-125 SB Ramp and Harvest Road (south side)
- Otay Mesa Road, between SR-125 NB Ramp and Enrico Fermi Drive (north side)

Pedestrian crossings are provided at the following intersections:

- Otay Mesa Rd / La Media Rd (north, east, and south legs)
- Otay Mesa Rd / Piper Ranch Rd (all legs)
- Otay Mesa Rd / SR-125 SB Off Ramp (north leg)
- Otay Mesa Rd / SR-125 NB On Ramp (north leg)
- Otay Mesa Rd / Sanyo Ave (south leg)
- Otay Mesa Rd / Vann Cantre Bl (south leg)
- Otay Mesa Rd / Enrico Fermi Rd (all legs)
- St Andrews Ave / SR-905 WB Ramps / La Media Rd (east and west legs)
- SR-905 EB Ramps/ Le Media Rd (west leg)

Pedestrian crossings are prohibited and/or unmarked at the following locations:

- Otay Mesa Rd / La Media Rd (west leg)
- Otay Mesa Rd / SR-125 SB Off Ramp (east and west legs)
- Otay Mesa Rd / SR-125 NB On Ramp (east and west legs)
- Otay Mesa Rd / Harvest Rd (all legs)
- Otay Mesa Rd / Sanyo Ave (east and west legs)
- Otay Mesa Rd / Vann Cantre Bl (east and west legs)
- St Andrews Ave / SR-905 WB Ramps / La Media Rd (north and south legs)
- SR-905 EB Ramps/ Le Media Rd (north and south legs)

9.4 Proposed Pedestrian Conditions

The Project may be required to construct curb, gutter, and/or sidewalk along its frontage consistent with County *Public Roads Standards*.

9.5 Existing Transit Conditions

Bus service is provided by the Metropolitan Transit System (MTS). The bus routes serving the immediate Project area include MTS Routes 905, 909, and 225. A description of each route is provided below. **Appendix I** includes the timetable of these bus routes.

Route 905 runs between the Otay Mesa Transit Center and the Iris Avenue Transit Center. The route runs along Siempre Viva Road, La Media Road, and Otay Mesa Road. There is a total of nineteen (19) stops along this route. Weekday service begins at 4:13 AM with 30-minute headways until 8:30 PM. Saturday service begins at 5:16 AM with 60-minute headways until 8:37 PM. Sunday service begins at 5:30 AM with 60-minute headways until 8:52 PM.

Route 909 runs between the Otay Mesa Transit Center and Southwestern College Otay Mesa. The route runs along Siempre Viva Road, Sanyo Avenue, and Otay Mesa Road. There is a total of fourteen (14) stops along this route. Weekday service begins at 4:59 AM with 60-minute headways until 7:30 PM. This route does not operate on weekends.

Route 225 runs between the Otay Mesa Transit Center and the American Plaza Transit Center. The route runs along SR-125. There is a total of eleven (11) stops along this route. Weekday service begins at 4:27 AM with 30-minute headways until 10:47 PM. Weekend service begins at 4:49 AM with 30-minute headways until 10:11 PM.

9.6 Proposed Transit Conditions

There are no planned transit service improvements within the Project vicinity.

10.0 CONCLUSIONS

The Project is not calculated to result in significant LOS related impacts to any of the study intersections, and therefore no off-site improvements other than the Project feature improvements at the access intersections, as described in Section 8.0, are required.

TECHNICAL APPENDICES
OTAY MAJESTIC PROJECT
San Diego County, California
October 26, 2023

LLG Ref. 3-22-3662

APPENDICES

APPENDIX

- A. Trip Generation Comparison Tables
- B. Intersection Count Sheets
- C. Existing Peak Hour Intersection LOS Worksheets
- D. Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition excerpts
- E. Opening Year without Project Peak Hour Intersection LOS Worksheets
- F. Opening Year + Project Peak Hour Intersection LOS Analysis Worksheets
- G. East Otay Mesa Specific Plan Circulation Element
- H. Explanation of Intersection Delay Decrease with the Addition of Project Traffic
- I. Bus Route Schedules

APPENDIX A

TRIP GENERATION COMPARISON TABLES

Trip Generation Comparison

Land Use	Size	PCE Factor ^c	Daily Trip Ends (ADTs)		AM Peak Hour					PM Peak Hour				
			Rate ^{ab}	Volume	% of ADT / Rate	In:Out Split	Volume			% of ADT / Rate	In:Out Split	Volume		
							In	Out	Total			In	Out	Total
ITE Rates (Otay Majestic)														
Passenger Vehicles: Warehousing ^d	1,553.25 KSF	1.0	1.58(X) + 38.29 /KSF	2,492	0.12(X)+23.62 /KSF	77 : 23	162	48	210	0.12(X)+26.48 /KSF	28 : 72	60	153	213
Heavy Trucks: Warehousing (w/PCE) ^{df}	1,553.25 KSF	2.0	0.54(X) + 7.47 /KSF	1,692	0.02 /KSF	52 : 48	32	30	62	0.03 /KSF	52 : 48	48	45	93
Passenger Vehicle: High-Cube Transload and Short-Term Storage Warehouse ^e	1,296.75 KSF	1.0	1.4 /KSF	1,815	0.08 /KSF	77 : 23	80	24	104	0.1 /KSF	28 : 72	36	94	130
Heavy Trucks: High-Cube Transload and Short-Term Storage Warehouse (w/PCE) ^{ef}	1,296.75 KSF	2.0	0.22 /KSF	570	0.02 /KSF	49 : 51	25	27	52	0.01 /KSF	47 : 53	12	14	26
Total Trips				6,569			299	129	428			156	306	462
SANDAG Rates (Otay Majestic)														
Warehousing														
Total Warehousing Trips (Passenger + Heavy Vehicles) w/o PCE	2,850.00 KSF		5 /KSF	14,250	13%	70 : 30	1,297	556	1,853	15%	40 : 60	855	1283	2,138
Passenger Vehicles (75%)		1.0		10,688			973	417	1,390			641	962	1604
Heavy Vehicles (25%) w/PCE		2.0		7,124			648	278	926			428	642	1068
Total Trips w/PCE				17,812			1,621	695	2,316			1,069	1,604	2,672
OTAY 250														
Otay 250 ⁱ		-		34,124	-		1,090	1,695	2,785	-		2,000	1,474	3,474

Footnotes:

- a. Rates are based on *Institute of Transportation Engineers' (ITE) Trip Generation Manual* , 11th Edition.
- b. Rates are based on *SANDAG's (not so) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002*
- c. Passenger Car Equivalents. Based on the Highway Capacity Manual, a Passenger Car Equivalent (PCE) factor of 2.0 was applied to the Project's heavy-truck trips.
- d. Land Use 150 - Warehousing (ITE)
- e. Land Use 154 - High-Cube Transload and Short-Term Storage Warehouse (ITE)
- f. Heavy Vehicle Rate
- g. Warehousing Rate (SANDAG)
- h. Storage Rate (SANDAG)
- i. Sourced from the December 8, 2016 Transportation Impact Analysis for the East Otay Mesa Specific Plan Amendment Project

APPENDIX B

INTERSECTION COUNT SHEETS

Intersection Turning Movement - Peak Hour Vehicle Count



Location: #01
Intersection: La Media Road & Otay Mesa Road
Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-01
Project: LLG Ref. 3-22-3662
Otay Majestic

AM	La Media Road Southbound			Otay Mesa Road Westbound			La Media Road Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	5	10	3	28	31	0	10	15	62	6	59	12	241
7:15	5	6	5	36	39	3	5	15	96	8	55	9	282
7:30	1	14	5	34	34	10	12	24	62	12	56	10	274
7:45	4	26	8	36	47	10	13	14	75	11	72	22	338
8:00	3	13	7	43	37	5	11	11	49	8	49	22	258
8:15	5	11	2	36	46	4	18	16	49	10	38	21	256
8:30	6	21	4	53	43	5	11	32	50	15	46	25	311
8:45	4	22	6	29	30	4	11	20	38	9	45	18	236
Total	33	123	40	295	307	41	91	147	481	79	420	139	2196
Approach%	16.8	62.8	20.4	45.9	47.7	6.4	12.7	20.4	66.9	12.4	65.8	21.8	
Total%	1.5	5.6	1.8	13.4	14.0	1.9	4.1	6.7	21.9	3.6	19.1	6.3	

AM Intersection Peak Hour: 07:45 to 08:45

Volume	18	71	21	168	173	24	53	73	223	44	205	90	1,163
Approach%	16.4	64.5	19.1	46.0	47.4	6.6	15.2	20.9	63.9	13.0	60.5	26.5	
Total%	1.5	6.1	1.8	14.4	14.9	2.1	4.6	6.3	19.2	3.8	17.6	7.7	
PHF			0.72			0.90			0.86			0.81	0.86

PM	La Media Road Southbound			Otay Mesa Road Westbound			La Media Road Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	4	19	6	94	49	6	18	15	26	5	39	37	318
16:15	9	16	9	53	46	4	15	14	19	9	55	34	283
16:30	8	20	8	54	34	6	14	8	21	7	50	35	265
16:45	6	26	5	57	36	3	12	4	22	5	49	22	247
17:00	16	32	5	107	45	9	17	11	25	4	47	27	345
17:15	3	18	4	70	33	7	15	12	31	6	58	28	285
17:30	9	17	4	58	39	3	9	11	31	7	36	21	245
17:45	4	12	5	46	19	1	6	13	37	3	27	20	193
Total	59	160	46	539	301	39	106	88	212	46	361	224	2181
Approach%	22.3	60.4	17.4	61.3	34.2	4.4	26.1	21.7	52.2	7.3	57.2	35.5	
Total%	2.7	7.3	2.1	24.7	13.8	1.8	4.9	4.0	9.7	2.1	16.6	10.3	

PM Intersection Peak Hour: 16:30 to 17:30

Volume	33	96	22	288	148	25	58	35	99	22	204	112	1,142
Approach%	21.9	63.6	14.6	62.5	32.1	5.4	30.2	18.2	51.6	6.5	60.4	33.1	
Total%	2.9	8.4	1.9	25.2	13.0	2.2	5.1	3.1	8.7	1.9	17.9	9.8	
PHF			0.71			0.72			0.83			0.92	0.83

Intersection Turning Movement - Bicycle & Pedestrian Count



Location: #01	File Name: ITM-23-019-01
Intersection: La Media Road & Otay Mesa Road	Project: LLG Ref. 3-22-3662
Date of Count: Tuesday February 14, 2023	Otay Majestic

AM	La Media Road Southbound				Otay Mesa Road Westbound				La Media Road Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	1	0	0	0	0	0	0	0	4	0	0	0	1	0	0	0	6	0
7:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
7:30	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	3	0
7:45	0	0	0	0	2	0	0	0	3	0	1	1	0	0	0	0	5	2
8:00	0	0	0	0	3	0	0	0	5	0	0	0	0	0	0	0	8	0
8:15	0	0	0	0	1	0	0	0	4	0	0	0	0	0	0	0	5	0
8:30	1	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	4	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	2				8				21				1				32	
Bike Total		0	0	0		0	0	0		0	1	1		0	0	0		2

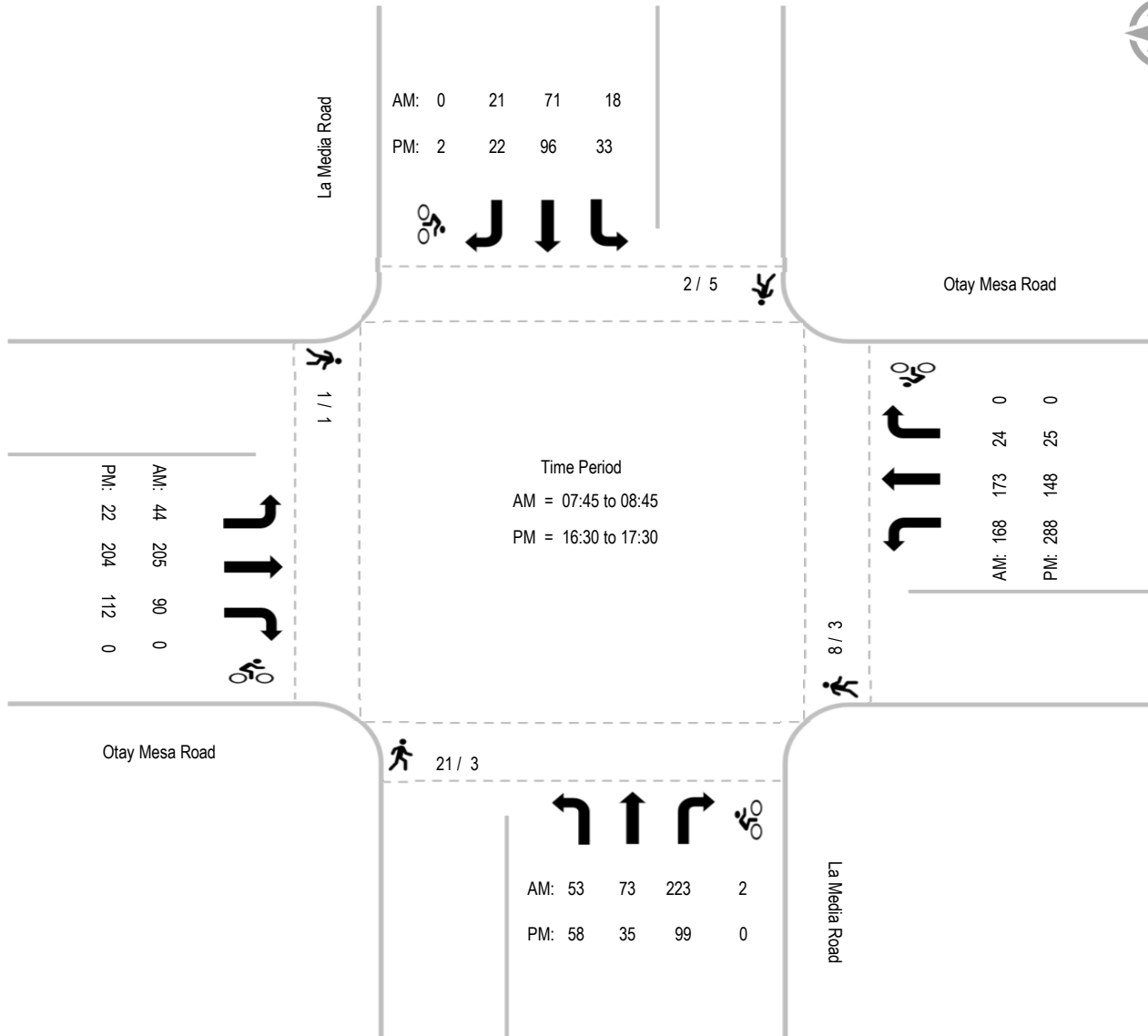
PM	La Media Road Southbound				Otay Mesa Road Westbound				La Media Road Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	3	0
16:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16:45	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
17:00	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
17:15	1	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	5	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	5				3				3				1				12	
Bike Total		1	1	0		0	0	0		0	0	0		0	0	0		2

Intersection Turning Movement - Peak Hour Summary



Location: #01
 Intersection: La Media Road & Otay Mesa Road
 Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-01
 Project: LLG Ref. 3-22-3662
 Otay Majestic



Intersection Turning Movement - Peak Hour Vehicle Count



Location: #02
Intersection: Piper Ranch Road & Otay Mesa Road
Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-02
Project: LLG Ref. 3-22-3662
Otay Majestic

AM	Piper Ranch Road Southbound			Otay Mesa Road Westbound			Piper Ranch Road Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	13	0	22	0	39	15	0	0	0	39	81	3	212
7:15	18	0	28	1	52	23	4	0	0	41	106	9	282
7:30	18	3	28	0	46	24	2	1	0	47	75	8	252
7:45	22	0	30	7	61	27	2	0	4	58	76	11	298
8:00	19	1	30	2	56	26	1	0	2	44	53	11	245
8:15	16	0	28	3	59	30	4	1	0	45	42	7	235
8:30	22	0	40	2	55	20	0	1	1	43	56	8	248
8:45	21	1	22	2	45	34	0	1	3	42	47	9	227
Total	149	5	228	17	413	199	13	4	10	359	536	66	1999
Approach%	39.0	1.3	59.7	2.7	65.7	31.6	48.1	14.8	37.0	37.4	55.8	6.9	
Total%	7.5	0.3	11.4	0.9	20.7	10.0	0.7	0.2	0.5	18.0	26.8	3.3	

AM Intersection Peak Hour: 07:15 to 08:15

Volume	77	4	116	10	215	100	9	1	6	190	310	39	1,077
Approach%	39.1	2.0	58.9	3.1	66.2	30.8	56.3	6.3	37.5	35.3	57.5	7.2	
Total%	7.1	0.4	10.8	0.9	20.0	9.3	0.8	0.1	0.6	17.6	28.8	3.6	
PHF			0.95			0.86			0.67			0.86	0.90

PM	Piper Ranch Road Southbound			Otay Mesa Road Westbound			Piper Ranch Road Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	2	0	68	0	67	25	5	1	4	29	35	5	241
16:15	18	0	41	0	56	23	2	0	3	25	48	6	222
16:30	29	1	36	4	51	15	4	0	1	28	48	1	218
16:45	23	0	44	1	46	18	1	3	4	24	57	5	226
17:00	31	1	70	2	60	16	27	1	5	29	56	1	299
17:15	23	0	45	1	47	18	8	0	2	35	60	4	243
17:30	24	0	45	1	41	19	12	0	4	17	47	5	215
17:45	15	2	34	1	25	12	5	1	1	18	54	1	169
Total	165	4	383	10	393	146	64	6	24	205	405	28	1833
Approach%	29.9	0.7	69.4	1.8	71.6	26.6	68.1	6.4	25.5	32.1	63.5	4.4	
Total%	9.0	0.2	20.9	0.5	21.4	8.0	3.5	0.3	1.3	11.2	22.1	1.5	

PM Intersection Peak Hour: 16:30 to 17:30

Volume	106	2	195	8	204	67	40	4	12	116	221	11	986
Approach%	35.0	0.7	64.4	2.9	73.1	24.0	71.4	7.1	21.4	33.3	63.5	3.2	
Total%	10.8	0.2	19.8	0.8	20.7	6.8	4.1	0.4	1.2	11.8	22.4	1.1	
PHF			0.74			0.89			0.42			0.88	0.82

Intersection Turning Movement - Bicycle & Pedestrian Count



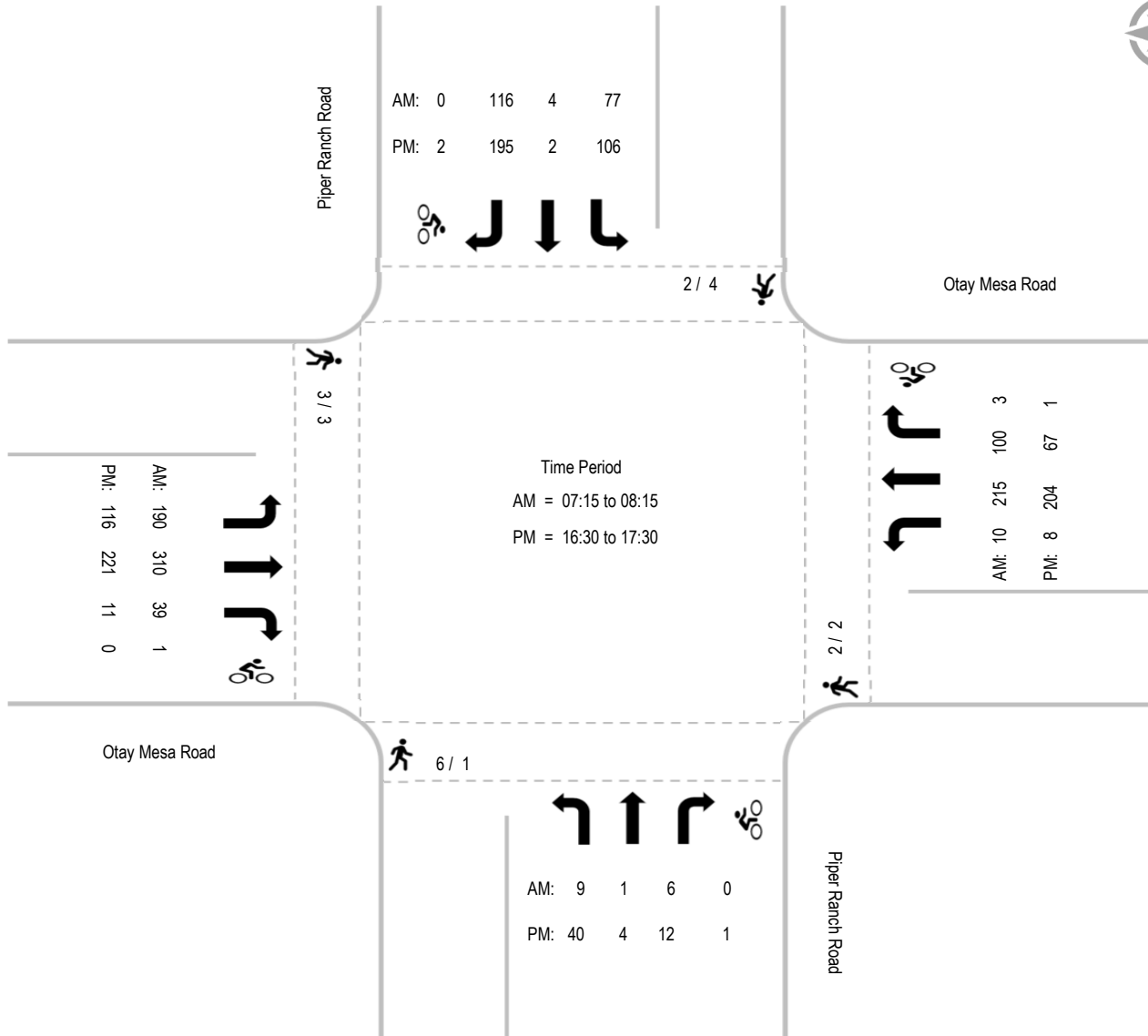
Location: #02	File Name: ITM-23-019-02
Intersection: Piper Ranch Road & Otay Mesa Road	Project: LLG Ref. 3-22-3662
Date of Count: Tuesday February 14, 2023	Otay Majestic

AM	Piper Ranch Road Southbound				Otay Mesa Road Westbound				Piper Ranch Road Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	2	1
7:15	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0
7:30	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1
8:15	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2	1
8:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0
8:45	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0
Ped Total	2				2				6				3				13	
Bike Total		0	0	0		1	1	1		0	0	0		0	1	0		4

PM	Piper Ranch Road Southbound				Otay Mesa Road Westbound				Piper Ranch Road Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
16:30	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
16:45	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	1
17:00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0
17:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
17:30	0	1	0	0	2	0	0	0	1	0	0	0	0	0	0	0	3	1
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	4				2				1				3				10	
Bike Total		2	0	0		0	0	1		0	0	1		0	0	0		4

Intersection Turning Movement - Peak Hour Summary

LINSCOTT LAW & GREENSPAN engineers	Location: #02	File Name: ITM-23-019-02
	Intersection: Piper Ranch Road & Otay Mesa Road	Project: LLG Ref. 3-22-3662
	Date of Count: Tuesday February 14, 2023	Otay Majestic



Intersection Turning Movement - Peak Hour Vehicle Count

**LINSCOTT
LAW &
GREENSPAN**
engineers

Location: #03
Intersection: SR-125 SB Off Ramp & Otay Mesa Road
Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-03
Project: LLG Ref. 3-22-3662
Otay Majestic

AM	SR-125 SB Off Ramp Southbound			Otay Mesa Road Westbound			- Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	42	0	27	0	21	0	0	0	0	0	93	0	183
7:15	60	0	38	0	36	0	0	0	0	0	120	0	254
7:30	61	0	38	0	40	0	0	0	0	0	88	0	227
7:45	43	0	51	0	36	0	0	0	0	0	103	0	233
8:00	23	0	48	0	43	0	0	0	0	0	76	0	190
8:15	21	0	57	0	43	0	0	0	0	0	63	0	184
8:30	21	0	34	0	44	0	0	0	0	0	78	0	177
8:45	24	0	31	0	47	0	0	0	0	0	75	0	177
Total	295	0	324	0	310	0	0	0	0	0	696	0	1625
Approach%	47.7	-	52.3	-	100.0	-	-	-	-	-	100.0	-	
Total%	18.2	-	19.9	-	19.1	-	-	-	-	-	42.8	-	

AM Intersection Peak Hour: 07:15 to 08:15

Volume	187	-	175	-	155	-	-	-	-	-	387	-	904
Approach%	51.7	-	48.3	-	100.0	-	-	-	-	-	100.0	-	
Total%	20.7	-	19.4	-	17.1	-	-	-	-	-	42.8	-	
PHF			0.91		0.90		#DIV/0!				0.81		0.89

PM	SR-125 SB Off Ramp Southbound			Otay Mesa Road Westbound			- Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	13	0	21	0	72	0	0	0	0	0	67	0	173
16:15	10	0	22	0	63	0	0	0	0	0	71	0	166
16:30	18	0	22	0	60	0	0	0	0	0	80	0	180
16:45	13	0	15	0	47	0	0	0	0	0	87	0	162
17:00	7	0	9	0	75	0	0	0	0	0	91	0	182
17:15	19	0	25	0	37	0	0	0	0	0	85	0	166
17:30	22	0	16	0	53	0	0	0	0	0	73	0	164
17:45	21	0	11	0	22	0	0	0	0	0	70	0	124
Total	123	0	141	0	429	0	0	0	0	0	624	0	1317
Approach%	46.6	-	53.4	-	100.0	-	-	-	-	-	100.0	-	
Total%	9.3	-	10.7	-	32.6	-	-	-	-	-	47.4	-	

PM Intersection Peak Hour: 16:15 to 17:15

Volume	48	-	68	-	245	-	-	-	-	-	329	-	690
Approach%	41.4	-	58.6	-	100.0	-	-	-	-	-	100.0	-	
Total%	7.0	-	9.9	-	35.5	-	-	-	-	-	47.7	-	
PHF			0.73		0.82		#DIV/0!				0.90		0.95

Intersection Turning Movement - Bicycle & Pedestrian Count

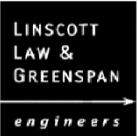


Location: #03	File Name: ITM-23-019-03
Intersection: SR-125 SB Off Ramp & Otay Mesa Road	Project: LLG Ref. 3-22-3662
Date of Count: Tuesday February 14, 2023	Otay Majestic

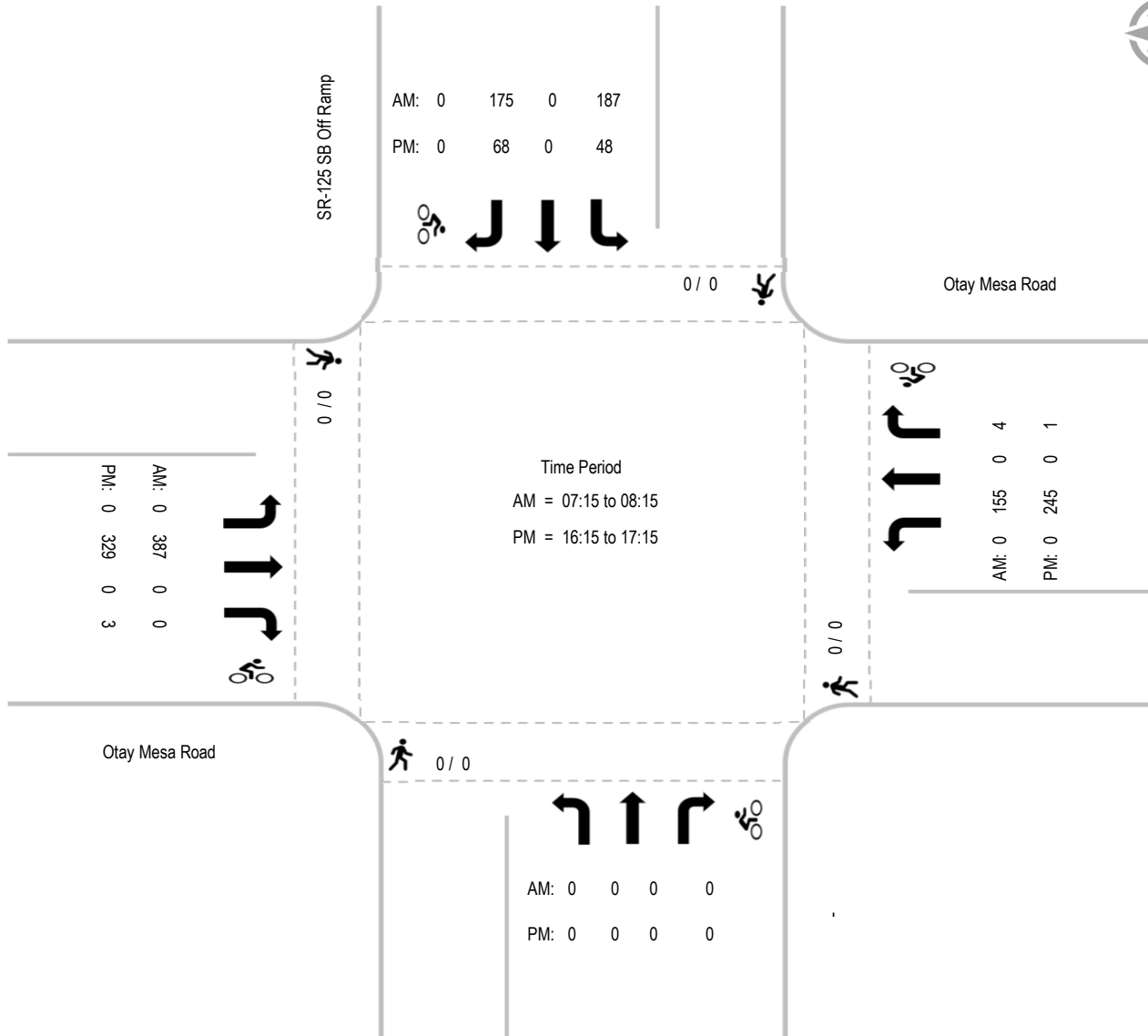
AM	SR-125 SB Off Ramp Southbound				Otay Mesa Road Westbound				- Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
7:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				0				0				0				0	
Bike Total		0	0	0		0	4	0		0	0	0		0	0	0		4

PM	SR-125 SB Off Ramp Southbound				Otay Mesa Road Westbound				- Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
17:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				0				0				0				0	
Bike Total		0	0	0		0	1	0		0	0	0		0	3	0		4

Intersection Turning Movement - Peak Hour Summary



Location: #03	File Name: ITM-23-019-03
Intersection: SR-125 SB Off Ramp & Otay Mesa Road	Project: LLG Ref. 3-22-3662
Date of Count: Tuesday February 14, 2023	Otay Majestic



Intersection Turning Movement - Peak Hour Vehicle Count



Location: #04
 Intersection: SR-125 NB On Ramp & Otay Mesa Road
 Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-04
 Project: LLG Ref. 3-22-3662
 Otay Majestic

AM	SR-125 NB On Ramp Southbound			Otay Mesa Road Westbound			- Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	0	0	0	27	8	0	0	0	8	129	0	172
7:15	0	0	0	0	44	7	0	0	0	9	172	0	232
7:30	0	0	0	0	35	12	0	0	0	11	137	0	195
7:45	0	0	0	0	37	6	0	0	0	18	129	0	190
8:00	0	0	0	0	45	9	0	0	0	12	86	0	152
8:15	0	0	0	0	40	7	0	0	0	14	69	0	130
8:30	0	0	0	0	41	7	0	0	0	19	80	0	147
8:45	0	0	0	0	48	11	0	0	0	13	85	0	157
Total	0	0	0	0	317	67	0	0	0	104	887	0	1375
Approach%	-	-	-	-	82.6	17.4	-	-	-	10.5	89.5	-	
Total%	-	-	-	-	23.1	4.9	-	-	-	7.6	64.5	-	

AM Intersection Peak Hour: 07:00 to 08:00

Volume	-	-	-	-	143	33	-	-	-	46	567	-	789
Approach%	-	-	-	-	81.3	18.8	-	-	-	7.5	92.5	-	
Total%	-	-	-	-	18.1	4.2	-	-	-	5.8	71.9	-	
PHF	#DIV/0!					0.86	#DIV/0!					0.85	0.85

PM	SR-125 NB On Ramp Southbound			Otay Mesa Road Westbound			- Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	0	0	0	71	65	0	0	0	31	49	0	216
16:15	0	0	0	0	64	33	0	0	0	38	42	0	177
16:30	0	0	0	0	62	46	0	0	0	35	63	0	206
16:45	0	0	0	0	47	26	0	0	0	37	63	0	173
17:00	0	0	0	0	71	53	0	0	0	42	55	0	221
17:15	0	0	0	0	40	21	0	0	0	45	59	0	165
17:30	0	0	0	0	50	23	0	0	0	27	69	0	169
17:45	0	0	0	0	25	19	0	0	0	19	72	0	135
Total	0	0	0	0	430	286	0	0	0	274	472	0	1462
Approach%	-	-	-	-	60.1	39.9	-	-	-	36.7	63.3	-	
Total%	-	-	-	-	29.4	19.6	-	-	-	18.7	32.3	-	

PM Intersection Peak Hour: 16:15 to 17:15

Volume	-	-	-	-	244	158	-	-	-	152	223	-	777
Approach%	-	-	-	-	60.7	39.3	-	-	-	40.5	59.5	-	
Total%	-	-	-	-	31.4	20.3	-	-	-	19.6	28.7	-	
PHF	#DIV/0!					0.81	#DIV/0!					0.94	0.88

Intersection Turning Movement - Bicycle & Pedestrian Count

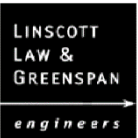


Location: #04	File Name: ITM-23-019-04
Intersection: SR-125 NB On Ramp & Otay Mesa Road	Project: LLG Ref. 3-22-3662
Date of Count: Tuesday February 14, 2023	Otay Majestic

AM	SR-125 NB On Ramp Southbound				Otay Mesa Road Westbound				- Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	3
7:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				0				0				0				0	
Bike Total		0	0	0		0	4	0		0	0	0		0	1	0		5

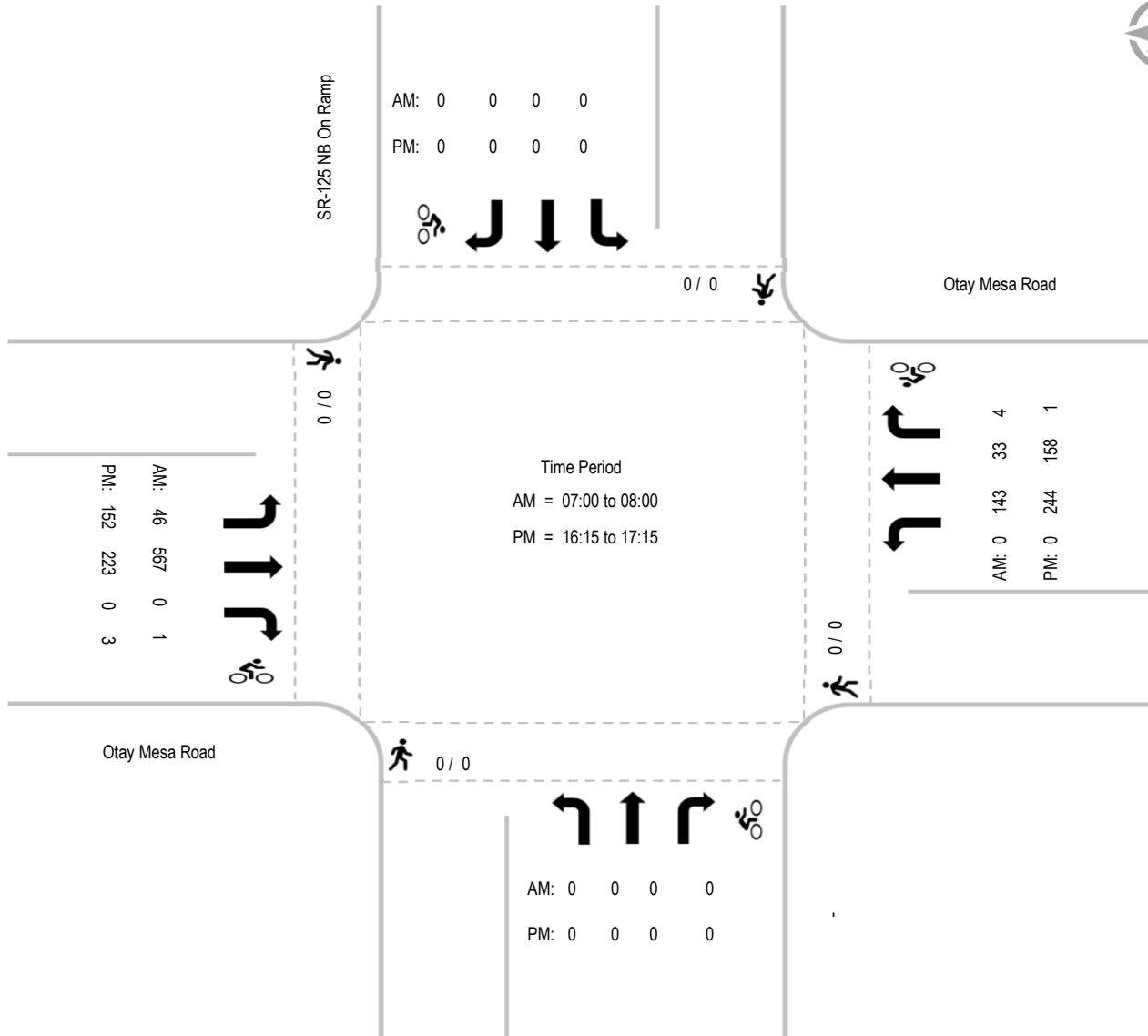
PM	SR-125 NB On Ramp Southbound				Otay Mesa Road Westbound				- Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				0				0				0				0	
Bike Total		0	0	0		0	1	0		0	0	0		0	3	0		4

Intersection Turning Movement - Peak Hour Summary



Location: #04
 Intersection: SR-125 NB On Ramp & Otay Mesa Road
 Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-04
 Project: LLG Ref. 3-22-3662
 Otay Majestic



Intersection Turning Movement - Peak Hour Vehicle Count

**LINSCOTT
LAW &
GREENSPAN**
engineers

Location: #05
Intersection: Harvest Road & Otay Mesa Road
Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-05
Project: LLG Ref. 3-22-3662
Otay Majestic

AM	Harvest Road Southbound			Otay Mesa Road Westbound			Harvest Road Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	1	0	3	0	30	0	2	0	0	10	119	0	165
7:15	1	0	7	1	44	0	0	0	0	3	169	0	225
7:30	0	0	2	0	44	1	1	0	0	6	130	1	185
7:45	0	0	3	0	40	2	0	0	0	8	121	0	174
8:00	0	0	3	0	49	0	2	0	0	1	85	0	140
8:15	2	0	2	0	45	2	0	0	0	8	60	1	120
8:30	0	0	5	1	41	2	2	0	0	1	78	1	131
8:45	5	0	3	0	56	2	0	0	0	2	83	0	151
Total	9	0	28	2	349	9	7	0	0	39	845	3	1291
Approach%	24.3	-	75.7	0.6	96.9	2.5	100.0	-	-	4.4	95.3	0.3	
Total%	0.7	-	2.2	0.2	27.0	0.7	0.5	-	-	3.0	65.5	0.2	

AM Intersection Peak Hour: 07:00 to 08:00

Volume	2	-	15	1	158	3	3	-	-	27	539	1	749
Approach%	11.8	-	88.2	0.6	97.5	1.9	100.0	-	-	4.8	95.1	0.2	
Total%	0.3	-	2.0	0.1	21.1	0.4	0.4	-	-	3.6	72.0	0.1	
PHF			0.53			0.90			0.38			0.82	0.83

PM	Harvest Road Southbound			Otay Mesa Road Westbound			Harvest Road Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	2	0	7	0	127	0	2	0	0	4	45	0	187
16:15	0	0	8	0	89	2	0	0	0	5	37	0	141
16:30	0	0	6	0	102	0	0	0	0	1	62	0	171
16:45	3	0	3	0	70	2	0	0	0	1	62	0	141
17:00	2	0	4	0	120	1	0	0	0	2	53	0	182
17:15	1	0	1	0	60	1	0	0	0	0	59	0	122
17:30	1	0	2	0	71	2	0	0	0	3	66	0	145
17:45	4	0	5	0	39	0	0	0	0	2	70	0	120
Total	13	0	36	0	678	8	2	0	0	18	454	0	1209
Approach%	26.5	-	73.5	-	98.8	1.2	100.0	-	-	3.8	96.2	-	
Total%	1.1	-	3.0	-	56.1	0.7	0.2	-	-	1.5	37.6	-	

PM Intersection Peak Hour: 16:00 to 17:00

Volume	5	-	24	-	388	4	2	-	-	11	206	-	640
Approach%	17.2	-	82.8	-	99.0	1.0	100.0	-	-	5.1	94.9	-	
Total%	0.8	-	3.8	-	60.6	0.6	0.3	-	-	1.7	32.2	-	
PHF			0.81			0.77			0.25			0.86	0.86

Intersection Turning Movement - Bicycle & Pedestrian Count

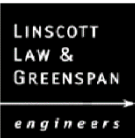


Location: #05	File Name: ITM-23-019-05
Intersection: Harvest Road & Otay Mesa Road	Project: LLG Ref. 3-22-3662
Date of Count: Tuesday February 14, 2023	Otay Majestic

AM	Harvest Road Southbound				Otay Mesa Road Westbound				Harvest Road Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	4
7:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				0				0				0				0	
Bike Total		0	0	0		0	3	4		0	0	0		1	0	0		8

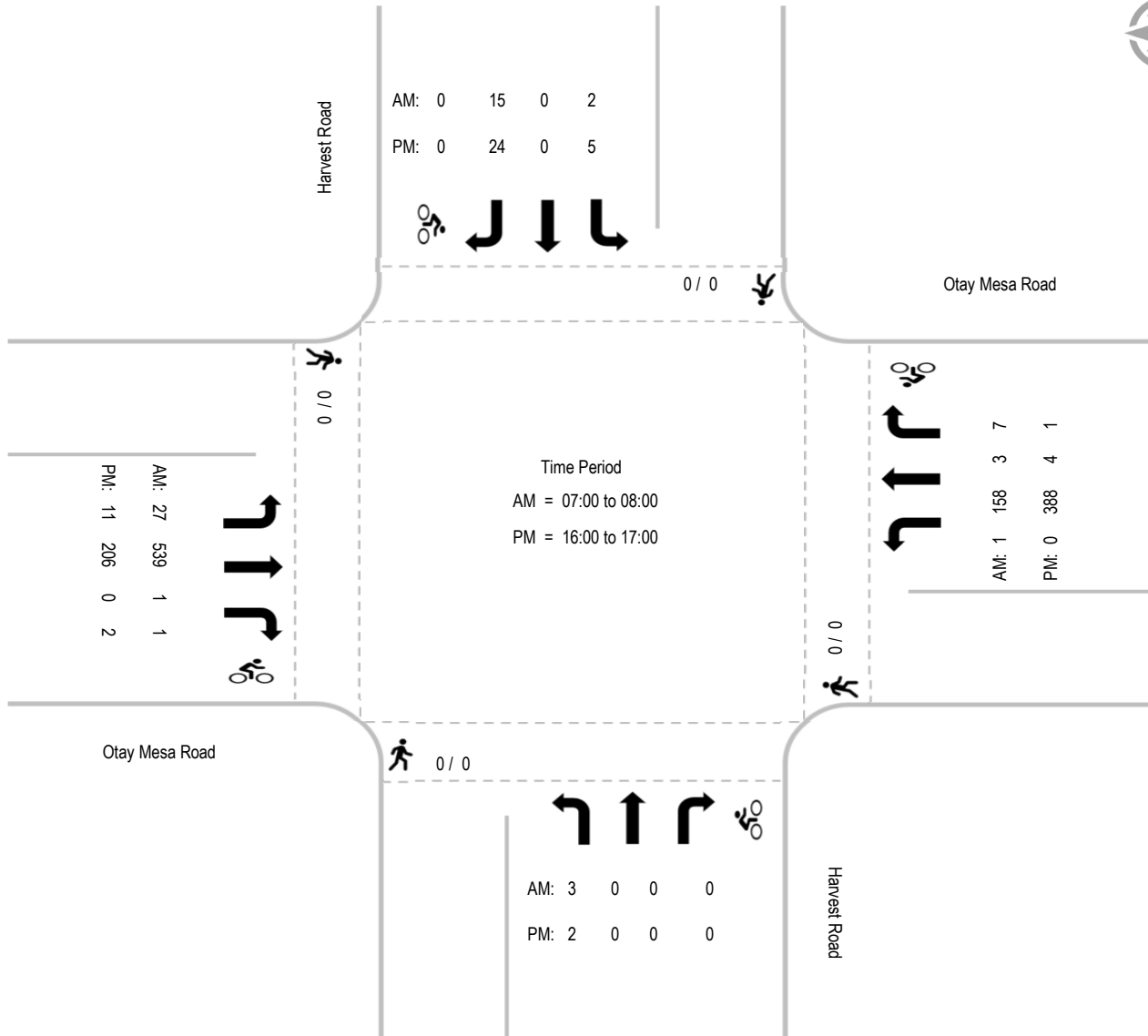
PM	Harvest Road Southbound				Otay Mesa Road Westbound				Harvest Road Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				0				0				0				0	
Bike Total		0	0	0		0	1	0		0	0	0		0	2	0		3

Intersection Turning Movement - Peak Hour Summary



Location: #05
 Intersection: Harvest Road & Otay Mesa Road
 Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-05
 Project: LLG Ref. 3-22-3662
 Otay Majestic



Intersection Turning Movement - Peak Hour Vehicle Count



Location: #06
 Intersection: Sanyo Avenue & Otay Mesa Road
 Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-06
 Project: LLG Ref. 3-22-3662
 Otay Majestic

AM	- Southbound			Otay Mesa Road Westbound			Sanyo Avenue Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	0	0	4	22	0	9	0	14	0	100	18	167
7:15	0	0	0	7	40	0	11	0	9	0	136	36	239
7:30	0	0	0	10	30	0	9	0	8	0	100	34	191
7:45	0	0	0	9	20	0	21	0	13	0	71	45	179
8:00	0	0	0	3	35	0	16	0	8	0	49	41	152
8:15	0	0	0	5	30	0	19	0	5	0	25	34	118
8:30	0	0	0	3	21	0	22	0	7	0	45	39	137
8:45	0	0	0	10	32	0	26	0	6	0	36	52	162
Total	0	0	0	51	230	0	133	0	70	0	562	299	1345
Approach%	-	-	-	18.1	81.9	-	65.5	-	34.5	-	65.3	34.7	
Total%	-	-	-	3.8	17.1	-	9.9	-	5.2	-	41.8	22.2	

AM Intersection Peak Hour: 07:00 to 08:00

Volume	-	-	-	30	112	-	50	-	44	-	407	133	776
Approach%	-	-	-	21.1	78.9	-	53.2	-	46.8	-	75.4	24.6	
Total%	-	-	-	3.9	14.4	-	6.4	-	5.7	-	52.4	17.1	
PHF	#DIV/0!					0.76			0.69			0.78	0.81

PM	- Southbound			Otay Mesa Road Westbound			Sanyo Avenue Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	0	0	13	71	0	51	0	8	0	17	29	189
16:15	0	0	0	17	53	0	33	0	12	0	21	22	158
16:30	0	0	0	4	51	0	43	0	10	0	22	38	168
16:45	0	0	0	11	28	0	48	0	10	0	36	32	165
17:00	0	0	0	10	53	0	62	0	11	0	28	31	195
17:15	0	0	0	8	20	0	39	0	9	0	39	23	138
17:30	0	0	0	19	55	0	19	0	13	0	55	20	181
17:45	0	0	0	4	27	0	14	0	15	0	58	16	134
Total	0	0	0	86	358	0	309	0	88	0	276	211	1328
Approach%	-	-	-	19.4	80.6	-	77.8	-	22.2	-	56.7	43.3	
Total%	-	-	-	6.5	27.0	-	23.3	-	6.6	-	20.8	15.9	

PM Intersection Peak Hour: 16:15 to 17:15

Volume	-	-	-	42	185	-	186	-	43	-	107	123	686
Approach%	-	-	-	18.5	81.5	-	81.2	-	18.8	-	46.5	53.5	
Total%	-	-	-	6.1	27.0	-	27.1	-	6.3	-	15.6	17.9	
PHF	#DIV/0!					0.81			0.78			0.85	0.88

Intersection Turning Movement - Bicycle & Pedestrian Count

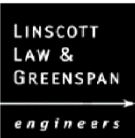


Location: #06	File Name: ITM-23-019-06
Intersection: Sanyo Avenue & Otay Mesa Road	Project: LLG Ref. 3-22-3662
Date of Count: Tuesday February 14, 2023	Otay Majestic

AM	- Southbound				Otay Mesa Road Westbound				Sanyo Avenue Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	0	0	5
7:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Ped Total	0				0				1				0				1	
Bike Total		0	0	0		0	0	0		5	0	1		0	0	0		6

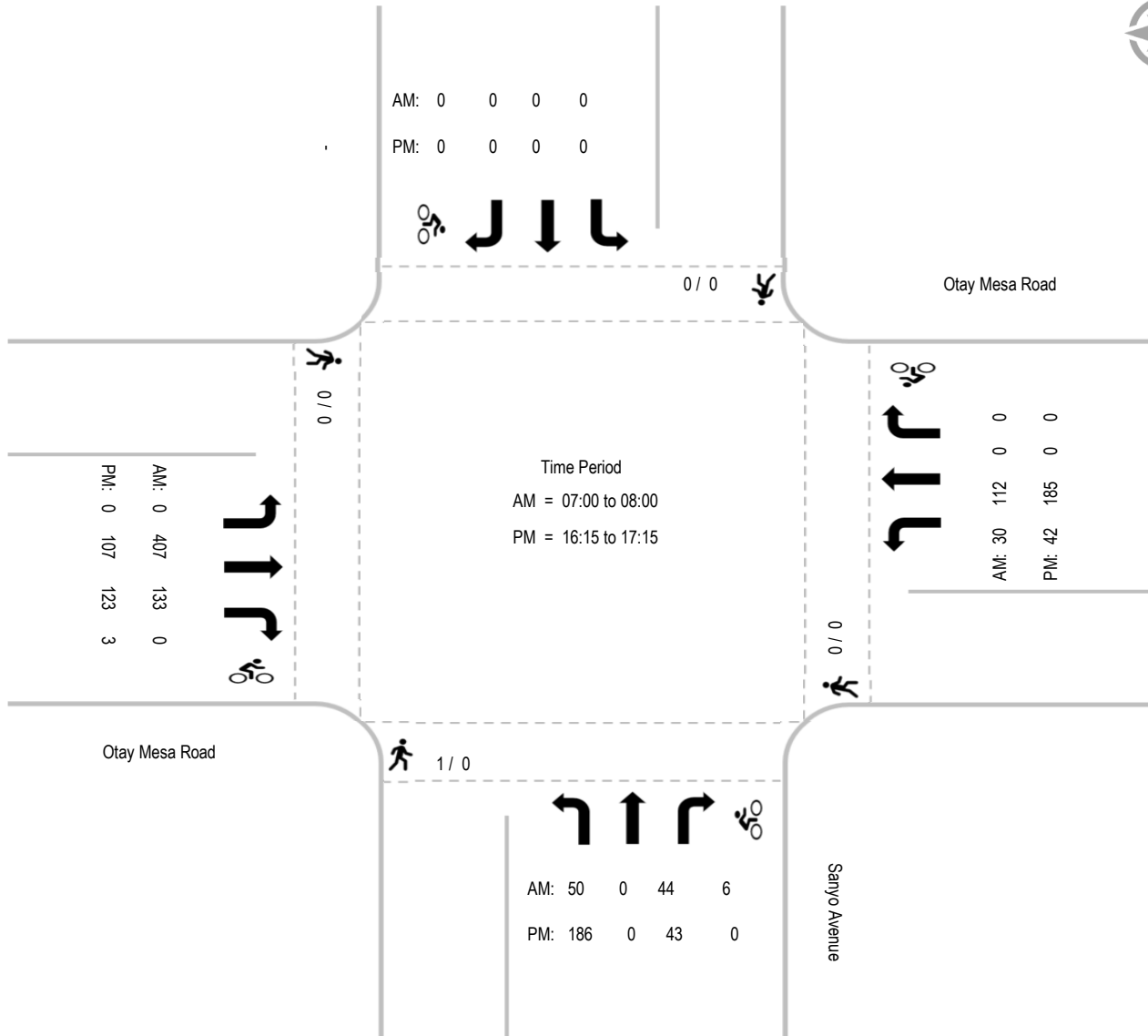
PM	- Southbound				Otay Mesa Road Westbound				Sanyo Avenue Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				0				0				0				0	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	3		3

Intersection Turning Movement - Peak Hour Summary



Location: #06
 Intersection: Sanyo Avenue & Otay Mesa Road
 Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-06
 Project: LLG Ref. 3-22-3662
 Otay Majestic



Intersection Turning Movement - Peak Hour Vehicle Count



Location: #07
 Intersection: Vann Cantre Boulevard & Otay Mesa Road
 Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-07
 Project: LLG Ref. 3-22-3662
 Otay Majestic

AM	- Southbound			Otay Mesa Road Westbound			Vann Cantre Boulevard Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	0	0	0	21	0	1	0	0	0	85	19	126
7:15	0	0	0	4	40	0	2	0	0	0	126	28	200
7:30	0	0	0	0	38	0	5	0	1	0	89	13	146
7:45	0	0	0	0	23	0	4	0	2	0	85	5	119
8:00	0	0	0	5	32	0	1	0	2	0	64	0	104
8:15	0	0	0	5	35	0	2	0	2	0	31	1	76
8:30	0	0	0	1	23	0	2	0	2	0	49	1	78
8:45	0	0	0	1	40	0	0	0	2	0	34	2	79
Total	0	0	0	16	252	0	17	0	11	0	563	69	928
Approach%	-	-	-	6.0	94.0	-	60.7	-	39.3	-	89.1	10.9	
Total%	-	-	-	1.7	27.2	-	1.8	-	1.2	-	60.7	7.4	

AM Intersection Peak Hour: 07:00 to 08:00

Volume	-	-	-	4	122	-	12	-	3	-	385	65	591
Approach%	-	-	-	3.2	96.8	-	80.0	-	20.0	-	85.6	14.4	
Total%	-	-	-	0.7	20.6	-	2.0	-	0.5	-	65.1	11.0	
PHF	#DIV/0!					0.72			0.63			0.73	0.74

PM	- Southbound			Otay Mesa Road Westbound			Vann Cantre Boulevard Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	0	0	2	78	0	1	0	1	0	22	3	107
16:15	0	0	0	0	64	0	2	0	2	0	29	4	101
16:30	0	0	0	2	55	0	4	0	0	0	31	3	95
16:45	0	0	0	6	35	0	3	0	4	0	38	3	89
17:00	0	0	0	1	52	0	9	0	1	0	31	8	102
17:15	0	0	0	0	27	0	2	0	0	0	33	9	71
17:30	0	0	0	1	54	0	18	0	3	0	55	10	141
17:45	0	0	0	1	22	0	7	0	4	0	69	8	111
Total	0	0	0	13	387	0	46	0	15	0	308	48	817
Approach%	-	-	-	3.3	96.8	-	75.4	-	24.6	-	86.5	13.5	
Total%	-	-	-	1.6	47.4	-	5.6	-	1.8	-	37.7	5.9	

PM Intersection Peak Hour: 17:00 to 18:00

Volume	-	-	-	3	155	-	36	-	8	-	188	35	425
Approach%	-	-	-	1.9	98.1	-	81.8	-	18.2	-	84.3	15.7	
Total%	-	-	-	0.7	36.5	-	8.5	-	1.9	-	44.2	8.2	
PHF	#DIV/0!					0.72			0.52			0.72	0.75

Intersection Turning Movement - Bicycle & Pedestrian Count

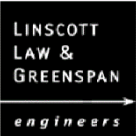


Location: #07	File Name: ITM-23-019-07
Intersection: Vann Cantre Boulevard & Otay Mesa Road	Project: LLG Ref. 3-22-3662
Date of Count: Tuesday February 14, 2023	Otay Majestic

AM	- Southbound				Otay Mesa Road Westbound				Vann Cantre Boulevard Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1	2
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
Ped Total	0				0				2				1				3	
Bike Total		0	0	0		0	0	0		0	0	0		0	1	3		4

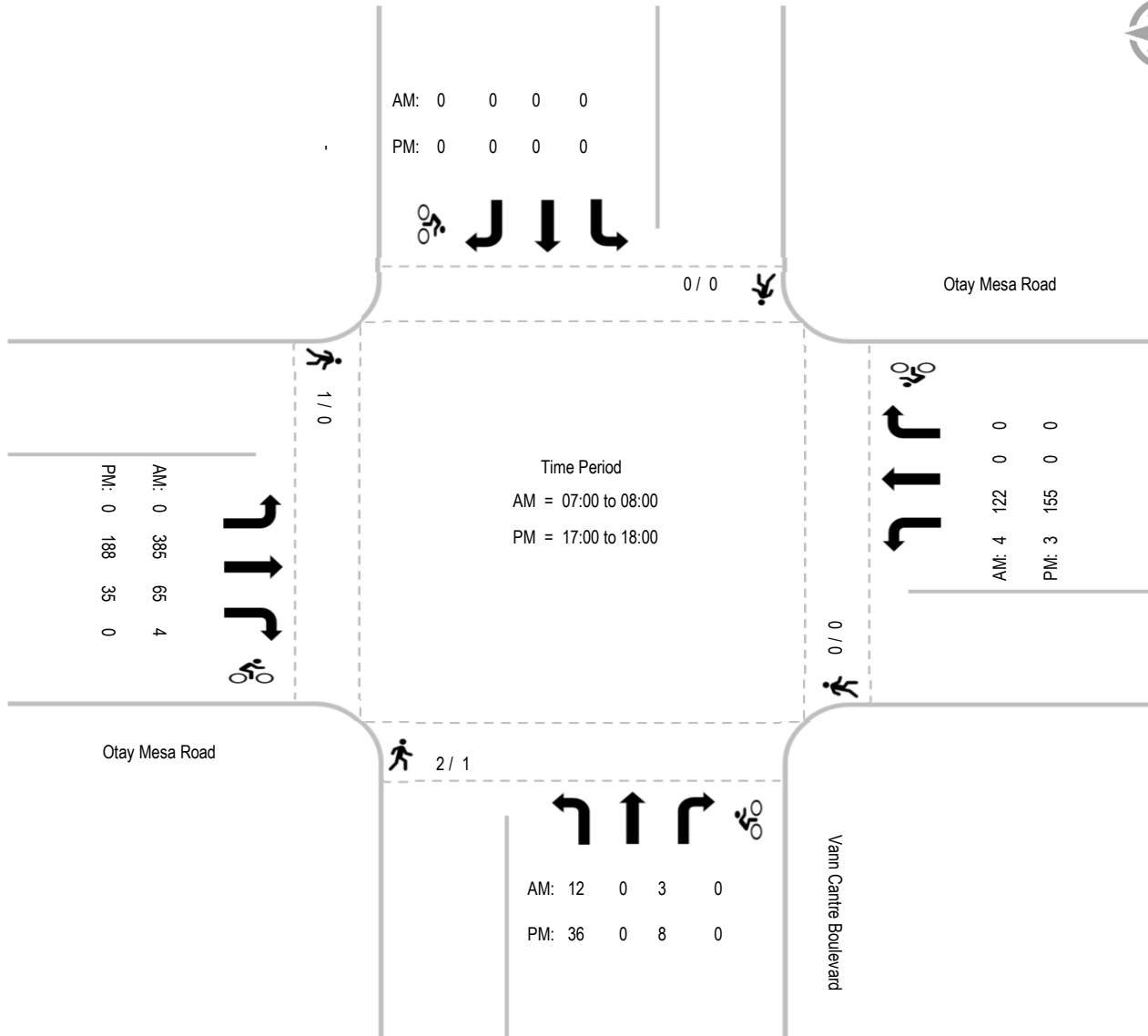
PM	- Southbound				Otay Mesa Road Westbound				Vann Cantre Boulevard Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				0				1				0				1	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	0		0

Intersection Turning Movement - Peak Hour Summary



Location: #07
 Intersection: Vann Cantre Boulevard & Otay Mesa Road
 Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-07
 Project: LLG Ref. 3-22-3662
 Otay Majestic



Intersection Turning Movement - Peak Hour Vehicle Count



Location: #08
 Intersection: Enrico Femi Road & Otay Mesa Road
 Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-08
 Project: LLG Ref. 3-22-3662
 Otay Majestic

AM	Enrico Femi Road Southbound			Otay Mesa Road Westbound			Enrico Femi Road Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	9	1	18	12	1	81	37	66	7	29	15	276
7:15	0	9	9	13	13	0	100	35	84	21	39	19	342
7:30	0	19	8	45	20	1	26	35	112	11	47	13	337
7:45	0	17	1	16	15	1	26	50	126	13	60	10	335
8:00	0	10	5	19	23	0	18	33	73	7	40	6	234
8:15	1	12	6	25	20	1	24	18	66	4	23	7	207
8:30	1	17	8	30	12	0	9	15	54	5	33	10	194
8:45	1	12	8	30	32	0	6	8	58	5	22	6	188
Total	3	105	46	196	147	4	290	231	639	73	293	86	2113
Approach%	1.9	68.2	29.9	56.5	42.4	1.2	25.0	19.9	55.1	16.2	64.8	19.0	
Total%	0.1	5.0	2.2	9.3	7.0	0.2	13.7	10.9	30.2	3.5	13.9	4.1	

AM Intersection Peak Hour: 07:00 to 08:00

Volume	-	54	19	92	60	3	233	157	388	52	175	57	1,290
Approach%	-	74.0	26.0	59.4	38.7	1.9	29.9	20.2	49.9	18.3	61.6	20.1	
Total%	-	4.2	1.5	7.1	4.7	0.2	18.1	12.2	30.1	4.0	13.6	4.4	
PHF			0.68			0.59			0.89			0.86	0.94

PM	Enrico Femi Road Southbound			Otay Mesa Road Westbound			Enrico Femi Road Northbound			Otay Mesa Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	74	29	105	42	1	6	12	31	7	13	29	349
16:15	0	38	14	56	46	0	2	2	22	1	9	18	208
16:30	0	46	15	62	31	0	12	3	28	5	12	23	237
16:45	1	31	6	49	20	0	15	4	23	5	14	7	175
17:00	0	19	10	57	30	0	22	12	27	0	12	18	207
17:15	0	22	3	43	17	0	35	7	28	3	9	14	181
17:30	0	21	11	36	26	0	53	11	27	3	16	64	268
17:45	0	10	6	26	5	0	65	6	25	5	9	30	187
Total	1	261	94	434	217	1	210	57	211	29	94	203	1812
Approach%	0.3	73.3	26.4	66.6	33.3	0.2	43.9	11.9	44.1	8.9	28.8	62.3	
Total%	0.1	14.4	5.2	24.0	12.0	0.1	11.6	3.1	11.6	1.6	5.2	11.2	

PM Intersection Peak Hour: 16:00 to 17:00

Volume	1	189	64	272	139	1	35	21	104	18	48	77	969
Approach%	0.4	74.4	25.2	66.0	33.7	0.2	21.9	13.1	65.0	12.6	33.6	53.8	
Total%	0.1	19.5	6.6	28.1	14.3	0.1	3.6	2.2	10.7	1.9	5.0	7.9	
PHF			0.62			0.70			0.82			0.73	0.69

Intersection Turning Movement - Bicycle & Pedestrian Count

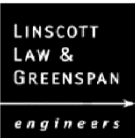


Location: #08	File Name: ITM-23-019-08
Intersection: Enrico Femi Road & Otay Mesa Road	Project: LLG Ref. 3-22-3662
Date of Count: Tuesday February 14, 2023	Otay Majestic

AM	Enrico Femi Road Southbound				Otay Mesa Road Westbound				Enrico Femi Road Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	1	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	3	2
7:15	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0
7:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
7:45	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0
8:00	1	0	0	0	1	0	0	0	1	0	0	2	0	0	0	0	3	2
8:15	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	1
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	3	0	0	0	0	0	0	1	0	0	0	0	3	1
Ped Total	4				4				3				4				15	
Bike Total		0	0	0		0	0	0		0	0	6		0	0	0		6

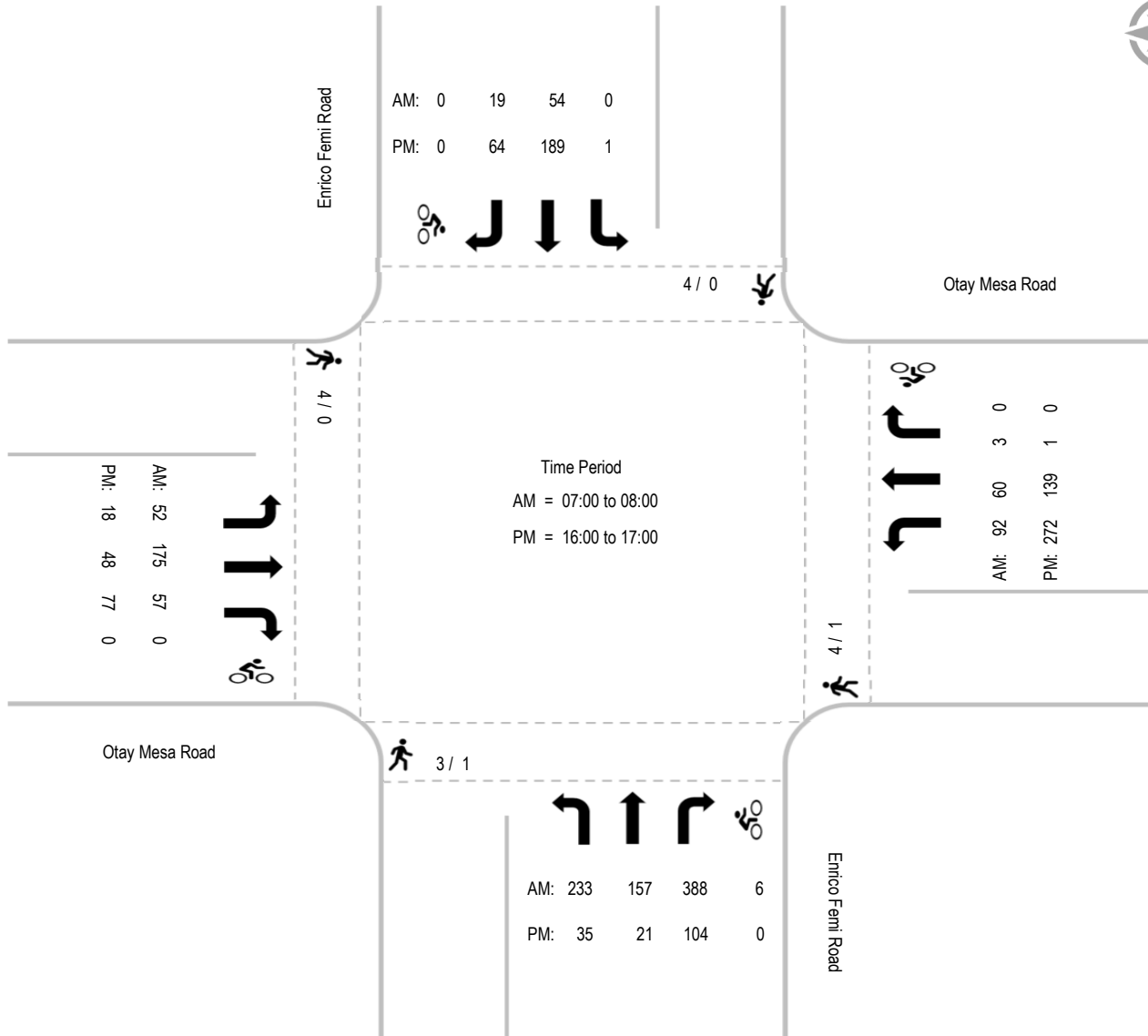
PM	Enrico Femi Road Southbound				Otay Mesa Road Westbound				Enrico Femi Road Northbound				Otay Mesa Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				1				1				0				2	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	0		0

Intersection Turning Movement - Peak Hour Summary



Location: #08
 Intersection: Enrico Femi Road & Otay Mesa Road
 Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-08
 Project: LLG Ref. 3-22-3662
 Otay Majestic



Intersection Turning Movement - Peak Hour Vehicle Count



Location: #09
 Intersection: St Andrews Ave -SR-905 WB Ramps - La Media Rd
 Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-09
 Project: LLG Ref. 3-22-3662
 Otay Majestic

AM	La Media Road Southbound			SR-905 WB Ramps Westbound			La Media Road Northbound			St Andrew Avenue Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	1	58	1	2	7	16	17	92	27	0	0	9	230
7:15	0	58	2	3	11	15	14	103	23	1	0	11	241
7:30	0	65	3	1	9	25	23	86	29	0	0	15	256
7:45	0	83	8	2	9	7	22	107	37	1	0	16	292
8:00	0	82	1	4	11	10	19	69	34	0	0	13	243
8:15	0	69	6	5	12	13	25	78	33	1	0	13	255
8:30	1	77	7	8	16	17	26	75	33	1	0	21	282
8:45	0	73	3	7	10	12	21	64	27	0	3	15	235
Total	2	565	31	32	85	115	167	674	243	4	3	113	2034
Approach%	0.3	94.5	5.2	13.8	36.6	49.6	15.4	62.2	22.4	3.3	2.5	94.2	
Total%	0.1	27.8	1.5	1.6	4.2	5.7	8.2	33.1	11.9	0.2	0.1	5.6	

AM Intersection Peak Hour: 07:45 to 08:45

Volume	1	311	22	19	48	47	92	329	137	3	-	63	1,072
Approach%	0.3	93.1	6.6	16.7	42.1	41.2	16.5	59.0	24.6	4.5	-	95.5	
Total%	0.1	29.0	2.1	1.8	4.5	4.4	8.6	30.7	12.8	0.3	-	5.9	
PHF			0.92			0.70			0.84			0.75	0.92

PM	La Media Road Southbound			SR-905 WB Ramps Westbound			La Media Road Northbound			St Andrew Avenue Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	147	7	12	9	9	25	50	66	0	1	40	366
16:15	0	108	5	5	6	16	11	41	58	1	0	34	285
16:30	0	106	1	12	6	6	18	50	65	0	0	32	296
16:45	0	101	3	7	5	6	14	42	56	2	0	40	276
17:00	0	175	10	14	8	12	5	50	99	1	0	46	420
17:15	0	116	4	11	8	13	17	51	62	3	0	29	314
17:30	0	106	3	7	5	11	17	47	47	0	1	19	263
17:45	0	78	4	16	7	6	13	56	32	1	0	14	227
Total	0	937	37	84	54	79	120	387	485	8	2	254	2447
Approach%	-	96.2	3.8	38.7	24.9	36.4	12.1	39.0	48.9	3.0	0.8	96.2	
Total%	-	38.3	1.5	3.4	2.2	3.2	4.9	15.8	19.8	0.3	0.1	10.4	

PM Intersection Peak Hour: 16:30 to 17:30

Volume	-	498	18	44	27	37	54	193	282	6	-	147	1,306
Approach%	-	96.5	3.5	40.7	25.0	34.3	10.2	36.5	53.3	3.9	-	96.1	
Total%	-	38.1	1.4	3.4	2.1	2.8	4.1	14.8	21.6	0.5	-	11.3	
PHF			0.70			0.79			0.86			0.81	0.78

Intersection Turning Movement - Bicycle & Pedestrian Count

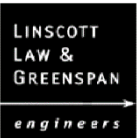


Location: #09	File Name: ITM-23-019-09
Intersection: St Andrews Ave -SR-905 WB Ramps - La Media Rd	Project: LLG Ref. 3-22-3662
Date of Count: Tuesday February 14, 2023	Otay Majestic

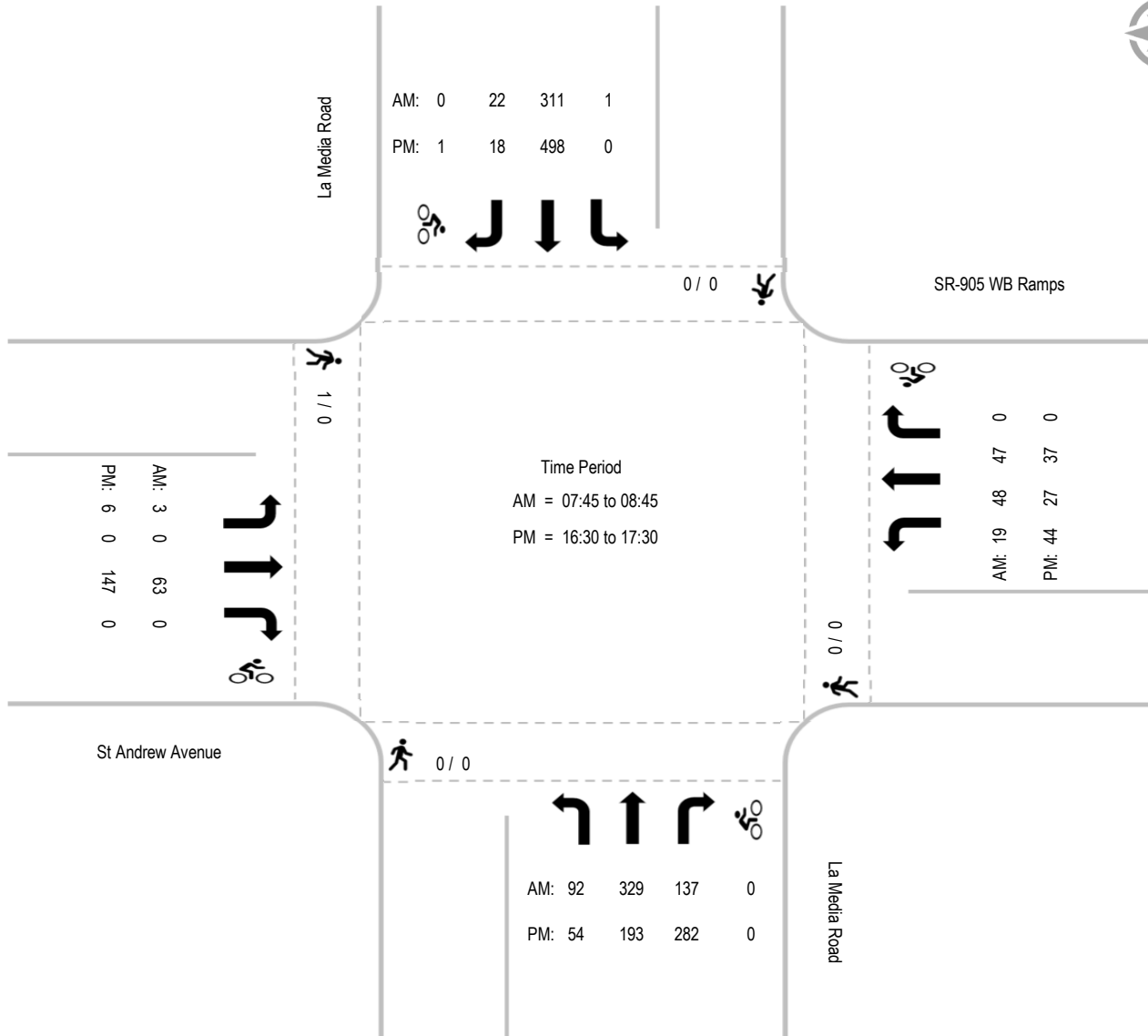
AM	La Media Road Southbound				SR-905 WB Ramps Westbound				La Media Road Northbound				St Andrew Avenue Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				0				0				1				1	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	0		0

PM	La Media Road Southbound				SR-905 WB Ramps Westbound				La Media Road Northbound				St Andrew Avenue Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				0				0				0				0	
Bike Total		0	1	0		0	0	0		0	0	0		0	0	0		1

Intersection Turning Movement - Peak Hour Summary



Location: #09	File Name: ITM-23-019-09
Intersection: St Andrews Ave -SR-905 WB Ramps - La Media Rd	Project: LLG Ref. 3-22-3662
Date of Count: Tuesday February 14, 2023	Otay Majestic



Intersection Turning Movement - Peak Hour Vehicle Count

**LINSCOTT
LAW &
GREENSPAN**
engineers

Location: #10
Intersection: La Media Road & SR-905 Eastbound Ramps
Date of Count: Tuesday February 14, 2023

File Name: ITM-23-019-10
Project: LLG Ref. 3-22-3662
Otay Majestic

AM	La Media Road Southbound			- Westbound			La Media Road Northbound			SR-905 EB On-Off Ramp Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	8	9	0	0	0	0	41	0	102	0	66	226
7:15	0	15	12	0	0	0	0	41	0	106	0	68	242
7:30	0	24	9	0	0	0	1	48	0	89	0	85	256
7:45	0	36	9	0	0	0	0	53	0	119	0	118	335
8:00	0	39	11	0	0	0	2	58	0	68	0	89	267
8:15	0	27	11	0	0	0	0	56	0	75	0	90	259
8:30	0	46	9	0	0	0	3	54	0	79	0	86	277
8:45	0	41	9	0	0	0	0	54	0	59	0	82	245
Total	0	236	79	0	0	0	6	405	0	697	0	684	2107
Approach%	-	74.9	25.1	-	-	-	1.5	98.5	-	50.5	-	49.5	
Total%	-	11.2	3.7	-	-	-	0.3	19.2	-	33.1	-	32.5	

AM Intersection Peak Hour: 07:45 to 08:45

Volume	-	148	40	-	-	-	5	221	-	341	-	383	1,138
Approach%	-	78.7	21.3	-	-	-	2.2	97.8	-	47.1	-	52.9	
Total%	-	13.0	3.5	-	-	-	0.4	19.4	-	30.0	-	33.7	
PHF			0.85			#DIV/0!			0.94			0.76	0.85

PM	La Media Road Southbound			- Westbound			La Media Road Northbound			SR-905 EB On-Off Ramp Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	56	25	0	0	0	3	99	0	38	0	64	285
16:15	0	45	21	0	0	0	3	82	0	29	0	62	242
16:30	0	51	37	0	0	0	4	95	0	38	0	41	266
16:45	0	33	29	0	0	0	7	80	0	35	0	46	230
17:00	0	47	65	0	0	0	15	127	0	31	0	54	339
17:15	0	51	34	0	0	0	14	88	0	39	0	57	283
17:30	0	31	22	0	0	0	9	62	0	47	0	57	228
17:45	0	31	36	0	0	0	2	53	0	50	0	43	215
Total	0	345	269	0	0	0	57	686	0	307	0	424	2088
Approach%	-	56.2	43.8	-	-	-	7.7	92.3	-	42.0	-	58.0	
Total%	-	16.5	12.9	-	-	-	2.7	32.9	-	14.7	-	20.3	

PM Intersection Peak Hour: 16:30 to 17:30

Volume	-	182	165	-	-	-	40	390	-	143	-	198	1,118
Approach%	-	52.4	47.6	-	-	-	9.3	90.7	-	41.9	-	58.1	
Total%	-	16.3	14.8	-	-	-	3.6	34.9	-	12.8	-	17.7	
PHF			0.77			#DIV/0!			0.76			0.89	0.82

Intersection Turning Movement - Bicycle & Pedestrian Count

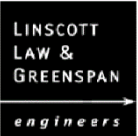


Location: #10	File Name: ITM-23-019-10
Intersection: La Media Road & SR-905 Eastbound Ramps	Project: LLG Ref. 3-22-3662
Date of Count: Tuesday February 14, 2023	Otay Majestic

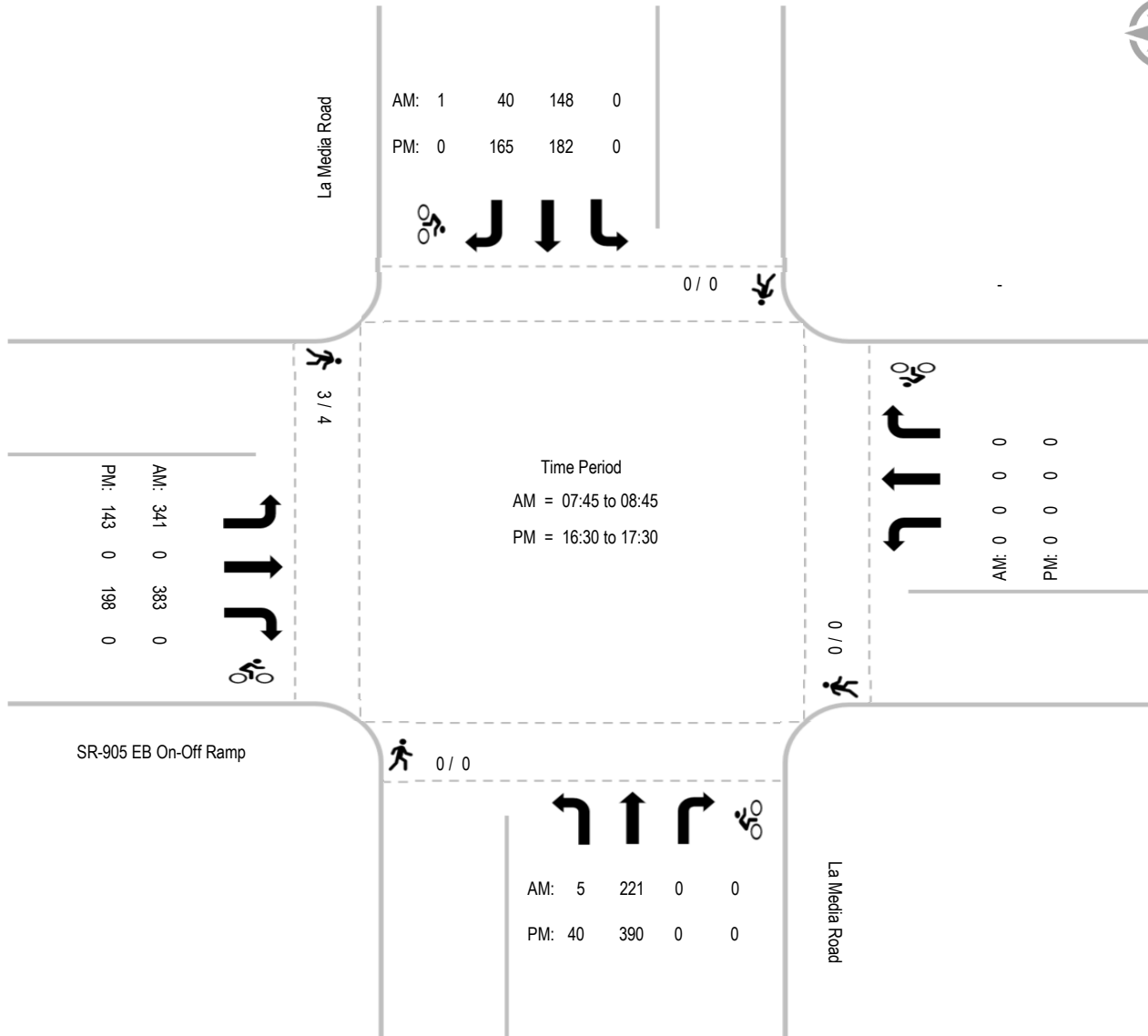
AM	La Media Road Southbound				- Westbound				La Media Road Northbound				SR-905 EB On-Off Ramp Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				0				0				3				3	
Bike Total		0	1	0		0	0	0		0	0	0		0	0	0		1

PM	La Media Road Southbound				- Westbound				La Media Road Northbound				SR-905 EB On-Off Ramp Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				0				0				4				4	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	0		0

Intersection Turning Movement - Peak Hour Summary



Location: #10	File Name: ITM-23-019-10
Intersection: La Media Road & SR-905 Eastbound Ramps	Project: LLG Ref. 3-22-3662
Date of Count: Tuesday February 14, 2023	Otay Majestic



APPENDIX C

EXISTING PEAK HOUR INTERSECTION LOS WORKSHEETS

HCM 6th Signalized Intersection Summary

1: La Media Rd & Otay Mesa Rd

Existing AM
04/26/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	  					 		
Traffic Volume (veh/h)	44	205	90	168	173	24	53	73	223	18	71	21
Future Volume (veh/h)	44	205	90	168	173	24	53	73	223	18	71	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.93	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1752	1870	1870	1752	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	253	111	187	192	27	62	216	172	25	99	29
Peak Hour Factor	0.81	0.81	0.81	0.90	0.90	0.90	0.86	0.86	0.86	0.72	0.72	0.72
Percent Heavy Veh, %	2	10	2	2	10	2	2	2	2	2	2	2
Cap, veh/h	258	1492	475	381	1172	157	142	471	374	161	301	88
Arrive On Green	0.14	0.31	0.31	0.11	0.28	0.27	0.08	0.25	0.24	0.05	0.22	0.21
Sat Flow, veh/h	1781	4782	1524	3456	4222	565	1781	1870	1533	3456	1377	403
Grp Volume(v), veh/h	54	253	111	187	143	76	62	216	172	25	0	128
Grp Sat Flow(s),veh/h/ln	1781	1594	1524	1728	1594	1599	1781	1870	1533	1728	0	1780
Q Serve(g_s), s	1.8	2.5	2.3	3.4	2.2	2.4	2.2	6.4	4.2	0.5	0.0	4.0
Cycle Q Clear(g_c), s	1.8	2.5	2.3	3.4	2.2	2.4	2.2	6.4	4.2	0.5	0.0	4.0
Prop In Lane	1.00		1.00	1.00		0.35	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	258	1492	475	381	885	444	142	471	374	161	0	389
V/C Ratio(X)	0.21	0.17	0.23	0.49	0.16	0.17	0.44	0.46	0.46	0.16	0.00	0.33
Avail Cap(c_a), veh/h	322	3318	1057	881	2464	1235	327	1340	1087	624	0	1281
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.8	16.5	7.2	27.6	18.0	18.1	28.9	20.9	9.3	30.2	0.0	21.7
Incr Delay (d2), s/veh	0.4	0.1	0.2	1.0	0.1	0.2	2.1	0.7	0.9	0.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.9	1.2	1.4	0.8	0.9	1.0	2.7	2.1	0.2	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.2	16.5	7.5	28.5	18.1	18.3	31.0	21.5	10.2	30.6	0.0	22.2
LnGrp LOS	C	B	A	C	B	B	C	C	B	C	A	C
Approach Vol, veh/h		418			406			450			153	
Approach Delay, s/veh		15.2			22.9			18.5			23.6	
Approach LOS		B			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	26.1	9.1	19.2	13.7	23.8	7.0	21.4				
Change Period (Y+Rc), s	4.7	* 6	4.4	* 5.3	4.7	* 6	4.4	5.3				
Max Green Setting (Gmax), s	16.3	* 45	11.6	* 47	11.4	* 50	11.4	46.7				
Max Q Clear Time (g_c+I1), s	5.4	4.5	4.2	6.0	3.8	4.4	2.5	8.4				
Green Ext Time (p_c), s	0.6	1.8	0.1	0.5	0.1	1.0	0.0	1.7				

Intersection Summary

HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

2: Otay Mesa Rd & Piper Ranch Rd

Existing AM
04/26/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗	↔	↖		↖	↕	↗
Traffic Volume (veh/h)	190	310	39	10	215	100	9	1	6	77	4	116
Future Volume (veh/h)	190	310	39	10	215	100	9	1	6	77	4	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.92	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1752	1752	1752	1752	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	221	360	45	12	250	116	13	1	9	55	0	152
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.67	0.67	0.67	0.95	0.95	0.95
Percent Heavy Veh, %	2	10	10	10	10	2	10	10	10	2	10	2
Cap, veh/h	222	3083	938	60	2864	1116	129	11	98	209	0	351
Arrive On Green	0.06	0.64	0.64	0.02	0.60	0.60	0.08	0.08	0.08	0.12	0.00	0.12
Sat Flow, veh/h	3456	4782	1455	3237	4782	1552	1668	140	1261	1781	0	2995
Grp Volume(v), veh/h	221	360	45	12	250	116	13	0	10	55	0	152
Grp Sat Flow(s), veh/h/ln	1728	1594	1455	1618	1594	1552	1668	0	1401	1781	0	1498
Q Serve(g_s), s	9.3	4.2	1.6	0.5	3.2	3.3	1.1	0.0	1.0	4.1	0.0	6.8
Cycle Q Clear(g_c), s	9.3	4.2	1.6	0.5	3.2	3.3	1.1	0.0	1.0	4.1	0.0	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.90	1.00		1.00
Lane Grp Cap(c), veh/h	222	3083	938	60	2864	1116	129	0	109	209	0	351
V/C Ratio(X)	1.00	0.12	0.05	0.20	0.09	0.10	0.10	0.00	0.09	0.26	0.00	0.43
Avail Cap(c_a), veh/h	222	3083	938	158	2864	1116	496	0	416	553	0	930
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.8	9.9	9.5	70.1	12.3	6.3	62.2	0.0	62.1	58.3	0.0	59.5
Incr Delay (d2), s/veh	59.0	0.1	0.1	0.6	0.1	0.2	0.4	0.0	0.4	1.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	1.5	0.6	0.2	1.2	1.7	0.5	0.0	0.4	1.9	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	126.8	10.0	9.5	70.7	12.4	6.5	62.6	0.0	62.5	59.4	0.0	60.9
LnGrp LOS	F	A	A	E	B	A	E	A	E	E	A	E
Approach Vol, veh/h	626			378			23			207		
Approach Delay, s/veh	51.2			12.4			62.6			60.5		
Approach LOS	D			B			E			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	99.5		22.3	13.7	92.8		16.1				
Change Period (Y+Rc), s	4.4	6.0		5.3	4.4	6.0		4.9				
Max Green Setting (Gmax), s	7.1	29.2		45.0	9.3	27.0		43.1				
Max Q Clear Time (g_c+I), s	12.5	6.2		8.8	11.3	5.3		3.1				
Green Ext Time (p_c), s	0.0	4.2		1.8	0.0	3.7		0.1				

Intersection Summary

HCM 6th Ctrl Delay 41.1
HCM 6th LOS D

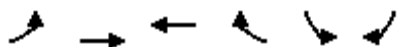
Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

3: Otay Mesa Rd & SR 125 SB Off-Ramp

Existing AM
04/26/2023

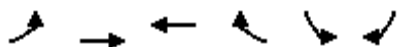


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	387	155	0	187	175
Future Volume (veh/h)	0	387	155	0	187	175
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1752	1752	0	1870	1870
Adj Flow Rate, veh/h	0	478	172	0	205	192
Peak Hour Factor	0.81	0.81	0.90	0.90	0.91	0.91
Percent Heavy Veh, %	0	10	10	0	2	2
Cap, veh/h	0	1198	834	0	1170	537
Arrive On Green	0.00	0.25	0.25	0.00	0.34	0.34
Sat Flow, veh/h	0	5098	3504	0	3456	1585
Grp Volume(v), veh/h	0	478	172	0	205	192
Grp Sat Flow(s),veh/h/ln	0	1594	1664	0	1728	1585
Q Serve(g_s), s	0.0	2.5	1.2	0.0	1.2	2.7
Cycle Q Clear(g_c), s	0.0	2.5	1.2	0.0	1.2	2.7
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1198	834	0	1170	537
V/C Ratio(X)	0.00	0.40	0.21	0.00	0.18	0.36
Avail Cap(c_a), veh/h	0	4202	2925	0	1316	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.3	8.9	0.0	7.0	7.5
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.0	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.6	0.3	0.0	0.3	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	9.6	9.0	0.0	7.0	7.9
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		478	172		397	
Approach Delay, s/veh		9.6	9.0		7.4	
Approach LOS		A	A		A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		14.2		15.7		14.2
Change Period (Y+Rc), s		7.2		6.1		7.2
Max Green Setting (Gmax), s		25.8		10.9		25.8
Max Q Clear Time (g_c+I1), s		3.2		4.7		4.5
Green Ext Time (p_c), s		0.7		1.0		2.3
Intersection Summary						
HCM 6th Ctrl Delay			8.7			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary

4: Otay Mesa Rd & SR 125 NB On-Ramp

Existing AM
04/26/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↑↑	↰	↰
Traffic Volume (veh/h)	46	567	143	33	0	0
Future Volume (veh/h)	46	567	143	33	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752		
Adj Flow Rate, veh/h	54	667	166	38		
Peak Hour Factor	0.85	0.85	0.86	0.86		
Percent Heavy Veh, %	10	10	10	10		
Cap, veh/h	411	2277	1614	456		
Arrive On Green	0.13	0.68	0.31	0.31		
Sat Flow, veh/h	3237	3416	5255	1485		
Grp Volume(v), veh/h	54	667	166	38		
Grp Sat Flow(s), veh/h/ln	1618	1664	1752	1485		
Q Serve(g_s), s	0.3	1.8	0.5	0.4		
Cycle Q Clear(g_c), s	0.3	1.8	0.5	0.4		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	411	2277	1614	456		
V/C Ratio(X)	0.13	0.29	0.10	0.08		
Avail Cap(c_a), veh/h	1420	6132	5095	1439		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	8.8	1.4	5.7	5.6		
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.0	1.5	5.7	5.7		
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h		721	204			
Approach Delay, s/veh		2.1	5.7			
Approach LOS		A	A			
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		22.8			8.6	14.2
Change Period (Y+Rc), s		* 7.2			* 5.7	7.2
Max Green Setting (Gmax), s		* 42			* 10	22.1
Max Q Clear Time (g_c+I1), s		3.8			2.3	2.5
Green Ext Time (p_c), s		5.4			0.1	1.1
Intersection Summary						
HCM 6th Ctrl Delay			2.9			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	27	539	1	1	158	3	3	0	0	2	0	15
Future Vol, veh/h	27	539	1	1	158	3	3	0	0	2	0	15
Conflicting Peds, #/hr	10	0	10	10	0	10	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	90	90	90	38	38	38	53	53	53
Heavy Vehicles, %	2	10	2	2	10	2	2	2	2	2	2	2
Mvmt Flow	33	657	1	1	176	3	8	0	0	4	0	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	189	0	0	668	0	0	824	925	339	585	924	100
Stage 1	-	-	-	-	-	-	734	734	-	190	190	-
Stage 2	-	-	-	-	-	-	90	191	-	395	734	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1382	-	-	918	-	-	265	268	657	394	268	936
Stage 1	-	-	-	-	-	-	378	424	-	794	742	-
Stage 2	-	-	-	-	-	-	907	741	-	602	424	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1370	-	-	910	-	-	247	254	652	379	254	928
Mov Cap-2 Maneuver	-	-	-	-	-	-	247	254	-	379	254	-
Stage 1	-	-	-	-	-	-	361	404	-	757	735	-
Stage 2	-	-	-	-	-	-	878	734	-	579	404	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.1			20.1			9.7		
HCM LOS							C			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	247	1370	-	-	910	-	-	793
HCM Lane V/C Ratio	0.032	0.024	-	-	0.001	-	-	0.04
HCM Control Delay (s)	20.1	7.7	0.1	-	9	0	-	9.7
HCM Lane LOS	C	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.1

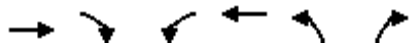
HCM 6th Signalized Intersection Summary 6: Sanyo Ave & Otay Mesa Rd

Existing AM
04/26/2023

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑	↘↗	
Traffic Volume (veh/h)	407	133	30	112	50	44
Future Volume (veh/h)	407	133	30	112	50	44
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1752	1870	1870
Adj Flow Rate, veh/h	522	171	39	147	68	68
Peak Hour Factor	0.78	0.78	0.76	0.76	0.69	0.69
Percent Heavy Veh, %	10	2	2	10	2	2
Cap, veh/h	879	286	64	914	260	232
Arrive On Green	0.36	0.36	0.04	0.52	0.15	0.15
Sat Flow, veh/h	2524	794	1781	1752	1781	1585
Grp Volume(v), veh/h	355	338	39	147	68	68
Grp Sat Flow(s),veh/h/ln	1664	1566	1781	1752	1781	1585
Q Serve(g_s), s	6.1	6.2	0.8	1.5	1.2	1.3
Cycle Q Clear(g_c), s	6.1	6.2	0.8	1.5	1.2	1.3
Prop In Lane		0.51	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	601	565	64	914	260	232
V/C Ratio(X)	0.59	0.60	0.61	0.16	0.26	0.29
Avail Cap(c_a), veh/h	1587	1493	586	2486	440	391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.2	9.2	16.7	4.4	13.4	13.4
Incr Delay (d2), s/veh	0.9	1.0	8.9	0.1	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.6	0.4	0.3	0.4	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.1	10.2	25.7	4.5	13.9	14.1
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	693			186	136	
Approach Delay, s/veh	10.1			8.9	14.0	
Approach LOS	B			A	B	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.7	19.1			24.8	10.5
Change Period (Y+Rc), s	4.4	6.4			* 6.4	5.3
Max Green Setting (Gmax), s	11.6	33.6			* 50	8.7
Max Q Clear Time (g_c+I1), s	2.8	8.2			3.5	3.3
Green Ext Time (p_c), s	0.0	3.1			0.6	0.2
Intersection Summary						
HCM 6th Ctrl Delay			10.4			
HCM 6th LOS			B			
Notes						
User approved volume balancing among the lanes for turning movement.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th Signalized Intersection Summary 7: Vann Centre Blvd & Otay Mesa Rd

Existing AM
04/26/2023



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	385	65	4	122	12	3
Future Volume (veh/h)	385	65	4	122	12	3
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1752	1870	1870
Adj Flow Rate, veh/h	527	89	6	169	19	5
Peak Hour Factor	0.73	0.73	0.72	0.72	0.63	0.63
Percent Heavy Veh, %	10	2	2	10	2	2
Cap, veh/h	668	113	11	1039	189	50
Arrive On Green	0.46	0.46	0.01	0.59	0.14	0.14
Sat Flow, veh/h	1451	245	1781	1752	1324	348
Grp Volume(v), veh/h	0	616	6	169	25	0
Grp Sat Flow(s), veh/h/ln	0	1696	1781	1752	1741	0
Q Serve(g_s), s	0.0	12.9	0.1	1.8	0.5	0.0
Cycle Q Clear(g_c), s	0.0	12.9	0.1	1.8	0.5	0.0
Prop In Lane		0.14	1.00		0.76	0.20
Lane Grp Cap(c), veh/h	0	781	11	1039	249	0
V/C Ratio(X)	0.00	0.79	0.52	0.16	0.10	0.00
Avail Cap(c_a), veh/h	0	1135	191	1581	663	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	9.6	20.8	3.9	15.7	0.0
Incr Delay (d2), s/veh	0.0	2.4	32.3	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.8	0.2	0.4	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	12.0	53.1	3.9	15.8	0.0
LnGrp LOS	A	B	D	A	B	A
Approach Vol, veh/h	616			175	25	
Approach Delay, s/veh	12.0			5.6	15.8	
Approach LOS	B			A	B	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	5.6	25.8		31.4	10.6	
Change Period (Y+Rc), s	5.3	6.5		6.5	4.6	
Max Green Setting (Gmax), s	4.5	28.1		37.9	16.0	
Max Q Clear Time (g_c+I), s	12.1	14.9		3.8	2.5	
Green Ext Time (p_c), s	0.0	3.6		1.0	0.0	
Intersection Summary						
HCM 6th Ctrl Delay			10.7			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

8: Enrico Fermi Rd & Otay Mesa Rd

Existing AM
04/26/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	175	57	92	60	3	233	157	388	0	54	19
Future Volume (veh/h)	52	175	57	92	60	3	233	157	388	0	54	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.94	1.00		0.98	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1752	1870	1752	1870	1752	1752	1870	1752	1870	1752	1752	1752
Adj Flow Rate, veh/h	60	203	66	156	102	5	262	176	436	0	79	28
Peak Hour Factor	0.86	0.86	0.86	0.59	0.59	0.59	0.89	0.89	0.89	0.68	0.68	0.68
Percent Heavy Veh, %	10	2	10	2	10	10	2	10	2	10	10	10
Cap, veh/h	127	498	156	278	703	34	357	749	789	3	193	69
Arrive On Green	0.08	0.19	0.18	0.08	0.22	0.21	0.20	0.43	0.43	0.00	0.16	0.16
Sat Flow, veh/h	1668	2632	825	3456	3220	156	1781	1752	1547	1668	1207	428
Grp Volume(v), veh/h	60	135	134	156	52	55	262	176	436	0	0	107
Grp Sat Flow(s),veh/h/ln	1668	1777	1681	1728	1664	1712	1781	1752	1547	1668	0	1635
Q Serve(g_s), s	1.8	3.5	3.7	2.3	1.3	1.4	7.2	3.4	10.1	0.0	0.0	3.1
Cycle Q Clear(g_c), s	1.8	3.5	3.7	2.3	1.3	1.4	7.2	3.4	10.1	0.0	0.0	3.1
Prop In Lane	1.00		0.49	1.00		0.09	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	127	336	318	278	363	374	357	749	789	3	0	262
V/C Ratio(X)	0.47	0.40	0.42	0.56	0.14	0.15	0.73	0.24	0.55	0.00	0.00	0.41
Avail Cap(c_a), veh/h	667	1137	1076	994	919	946	730	1415	1377	127	0	810
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	23.2	18.7	18.9	23.2	16.6	16.6	19.7	9.6	8.8	0.0	0.0	19.8
Incr Delay (d2), s/veh	2.7	0.8	0.9	1.8	0.2	0.2	2.9	0.2	0.6	0.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.4	1.4	0.9	0.5	0.5	3.0	1.1	2.7	0.0	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	19.4	19.8	25.0	16.7	16.8	22.6	9.7	9.5	0.0	0.0	20.8
LnGrp LOS	C	B	B	C	B	B	C	A	A	A	A	C
Approach Vol, veh/h	329			263			874			107		
Approach Delay, s/veh	20.8			21.6			13.4			20.8		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	15.9	14.0	13.0	8.0	17.5	0.0	27.0				
Change Period (Y+Rc), s	5.3	6.5	4.0	* 4.6	4.0	6.5	4.0	4.6				
Max Green Setting (Gmax), s	15.1	33.1	21.0	* 26	21.0	28.5	4.0	42.4				
Max Q Clear Time (g_c+I), s	14.3	5.7	9.2	5.1	3.8	3.4	0.0	12.1				
Green Ext Time (p_c), s	0.4	1.1	0.8	0.5	0.1	0.3	0.0	3.5				

Intersection Summary

HCM 6th Ctrl Delay 16.9
HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

9: La Media Rd & St Andrews Ave/SR-905 WB Ramps

Existing AM
04/26/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	63	19	48	47	92	329	137	0	311	22
Future Volume (veh/h)	3	0	63	19	48	47	92	329	137	0	311	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1826	1752	1826	1826	1752	1826	1826	1752	1826	0	1752	1826
Adj Flow Rate, veh/h	4	0	84	27	69	67	110	392	163	0	338	24
Peak Hour Factor	0.75	0.75	0.75	0.70	0.70	0.70	0.84	0.84	0.84	0.92	0.92	0.92
Percent Heavy Veh, %	5	10	5	5	10	5	5	10	5	0	10	5
Cap, veh/h	127	0	109	165	166	147	276	1670	748	0	1844	128
Arrive On Green	0.07	0.00	0.07	0.09	0.09	0.09	0.08	0.50	0.50	0.00	0.32	0.32
Sat Flow, veh/h	1739	0	1485	1739	1752	1547	3374	3328	1490	0	6031	400
Grp Volume(v), veh/h	4	0	84	27	69	67	110	392	163	0	262	100
Grp Sat Flow(s),veh/h/ln	1739	0	1485	1739	1752	1547	1687	1664	1490	0	1507	1666
Q Serve(g_s), s	0.1	0.0	2.6	0.7	1.7	1.9	1.4	3.1	2.8	0.0	1.9	2.0
Cycle Q Clear(g_c), s	0.1	0.0	2.6	0.7	1.7	1.9	1.4	3.1	2.8	0.0	1.9	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.00		0.24
Lane Grp Cap(c), veh/h	127	0	109	165	166	147	276	1670	748	0	1440	531
V/C Ratio(X)	0.03	0.00	0.77	0.16	0.42	0.46	0.40	0.23	0.22	0.00	0.18	0.19
Avail Cap(c_a), veh/h	191	0	163	274	276	244	401	2680	1200	0	2644	975
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	0.0	21.1	19.3	19.8	19.8	20.2	6.5	6.5	0.0	11.4	11.4
Incr Delay (d2), s/veh	0.1	0.0	12.0	0.5	1.7	2.2	0.3	0.1	0.1	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.2	0.3	0.7	0.7	0.5	0.8	0.7	0.0	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.0	0.0	33.1	19.7	21.4	22.1	20.5	6.6	6.6	0.0	11.5	11.6
LnGrp LOS	C	A	C	B	C	C	C	A	A	A	B	B
Approach Vol, veh/h	88		163			665			362			
Approach Delay, s/veh	32.5		21.4			8.9			11.5			
Approach LOS	C		C			A			B			
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	28.3		8.5		8.5	19.9	9.5					
Change Period (Y+Rc), s	5.1		5.1		* 4.7	5.1	5.1					
Max Green Setting (Gmax), s	37.3		5.1		* 5.5	27.1	7.3					
Max Q Clear Time (g_c+I1), s	5.1		4.6		3.4	4.0	3.9					
Green Ext Time (p_c), s	3.4		0.0		0.0	2.4	0.2					

Intersection Summary

HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary 10: La Media Rd & SR-905 EB Ramps

Existing AM
04/26/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↱	↰↱	↰↱	↑↑↑	↑↑↑	↰
Traffic Volume (veh/h)	341	383	5	221	148	40
Future Volume (veh/h)	341	383	5	221	148	40
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1752	1752	1826
Adj Flow Rate, veh/h	449	504	5	235	174	47
Peak Hour Factor	0.76	0.76	0.94	0.94	0.85	0.85
Percent Heavy Veh, %	5	5	5	10	10	5
Cap, veh/h	829	670	23	2452	1282	951
Arrive On Green	0.25	0.25	0.01	0.51	0.39	0.39
Sat Flow, veh/h	3374	2723	3374	4940	3416	1482
Grp Volume(v), veh/h	449	504	5	235	174	47
Grp Sat Flow(s), veh/h/ln	1687	1362	1687	1594	1664	1482
Q Serve(g_s), s	4.9	7.2	0.1	1.1	1.4	0.5
Cycle Q Clear(g_c), s	4.9	7.2	0.1	1.1	1.4	0.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	829	670	23	2452	1282	951
V/C Ratio(X)	0.54	0.75	0.22	0.10	0.14	0.05
Avail Cap(c_a), veh/h	950	767	399	5989	3373	1882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	14.7	20.9	5.3	8.4	3.0
Incr Delay (d2), s/veh	0.6	3.7	4.7	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.3	0.0	0.2	0.4	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.4	18.4	25.6	5.3	8.5	3.0
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	953			240	221	
Approach Delay, s/veh	16.5			5.7	7.3	
Approach LOS	B			A	A	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	26.8			15.5	5.4	21.4
Change Period (Y+Rc), s	5.1			5.1	5.1	5.1
Max Green Setting (Gmax), s	52.9			11.9	5.0	42.8
Max Q Clear Time (g_c+I1), s	3.1			9.2	2.1	3.4
Green Ext Time (p_c), s	1.8			1.2	0.0	1.4
Intersection Summary						
HCM 6th Ctrl Delay			13.2			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

1: La Media Rd & Otay Mesa Rd

Existing PM
04/26/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	  					 		
Traffic Volume (veh/h)	22	204	112	288	148	25	58	35	99	33	96	22
Future Volume (veh/h)	22	204	112	288	148	25	58	35	99	33	96	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.94	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1752	1870	1870	1752	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	222	122	400	206	35	70	100	80	46	135	31
Peak Hour Factor	0.92	0.92	0.92	0.72	0.72	0.72	0.83	0.83	0.83	0.71	0.71	0.71
Percent Heavy Veh, %	2	10	2	2	10	2	2	2	2	2	2	2
Cap, veh/h	330	1141	365	578	906	146	150	465	370	235	340	78
Arrive On Green	0.19	0.24	0.24	0.17	0.22	0.21	0.08	0.25	0.24	0.07	0.23	0.23
Sat Flow, veh/h	1781	4782	1532	3456	4109	662	1781	1870	1532	3456	1460	335
Grp Volume(v), veh/h	24	222	122	400	157	84	70	100	80	46	0	166
Grp Sat Flow(s),veh/h/ln	1781	1594	1532	1728	1594	1583	1781	1870	1532	1728	0	1796
Q Serve(g_s), s	0.7	2.5	3.0	7.2	2.7	2.9	2.5	2.8	1.6	0.8	0.0	5.2
Cycle Q Clear(g_c), s	0.7	2.5	3.0	7.2	2.7	2.9	2.5	2.8	1.6	0.8	0.0	5.2
Prop In Lane	1.00		1.00	1.00		0.42	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	330	1141	365	578	703	349	150	465	370	235	0	418
V/C Ratio(X)	0.07	0.19	0.33	0.69	0.22	0.24	0.47	0.21	0.22	0.20	0.00	0.40
Avail Cap(c_a), veh/h	330	3139	1006	1033	2492	1237	325	1312	1064	615	0	1263
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.3	20.1	9.8	26.0	21.2	21.4	28.9	19.8	7.0	29.2	0.0	21.5
Incr Delay (d2), s/veh	0.1	0.1	0.5	1.5	0.2	0.4	2.3	0.2	0.3	0.4	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.9	1.5	2.9	1.0	1.1	1.1	1.2	0.9	0.3	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	20.2	10.3	27.5	21.3	21.7	31.2	20.0	7.3	29.6	0.0	22.2
LnGrp LOS	C	C	B	C	C	C	C	B	A	C	A	C
Approach Vol, veh/h		368			641			250			212	
Approach Delay, s/veh		17.1			25.2			19.1			23.8	
Approach LOS		B			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.3	21.3	9.5	20.2	16.5	20.1	8.4	21.3				
Change Period (Y+Rc), s	4.7	* 6	4.4	* 5.3	4.7	* 6	4.4	5.3				
Max Green Setting (Gmax), s	19.3	* 43	11.6	* 46	11.3	* 51	11.3	46.0				
Max Q Clear Time (g_c+I1), s	9.2	5.0	4.5	7.2	2.7	4.9	2.8	4.8				
Green Ext Time (p_c), s	1.4	1.7	0.1	0.7	0.0	1.1	0.1	0.7				

Intersection Summary

HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

2: Otay Mesa Rd & Piper Ranch Rd

Existing PM
04/26/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑↑	↱	↰↱	↑↑↑	↱	↰	↑	↱	↰	↱	↱
Traffic Volume (veh/h)	116	221	11	8	204	67	40	4	12	106	2	195
Future Volume (veh/h)	116	221	11	8	204	67	40	4	12	106	2	195
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.94	1.00		0.94	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1752	1752	1752	1752	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	132	251	12	9	229	75	95	10	29	96	0	316
Peak Hour Factor	0.88	0.88	0.88	0.89	0.89	0.89	0.42	0.42	0.42	0.74	0.74	0.74
Percent Heavy Veh, %	2	10	10	10	10	2	10	10	10	2	10	2
Cap, veh/h	1564	2695	819	48	548	438	186	42	122	300	0	510
Arrive On Green	0.45	0.56	0.56	0.01	0.11	0.11	0.11	0.11	0.11	0.17	0.00	0.17
Sat Flow, veh/h	3456	4782	1453	3237	4782	1496	1668	378	1097	1781	0	3036
Grp Volume(v), veh/h	132	251	12	9	229	75	95	0	39	96	0	316
Grp Sat Flow(s), veh/h/ln	1728	1594	1453	1618	1594	1496	1668	0	1476	1781	0	1518
Q Serve(g_s), s	3.2	3.5	0.5	0.4	6.5	5.5	7.8	0.0	3.5	6.9	0.0	14.0
Cycle Q Clear(g_c), s	3.2	3.5	0.5	0.4	6.5	5.5	7.8	0.0	3.5	6.9	0.0	14.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.74	1.00		1.00
Lane Grp Cap(c), veh/h	1564	2695	819	48	548	438	186	0	165	300	0	510
V/C Ratio(X)	0.08	0.09	0.01	0.19	0.42	0.17	0.51	0.00	0.24	0.32	0.00	0.62
Avail Cap(c_a), veh/h	1564	2695	819	156	914	552	496	0	439	553	0	942
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	0.99	0.99	0.99	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.6	14.6	13.9	70.6	59.7	39.3	60.7	0.0	58.8	53.0	0.0	56.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.7	2.3	0.8	2.4	0.0	0.8	1.0	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.3	0.2	0.2	2.7	2.7	3.4	0.0	1.4	3.2	0.0	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.6	14.6	14.0	71.3	62.0	40.1	63.1	0.0	59.6	54.0	0.0	58.0
LnGrp LOS	C	B	B	E	E	D	E	A	E	D	A	E
Approach Vol, veh/h	395			313			134			412		
Approach Delay, s/veh	17.3			57.0			62.1			57.1		
Approach LOS	B			E			E			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	87.7		29.7	71.6	22.6		21.1				
Change Period (Y+Rc), s	4.4	6.0		5.3	6.0	* 6		4.9				
Max Green Setting (Gmax), s	7.0	29.3		45.0	8.6	* 28		43.1				
Max Q Clear Time (g_c+I), s	12.4	5.5		16.0	5.2	8.5		9.8				
Green Ext Time (p_c), s	0.0	2.7		3.7	0.1	2.9		0.6				

Intersection Summary

HCM 6th Ctrl Delay 45.1
HCM 6th LOS D

Notes

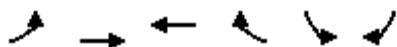
User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary 3: Otay Mesa Rd & SR 125 SB Off-Ramp

Existing PM
04/26/2023

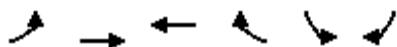


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	329	245	0	48	68
Future Volume (veh/h)	0	329	245	0	48	68
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1752	1752	0	1870	1870
Adj Flow Rate, veh/h	0	366	299	0	66	93
Peak Hour Factor	0.90	0.90	0.82	0.82	0.73	0.73
Percent Heavy Veh, %	0	10	10	0	2	2
Cap, veh/h	0	1314	914	0	950	436
Arrive On Green	0.00	0.27	0.27	0.00	0.27	0.27
Sat Flow, veh/h	0	5098	3504	0	3456	1585
Grp Volume(v), veh/h	0	366	299	0	66	93
Grp Sat Flow(s),veh/h/ln	0	1594	1664	0	1728	1585
Q Serve(g_s), s	0.0	1.6	2.0	0.0	0.4	1.2
Cycle Q Clear(g_c), s	0.0	1.6	2.0	0.0	0.4	1.2
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1314	914	0	950	436
V/C Ratio(X)	0.00	0.28	0.33	0.00	0.07	0.21
Avail Cap(c_a), veh/h	0	4764	3315	0	1329	609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	7.8	7.9	0.0	7.3	7.6
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.5	0.0	0.1	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	7.9	8.1	0.0	7.3	7.9
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		366	299		159	
Approach Delay, s/veh		7.9	8.1		7.7	
Approach LOS		A	A		A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		14.2		13.1		14.2
Change Period (Y+Rc), s		7.2		6.1		7.2
Max Green Setting (Gmax), s		26.7		10.0		26.7
Max Q Clear Time (g_c+I1), s		4.0		3.2		3.6
Green Ext Time (p_c), s		1.3		0.3		1.7
Intersection Summary						
HCM 6th Ctrl Delay			7.9			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary

4: Otay Mesa Rd & SR 125 NB On-Ramp

Existing PM
04/26/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↑↑	↑↑↰↱	↰↱		
Traffic Volume (veh/h)	152	223	244	158	0	0
Future Volume (veh/h)	152	223	244	158	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752		
Adj Flow Rate, veh/h	162	237	272	215		
Peak Hour Factor	0.94	0.94	0.81	0.81		
Percent Heavy Veh, %	10	10	10	10		
Cap, veh/h	844	2438	911	772		
Arrive On Green	0.26	0.73	0.26	0.26		
Sat Flow, veh/h	3237	3416	3504	2969		
Grp Volume(v), veh/h	162	237	272	215		
Grp Sat Flow(s), veh/h/ln	1618	1664	1752	1485		
Q Serve(g_s), s	1.0	0.6	1.7	1.6		
Cycle Q Clear(g_c), s	1.0	0.6	1.7	1.6		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	844	2438	911	772		
V/C Ratio(X)	0.19	0.10	0.30	0.28		
Avail Cap(c_a), veh/h	1202	5192	2876	2437		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	7.7	1.0	8.0	7.9		
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.4	0.3		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.9	1.1	8.2	8.1		
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h		399	487			
Approach Delay, s/veh		3.8	8.2			
Approach LOS		A	A			
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		26.9			12.7	14.2
Change Period (Y+Rc), s		* 7.2			* 5.7	7.2
Max Green Setting (Gmax), s		* 42			* 10	22.1
Max Q Clear Time (g_c+I1), s		2.6			3.0	3.7
Green Ext Time (p_c), s		1.7			0.3	2.5
Intersection Summary						
HCM 6th Ctrl Delay			6.2			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	11	206	0	0	388	4	2	0	0	5	0	24
Future Vol, veh/h	11	206	0	0	388	4	2	0	0	5	0	24
Conflicting Peds, #/hr	10	0	10	10	0	10	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	77	77	77	25	25	25	81	81	81
Heavy Vehicles, %	2	10	2	2	10	2	2	2	2	2	2	2
Mvmt Flow	13	240	0	0	504	5	8	0	0	6	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	519	0	0	250	0	0	528	795	130	663	793	265
Stage 1	-	-	-	-	-	-	276	276	-	517	517	-
Stage 2	-	-	-	-	-	-	252	519	-	146	276	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1043	-	-	1313	-	-	433	319	896	347	320	733
Stage 1	-	-	-	-	-	-	707	680	-	509	532	-
Stage 2	-	-	-	-	-	-	730	531	-	842	680	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1034	-	-	1302	-	-	407	309	889	340	310	727
Mov Cap-2 Maneuver	-	-	-	-	-	-	407	309	-	340	310	-
Stage 1	-	-	-	-	-	-	691	664	-	497	528	-
Stage 2	-	-	-	-	-	-	700	527	-	829	664	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	14	11.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	407	1034	-	-	1302	-	-	608
HCM Lane V/C Ratio	0.02	0.012	-	-	-	-	-	0.059
HCM Control Delay (s)	14	8.5	0.1	-	0	-	-	11.3
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2

HCM 6th Signalized Intersection Summary

6: Sanyo Ave & Otay Mesa Rd

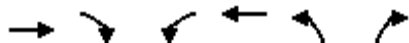
Existing PM
04/26/2023

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑	↘↘	
Traffic Volume (veh/h)	107	123	42	185	186	43
Future Volume (veh/h)	107	123	42	185	186	43
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.95	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1752	1870	1870
Adj Flow Rate, veh/h	126	145	52	228	289	0
Peak Hour Factor	0.85	0.85	0.81	0.81	0.78	0.78
Percent Heavy Veh, %	10	2	2	10	2	2
Cap, veh/h	536	456	80	858	656	292
Arrive On Green	0.32	0.32	0.05	0.49	0.18	0.00
Sat Flow, veh/h	1752	1415	1781	1752	3563	1585
Grp Volume(v), veh/h	126	145	52	228	289	0
Grp Sat Flow(s),veh/h/ln	1664	1415	1781	1752	1781	1585
Q Serve(g_s), s	2.0	2.8	1.0	2.7	2.6	0.0
Cycle Q Clear(g_c), s	2.0	2.8	1.0	2.7	2.6	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	536	456	80	858	656	292
V/C Ratio(X)	0.24	0.32	0.65	0.27	0.44	0.00
Avail Cap(c_a), veh/h	1485	1263	566	2354	1043	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.9	9.2	16.8	5.4	13.0	0.0
Incr Delay (d2), s/veh	0.2	0.4	8.4	0.2	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.7	0.5	0.6	0.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.1	9.6	25.3	5.5	13.5	0.0
LnGrp LOS	A	A	C	A	B	A
Approach Vol, veh/h	271			280	289	
Approach Delay, s/veh	9.4			9.2	13.5	
Approach LOS	A			A	B	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.0	17.9			24.0	11.9
Change Period (Y+Rc), s	4.4	6.4			* 6.4	5.3
Max Green Setting (Gmax), s	11.4	32.0			* 48	10.5
Max Q Clear Time (g_c+I1), s	3.0	4.8			4.7	4.6
Green Ext Time (p_c), s	0.1	1.2			0.9	0.6
Intersection Summary						
HCM 6th Ctrl Delay			10.7			
HCM 6th LOS			B			
Notes						
User approved volume balancing among the lanes for turning movement.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th Signalized Intersection Summary

7: Vann Centre Blvd & Otay Mesa Rd

Existing PM
04/26/2023



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩		↩	↩	↩	↩
Traffic Volume (veh/h)	188	35	3	155	36	8
Future Volume (veh/h)	188	35	3	155	36	8
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.95	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1752	1870	1870
Adj Flow Rate, veh/h	261	49	4	215	69	15
Peak Hour Factor	0.72	0.72	0.72	0.72	0.52	0.52
Percent Heavy Veh, %	10	2	2	10	2	2
Cap, veh/h	449	84	8	843	258	56
Arrive On Green	0.32	0.32	0.00	0.48	0.18	0.18
Sat Flow, veh/h	1421	267	1781	1752	1416	308
Grp Volume(v), veh/h	0	310	4	215	85	0
Grp Sat Flow(s), veh/h/ln	0	1688	1781	1752	1744	0
Q Serve(g_s), s	0.0	5.1	0.1	2.4	1.4	0.0
Cycle Q Clear(g_c), s	0.0	5.1	0.1	2.4	1.4	0.0
Prop In Lane		0.16	1.00		0.81	0.18
Lane Grp Cap(c), veh/h	0	534	8	843	317	0
V/C Ratio(X)	0.00	0.58	0.51	0.25	0.27	0.00
Avail Cap(c_a), veh/h	0	1408	254	1992	868	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	9.4	16.4	5.1	11.6	0.0
Incr Delay (d2), s/veh	0.0	1.0	44.1	0.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.4	0.1	0.5	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	10.4	60.5	5.2	12.0	0.0
LnGrp LOS	A	B	E	A	B	A
Approach Vol, veh/h	310			219	85	
Approach Delay, s/veh	10.4			6.2	12.0	
Approach LOS	B			A	B	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	5.4	16.9		22.4	10.6	
Change Period (Y+Rc), s	5.3	6.5		6.5	4.6	
Max Green Setting (Gmax), s	4.7	27.5		37.5	16.4	
Max Q Clear Time (g_c+I), s	12.1	7.1		4.4	3.4	
Green Ext Time (p_c), s	0.0	1.8		1.3	0.1	
Intersection Summary						
HCM 6th Ctrl Delay			9.2			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary

8: Enrico Fermi Rd & Otay Mesa Rd

Existing PM
04/26/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	48	77	272	139	1	35	21	104	1	189	64
Future Volume (veh/h)	18	48	77	272	139	1	35	21	104	1	189	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	1.00		0.97	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1752	1870	1752	1870	1752	1752	1870	1752	1870	1752	1752	1752
Adj Flow Rate, veh/h	25	66	105	389	199	1	43	26	127	2	305	103
Peak Hour Factor	0.73	0.73	0.73	0.70	0.70	0.70	0.82	0.82	0.82	0.62	0.62	0.62
Percent Heavy Veh, %	10	2	10	2	10	10	2	10	2	10	10	10
Cap, veh/h	104	288	245	551	948	5	122	640	816	4	379	128
Arrive On Green	0.06	0.16	0.15	0.16	0.28	0.27	0.07	0.37	0.37	0.00	0.31	0.31
Sat Flow, veh/h	1668	1777	1514	3456	3395	17	1781	1752	1544	1668	1235	417
Grp Volume(v), veh/h	25	66	105	389	97	103	43	26	127	2	0	408
Grp Sat Flow(s),veh/h/ln	1668	1777	1514	1728	1664	1748	1781	1752	1544	1668	0	1652
Q Serve(g_s), s	0.9	2.1	4.0	6.8	2.9	2.9	1.5	0.6	2.7	0.1	0.0	14.5
Cycle Q Clear(g_c), s	0.9	2.1	4.0	6.8	2.9	2.9	1.5	0.6	2.7	0.1	0.0	14.5
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	104	288	245	551	465	488	122	640	816	4	0	506
V/C Ratio(X)	0.24	0.23	0.43	0.71	0.21	0.21	0.35	0.04	0.16	0.55	0.00	0.81
Avail Cap(c_a), veh/h	548	800	682	1076	755	793	599	1162	1276	104	0	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.5	23.3	24.4	25.5	17.6	17.6	28.4	13.1	7.9	31.9	0.0	20.4
Incr Delay (d2), s/veh	1.2	0.4	1.2	1.7	0.2	0.2	1.7	0.0	0.1	90.0	0.0	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.9	1.4	2.8	1.1	1.1	0.7	0.2	0.8	0.1	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	23.7	25.5	27.1	17.9	17.9	30.1	13.1	8.0	121.9	0.0	25.7
LnGrp LOS	C	C	C	C	B	B	C	B	A	F	A	C
Approach Vol, veh/h	196		589			196			410			
Approach Delay, s/veh	25.4		24.0			13.5			26.2			
Approach LOS	C		C			B			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.5	16.4	7.9	24.2	8.0	23.9	4.1	27.9				
Change Period (Y+Rc), s	5.3	6.5	4.0	* 4.6	4.0	6.5	4.0	4.6				
Max Green Setting (Gmax), s	19.9	28.3	21.0	* 26	21.0	28.5	4.0	42.4				
Max Q Clear Time (g_c+I), s	19.8	6.0	3.5	16.5	2.9	4.9	2.1	4.7				
Green Ext Time (p_c), s	1.4	0.6	0.1	1.8	0.0	0.7	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

9: La Media Rd & St Andrews Ave/SR-905 WB Ramps

Existing PM
04/26/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	0	147	44	27	37	54	193	282	0	498	18
Future Volume (veh/h)	6	0	147	44	27	37	54	193	282	0	498	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1826	1752	1826	1826	1752	1826	1826	1752	1826	0	1752	1826
Adj Flow Rate, veh/h	7	0	181	45	49	47	63	224	328	0	711	26
Peak Hour Factor	0.81	0.81	0.81	0.79	0.79	0.79	0.86	0.86	0.86	0.70	0.70	0.70
Percent Heavy Veh, %	5	10	5	5	10	5	5	10	5	0	10	5
Cap, veh/h	246	0	210	152	153	135	198	1525	682	0	1821	66
Arrive On Green	0.14	0.00	0.14	0.09	0.09	0.09	0.06	0.46	0.46	0.00	0.30	0.30
Sat Flow, veh/h	1739	0	1485	1739	1752	1547	3374	3328	1488	0	6252	218
Grp Volume(v), veh/h	7	0	181	45	49	47	63	224	328	0	534	203
Grp Sat Flow(s),veh/h/ln	1739	0	1485	1739	1752	1547	1687	1664	1488	0	1507	1705
Q Serve(g_s), s	0.2	0.0	5.8	1.2	1.3	1.4	0.9	1.9	7.5	0.0	4.6	4.6
Cycle Q Clear(g_c), s	0.2	0.0	5.8	1.2	1.3	1.4	0.9	1.9	7.5	0.0	4.6	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.00		0.13
Lane Grp Cap(c), veh/h	246	0	210	152	153	135	198	1525	682	0	1370	517
V/C Ratio(X)	0.03	0.00	0.86	0.30	0.32	0.35	0.32	0.15	0.48	0.00	0.39	0.39
Avail Cap(c_a), veh/h	246	0	210	178	179	158	345	2576	1151	0	2601	981
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	0.0	20.5	20.9	20.9	21.0	22.0	7.7	9.2	0.0	13.4	13.5
Incr Delay (d2), s/veh	0.0	0.0	28.9	1.1	1.2	1.5	0.3	0.0	0.5	0.0	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	3.5	0.5	0.5	0.5	0.3	0.5	2.0	0.0	1.3	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	0.0	49.4	22.0	22.1	22.5	22.4	7.7	9.7	0.0	13.6	14.0
LnGrp LOS	B	A	D	C	C	C	C	A	A	A	B	B
Approach Vol, veh/h	188				141				615		737	
Approach Delay, s/veh	48.2				22.2				10.3		13.7	
Approach LOS	D				C				B		B	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	27.5		12.0		7.6	19.9	9.4					
Change Period (Y+Rc), s	5.1		5.1		* 4.7	5.1	5.1					
Max Green Setting (Gmax), s	37.8		6.9		* 5	28.1	5.0					
Max Q Clear Time (g_c+I1), s	9.5		7.8		2.9	6.6	3.4					
Green Ext Time (p_c), s	2.8		0.0		0.0	5.0	0.1					

Intersection Summary

HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

10: La Media Rd & SR-905 EB Ramps

Existing PM
04/26/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰	↰↰	↰↰	↰↰↰	↰↰	↰
Traffic Volume (veh/h)	143	198	40	390	182	165
Future Volume (veh/h)	143	198	40	390	182	165
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1752	1752	1826
Adj Flow Rate, veh/h	161	222	53	513	236	214
Peak Hour Factor	0.89	0.89	0.76	0.76	0.77	0.77
Percent Heavy Veh, %	5	5	5	10	10	5
Cap, veh/h	455	368	189	2877	1377	823
Arrive On Green	0.13	0.13	0.06	0.60	0.41	0.41
Sat Flow, veh/h	3374	2723	3374	4940	3416	1484
Grp Volume(v), veh/h	161	222	53	513	236	214
Grp Sat Flow(s), veh/h/ln	1687	1362	1687	1594	1664	1484
Q Serve(g_s), s	1.7	3.0	0.6	1.9	1.7	2.9
Cycle Q Clear(g_c), s	1.7	3.0	0.6	1.9	1.7	2.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	455	368	189	2877	1377	823
V/C Ratio(X)	0.35	0.60	0.28	0.18	0.17	0.26
Avail Cap(c_a), veh/h	619	500	436	6511	3663	1842
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	15.8	17.5	3.4	7.2	4.6
Incr Delay (d2), s/veh	0.5	1.6	0.8	0.0	0.1	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	0.1	0.2	0.3	0.4	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	15.7	17.4	18.3	3.5	7.2	4.8
LnGrp LOS	B	B	B	A	A	A
Approach Vol, veh/h	383			566	450	
Approach Delay, s/veh	16.7			4.9	6.1	
Approach LOS	B			A	A	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	28.4			10.3	7.3	21.1
Change Period (Y+Rc), s	5.1			5.1	5.1	5.1
Max Green Setting (Gmax), s	52.7			7.1	5.0	42.6
Max Q Clear Time (g_c+I1), s	3.9			5.0	2.6	4.9
Green Ext Time (p_c), s	4.1			0.3	0.0	2.5
Intersection Summary						
HCM 6th Ctrl Delay			8.5			
HCM 6th LOS			A			

APPENDIX D

INSTITUTE OF TRANSPORTATION ENGINEERS' (ITE) TRIP GENERATION MANUAL, 11TH EDITION EXCERPTS

Land Use: 150

Warehousing

Description

A warehouse is primarily devoted to the storage of materials, but it may also include office and maintenance areas. High-cube transload and short-term storage warehouse (Land Use 154), high-cube fulfillment center warehouse (Land Use 155), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) are related uses.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in California, Connecticut, Minnesota, New Jersey, New York, Ohio, Oregon, Pennsylvania, and Texas.

Source Numbers

184, 331, 406, 411, 443, 579, 583, 596, 598, 611, 619, 642, 752, 869, 875, 876, 914, 940, 1050

Warehousing (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: **Weekday**

Setting/Location: General Urban/Suburban

Number of Studies: 31

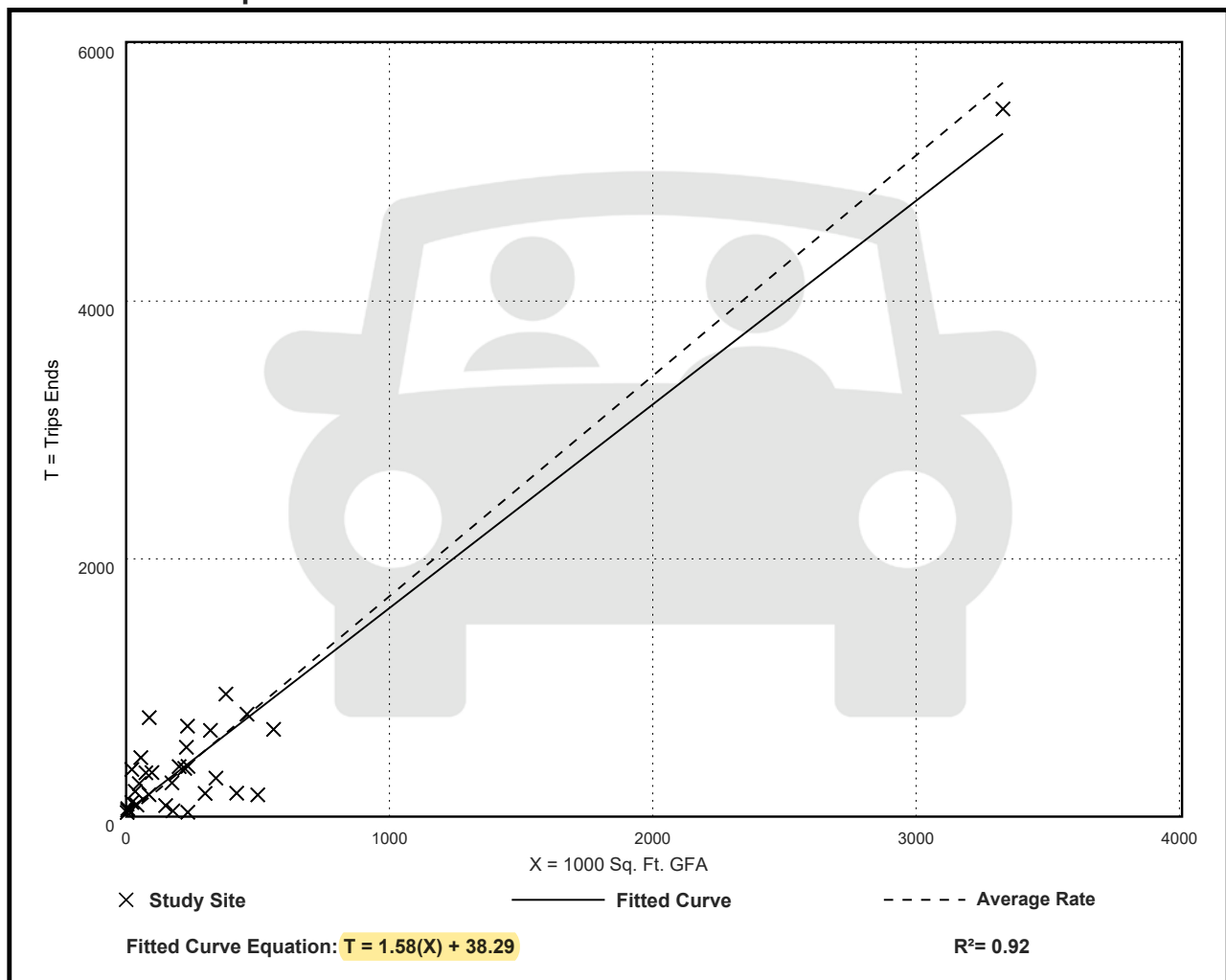
Avg. 1000 Sq. Ft. GFA: 292

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.71	0.15 - 16.93	1.48

Data Plot and Equation



Warehousing (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 36

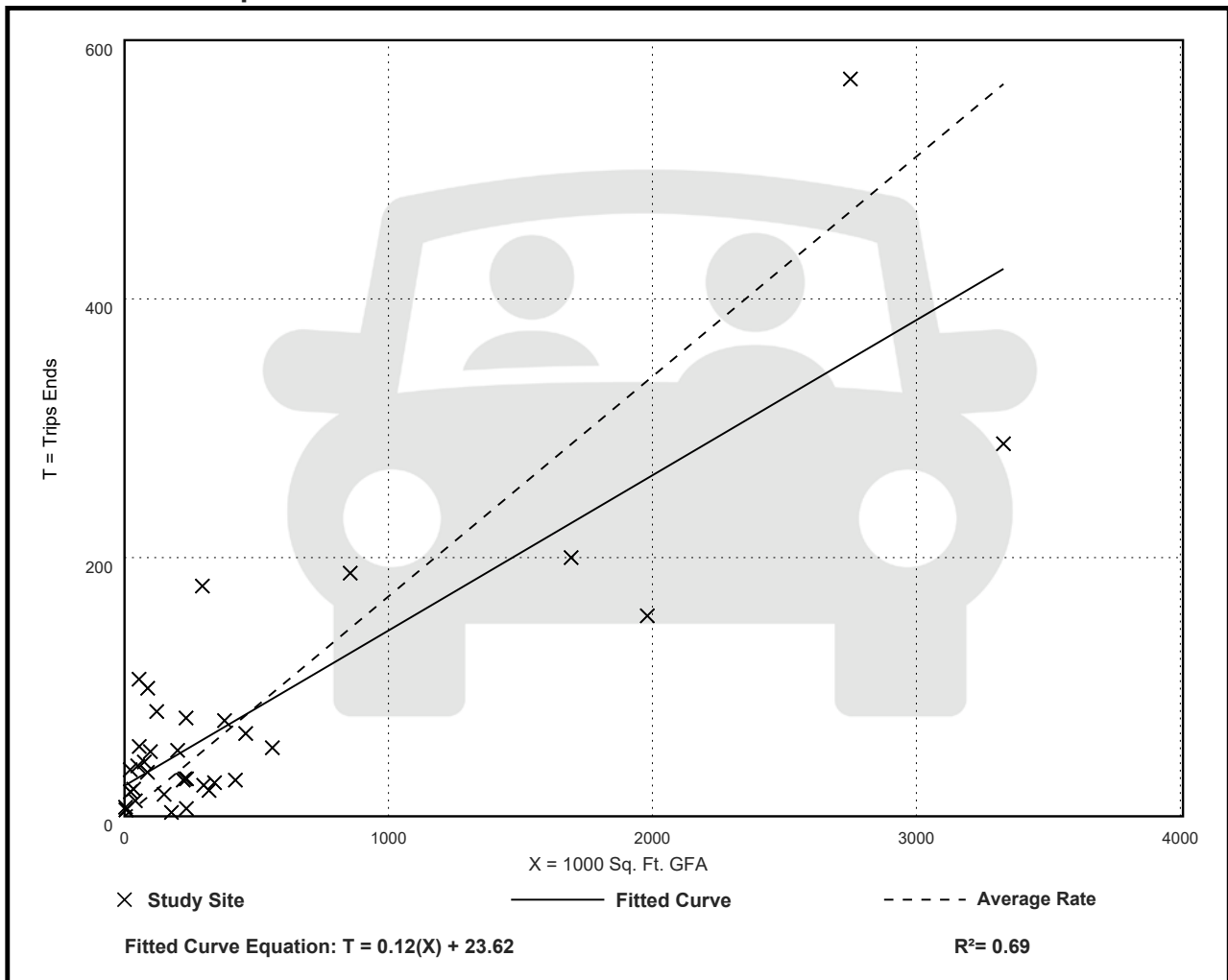
Avg. 1000 Sq. Ft. GFA: 448

Directional Distribution: 77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.19

Data Plot and Equation



Warehousing (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 49

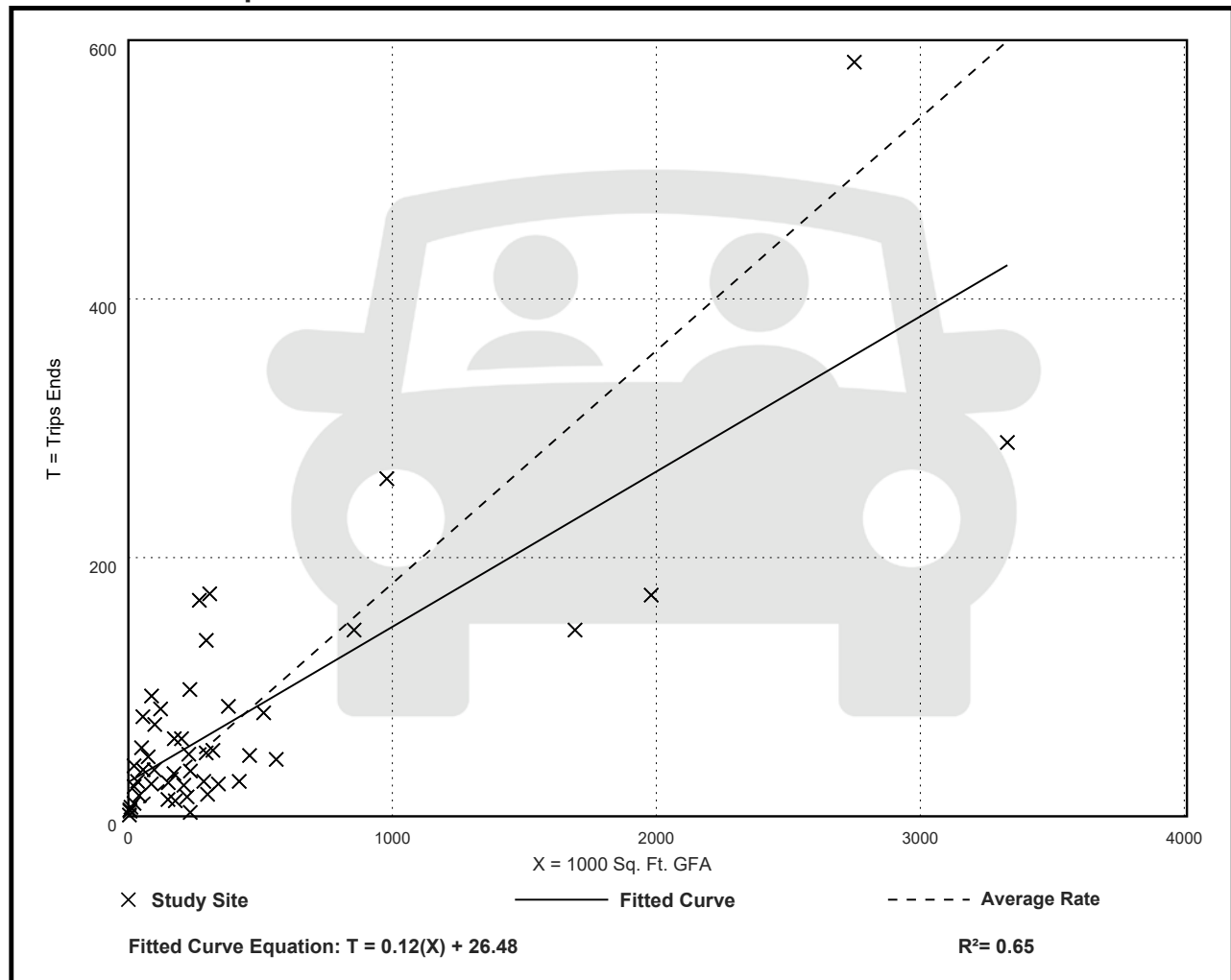
Avg. 1000 Sq. Ft. GFA: 400

Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.18	0.01 - 1.80	0.18

Data Plot and Equation



Warehousing (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 25

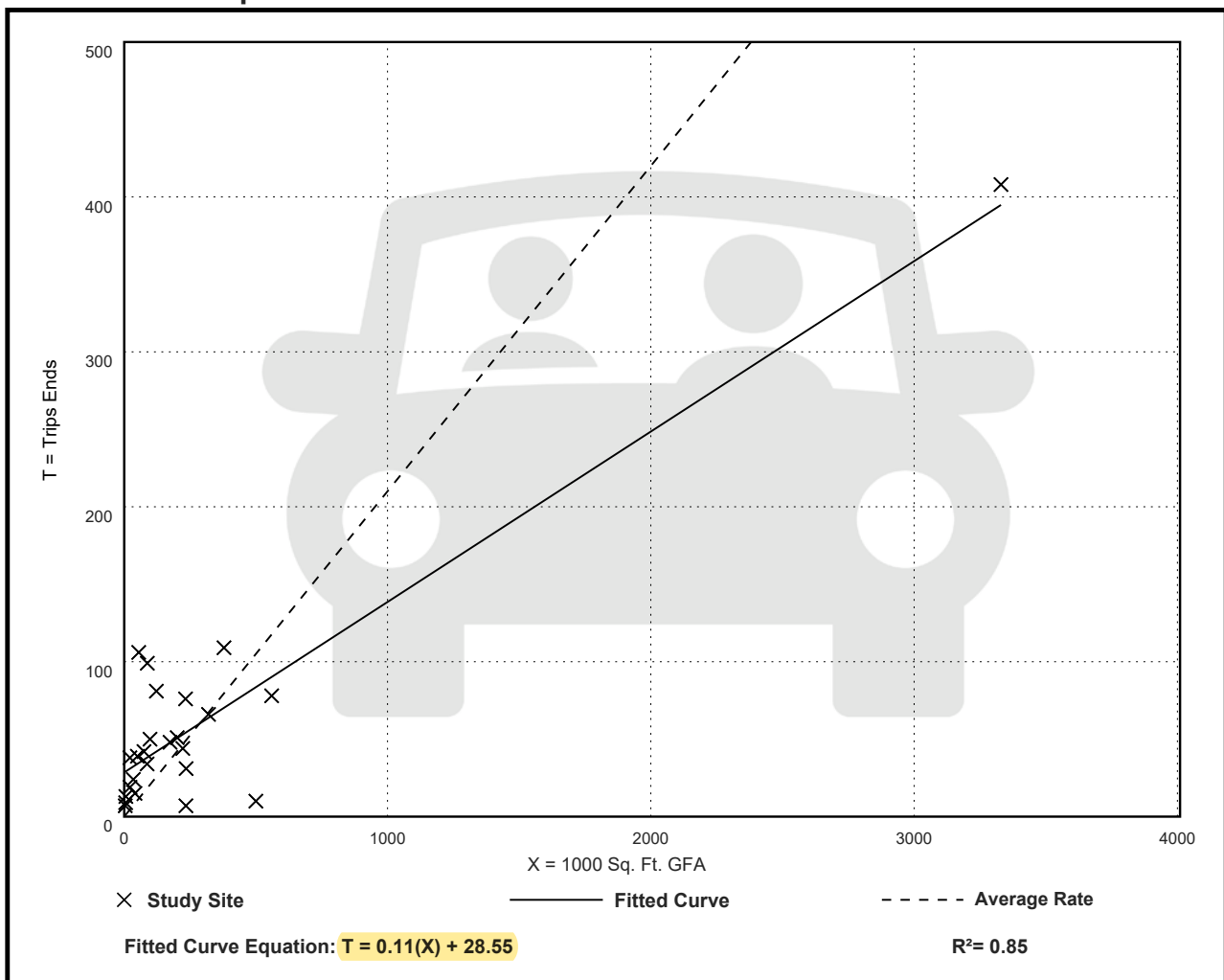
Avg. 1000 Sq. Ft. GFA: 284

Directional Distribution: 66% entering, 34% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.21	0.02 - 2.08	0.26

Data Plot and Equation



Warehousing (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 27

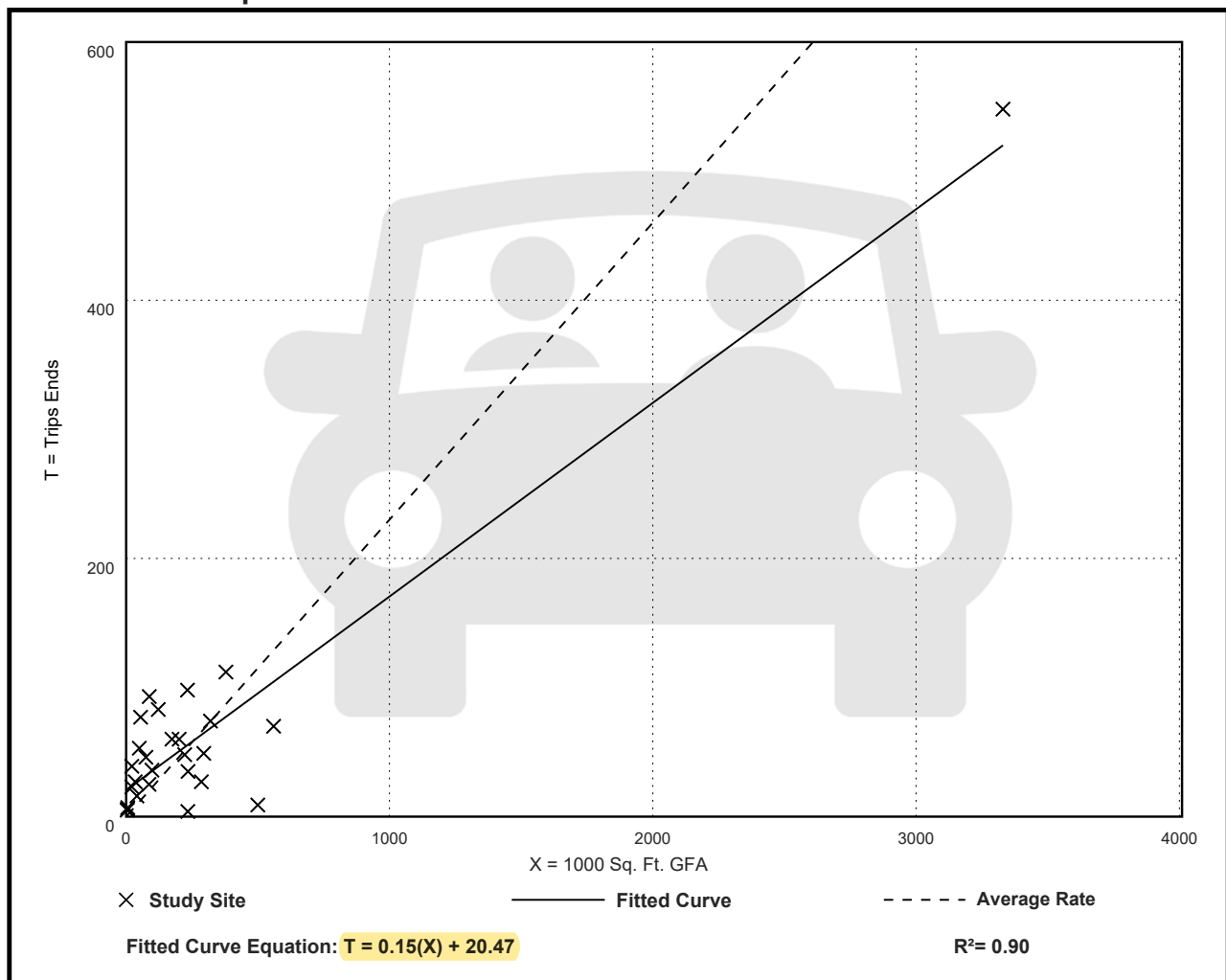
Avg. 1000 Sq. Ft. GFA: 284

Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.23	0.02 - 1.80	0.23

Data Plot and Equation



Warehousing (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday

Setting/Location: General Urban/Suburban

Number of Studies: 3

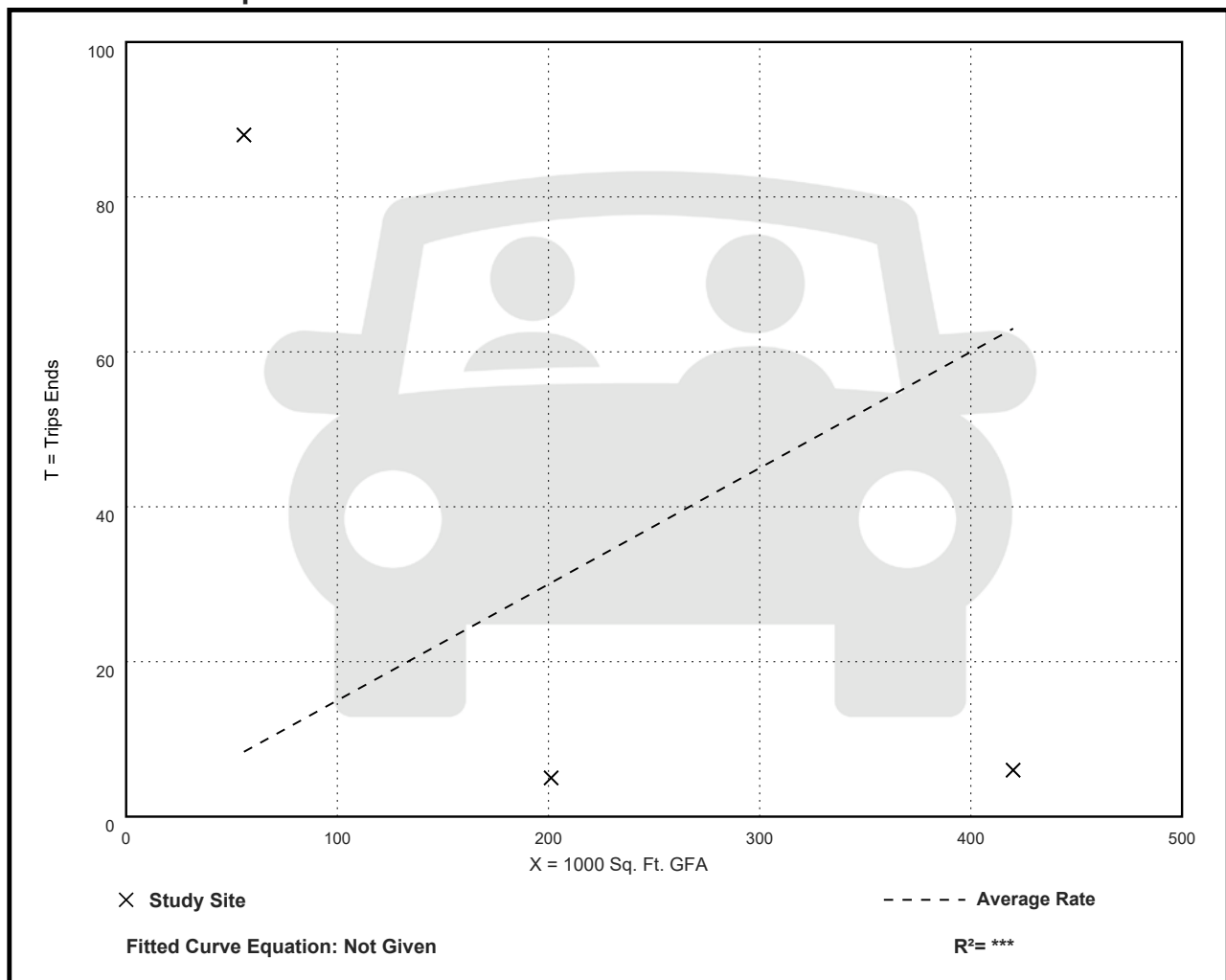
Avg. 1000 Sq. Ft. GFA: 226

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.15	0.01 - 1.58	0.53

Data Plot and Equation



Warehousing (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 2

Avg. 1000 Sq. Ft. GFA: 129

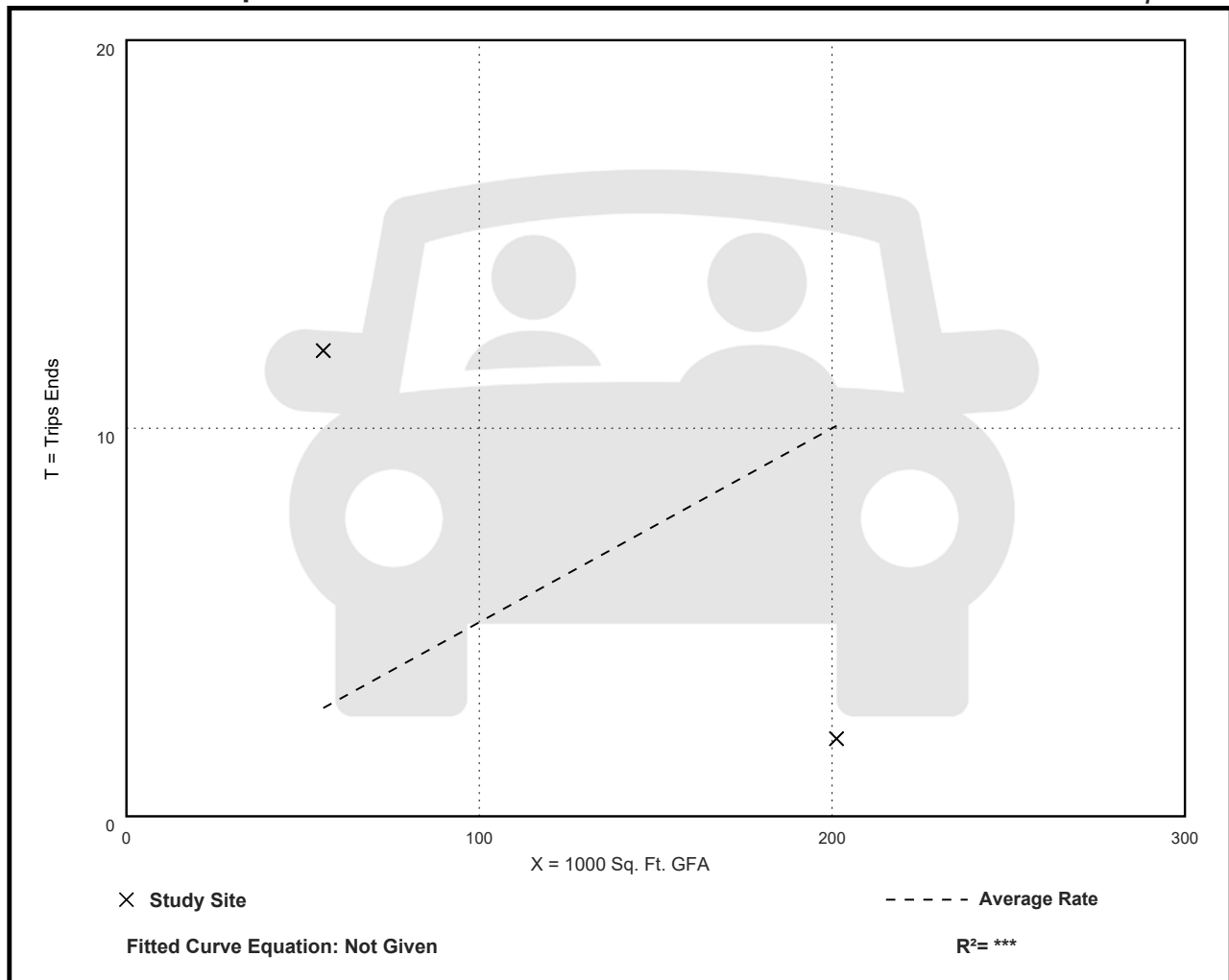
Directional Distribution: 64% entering, 36% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.05	0.01 - 0.22	***

Data Plot and Equation

Caution – Small Sample Size



Warehousing (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Sunday

Setting/Location: General Urban/Suburban

Number of Studies: 3

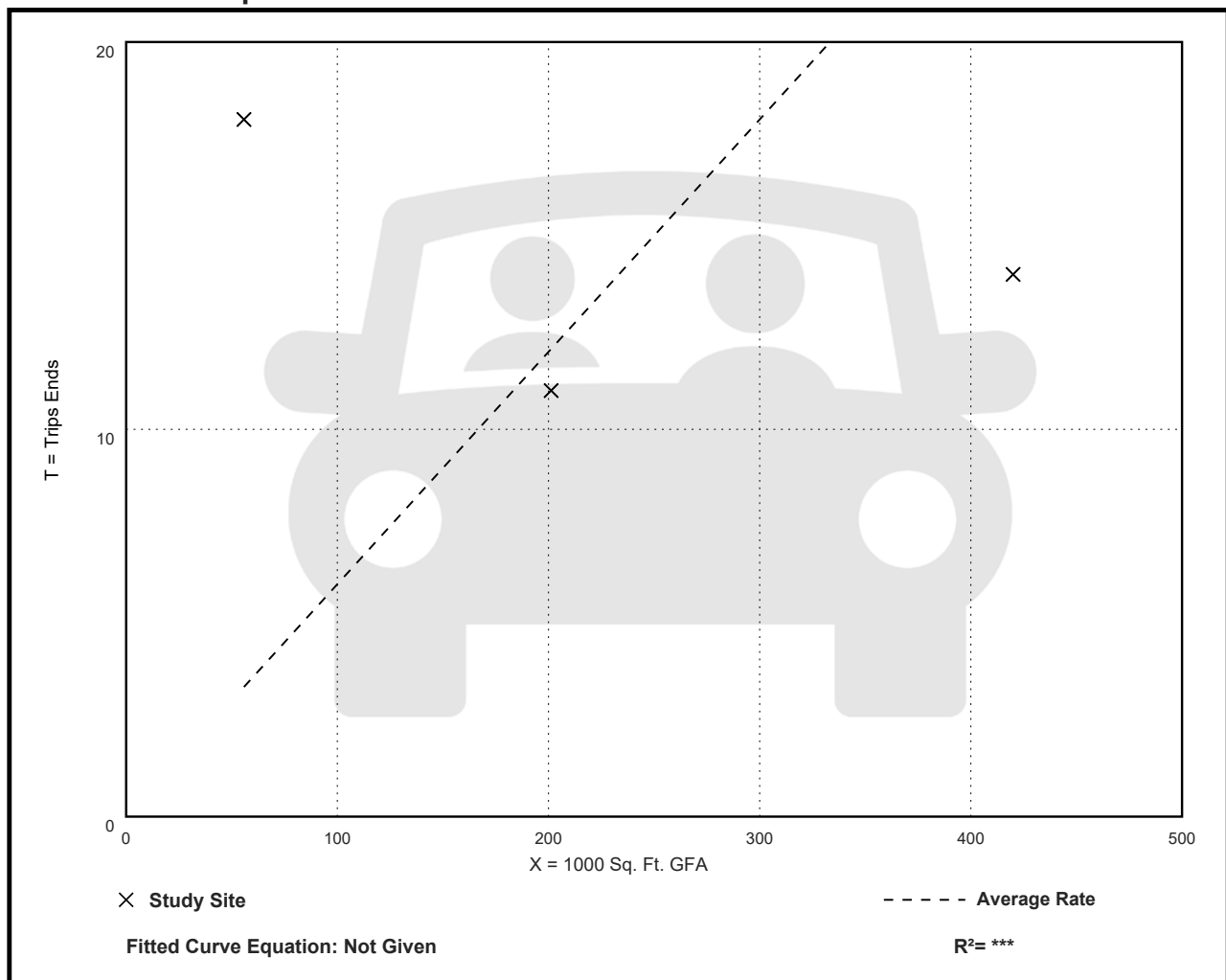
Avg. 1000 Sq. Ft. GFA: 226

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.06	0.03 - 0.32	0.10

Data Plot and Equation



Warehousing (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Sunday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 2

Avg. 1000 Sq. Ft. GFA: 129

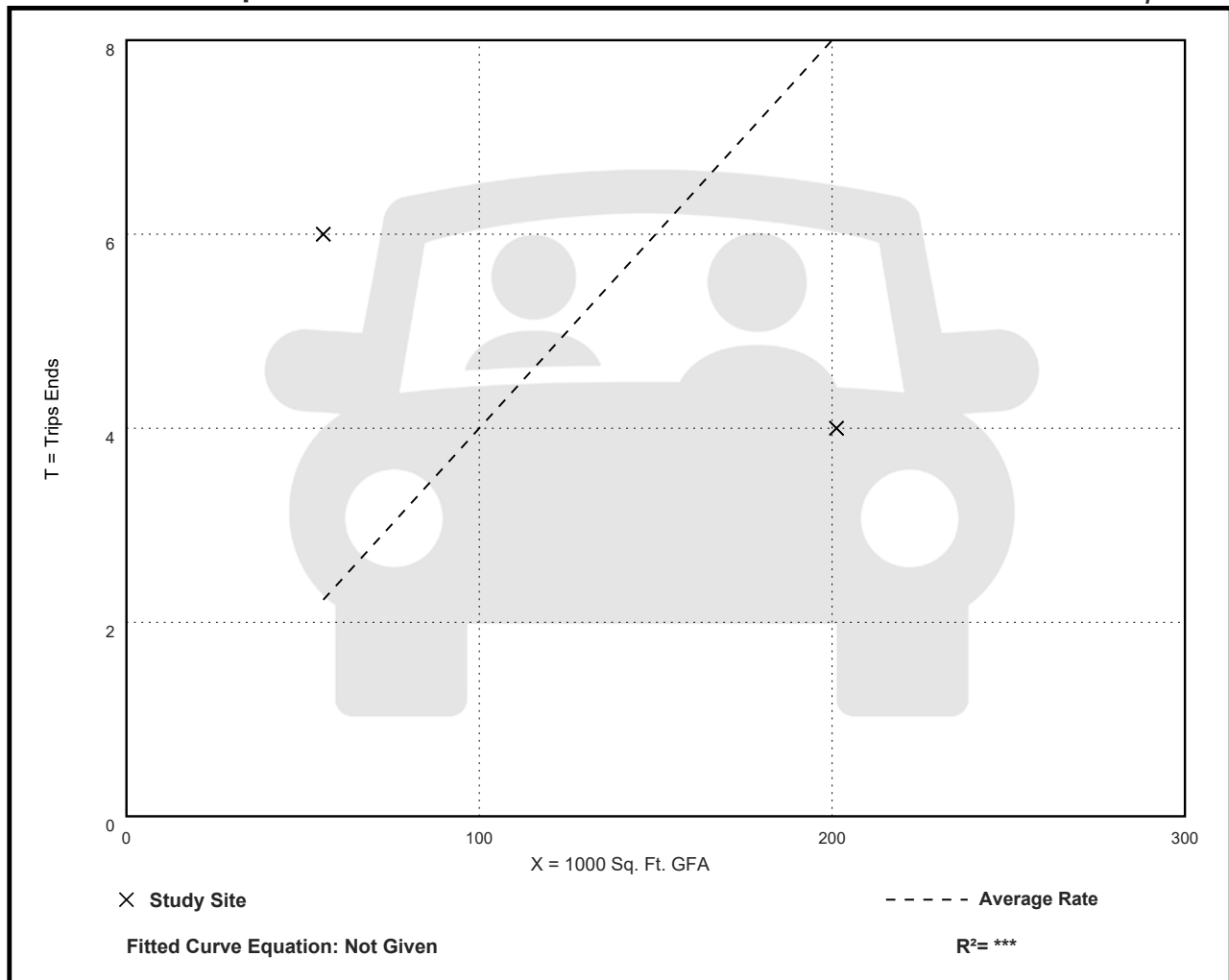
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.04	0.02 - 0.11	***

Data Plot and Equation

Caution – Small Sample Size



Warehousing (150)

Vehicle Trip Ends vs: Employees
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 14

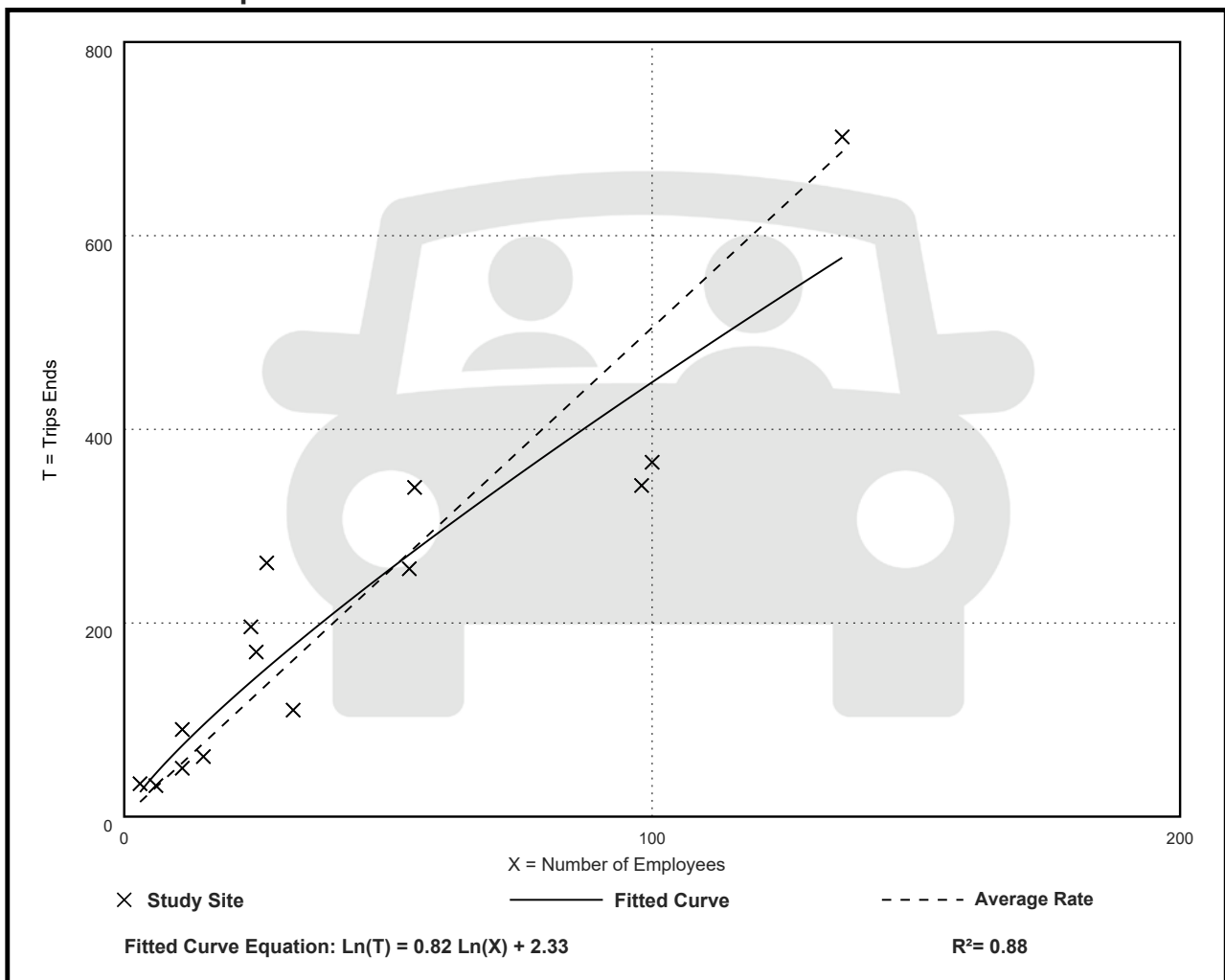
Avg. Num. of Employees: 43

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
5.05	3.44 - 11.33	1.77

Data Plot and Equation



Warehousing (150)

Vehicle Trip Ends vs: Employees

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 14

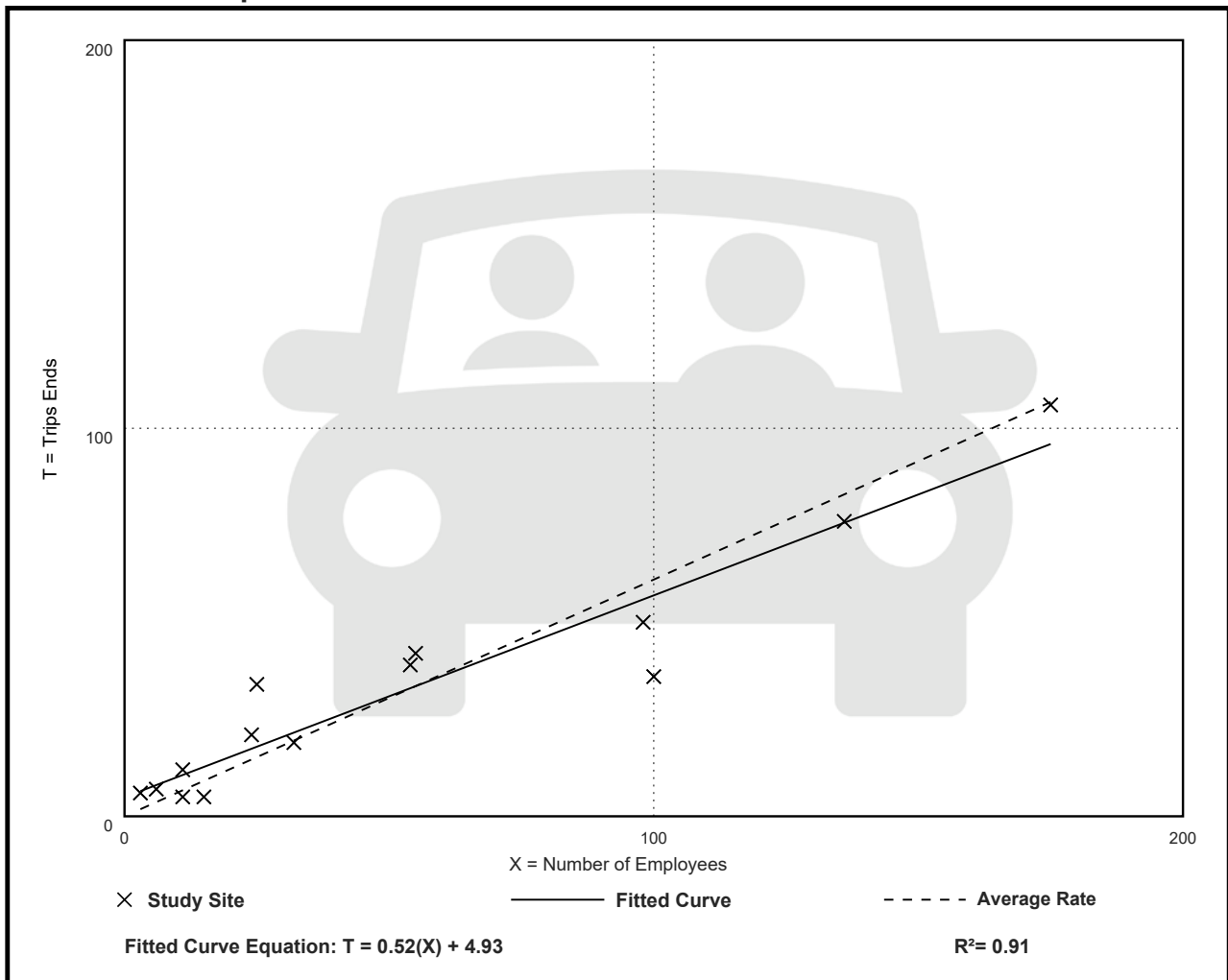
Avg. Num. of Employees: 53

Directional Distribution: 72% entering, 28% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.61	0.33 - 2.00	0.23

Data Plot and Equation



Warehousing (150)

Vehicle Trip Ends vs: Employees

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 15

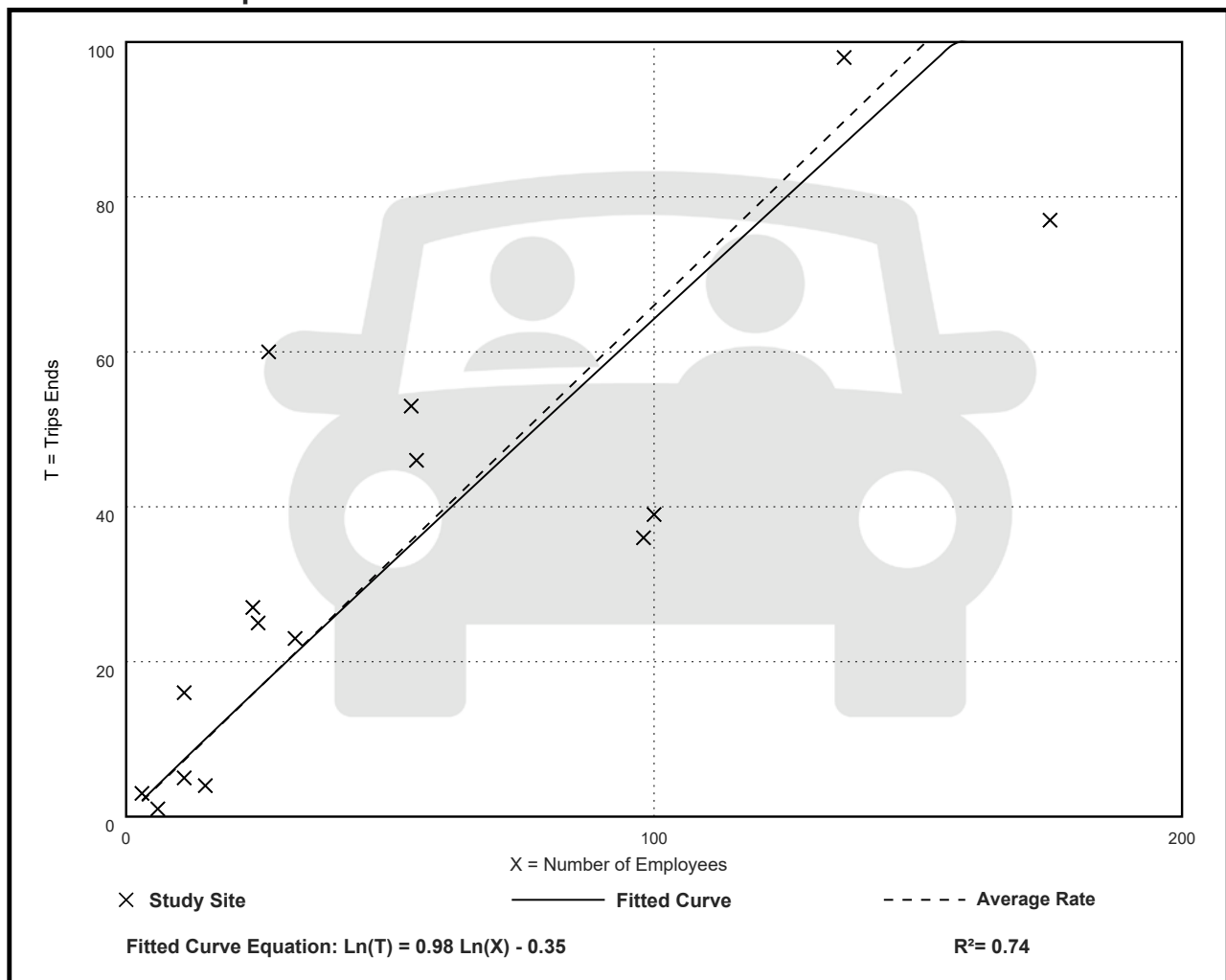
Avg. Num. of Employees: 51

Directional Distribution: 36% entering, 64% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.66	0.17 - 2.22	0.40

Data Plot and Equation



Warehousing (150)

Vehicle Trip Ends vs: Employees

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 15

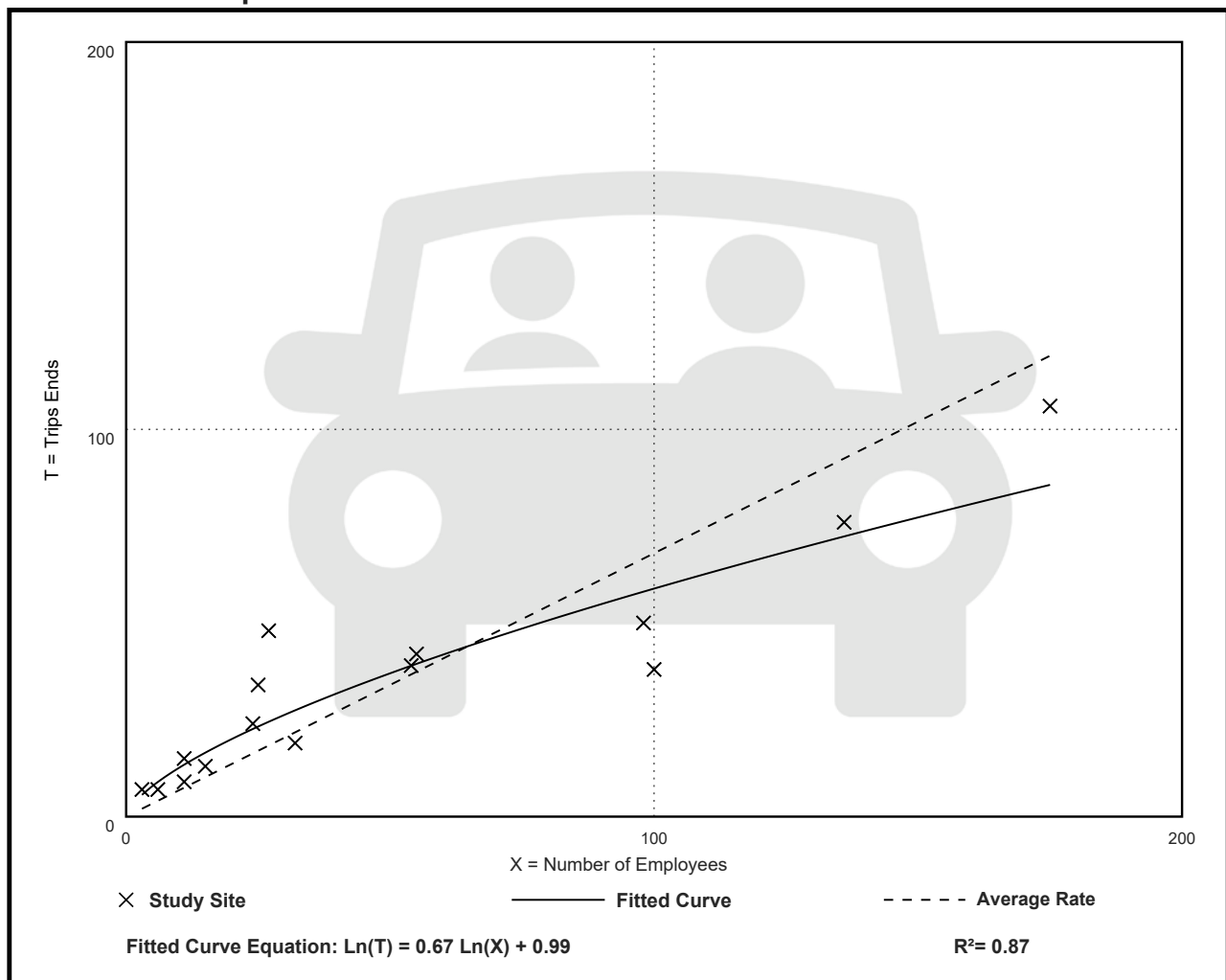
Avg. Num. of Employees: 51

Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.68	0.38 - 2.33	0.33

Data Plot and Equation



Warehousing (150)

Vehicle Trip Ends vs: Employees

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 15

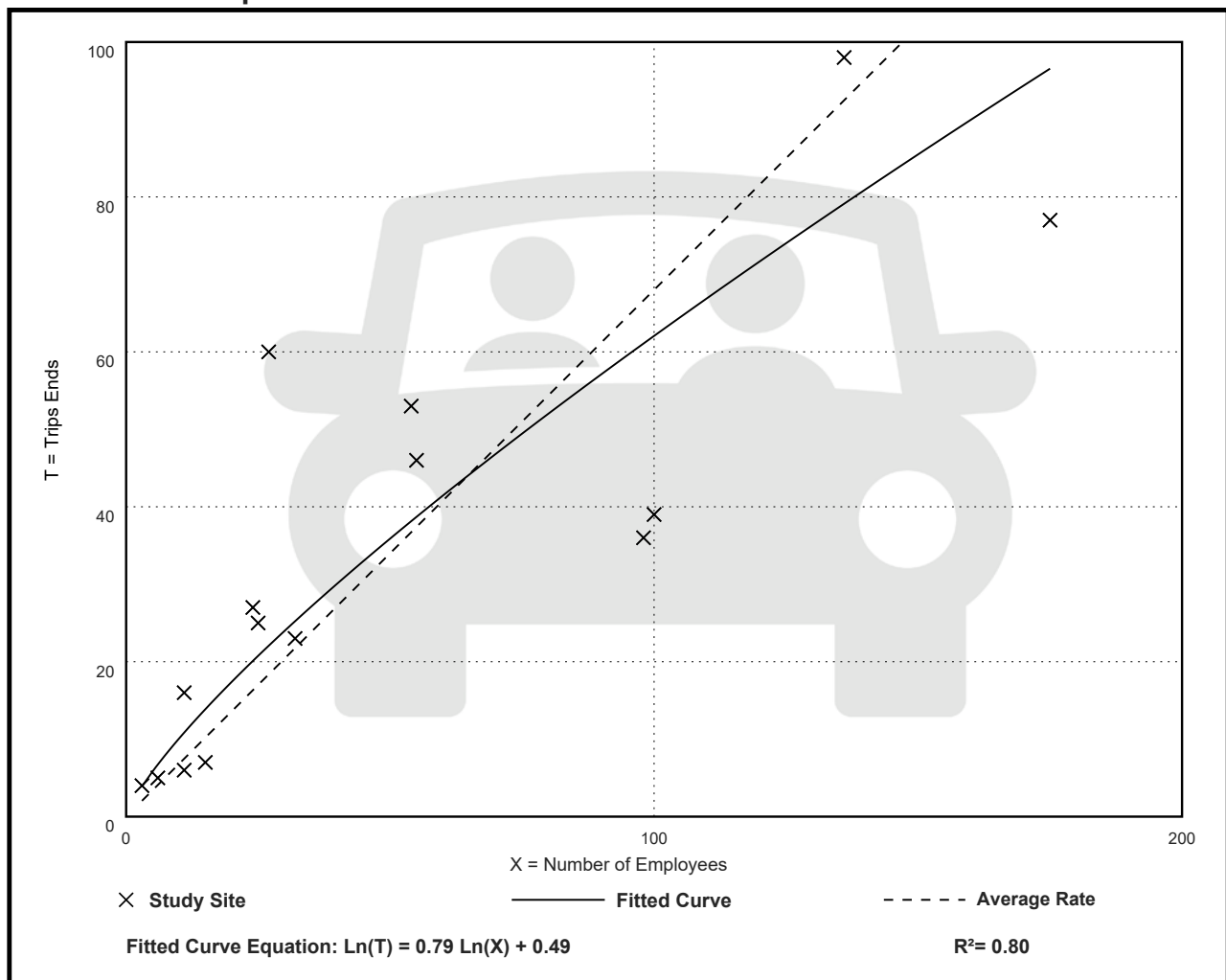
Avg. Num. of Employees: 51

Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.68	0.37 - 2.22	0.40

Data Plot and Equation



Land Use: 154

High-Cube Transload and Short-Term Storage Warehouse

Description

A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the HCW. A high-cube warehouse can be free-standing or located in an industrial park.

The HCWs included in this land use include transload and short-term storage facilities. A transload facility has the primary function of consolidation and distribution of pallet loads (or larger) for manufacturers, wholesalers, or retailers. A transload facility typically has little storage duration, high throughput, and its operations are high efficiency. A short-term HCW is a distribution facility often with custom/special features built into the structure for the movement of large volumes of freight with only short-term storage of products.

Some limited assembly and repackaging may occur within the facility.

A high-cube warehouse may contain a mezzanine. In a HCW setting, a mezzanine is a free-standing, semi-permanent structure that is commonly supported by structural steel columns and that is lined with racks or shelves. The gross floor area (GFA) values for the study sites in the database for this land use do NOT include the floor area of the mezzanine. The GFA values represent only the permanent ground-floor square footage.

The amount of office/employee welfare space that is provided within a HCW can be highly variable but is typically an insignificant portion of the overall building square footage. Within the trip generation database, common values are between 3,000 and 5,000 square feet for a Cold Storage HCW and between 5,000 and 10,000 square feet for Transload, Fulfillment Center, and Parcel Hub HCW (all of which are less than one percent of total GFA for a site). Therefore, for the trip generation data plots, any office space that is part of the normal operation of the warehouse is included in the total GFA.

Warehousing (Land Use 150), high-cube fulfillment center warehouse (Land Use 155), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) are related land uses.

The number of dock doors at a HCW is a potential independent variable. Future data submissions should include that information.

Additional Data

The High-Cube Warehouse/Distribution Center-related land uses underwent specialized consideration through a commissioned study titled “High-Cube Warehouse Vehicle Trip Generation Analysis,” published in October 2016. The results of this study are posted on the ITE website at <http://library.ite.org/pub/a3e6679a-e3a8-bf38-7f29-2961becdd498>.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The sites were surveyed in the 1980s, the 2000s, and the 2010s in Alberta (CAN), California, Florida, Michigan, New Jersey, Texas, and Washington.

Source Numbers

331, 605, 619, 642, 645, 649, 739, 750, 752, 903, 904, 941, 942, 943, 969

High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: **Weekday**

Setting/Location: General Urban/Suburban

Number of Studies: 91

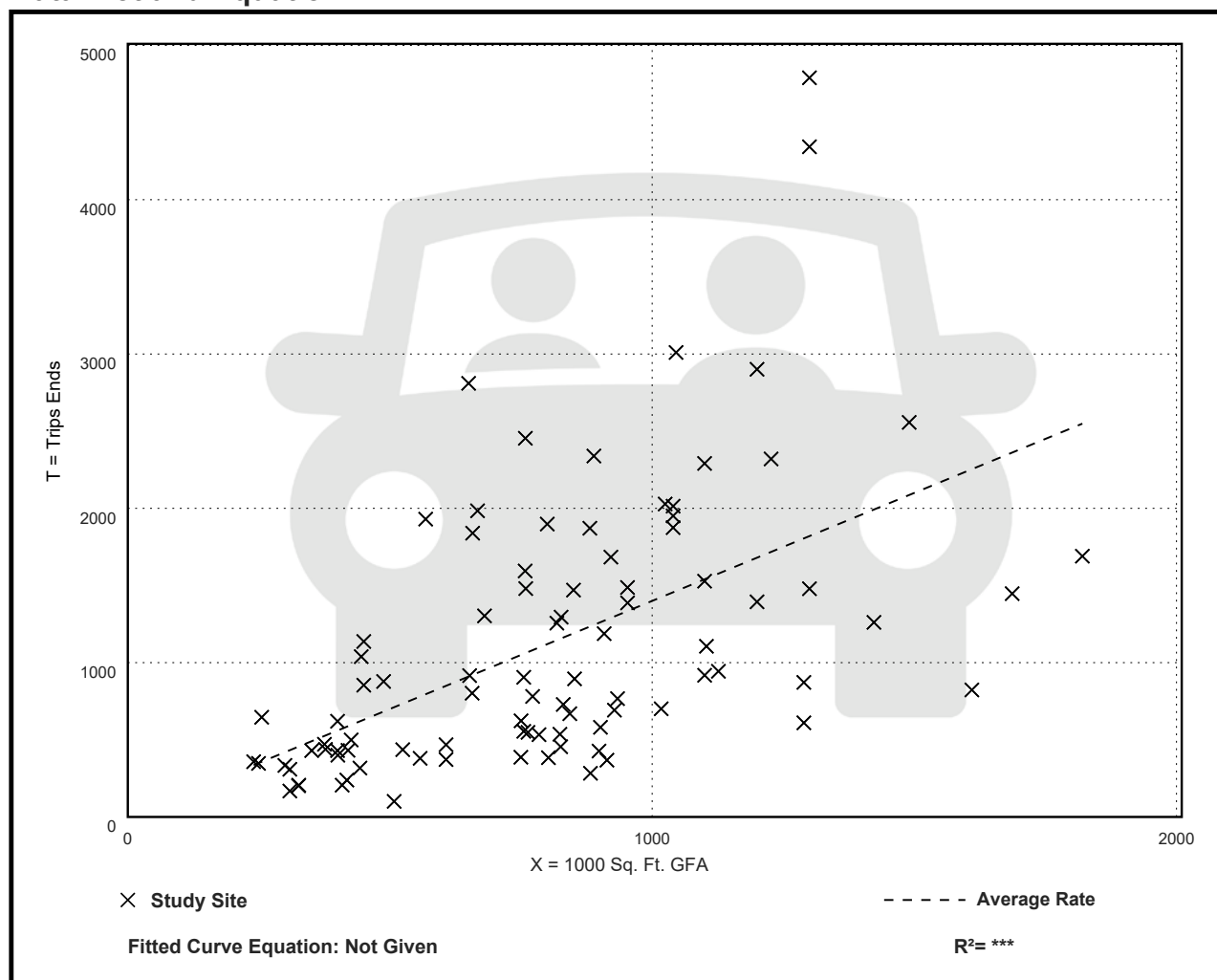
Avg. 1000 Sq. Ft. GFA: 798

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.40	0.20 - 4.32	0.86

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 102

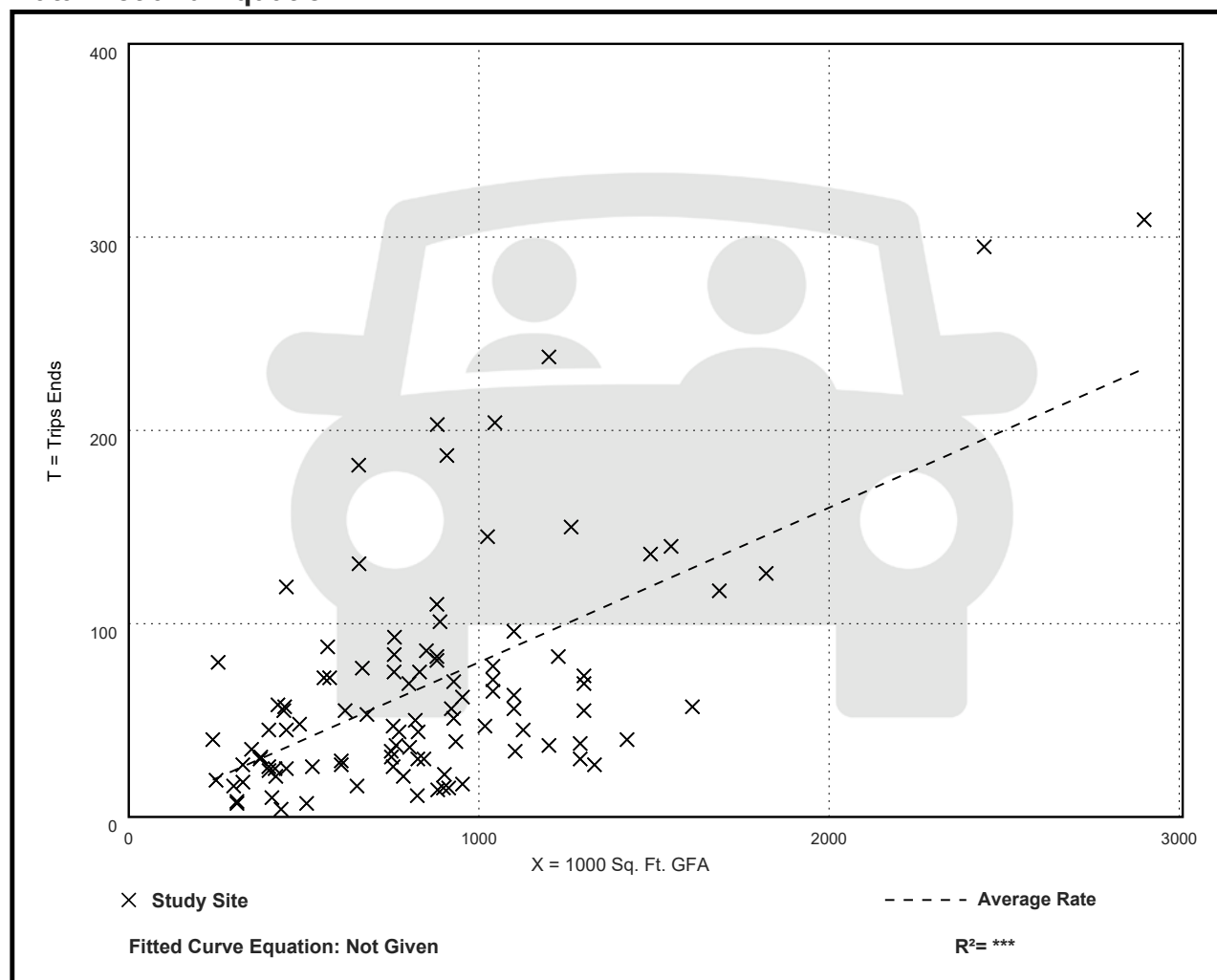
Avg. 1000 Sq. Ft. GFA: 846

Directional Distribution: 77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.08	0.01 - 0.31	0.05

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 103

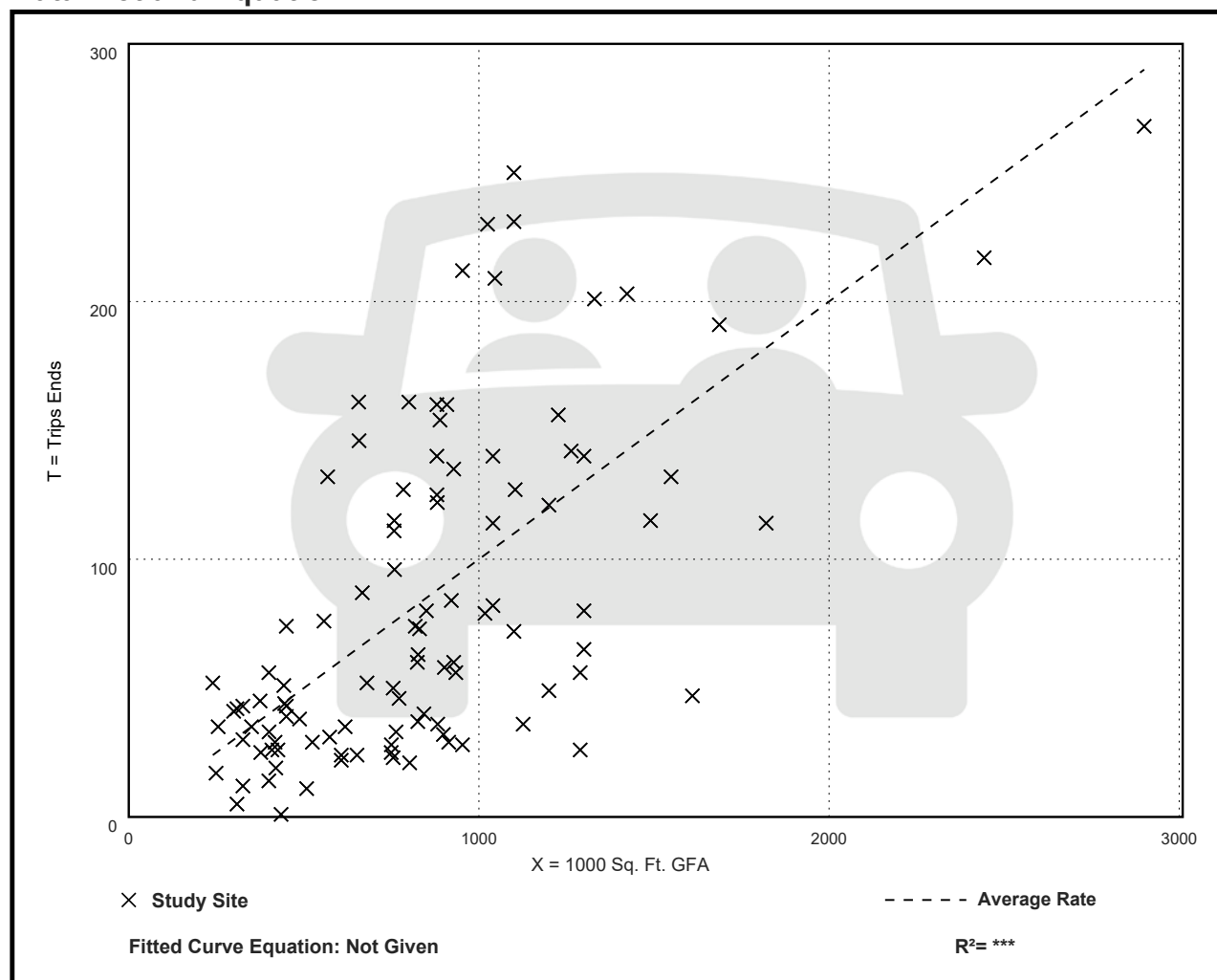
Avg. 1000 Sq. Ft. GFA: 840

Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.10	0.00 - 0.25	0.06

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 31

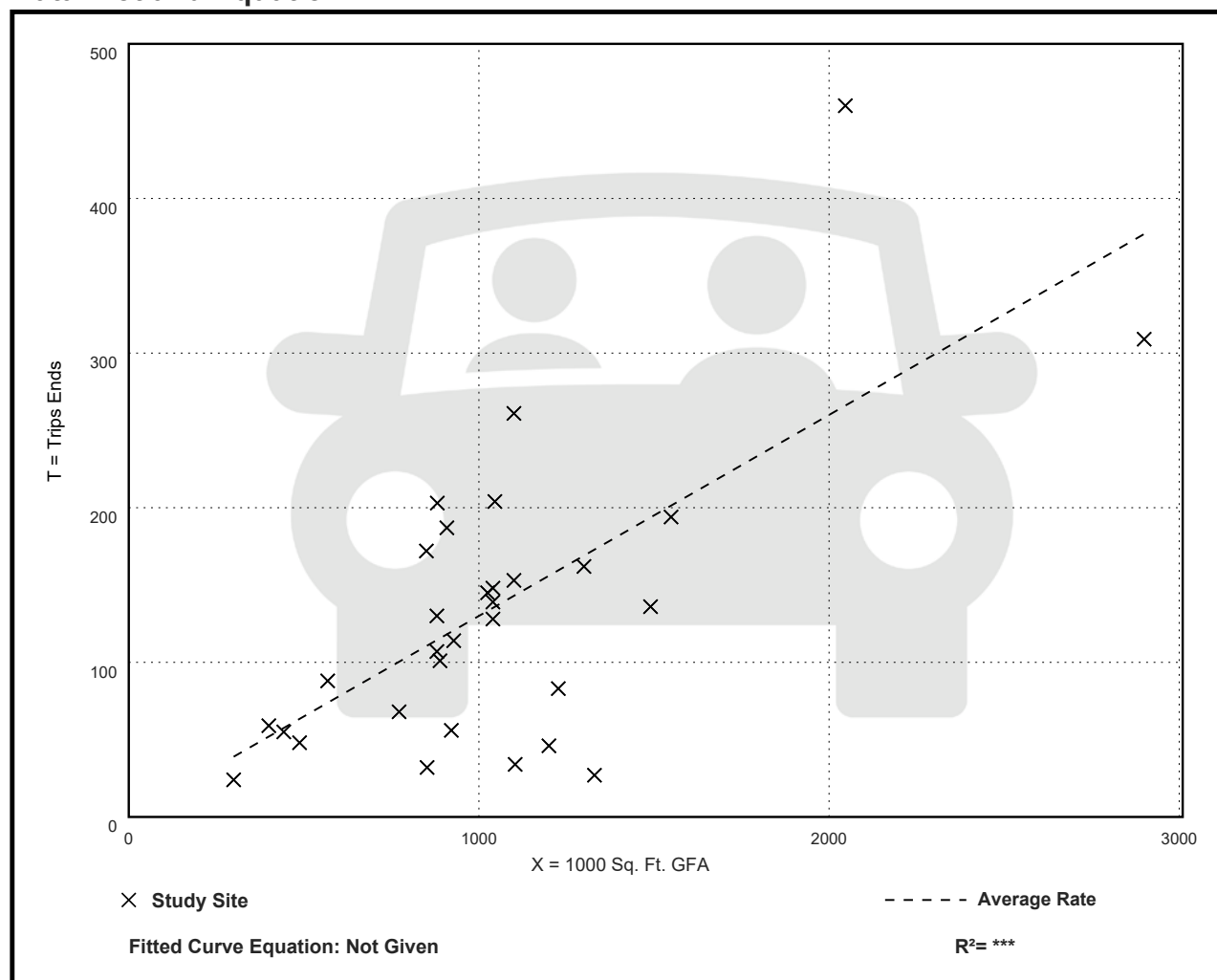
Avg. 1000 Sq. Ft. GFA: 1048

Directional Distribution: 78% entering, 22% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.13	0.02 - 0.24	0.06

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 34

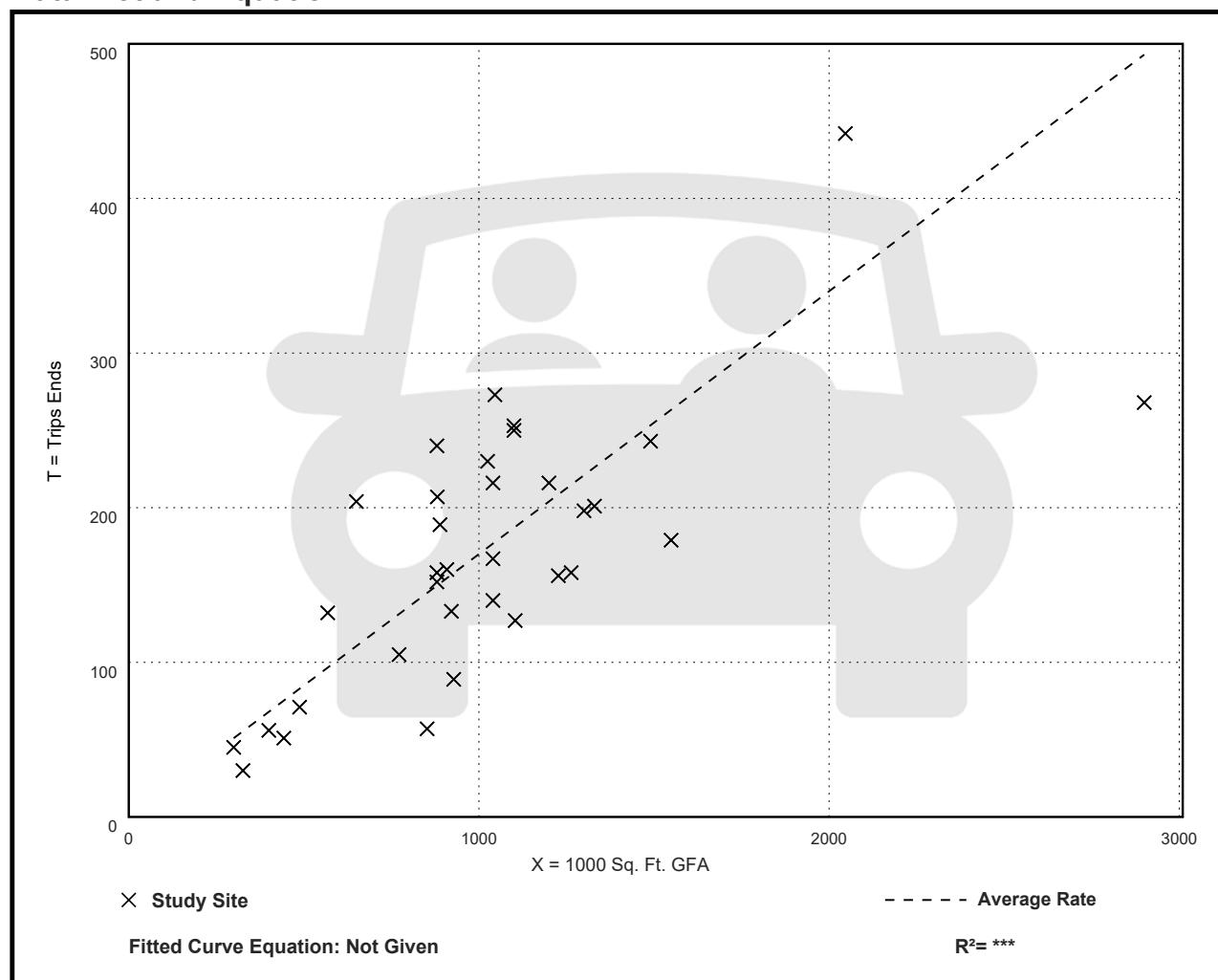
Avg. 1000 Sq. Ft. GFA: 1023

Directional Distribution: 34% entering, 66% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.07 - 0.31	0.06

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday

Setting/Location: General Urban/Suburban

Number of Studies: 10

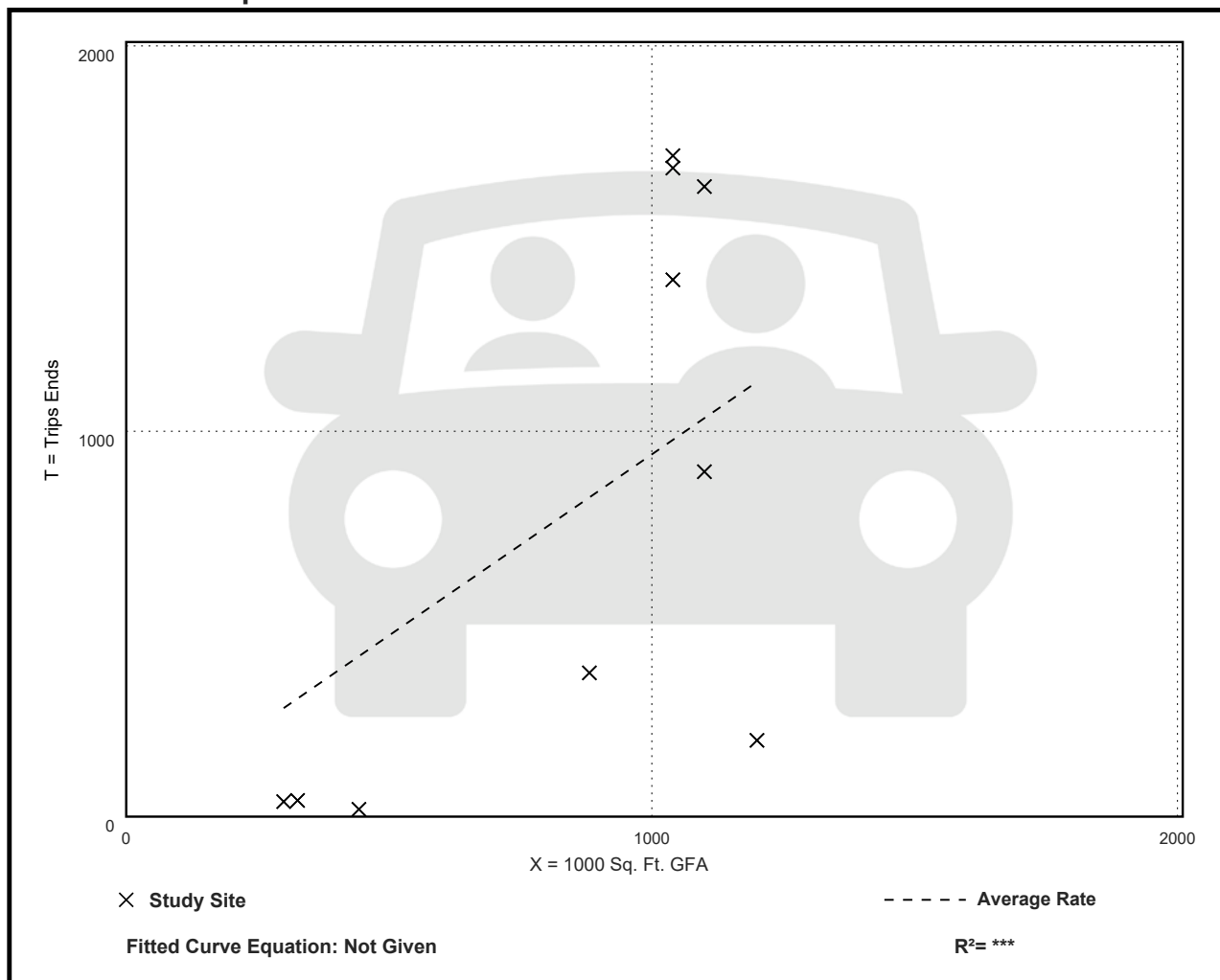
Avg. 1000 Sq. Ft. GFA: 847

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.94	0.04 - 1.65	0.65

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 9

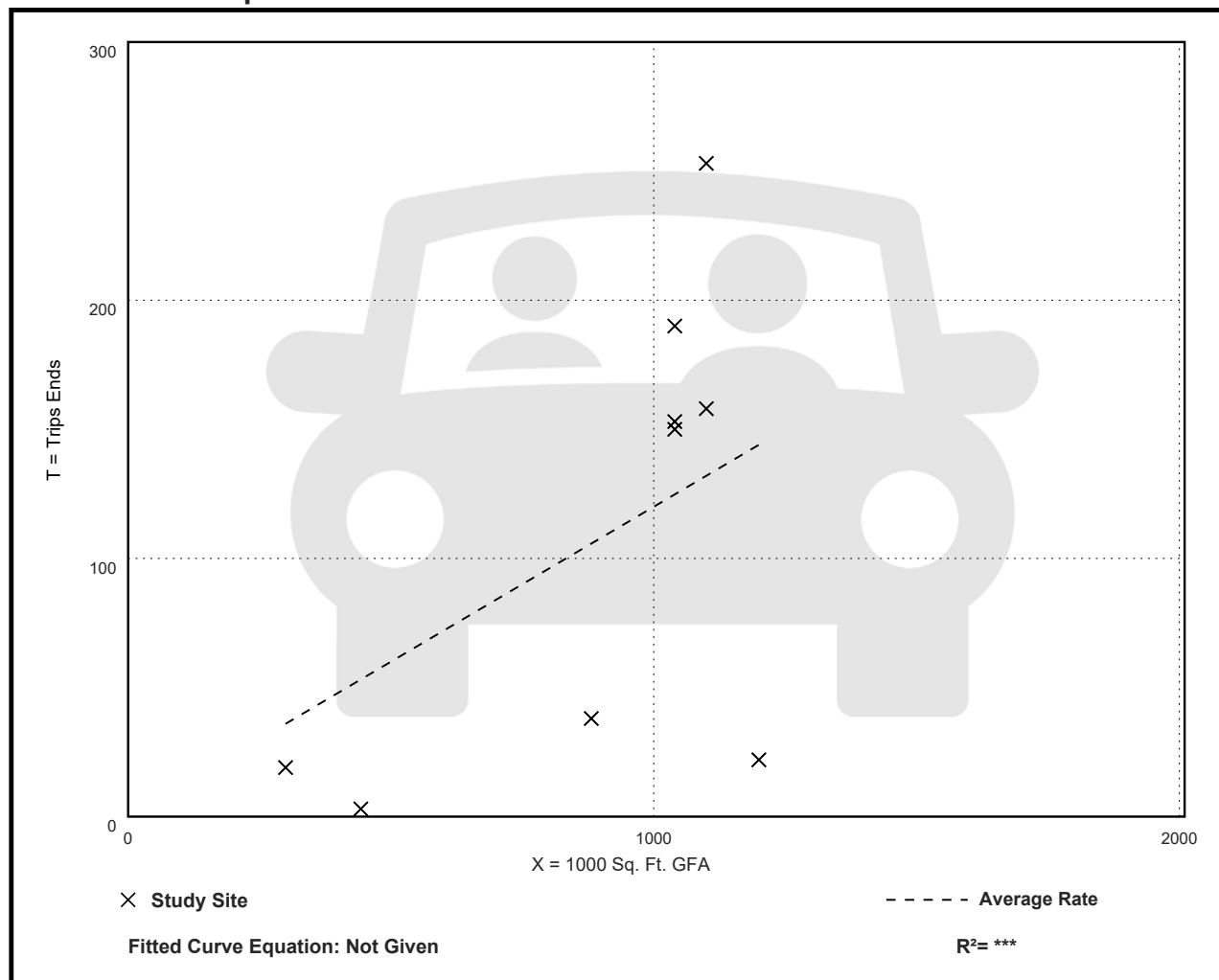
Avg. 1000 Sq. Ft. GFA: 905

Directional Distribution: Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.12	0.01 - 0.23	0.08

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Sunday

Setting/Location: General Urban/Suburban

Number of Studies: 10

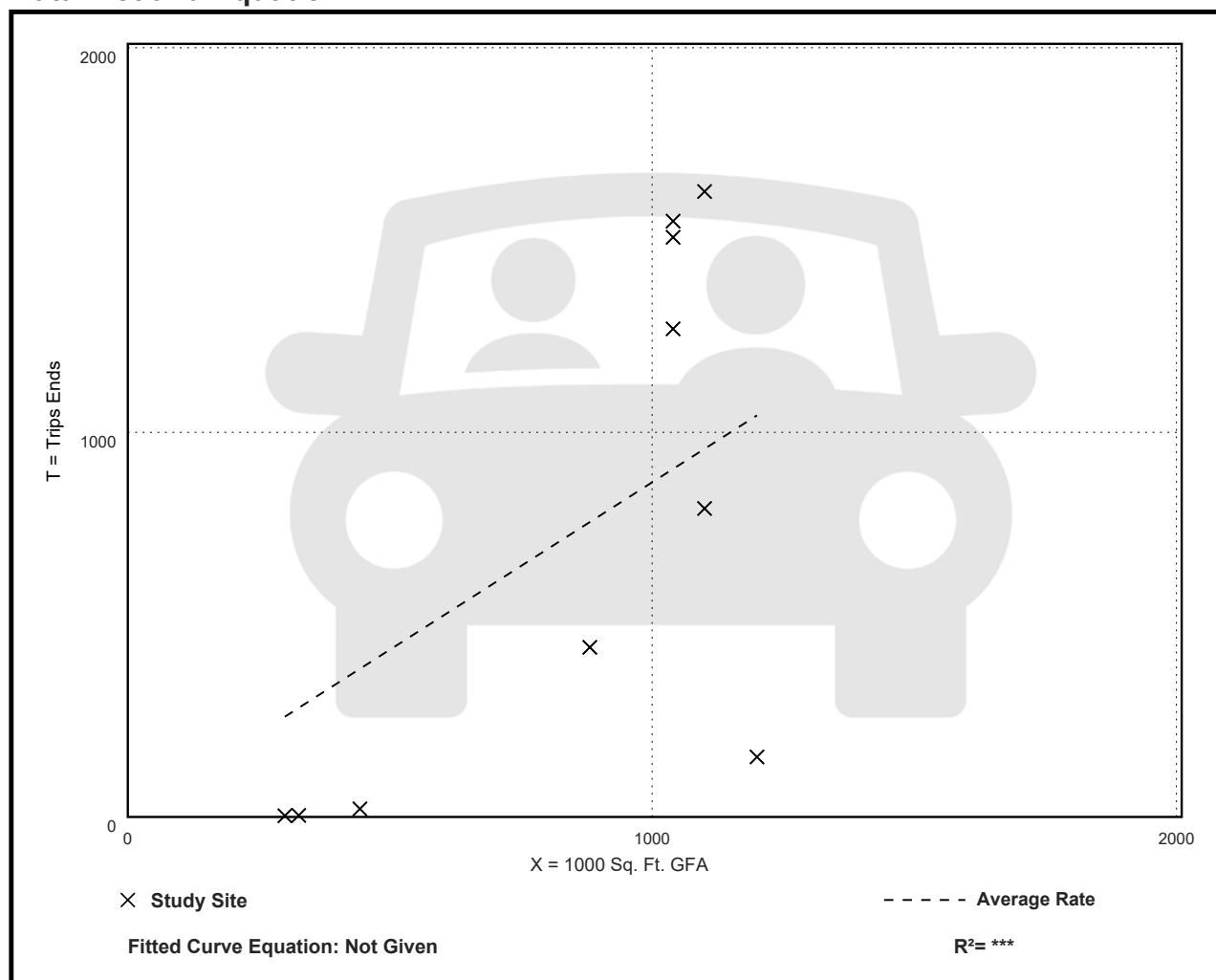
Avg. 1000 Sq. Ft. GFA: 847

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.87	0.01 - 1.49	0.61

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Sunday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 9

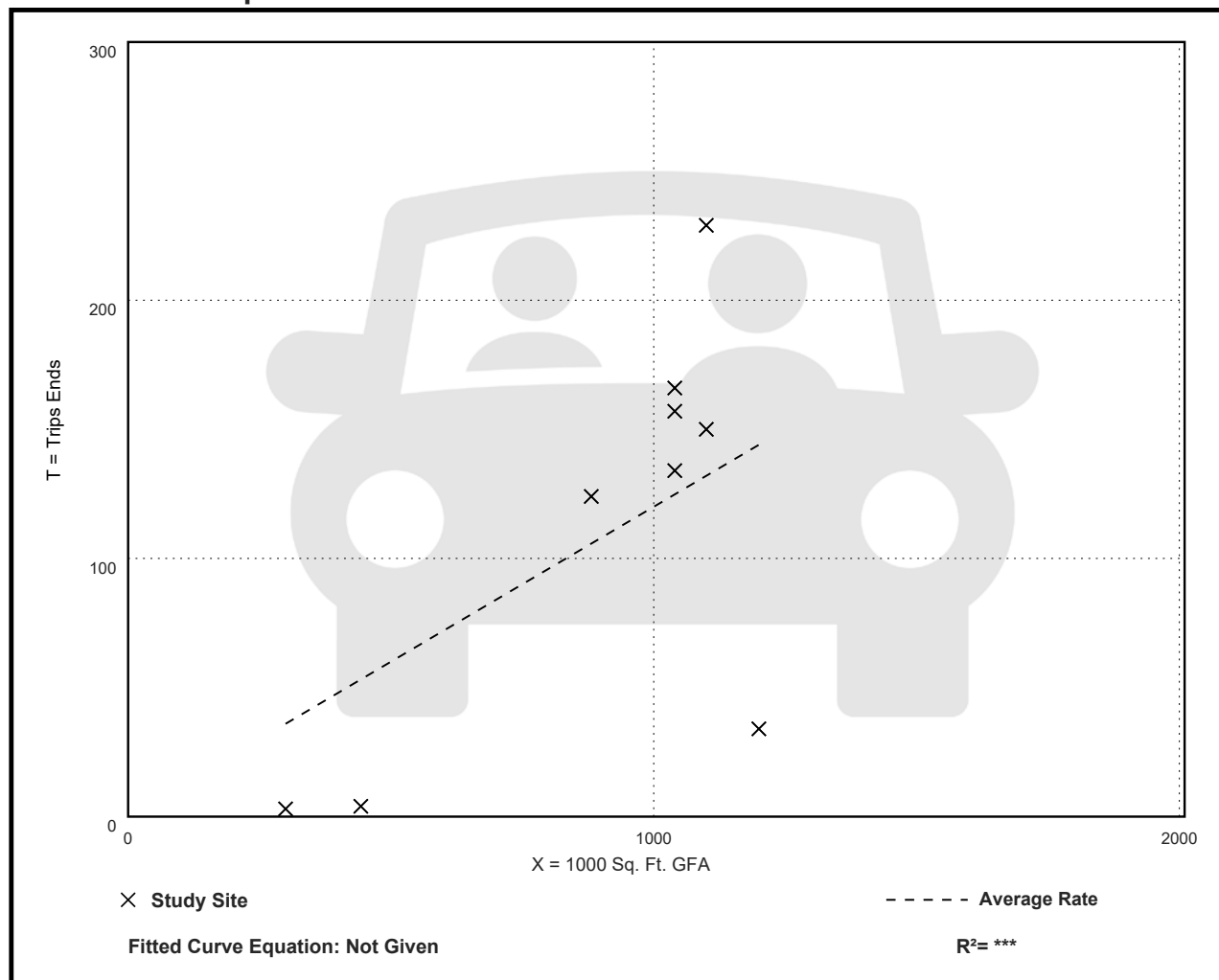
Avg. 1000 Sq. Ft. GFA: 905

Directional Distribution: Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.12	0.01 - 0.21	0.07

Data Plot and Equation



APPENDIX E

OPENING YEAR WITHOUT PROJECT PEAK HOUR INTERSECTION LOS WORKSHEETS

HCM 6th Signalized Intersection Summary

1: La Media Rd & Otay Mesa Rd

Opening Year 2026 AM

04/26/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	  					 		
Traffic Volume (veh/h)	47	217	95	178	183	25	56	77	236	19	75	22
Future Volume (veh/h)	47	217	95	178	183	25	56	77	236	19	75	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.93	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1752	1870	1870	1752	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	268	117	198	203	28	65	228	182	26	104	31
Peak Hour Factor	0.81	0.81	0.81	0.90	0.90	0.90	0.86	0.86	0.86	0.72	0.72	0.72
Percent Heavy Veh, %	2	10	2	2	10	2	2	2	2	2	2	2
Cap, veh/h	257	1482	472	380	1166	153	144	480	382	165	306	91
Arrive On Green	0.14	0.31	0.31	0.11	0.28	0.27	0.08	0.26	0.25	0.05	0.22	0.22
Sat Flow, veh/h	1781	4782	1523	3456	4232	557	1781	1870	1533	3456	1370	409
Grp Volume(v), veh/h	58	268	117	198	151	80	65	228	182	26	0	135
Grp Sat Flow(s),veh/h/ln	1781	1594	1523	1728	1594	1601	1781	1870	1533	1728	0	1779
Q Serve(g_s), s	1.9	2.7	2.5	3.6	2.4	2.6	2.3	6.9	4.5	0.5	0.0	4.3
Cycle Q Clear(g_c), s	1.9	2.7	2.5	3.6	2.4	2.6	2.3	6.9	4.5	0.5	0.0	4.3
Prop In Lane	1.00		1.00	1.00		0.35	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	257	1482	472	380	878	441	144	480	382	165	0	397
V/C Ratio(X)	0.23	0.18	0.25	0.52	0.17	0.18	0.45	0.48	0.48	0.16	0.00	0.34
Avail Cap(c_a), veh/h	318	3280	1045	871	2435	1223	323	1325	1075	617	0	1265
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.2	16.8	7.4	28.0	18.4	18.5	29.2	21.0	9.4	30.5	0.0	21.8
Incr Delay (d2), s/veh	0.4	0.1	0.3	1.1	0.1	0.2	2.2	0.7	0.9	0.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.9	1.2	1.5	0.8	0.9	1.0	2.9	2.3	0.2	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	16.9	7.7	29.1	18.5	18.7	31.4	21.7	10.3	30.9	0.0	22.3
LnGrp LOS	C	B	A	C	B	B	C	C	B	C	A	C
Approach Vol, veh/h		443			429			475			161	
Approach Delay, s/veh		15.6			23.4			18.7			23.7	
Approach LOS		B			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	26.1	9.3	19.7	13.8	23.9	7.1	21.9				
Change Period (Y+Rc), s	4.7	* 6	4.4	* 5.3	4.7	* 6	4.4	5.3				
Max Green Setting (Gmax), s	16.3	* 45	11.6	* 47	11.4	* 50	11.4	46.7				
Max Q Clear Time (g_c+I1), s	5.6	4.7	4.3	6.3	3.9	4.6	2.5	8.9				
Green Ext Time (p_c), s	0.6	1.9	0.1	0.5	0.1	1.0	0.0	1.8				

Intersection Summary

HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

2: Otay Mesa Rd & Piper Ranch Rd

Opening Year 2026 AM

04/26/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗	↔	↖		↖	↔↔	↗
Traffic Volume (veh/h)	201	329	41	11	228	106	10	1	6	82	4	123
Future Volume (veh/h)	201	329	41	11	228	106	10	1	6	82	4	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.92	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1752	1752	1752	1752	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	234	383	48	13	265	123	15	1	9	59	0	161
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.67	0.67	0.67	0.95	0.95	0.95
Percent Heavy Veh, %	2	10	10	10	10	2	10	10	10	2	10	2
Cap, veh/h	222	3057	930	64	2845	1114	131	11	99	214	0	361
Arrive On Green	0.06	0.64	0.64	0.02	0.59	0.59	0.08	0.08	0.08	0.12	0.00	0.12
Sat Flow, veh/h	3456	4782	1455	3237	4782	1552	1668	140	1262	1781	0	2998
Grp Volume(v), veh/h	234	383	48	13	265	123	15	0	10	59	0	161
Grp Sat Flow(s), veh/h/ln	1728	1594	1455	1618	1594	1552	1668	0	1402	1781	0	1499
Q Serve(g_s), s	9.3	4.6	1.8	0.6	3.4	3.6	1.2	0.0	1.0	4.4	0.0	7.2
Cycle Q Clear(g_c), s	9.3	4.6	1.8	0.6	3.4	3.6	1.2	0.0	1.0	4.4	0.0	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.90	1.00		1.00
Lane Grp Cap(c), veh/h	222	3057	930	64	2845	1114	131	0	110	214	0	361
V/C Ratio(X)	1.06	0.13	0.05	0.20	0.09	0.11	0.11	0.00	0.09	0.28	0.00	0.45
Avail Cap(c_a), veh/h	222	3057	930	158	2845	1114	496	0	417	553	0	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.8	10.3	9.8	70.0	12.6	6.4	62.1	0.0	62.0	58.0	0.0	59.3
Incr Delay (d2), s/veh	75.0	0.1	0.1	0.6	0.1	0.2	0.4	0.0	0.4	1.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	1.6	0.6	0.2	1.3	1.9	0.5	0.0	0.4	2.1	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	142.8	10.3	9.9	70.5	12.7	6.6	62.5	0.0	62.4	59.2	0.0	60.7
LnGrp LOS	F	B	A	E	B	A	E	A	E	E	A	E
Approach Vol, veh/h	665			401			25			220		
Approach Delay, s/veh	56.9			12.7			62.5			60.3		
Approach LOS	E			B			E			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	98.7		22.7	13.7	92.2		16.3				
Change Period (Y+Rc), s	4.4	6.0		5.3	4.4	6.0		4.9				
Max Green Setting (Gmax), s	29.2			45.0	9.3	27.0		43.1				
Max Q Clear Time (g_c+I), s	12.6	6.6		9.2	11.3	5.6		3.2				
Green Ext Time (p_c), s	0.0	4.4		1.9	0.0	3.9		0.1				

Intersection Summary

HCM 6th Ctrl Delay 44.1

HCM 6th LOS D

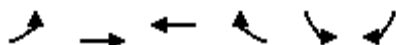
Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary 3: Otay Mesa Rd & SR 125 SB Off-Ramp

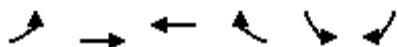
Opening Year 2026 AM
04/26/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	410	164	0	198	186
Future Volume (veh/h)	0	410	164	0	198	186
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1752	1752	0	1870	1870
Adj Flow Rate, veh/h	0	506	182	0	218	204
Peak Hour Factor	0.81	0.81	0.90	0.90	0.91	0.91
Percent Heavy Veh, %	0	10	10	0	2	2
Cap, veh/h	0	1203	837	0	1173	538
Arrive On Green	0.00	0.25	0.25	0.00	0.34	0.34
Sat Flow, veh/h	0	5098	3504	0	3456	1585
Grp Volume(v), veh/h	0	506	182	0	218	204
Grp Sat Flow(s),veh/h/ln	0	1594	1664	0	1728	1585
Q Serve(g_s), s	0.0	2.7	1.3	0.0	1.3	2.9
Cycle Q Clear(g_c), s	0.0	2.7	1.3	0.0	1.3	2.9
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1203	837	0	1173	538
V/C Ratio(X)	0.00	0.42	0.22	0.00	0.19	0.38
Avail Cap(c_a), veh/h	0	4183	2911	0	1310	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.4	8.9	0.0	7.0	7.5
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.0	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.7	0.3	0.0	0.3	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	9.7	9.0	0.0	7.1	8.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		506	182		422	
Approach Delay, s/veh		9.7	9.0		7.5	
Approach LOS		A	A		A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		14.3		15.8		14.3
Change Period (Y+Rc), s		7.2		6.1		7.2
Max Green Setting (Gmax), s		25.8		10.9		25.8
Max Q Clear Time (g_c+I1), s		3.3		4.9		4.7
Green Ext Time (p_c), s		0.7		1.0		2.4
Intersection Summary						
HCM 6th Ctrl Delay			8.7			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary 4: Otay Mesa Rd & SR 125 NB On-Ramp

Opening Year 2026 AM
04/26/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↰↰	↑		
Traffic Volume (veh/h)	49	601	152	35	0	0
Future Volume (veh/h)	49	601	152	35	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752		
Adj Flow Rate, veh/h	58	707	177	41		
Peak Hour Factor	0.85	0.85	0.86	0.86		
Percent Heavy Veh, %	10	10	10	10		
Cap, veh/h	436	2286	1600	452		
Arrive On Green	0.13	0.69	0.30	0.30		
Sat Flow, veh/h	3237	3416	5255	1485		
Grp Volume(v), veh/h	58	707	177	41		
Grp Sat Flow(s), veh/h/ln	1618	1664	1752	1485		
Q Serve(g_s), s	0.4	1.9	0.6	0.5		
Cycle Q Clear(g_c), s	0.4	1.9	0.6	0.5		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	436	2286	1600	452		
V/C Ratio(X)	0.13	0.31	0.11	0.09		
Avail Cap(c_a), veh/h	1407	6079	5051	1427		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	8.8	1.4	5.8	5.7		
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.9	1.5	5.8	5.8		
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h		765	218			
Approach Delay, s/veh		2.1	5.8			
Approach LOS		A	A			
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		23.0			8.8	14.2
Change Period (Y+Rc), s		* 7.2			* 5.7	7.2
Max Green Setting (Gmax), s		* 42			* 10	22.1
Max Q Clear Time (g_c+I1), s		3.9			2.4	2.6
Green Ext Time (p_c), s		5.8			0.1	1.2

Intersection Summary

HCM 6th Ctrl Delay	2.9
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	29	571	1	1	167	3	3	0	0	2	0	16
Future Vol, veh/h	29	571	1	1	167	3	3	0	0	2	0	16
Conflicting Peds, #/hr	10	0	10	10	0	10	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	90	90	90	38	38	38	53	53	53
Heavy Vehicles, %	2	10	2	2	10	2	2	2	2	2	2	2
Mvmt Flow	35	696	1	1	186	3	8	0	0	4	0	30
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	199	0	0	707	0	0	872	978	359	618	977	105
Stage 1	-	-	-	-	-	-	777	777	-	200	200	-
Stage 2	-	-	-	-	-	-	95	201	-	418	777	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1371	-	-	887	-	-	245	249	638	373	249	929
Stage 1	-	-	-	-	-	-	356	405	-	783	735	-
Stage 2	-	-	-	-	-	-	901	734	-	583	405	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1360	-	-	880	-	-	227	235	633	358	235	921
Mov Cap-2 Maneuver	-	-	-	-	-	-	227	235	-	358	235	-
Stage 1	-	-	-	-	-	-	338	385	-	744	728	-
Stage 2	-	-	-	-	-	-	871	727	-	559	385	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.1			21.4			9.8		
HCM LOS							C			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	227	1360	-	-	880	-	-	784				
HCM Lane V/C Ratio	0.035	0.026	-	-	0.001	-	-	0.043				
HCM Control Delay (s)	21.4	7.7	0.1	-	9.1	0	-	9.8				
HCM Lane LOS	C	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.1				

HCM 6th Signalized Intersection Summary 6: Sanyo Ave & Otay Mesa Rd

Opening Year 2026 AM
04/26/2023

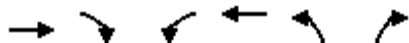
						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑	↵↵	
Traffic Volume (veh/h)	431	141	32	119	53	47
Future Volume (veh/h)	431	141	32	119	53	47
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1752	1870	1870
Adj Flow Rate, veh/h	553	181	42	157	72	73
Peak Hour Factor	0.78	0.78	0.76	0.76	0.69	0.69
Percent Heavy Veh, %	10	2	2	10	2	2
Cap, veh/h	903	294	68	928	264	235
Arrive On Green	0.37	0.37	0.04	0.53	0.15	0.15
Sat Flow, veh/h	2524	794	1781	1752	1781	1585
Grp Volume(v), veh/h	377	357	42	157	72	73
Grp Sat Flow(s),veh/h/ln	1664	1567	1781	1752	1781	1585
Q Serve(g_s), s	6.7	6.7	0.8	1.7	1.3	1.5
Cycle Q Clear(g_c), s	6.7	6.7	0.8	1.7	1.3	1.5
Prop In Lane		0.51	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	617	581	68	928	264	235
V/C Ratio(X)	0.61	0.62	0.62	0.17	0.27	0.31
Avail Cap(c_a), veh/h	1540	1449	569	2412	427	380
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.3	9.3	17.2	4.4	13.7	13.8
Incr Delay (d2), s/veh	1.0	1.1	8.9	0.1	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.8	0.5	0.3	0.5	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.3	10.4	26.1	4.5	14.3	14.6
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	734			199	145	
Approach Delay, s/veh	10.3			9.1	14.4	
Approach LOS	B			A	B	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.8	19.9			25.6	10.7
Change Period (Y+Rc), s	4.4	6.4			* 6.4	5.3
Max Green Setting (Gmax), s	11.6	33.6			* 50	8.7
Max Q Clear Time (g_c+I1), s	2.8	8.7			3.7	3.5
Green Ext Time (p_c), s	0.0	3.3			0.6	0.2
Intersection Summary						
HCM 6th Ctrl Delay			10.6			
HCM 6th LOS			B			
Notes						
User approved volume balancing among the lanes for turning movement.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th Signalized Intersection Summary

7: Vann Centre Blvd & Otay Mesa Rd

Opening Year 2026 AM

04/26/2023



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩		↩	↩	↩	↩
Traffic Volume (veh/h)	408	69	4	129	13	3
Future Volume (veh/h)	408	69	4	129	13	3
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1752	1870	1870
Adj Flow Rate, veh/h	559	95	6	179	21	5
Peak Hour Factor	0.73	0.73	0.72	0.72	0.63	0.63
Percent Heavy Veh, %	10	2	2	10	2	2
Cap, veh/h	689	117	11	1059	188	45
Arrive On Green	0.48	0.48	0.01	0.60	0.14	0.14
Sat Flow, veh/h	1450	246	1781	1752	1357	323
Grp Volume(v), veh/h	0	654	6	179	27	0
Grp Sat Flow(s), veh/h/ln	0	1696	1781	1752	1744	0
Q Serve(g_s), s	0.0	14.2	0.1	1.9	0.6	0.0
Cycle Q Clear(g_c), s	0.0	14.2	0.1	1.9	0.6	0.0
Prop In Lane		0.15	1.00		0.78	0.19
Lane Grp Cap(c), veh/h	0	807	11	1059	242	0
V/C Ratio(X)	0.00	0.81	0.52	0.17	0.11	0.00
Avail Cap(c_a), veh/h	0	1102	185	1535	645	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	9.7	21.4	3.8	16.3	0.0
Incr Delay (d2), s/veh	0.0	3.3	32.4	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.4	0.2	0.4	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	13.0	53.8	3.8	16.5	0.0
LnGrp LOS	A	B	D	A	B	A
Approach Vol, veh/h	654			185	27	
Approach Delay, s/veh	13.0			5.5	16.5	
Approach LOS	B			A	B	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	5.6	27.1		32.6	10.6	
Change Period (Y+Rc), s	5.3	6.5		6.5	4.6	
Max Green Setting (Gmax), s	4.5	28.1		37.9	16.0	
Max Q Clear Time (g_c+I), s	12.1	16.2		3.9	2.6	
Green Ext Time (p_c), s	0.0	3.6		1.1	0.0	

Intersection Summary

HCM 6th Ctrl Delay	11.5
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary

8: Enrico Fermi Rd & Otay Mesa Rd

Opening Year 2026 AM

04/26/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	186	60	98	64	3	247	166	411	0	57	20
Future Volume (veh/h)	55	186	60	98	64	3	247	166	411	0	57	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.94	1.00		0.98	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1752	1870	1752	1870	1752	1752	1870	1752	1870	1752	1752	1752
Adj Flow Rate, veh/h	64	216	70	166	108	5	278	187	462	0	84	29
Peak Hour Factor	0.86	0.86	0.86	0.59	0.59	0.59	0.89	0.89	0.89	0.68	0.68	0.68
Percent Heavy Veh, %	10	2	10	2	10	10	2	10	2	10	10	10
Cap, veh/h	126	503	158	290	722	33	370	759	803	3	196	68
Arrive On Green	0.08	0.19	0.18	0.08	0.22	0.21	0.21	0.43	0.43	0.00	0.16	0.16
Sat Flow, veh/h	1668	2634	825	3456	3230	148	1781	1752	1547	1668	1217	420
Grp Volume(v), veh/h	64	143	143	166	55	58	278	187	462	0	0	113
Grp Sat Flow(s),veh/h/ln	1668	1777	1681	1728	1664	1714	1781	1752	1547	1668	0	1637
Q Serve(g_s), s	2.0	3.9	4.1	2.5	1.5	1.5	8.0	3.7	11.2	0.0	0.0	3.4
Cycle Q Clear(g_c), s	2.0	3.9	4.1	2.5	1.5	1.5	8.0	3.7	11.2	0.0	0.0	3.4
Prop In Lane	1.00		0.49	1.00		0.09	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	126	340	321	290	372	383	370	759	803	3	0	264
V/C Ratio(X)	0.51	0.42	0.44	0.57	0.15	0.15	0.75	0.25	0.58	0.00	0.00	0.43
Avail Cap(c_a), veh/h	643	1095	1037	957	886	912	703	1363	1337	122	0	781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	24.2	19.4	19.6	24.0	17.0	17.0	20.3	9.8	9.1	0.0	0.0	20.6
Incr Delay (d2), s/veh	3.1	0.8	1.0	1.8	0.2	0.2	3.1	0.2	0.7	0.0	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.5	1.6	1.0	0.5	0.6	3.3	1.2	3.0	0.0	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.4	20.2	20.6	25.8	17.2	17.2	23.4	10.0	9.7	0.0	0.0	21.7
LnGrp LOS	C	C	C	C	B	B	C	A	A	A	A	C
Approach Vol, veh/h	350			279			927			113		
Approach Delay, s/veh	21.7			22.3			13.9			21.7		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	16.4	14.8	13.4	8.1	18.2	0.0	28.2				
Change Period (Y+Rc), s	5.3	6.5	4.0	* 4.6	4.0	6.5	4.0	4.6				
Max Green Setting (Gmax), s	15.1	33.1	21.0	* 26	21.0	28.5	4.0	42.4				
Max Q Clear Time (g_c+I), s	14.5	6.1	10.0	5.4	4.0	3.5	0.0	13.2				
Green Ext Time (p_c), s	0.5	1.1	0.8	0.5	0.1	0.4	0.0	3.7				

Intersection Summary

HCM 6th Ctrl Delay 17.4

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

9: La Media Rd & St Andrews Ave/SR-905 WB Ramps

Opening Year 2026 AM

04/26/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											  	
Traffic Volume (veh/h)	3	0	67	20	51	50	98	349	145	0	330	23
Future Volume (veh/h)	3	0	67	20	51	50	98	349	145	0	330	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1826	1752	1826	1826	1752	1826	1826	1752	1826	0	1752	1826
Adj Flow Rate, veh/h	4	0	89	29	73	71	117	415	173	0	359	25
Peak Hour Factor	0.75	0.75	0.75	0.70	0.70	0.70	0.84	0.84	0.84	0.92	0.92	0.92
Percent Heavy Veh, %	5	10	5	5	10	5	5	10	5	0	10	5
Cap, veh/h	131	0	111	167	168	148	282	1668	747	0	1834	125
Arrive On Green	0.08	0.00	0.08	0.10	0.10	0.10	0.08	0.50	0.50	0.00	0.32	0.32
Sat Flow, veh/h	1739	0	1485	1739	1752	1547	3374	3328	1490	0	6039	394
Grp Volume(v), veh/h	4	0	89	29	73	71	117	415	173	0	278	106
Grp Sat Flow(s),veh/h/ln	1739	0	1485	1739	1752	1547	1687	1664	1490	0	1507	1667
Q Serve(g_s), s	0.1	0.0	2.8	0.7	1.8	2.0	1.5	3.3	3.1	0.0	2.1	2.2
Cycle Q Clear(g_c), s	0.1	0.0	2.8	0.7	1.8	2.0	1.5	3.3	3.1	0.0	2.1	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.00		0.24
Lane Grp Cap(c), veh/h	131	0	111	167	168	148	282	1668	747	0	1431	528
V/C Ratio(X)	0.03	0.00	0.80	0.17	0.43	0.48	0.41	0.25	0.23	0.00	0.19	0.20
Avail Cap(c_a), veh/h	190	0	162	272	274	242	398	2662	1192	0	2626	969
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	21.2	19.4	19.9	20.0	20.3	6.6	6.6	0.0	11.6	11.6
Incr Delay (d2), s/veh	0.1	0.0	15.9	0.5	1.8	2.4	0.4	0.1	0.2	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.4	0.3	0.8	0.8	0.6	0.9	0.7	0.0	0.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.1	0.0	37.1	19.9	21.7	22.4	20.6	6.7	6.7	0.0	11.7	11.8
LnGrp LOS	C	A	D	B	C	C	C	A	A	A	B	B
Approach Vol, veh/h	93				173				705			
Approach Delay, s/veh	36.4				21.7				9.0			
Approach LOS	D				C				A			
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	28.5		8.6		8.6	19.9	9.6					
Change Period (Y+Rc), s	5.1		5.1		* 4.7	5.1	5.1					
Max Green Setting (Gmax), s	37.3		5.1		* 5.5	27.1	7.3					
Max Q Clear Time (g_c+I1), s	5.3		4.8		3.5	4.2	4.0					
Green Ext Time (p_c), s	3.7		0.0		0.0	2.5	0.2					

Intersection Summary

HCM 6th Ctrl Delay 13.3

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

10: La Media Rd & SR-905 EB Ramps

Opening Year 2026 AM

04/26/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑↑↑	↑↑	↱
Traffic Volume (veh/h)	361	406	5	234	157	42
Future Volume (veh/h)	361	406	5	234	157	42
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1752	1752	1826
Adj Flow Rate, veh/h	475	534	5	249	185	49
Peak Hour Factor	0.76	0.76	0.94	0.94	0.85	0.85
Percent Heavy Veh, %	5	5	5	10	10	5
Cap, veh/h	852	688	23	2431	1272	957
Arrive On Green	0.25	0.25	0.01	0.51	0.38	0.38
Sat Flow, veh/h	3374	2723	3374	4940	3416	1482
Grp Volume(v), veh/h	475	534	5	249	185	49
Grp Sat Flow(s), veh/h/ln	1687	1362	1687	1594	1664	1482
Q Serve(g_s), s	5.2	7.8	0.1	1.2	1.6	0.5
Cycle Q Clear(g_c), s	5.2	7.8	0.1	1.2	1.6	0.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	852	688	23	2431	1272	957
V/C Ratio(X)	0.56	0.78	0.22	0.10	0.15	0.05
Avail Cap(c_a), veh/h	941	760	395	5930	3339	1877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	14.8	21.1	5.4	8.6	2.9
Incr Delay (d2), s/veh	0.6	4.6	4.8	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	6.0	0.0	0.3	0.4	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.5	19.5	25.8	5.5	8.7	3.0
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	1009			254	234	
Approach Delay, s/veh	17.1			5.9	7.5	
Approach LOS	B			A	A	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	26.8			15.9	5.4	21.4
Change Period (Y+Rc), s	5.1			5.1	5.1	5.1
Max Green Setting (Gmax), s	52.9			11.9	5.0	42.8
Max Q Clear Time (g_c+I1), s	3.2			9.8	2.1	3.6
Green Ext Time (p_c), s	1.9			1.0	0.0	1.4
Intersection Summary						
HCM 6th Ctrl Delay			13.7			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

1: La Media Rd & Otay Mesa Rd

Opening Year 2026 PM

04/26/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	  					 		
Traffic Volume (veh/h)	23	216	119	305	157	27	61	37	105	35	102	23
Future Volume (veh/h)	23	216	119	305	157	27	61	37	105	35	102	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.94	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1752	1870	1870	1752	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	235	129	424	218	38	73	106	86	49	144	32
Peak Hour Factor	0.92	0.92	0.92	0.72	0.72	0.72	0.83	0.83	0.83	0.71	0.71	0.71
Percent Heavy Veh, %	2	10	2	2	10	2	2	2	2	2	2	2
Cap, veh/h	342	1130	362	600	892	147	151	461	366	241	340	76
Arrive On Green	0.19	0.24	0.24	0.17	0.22	0.21	0.08	0.25	0.24	0.07	0.23	0.22
Sat Flow, veh/h	1781	4782	1532	3456	4091	676	1781	1870	1532	3456	1471	327
Grp Volume(v), veh/h	25	235	129	424	167	89	73	106	86	49	0	176
Grp Sat Flow(s),veh/h/ln	1781	1594	1532	1728	1594	1579	1781	1870	1532	1728	0	1798
Q Serve(g_s), s	0.8	2.7	3.2	7.8	2.9	3.1	2.6	3.0	1.8	0.9	0.0	5.6
Cycle Q Clear(g_c), s	0.8	2.7	3.2	7.8	2.9	3.1	2.6	3.0	1.8	0.9	0.0	5.6
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	342	1130	362	600	695	344	151	461	366	241	0	416
V/C Ratio(X)	0.07	0.21	0.36	0.71	0.24	0.26	0.48	0.23	0.23	0.20	0.00	0.42
Avail Cap(c_a), veh/h	342	3095	991	1018	2457	1217	321	1294	1049	607	0	1246
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.3	20.6	10.1	26.2	21.7	21.9	29.3	20.2	7.1	29.5	0.0	22.0
Incr Delay (d2), s/veh	0.1	0.1	0.6	1.5	0.2	0.4	2.4	0.3	0.3	0.4	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.9	1.6	3.2	1.1	1.1	1.2	1.3	1.0	0.4	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	20.7	10.7	27.7	21.9	22.3	31.7	20.5	7.4	29.9	0.0	22.7
LnGrp LOS	C	C	B	C	C	C	C	C	A	C	A	C
Approach Vol, veh/h		389			680			265			225	
Approach Delay, s/veh		17.5			25.5			19.3			24.3	
Approach LOS		B			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.9	21.4	9.6	20.4	17.1	20.2	8.6	21.4				
Change Period (Y+Rc), s	4.7	* 6	4.4	* 5.3	4.7	* 6	4.4	5.3				
Max Green Setting (Gmax), s	19.3	* 43	11.6	* 46	11.3	* 51	11.3	46.0				
Max Q Clear Time (g_c+I1), s	9.8	5.2	4.6	7.6	2.8	5.1	2.9	5.0				
Green Ext Time (p_c), s	1.4	1.8	0.1	0.7	0.0	1.2	0.1	0.8				

Intersection Summary

HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

2: Otay Mesa Rd & Piper Ranch Rd

Opening Year 2026 PM

04/26/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑↑	↰	↰↱	↑↑↑	↰	↰	↰		↰	↰↱	↰
Traffic Volume (veh/h)	123	234	12	8	216	71	42	4	13	112	2	207
Future Volume (veh/h)	123	234	12	8	216	71	42	4	13	112	2	207
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.94	1.00		0.94	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1752	1752	1752	1752	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	140	266	14	9	243	80	100	10	31	102	0	335
Peak Hour Factor	0.88	0.88	0.88	0.89	0.89	0.89	0.42	0.42	0.42	0.74	0.74	0.74
Percent Heavy Veh, %	2	10	10	10	10	2	10	10	10	2	10	2
Cap, veh/h	1526	2654	806	48	560	451	191	41	127	310	0	529
Arrive On Green	0.44	0.56	0.56	0.01	0.12	0.12	0.11	0.11	0.11	0.17	0.00	0.17
Sat Flow, veh/h	3456	4782	1453	3237	4782	1497	1668	359	1114	1781	0	3039
Grp Volume(v), veh/h	140	266	14	9	243	80	100	0	41	102	0	335
Grp Sat Flow(s), veh/h/ln	1728	1594	1453	1618	1594	1497	1668	0	1473	1781	0	1520
Q Serve(g_s), s	3.4	3.8	0.6	0.4	6.9	5.8	8.2	0.0	3.7	7.3	0.0	14.8
Cycle Q Clear(g_c), s	3.4	3.8	0.6	0.4	6.9	5.8	8.2	0.0	3.7	7.3	0.0	14.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.76	1.00		1.00
Lane Grp Cap(c), veh/h	1526	2654	806	48	560	451	191	0	168	310	0	529
V/C Ratio(X)	0.09	0.10	0.02	0.19	0.43	0.18	0.52	0.00	0.24	0.33	0.00	0.63
Avail Cap(c_a), veh/h	1526	2654	806	156	914	562	496	0	438	553	0	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	0.99	0.99	0.99	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.6	15.2	14.5	70.6	59.5	38.5	60.5	0.0	58.5	52.5	0.0	55.6
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.7	2.4	0.8	2.5	0.0	0.8	1.0	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.4	0.2	0.2	2.9	2.9	3.6	0.0	1.4	3.4	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	15.3	14.5	71.3	62.0	39.3	63.0	0.0	59.4	53.5	0.0	57.7
LnGrp LOS	C	B	B	E	E	D	E	A	E	D	A	E
Approach Vol, veh/h	420			332			141			437		
Approach Delay, s/veh	18.0			56.8			62.0			56.7		
Approach LOS	B			E			E			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	86.5		30.5	70.0	23.0		21.5				
Change Period (Y+Rc), s	4.4	6.0		5.3	6.0	* 6		4.9				
Max Green Setting (Gmax), s	29.3			45.0	8.6	* 28		43.1				
Max Q Clear Time (g_c+I), s	12.4	5.8		16.8	5.4	8.9		10.2				
Green Ext Time (p_c), s	0.0	2.8		3.9	0.1	3.0		0.6				

Intersection Summary

HCM 6th Ctrl Delay 45.1

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

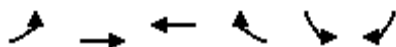
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

3: Otay Mesa Rd & SR 125 SB Off-Ramp

Opening Year 2026 PM

04/26/2023



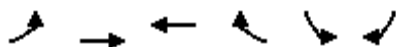
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	349	260	0	51	72
Future Volume (veh/h)	0	349	260	0	51	72
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1752	1752	0	1870	1870
Adj Flow Rate, veh/h	0	388	317	0	70	99
Peak Hour Factor	0.90	0.90	0.82	0.82	0.73	0.73
Percent Heavy Veh, %	0	10	10	0	2	2
Cap, veh/h	0	1302	906	0	973	446
Arrive On Green	0.00	0.27	0.27	0.00	0.28	0.28
Sat Flow, veh/h	0	5098	3504	0	3456	1585
Grp Volume(v), veh/h	0	388	317	0	70	99
Grp Sat Flow(s),veh/h/ln	0	1594	1664	0	1728	1585
Q Serve(g_s), s	0.0	1.8	2.1	0.0	0.4	1.3
Cycle Q Clear(g_c), s	0.0	1.8	2.1	0.0	0.4	1.3
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1302	906	0	973	446
V/C Ratio(X)	0.00	0.30	0.35	0.00	0.07	0.22
Avail Cap(c_a), veh/h	0	4720	3285	0	1317	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	7.9	8.1	0.0	7.3	7.6
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.5	0.0	0.1	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	8.1	8.3	0.0	7.3	7.8
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		388	317		169	
Approach Delay, s/veh		8.1	8.3		7.6	
Approach LOS		A	A		A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		14.2		13.4		14.2
Change Period (Y+Rc), s		7.2		6.1		7.2
Max Green Setting (Gmax), s		26.7		10.0		26.7
Max Q Clear Time (g_c+I1), s		4.1		3.3		3.8
Green Ext Time (p_c), s		1.4		0.3		1.8
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary

4: Otay Mesa Rd & SR 125 NB On-Ramp

Opening Year 2026 PM

04/26/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↰↰	↰		
Traffic Volume (veh/h)	161	236	259	167	0	0
Future Volume (veh/h)	161	236	259	167	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752		
Adj Flow Rate, veh/h	171	251	288	227		
Peak Hour Factor	0.94	0.94	0.81	0.81		
Percent Heavy Veh, %	10	10	10	10		
Cap, veh/h	864	2446	903	766		
Arrive On Green	0.27	0.73	0.26	0.26		
Sat Flow, veh/h	3237	3416	3504	2969		
Grp Volume(v), veh/h	171	251	288	227		
Grp Sat Flow(s), veh/h/ln	1618	1664	1752	1485		
Q Serve(g_s), s	1.1	0.6	1.8	1.7		
Cycle Q Clear(g_c), s	1.1	0.6	1.8	1.7		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	864	2446	903	766		
V/C Ratio(X)	0.20	0.10	0.32	0.30		
Avail Cap(c_a), veh/h	1192	5150	2852	2417		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	7.7	1.0	8.1	8.1		
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.4	0.4		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.8	1.1	8.3	8.3		
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h		422	515			
Approach Delay, s/veh		3.8	8.3			
Approach LOS		A	A			
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		27.1			12.9	14.2
Change Period (Y+Rc), s		* 7.2			* 5.7	7.2
Max Green Setting (Gmax), s		* 42			* 10	22.1
Max Q Clear Time (g_c+I1), s		2.6			3.1	3.8
Green Ext Time (p_c), s		1.8			0.3	2.7

Intersection Summary

HCM 6th Ctrl Delay	6.3
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	218	0	0	411	4	2	0	0	5	0	25
Future Vol, veh/h	12	218	0	0	411	4	2	0	0	5	0	25
Conflicting Peds, #/hr	10	0	10	10	0	10	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	77	77	77	25	25	25	81	81	81
Heavy Vehicles, %	2	10	2	2	10	2	2	2	2	2	2	2
Mvmt Flow	14	253	0	0	534	5	8	0	0	6	0	31
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	549	0	0	263	0	0	558	840	137	702	838	280
Stage 1	-	-	-	-	-	-	291	291	-	547	547	-
Stage 2	-	-	-	-	-	-	267	549	-	155	291	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1017	-	-	1298	-	-	412	300	886	325	301	717
Stage 1	-	-	-	-	-	-	693	670	-	489	516	-
Stage 2	-	-	-	-	-	-	715	515	-	832	670	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1009	-	-	1287	-	-	386	290	879	319	291	711
Mov Cap-2 Maneuver	-	-	-	-	-	-	386	290	-	319	291	-
Stage 1	-	-	-	-	-	-	676	654	-	477	512	-
Stage 2	-	-	-	-	-	-	684	511	-	819	654	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0			14.5			11.5		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	386	1009	-	-	1287	-	-	590				
HCM Lane V/C Ratio	0.021	0.014	-	-	-	-	-	0.063				
HCM Control Delay (s)	14.5	8.6	0.1	-	0	-	-	11.5				
HCM Lane LOS	B	A	A	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2				

HCM 6th Signalized Intersection Summary

6: Sanyo Ave & Otay Mesa Rd

Opening Year 2026 PM

04/26/2023

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑	↘↘	
Traffic Volume (veh/h)	113	130	45	196	197	46
Future Volume (veh/h)	113	130	45	196	197	46
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.95	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1752	1870	1870
Adj Flow Rate, veh/h	133	153	56	242	156	163
Peak Hour Factor	0.85	0.85	0.81	0.81	0.78	0.78
Percent Heavy Veh, %	10	2	2	10	2	2
Cap, veh/h	533	453	85	858	331	295
Arrive On Green	0.32	0.32	0.05	0.49	0.19	0.19
Sat Flow, veh/h	1752	1415	1781	1752	1781	1585
Grp Volume(v), veh/h	133	153	56	242	156	163
Grp Sat Flow(s),veh/h/ln	1664	1415	1781	1752	1781	1585
Q Serve(g_s), s	2.1	3.0	1.1	3.0	2.8	3.4
Cycle Q Clear(g_c), s	2.1	3.0	1.1	3.0	2.8	3.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	533	453	85	858	331	295
V/C Ratio(X)	0.25	0.34	0.66	0.28	0.47	0.55
Avail Cap(c_a), veh/h	1476	1255	563	2340	518	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.1	9.3	16.9	5.5	13.1	13.3
Incr Delay (d2), s/veh	0.2	0.4	8.4	0.2	1.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.7	0.6	0.7	1.0	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.3	9.8	25.3	5.6	14.1	14.9
LnGrp LOS	A	A	C	A	B	B
Approach Vol, veh/h	286			298	319	
Approach Delay, s/veh	9.6			9.3	14.5	
Approach LOS	A			A	B	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.1	18.0			24.1	12.0
Change Period (Y+Rc), s	4.4	6.4			* 6.4	5.3
Max Green Setting (Gmax), s	11.4	32.0			* 48	10.5
Max Q Clear Time (g_c+I1), s	3.1	5.0			5.0	5.4
Green Ext Time (p_c), s	0.1	1.2			1.0	0.6

Intersection Summary

HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B

Notes

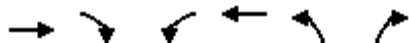
User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
7: Vann Centre Blvd & Otay Mesa Rd

Opening Year 2026 PM

04/26/2023



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	199	37	3	164	38	8
Future Volume (veh/h)	199	37	3	164	38	8
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.95	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1752	1870	1870
Adj Flow Rate, veh/h	276	51	4	228	73	15
Peak Hour Factor	0.72	0.72	0.72	0.72	0.52	0.52
Percent Heavy Veh, %	10	2	2	10	2	2
Cap, veh/h	463	86	8	855	257	53
Arrive On Green	0.33	0.33	0.00	0.49	0.18	0.18
Sat Flow, veh/h	1426	263	1781	1752	1432	294
Grp Volume(v), veh/h	0	327	4	228	89	0
Grp Sat Flow(s), veh/h/ln	0	1689	1781	1752	1746	0
Q Serve(g_s), s	0.0	5.4	0.1	2.6	1.5	0.0
Cycle Q Clear(g_c), s	0.0	5.4	0.1	2.6	1.5	0.0
Prop In Lane		0.16	1.00		0.82	0.17
Lane Grp Cap(c), veh/h	0	549	8	855	314	0
V/C Ratio(X)	0.00	0.60	0.51	0.27	0.28	0.00
Avail Cap(c_a), veh/h	0	1391	251	1967	857	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	9.4	16.6	5.0	11.8	0.0
Incr Delay (d2), s/veh	0.0	1.0	44.1	0.2	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.5	0.1	0.5	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	10.5	60.7	5.2	12.3	0.0
LnGrp LOS	A	B	E	A	B	A
Approach Vol, veh/h	327			232	89	
Approach Delay, s/veh	10.5			6.2	12.3	
Approach LOS	B			A	B	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	5.4	17.4		22.8	10.6	
Change Period (Y+Rc), s	5.3	6.5		6.5	4.6	
Max Green Setting (Gmax), s	4.7	27.5		37.5	16.4	
Max Q Clear Time (g_c+I_1), s	12.1	7.4		4.6	3.5	
Green Ext Time (p_c), s	0.0	1.9		1.4	0.1	

Intersection Summary

HCM 6th Ctrl Delay	9.2
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary

8: Enrico Fermi Rd & Otay Mesa Rd

Opening Year 2026 PM

04/26/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	51	82	288	147	1	37	22	110	1	200	68
Future Volume (veh/h)	19	51	82	288	147	1	37	22	110	1	200	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	1.00		0.97	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1752	1870	1752	1870	1752	1752	1870	1752	1870	1752	1752	1752
Adj Flow Rate, veh/h	26	70	112	411	210	1	45	27	134	2	323	110
Peak Hour Factor	0.73	0.73	0.73	0.70	0.70	0.70	0.82	0.82	0.82	0.62	0.62	0.62
Percent Heavy Veh, %	10	2	10	2	10	10	2	10	2	10	10	10
Cap, veh/h	100	291	248	567	976	5	118	650	833	4	388	132
Arrive On Green	0.06	0.16	0.16	0.16	0.29	0.28	0.07	0.37	0.37	0.00	0.31	0.31
Sat Flow, veh/h	1668	1777	1514	3456	3396	16	1781	1752	1544	1668	1232	420
Grp Volume(v), veh/h	26	70	112	411	103	108	45	27	134	2	0	433
Grp Sat Flow(s),veh/h/ln	1668	1777	1514	1728	1664	1748	1781	1752	1544	1668	0	1652
Q Serve(g_s), s	1.0	2.3	4.5	7.5	3.1	3.1	1.6	0.7	2.9	0.1	0.0	16.2
Cycle Q Clear(g_c), s	1.0	2.3	4.5	7.5	3.1	3.1	1.6	0.7	2.9	0.1	0.0	16.2
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	100	291	248	567	478	502	118	650	833	4	0	520
V/C Ratio(X)	0.26	0.24	0.45	0.72	0.22	0.22	0.38	0.04	0.16	0.55	0.00	0.83
Avail Cap(c_a), veh/h	526	768	655	1032	724	761	575	1115	1243	100	0	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.9	24.3	25.4	26.4	18.0	18.0	29.8	13.4	7.9	33.2	0.0	21.2
Incr Delay (d2), s/veh	1.4	0.4	1.3	1.8	0.2	0.2	2.0	0.0	0.1	90.2	0.0	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.0	1.6	3.1	1.2	1.2	0.7	0.2	0.9	0.1	0.0	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	24.7	26.7	28.2	18.3	18.2	31.8	13.4	8.0	123.4	0.0	28.8
LnGrp LOS	C	C	C	C	B	B	C	B	A	F	A	C
Approach Vol, veh/h	208			622			206			435		
Approach Delay, s/veh	26.6			24.8			13.9			29.3		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.2	16.9	7.9	25.6	8.0	25.1	4.1	29.3				
Change Period (Y+Rc), s	5.3	6.5	4.0	* 4.6	4.0	6.5	4.0	4.6				
Max Green Setting (Gmax), s	19.9	28.3	21.0	* 26	21.0	28.5	4.0	42.4				
Max Q Clear Time (g_c+I), s	19.5	6.5	3.6	18.2	3.0	5.1	2.1	4.9				
Green Ext Time (p_c), s	1.4	0.7	0.1	1.7	0.0	0.7	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay 24.8

HCM 6th LOS C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

9: La Media Rd & St Andrews Ave/SR-905 WB Ramps

Opening Year 2026 PM

04/26/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											  	
Traffic Volume (veh/h)	6	0	156	47	29	39	57	205	299	0	528	19
Future Volume (veh/h)	6	0	156	47	29	39	57	205	299	0	528	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1826	1752	1826	1826	1752	1826	1826	1752	1826	0	1752	1826
Adj Flow Rate, veh/h	7	0	193	48	52	49	66	238	348	0	754	27
Peak Hour Factor	0.81	0.81	0.81	0.79	0.79	0.79	0.86	0.86	0.86	0.70	0.70	0.70
Percent Heavy Veh, %	5	10	5	5	10	5	5	10	5	0	10	5
Cap, veh/h	245	0	209	154	155	137	204	1526	682	0	1816	65
Arrive On Green	0.14	0.00	0.14	0.09	0.09	0.09	0.06	0.46	0.46	0.00	0.30	0.30
Sat Flow, veh/h	1739	0	1485	1739	1752	1547	3374	3328	1488	0	6257	214
Grp Volume(v), veh/h	7	0	193	48	52	49	66	238	348	0	566	215
Grp Sat Flow(s),veh/h/ln	1739	0	1485	1739	1752	1547	1687	1664	1488	0	1507	1706
Q Serve(g_s), s	0.2	0.0	6.3	1.3	1.4	1.5	0.9	2.0	8.1	0.0	4.9	4.9
Cycle Q Clear(g_c), s	0.2	0.0	6.3	1.3	1.4	1.5	0.9	2.0	8.1	0.0	4.9	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.00		0.13
Lane Grp Cap(c), veh/h	245	0	209	154	155	137	204	1526	682	0	1365	515
V/C Ratio(X)	0.03	0.00	0.92	0.31	0.34	0.36	0.32	0.16	0.51	0.00	0.41	0.42
Avail Cap(c_a), veh/h	245	0	209	177	179	158	344	2567	1147	0	2591	978
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	0.0	20.8	20.9	21.0	21.0	22.1	7.7	9.4	0.0	13.6	13.7
Incr Delay (d2), s/veh	0.0	0.0	41.5	1.1	1.3	1.6	0.3	0.0	0.6	0.0	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	4.4	0.5	0.6	0.5	0.3	0.6	2.2	0.0	1.5	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.2	0.0	62.3	22.1	22.2	22.6	22.4	7.8	10.0	0.0	13.8	14.2
LnGrp LOS	B	A	E	C	C	C	C	A	A	A	B	B
Approach Vol, veh/h	200				149				652		781	
Approach Delay, s/veh	60.7				22.3				10.4		13.9	
Approach LOS	E				C				B		B	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	27.6		12.0		7.7	19.9	9.4					
Change Period (Y+Rc), s	5.1		5.1		* 4.7	5.1	5.1					
Max Green Setting (Gmax), s	37.8		6.9		* 5	28.1	5.0					
Max Q Clear Time (g_c+I1), s	10.1		8.3		2.9	6.9	3.5					
Green Ext Time (p_c), s	3.0		0.0		0.0	5.4	0.1					

Intersection Summary

HCM 6th Ctrl Delay 18.6

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary 10: La Media Rd & SR-905 EB Ramps

Opening Year 2026 PM
04/26/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↰	↰	↑↑↑	↑↑	↰
Traffic Volume (veh/h)	152	210	42	413	193	175
Future Volume (veh/h)	152	210	42	413	193	175
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1752	1752	1826
Adj Flow Rate, veh/h	171	236	55	543	251	227
Peak Hour Factor	0.89	0.89	0.76	0.76	0.77	0.77
Percent Heavy Veh, %	5	5	5	10	10	5
Cap, veh/h	471	380	194	2865	1367	826
Arrive On Green	0.14	0.14	0.06	0.60	0.41	0.41
Sat Flow, veh/h	3374	2723	3374	4940	3416	1484
Grp Volume(v), veh/h	171	236	55	543	251	227
Grp Sat Flow(s), veh/h/ln	1687	1362	1687	1594	1664	1484
Q Serve(g_s), s	1.8	3.2	0.6	2.0	1.9	3.2
Cycle Q Clear(g_c), s	1.8	3.2	0.6	2.0	1.9	3.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	471	380	194	2865	1367	826
V/C Ratio(X)	0.36	0.62	0.28	0.19	0.18	0.27
Avail Cap(c_a), veh/h	614	495	432	6457	3632	1836
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	15.8	17.6	3.5	7.3	4.7
Incr Delay (d2), s/veh	0.5	1.7	0.8	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.1	0.2	0.3	0.5	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.7	17.5	18.4	3.6	7.4	4.8
LnGrp LOS	B	B	B	A	A	A
Approach Vol, veh/h	407			598	478	
Approach Delay, s/veh	16.7			4.9	6.2	
Approach LOS	B			A	A	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	28.5			10.6	7.3	21.1
Change Period (Y+Rc), s	5.1			5.1	5.1	5.1
Max Green Setting (Gmax), s	52.7			7.1	5.0	42.6
Max Q Clear Time (g_c+I1), s	4.0			5.2	2.6	5.2
Green Ext Time (p_c), s	4.3			0.3	0.0	2.6
Intersection Summary						
HCM 6th Ctrl Delay			8.6			
HCM 6th LOS			A			

APPENDIX F

OPENING YEAR + PROJECT PEAK HOUR INTERSECTION LOS ANALYSIS WORKSHEETS

HCM 6th Signalized Intersection Summary

1: La Media Rd & Otay Mesa Rd

Opening Year 2026 + Project AM

05/08/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	  					 		
Traffic Volume (veh/h)	47	270	95	224	203	27	56	77	340	23	75	22
Future Volume (veh/h)	47	270	95	224	203	27	56	77	340	23	75	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.93	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1752	1870	1870	1752	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	333	117	249	226	30	65	0	455	32	104	31
Peak Hour Factor	0.81	0.81	0.81	0.90	0.90	0.90	0.86	0.86	0.86	0.72	0.72	0.72
Percent Heavy Veh, %	2	10	2	2	10	2	2	2	2	2	2	2
Cap, veh/h	267	1467	467	399	1158	147	143	0	751	187	310	92
Arrive On Green	0.15	0.31	0.31	0.12	0.27	0.27	0.08	0.00	0.25	0.05	0.23	0.22
Sat Flow, veh/h	1781	4782	1523	3456	4253	540	1781	0	3066	3456	1371	409
Grp Volume(v), veh/h	58	333	117	249	167	89	65	0	455	32	0	135
Grp Sat Flow(s),veh/h/ln	1781	1594	1523	1728	1594	1605	1781	0	1533	1728	0	1779
Q Serve(g_s), s	1.9	3.5	2.6	4.7	2.7	2.9	2.4	0.0	5.9	0.6	0.0	4.3
Cycle Q Clear(g_c), s	1.9	3.5	2.6	4.7	2.7	2.9	2.4	0.0	5.9	0.6	0.0	4.3
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	267	1467	467	399	868	437	143	0	751	187	0	402
V/C Ratio(X)	0.22	0.23	0.25	0.62	0.19	0.20	0.45	0.00	0.61	0.17	0.00	0.34
Avail Cap(c_a), veh/h	313	3224	1027	856	2394	1205	318	0	2112	607	0	1244
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.3	17.5	7.8	28.6	18.9	19.1	29.8	0.0	9.9	30.6	0.0	22.0
Incr Delay (d2), s/veh	0.4	0.1	0.3	1.6	0.1	0.2	2.2	0.0	0.8	0.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.2	1.3	1.9	1.0	1.1	1.1	0.0	2.9	0.3	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	17.6	8.0	30.2	19.0	19.3	32.0	0.0	10.7	31.0	0.0	22.5
LnGrp LOS	C	B	A	C	B	B	C	A	B	C	A	C
Approach Vol, veh/h		508			505			520			167	
Approach Delay, s/veh		16.3			24.6			13.4			24.1	
Approach LOS		B			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	26.3	9.3	20.1	14.4	24.0	7.6	21.9				
Change Period (Y+Rc), s	4.7	* 6	4.4	* 5.3	4.7	* 6	4.4	5.3				
Max Green Setting (Gmax), s	16.3	* 45	11.6	* 47	11.4	* 50	11.4	46.7				
Max Q Clear Time (g_c+I1), s	6.7	5.5	4.4	6.3	3.9	4.9	2.6	7.9				
Green Ext Time (p_c), s	0.7	2.3	0.1	0.5	0.1	1.2	0.0	2.7				

Intersection Summary

HCM 6th Ctrl Delay 18.6

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

2: Otay Mesa Rd & Piper Ranch Rd

Opening Year 2026 + Project AM

05/08/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗	↔	↗	↗	↗	↔↔	↗
Traffic Volume (veh/h)	201	490	41	11	296	109	10	1	6	90	4	123
Future Volume (veh/h)	201	490	41	11	296	109	10	1	6	90	4	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.92	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1752	1752	1752	1752	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	234	570	48	13	344	127	15	1	9	142	0	82
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.67	0.67	0.67	0.95	0.95	0.95
Percent Heavy Veh, %	2	10	10	10	10	2	10	10	10	2	10	2
Cap, veh/h	222	3056	929	64	2843	1114	131	11	99	430	0	181
Arrive On Green	0.06	0.64	0.64	0.02	0.59	0.59	0.08	0.08	0.08	0.12	0.00	0.12
Sat Flow, veh/h	3456	4782	1455	3237	4782	1552	1668	140	1262	3563	0	1499
Grp Volume(v), veh/h	234	570	48	13	344	127	15	0	10	142	0	82
Grp Sat Flow(s), veh/h/ln	1728	1594	1455	1618	1594	1552	1668	0	1402	1781	0	1499
Q Serve(g_s), s	9.3	7.1	1.8	0.6	4.6	3.7	1.2	0.0	1.0	5.3	0.0	7.4
Cycle Q Clear(g_c), s	9.3	7.1	1.8	0.6	4.6	3.7	1.2	0.0	1.0	5.3	0.0	7.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.90	1.00		1.00
Lane Grp Cap(c), veh/h	222	3056	929	64	2843	1114	131	0	110	430	0	181
V/C Ratio(X)	1.06	0.19	0.05	0.20	0.12	0.11	0.11	0.00	0.09	0.33	0.00	0.45
Avail Cap(c_a), veh/h	222	3056	929	158	2843	1114	496	0	417	1106	0	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	0.97	0.97	0.97	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.8	10.7	9.8	70.0	12.8	6.4	62.1	0.0	62.0	58.4	0.0	59.3
Incr Delay (d2), s/veh	74.4	0.1	0.1	0.6	0.1	0.2	0.4	0.0	0.4	0.7	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	2.5	0.6	0.2	1.7	1.9	0.5	0.0	0.4	2.4	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	142.2	10.9	9.9	70.5	12.9	6.6	62.5	0.0	62.4	59.1	0.0	62.2
LnGrp LOS	F	B	A	E	B	A	E	A	E	E	A	E
Approach Vol, veh/h	852			484			25			224		
Approach Delay, s/veh	46.9			12.8			62.5			60.3		
Approach LOS	D			B			E			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	98.6		22.8	13.7	92.2		16.3				
Change Period (Y+Rc), s	4.4	6.0		5.3	4.4	6.0		4.9				
Max Green Setting (Gmax), s	29.2			45.0	9.3	27.0		43.1				
Max Q Clear Time (g_c+I), s	12.6	9.1		9.4	11.3	6.6		3.2				
Green Ext Time (p_c), s	0.0	6.3		1.8	0.0	4.7		0.1				

Intersection Summary

HCM 6th Ctrl Delay 38.6

HCM 6th LOS D

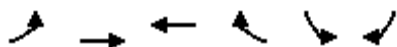
Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary 3: Otay Mesa Rd & SR 125 SB Off-Ramp

Opening Year 2026 + Project AM
05/08/2023



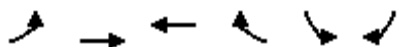
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	579	235	0	257	186
Future Volume (veh/h)	0	579	235	0	257	186
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1752	1752	0	1870	1870
Adj Flow Rate, veh/h	0	715	261	0	282	204
Peak Hour Factor	0.81	0.81	0.90	0.90	0.91	0.91
Percent Heavy Veh, %	0	10	10	0	2	2
Cap, veh/h	0	1460	1016	0	1099	504
Arrive On Green	0.00	0.31	0.31	0.00	0.32	0.32
Sat Flow, veh/h	0	5098	3504	0	3456	1585
Grp Volume(v), veh/h	0	715	261	0	282	204
Grp Sat Flow(s),veh/h/ln	0	1594	1664	0	1728	1585
Q Serve(g_s), s	0.0	4.0	1.9	0.0	2.0	3.3
Cycle Q Clear(g_c), s	0.0	4.0	1.9	0.0	2.0	3.3
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1460	1016	0	1099	504
V/C Ratio(X)	0.00	0.49	0.26	0.00	0.26	0.40
Avail Cap(c_a), veh/h	0	3853	2681	0	1207	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.3	8.5	0.0	8.3	8.7
Incr Delay (d2), s/veh	0.0	0.3	0.1	0.0	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.0	0.5	0.0	0.5	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	9.5	8.7	0.0	8.4	9.2
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		715	261		486	
Approach Delay, s/veh		9.5	8.7		8.7	
Approach LOS		A	A		A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		16.7		16.0		16.7
Change Period (Y+Rc), s		7.2		6.1		7.2
Max Green Setting (Gmax), s		25.8		10.9		25.8
Max Q Clear Time (g_c+I1), s		3.9		5.3		6.0
Green Ext Time (p_c), s		1.1		1.1		3.5
Intersection Summary						
HCM 6th Ctrl Delay			9.1			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary

4: Otay Mesa Rd & SR 125 NB On-Ramp

Opening Year 2026 + Project AM

05/08/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↰↰	↰		
Traffic Volume (veh/h)	49	829	223	56	0	0
Future Volume (veh/h)	49	829	223	56	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752		
Adj Flow Rate, veh/h	58	975	259	65		
Peak Hour Factor	0.85	0.85	0.86	0.86		
Percent Heavy Veh, %	10	10	10	10		
Cap, veh/h	436	2286	1600	452		
Arrive On Green	0.13	0.69	0.30	0.30		
Sat Flow, veh/h	3237	3416	5255	1485		
Grp Volume(v), veh/h	58	975	259	65		
Grp Sat Flow(s), veh/h/ln	1618	1664	1752	1485		
Q Serve(g_s), s	0.4	3.0	0.8	0.7		
Cycle Q Clear(g_c), s	0.4	3.0	0.8	0.7		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	436	2286	1600	452		
V/C Ratio(X)	0.13	0.43	0.16	0.14		
Avail Cap(c_a), veh/h	1407	6079	5051	1427		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	8.8	1.6	5.9	5.8		
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.9	1.7	5.9	6.0		
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h		1033	324			
Approach Delay, s/veh		2.1	5.9			
Approach LOS		A	A			
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		23.0			8.8	14.2
Change Period (Y+Rc), s		* 7.2			* 5.7	7.2
Max Green Setting (Gmax), s		* 42			* 10	22.1
Max Q Clear Time (g_c+I1), s		5.0			2.4	2.8
Green Ext Time (p_c), s		8.8			0.1	1.8

Intersection Summary

HCM 6th Ctrl Delay	3.0
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

5: Harvest Road & Otay Mesa Rd

Opening Year 2026 + Project AM

05/08/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	673	1	1	206	12	3	0	0	7	0	69
Future Volume (veh/h)	155	673	1	1	206	12	3	0	0	7	0	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1752	1870	1870	1752	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	189	821	1	1	229	13	8	0	0	13	0	130
Peak Hour Factor	0.82	0.82	0.82	0.90	0.90	0.90	0.38	0.38	0.38	0.53	0.53	0.53
Percent Heavy Veh, %	2	10	2	2	10	2	2	2	2	2	2	2
Cap, veh/h	228	1743	2	41	1058	59	317	0	0	317	0	485
Arrive On Green	0.13	0.51	0.51	0.34	0.34	0.34	0.18	0.00	0.00	0.18	0.00	0.18
Sat Flow, veh/h	1781	3411	4	2	3124	175	1781	0	0	1781	0	1585
Grp Volume(v), veh/h	189	401	421	128	0	115	8	0	0	13	0	130
Grp Sat Flow(s),veh/h/ln	1781	1664	1751	1749	0	1553	1781	0	0	1781	0	1585
Q Serve(g_s), s	9.3	13.9	13.9	0.0	0.0	4.8	0.3	0.0	0.0	0.5	0.0	5.6
Cycle Q Clear(g_c), s	9.3	13.9	13.9	4.7	0.0	4.8	0.3	0.0	0.0	0.5	0.0	5.6
Prop In Lane	1.00		0.00	0.01		0.11	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	851	895	632	0	526	317	0	0	317	0	485
V/C Ratio(X)	0.83	0.47	0.47	0.20	0.00	0.22	0.03	0.00	0.00	0.04	0.00	0.27
Avail Cap(c_a), veh/h	396	851	895	632	0	526	317	0	0	317	0	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.3	14.2	14.2	21.2	0.0	21.3	30.6	0.0	0.0	30.6	0.0	23.6
Incr Delay (d2), s/veh	7.5	1.9	1.8	0.7	0.0	1.0	0.1	0.0	0.0	0.2	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	5.4	5.6	2.0	0.0	1.8	0.2	0.0	0.0	0.3	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	16.0	15.9	22.0	0.0	22.2	30.7	0.0	0.0	30.9	0.0	25.0
LnGrp LOS	D	B	B	C	A	C	C	A	A	C	A	C
Approach Vol, veh/h	1011		243			8			143			
Approach Delay, s/veh	21.5		22.1			30.7			25.5			
Approach LOS	C		C			C			C			
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	50.0		20.0		15.5	34.5	20.0					
Change Period (Y+Rc), s	4.0		4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	46.0		16.0		20.0	22.0	16.0					
Max Q Clear Time (g_c+I1), s	15.9		7.6		11.3	6.8	2.3					
Green Ext Time (p_c), s	5.9		0.3		0.3	1.1	0.0					
Intersection Summary												
HCM 6th Ctrl Delay	22.1											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

6: Sanyo Ave & Otay Mesa Rd

Opening Year 2026 + Project AM

05/08/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	469	141	32	142	15	53	21	47	12	9	25
Future Volume (veh/h)	69	469	141	32	142	15	53	21	47	12	9	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1752	1752	1870	1870	1752	1752	1870	1752	1870	1752	1752	1752
Adj Flow Rate, veh/h	75	601	181	42	187	16	77	23	68	13	10	27
Peak Hour Factor	0.92	0.78	0.78	0.76	0.76	0.92	0.69	0.92	0.69	0.92	0.92	0.92
Percent Heavy Veh, %	10	10	2	2	10	10	2	10	2	10	10	10
Cap, veh/h	92	910	273	65	563	48	100	42	123	22	133	194
Arrive On Green	0.06	0.36	0.36	0.04	0.35	0.35	0.06	0.11	0.11	0.01	0.08	0.08
Sat Flow, veh/h	1668	2504	752	1781	1589	136	1781	382	1131	1668	1752	1485
Grp Volume(v), veh/h	75	399	383	42	0	203	77	0	91	13	10	27
Grp Sat Flow(s),veh/h/ln	1668	1664	1593	1781	0	1725	1781	0	1513	1668	1752	1485
Q Serve(g_s), s	1.9	8.6	8.7	1.0	0.0	3.7	1.8	0.0	2.4	0.3	0.2	0.7
Cycle Q Clear(g_c), s	1.9	8.6	8.7	1.0	0.0	3.7	1.8	0.0	2.4	0.3	0.2	0.7
Prop In Lane	1.00		0.47	1.00		0.08	1.00		0.75	1.00		1.00
Lane Grp Cap(c), veh/h	92	605	579	65	0	611	100	0	165	22	133	194
V/C Ratio(X)	0.82	0.66	0.66	0.64	0.00	0.33	0.77	0.00	0.55	0.58	0.08	0.14
Avail Cap(c_a), veh/h	389	1376	1317	481	0	1523	373	0	564	443	820	777
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.1	11.4	11.5	20.4	0.0	10.1	20.0	0.0	18.1	21.1	18.4	16.5
Incr Delay (d2), s/veh	15.8	1.2	1.3	10.1	0.0	0.3	11.9	0.0	2.9	21.8	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.7	2.6	0.6	0.0	1.2	1.0	0.0	0.9	0.3	0.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	12.7	12.8	30.5	0.0	10.5	31.8	0.0	21.0	42.8	18.7	16.8
LnGrp LOS	D	B	B	C	A	B	C	A	C	D	B	B
Approach Vol, veh/h	857		245			168			50			
Approach Delay, s/veh	14.7		13.9			26.0			24.0			
Approach LOS	B		B			C			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.0	22.0	6.4	8.6	6.4	21.6	5.0	10.0				
Change Period (Y+Rc), s	4.4	6.4	4.0	* 5.3	4.0	* 6.4	4.4	5.3				
Max Green Setting (Gmax), s	1.6	35.5	9.0	* 20	10.0	* 38	11.4	16.0				
Max Q Clear Time (g_c+I), s	13.0	10.7	3.8	2.7	3.9	5.7	2.3	4.4				
Green Ext Time (p_c), s	0.0	3.6	0.1	0.1	0.1	0.8	0.0	0.3				

Intersection Summary

HCM 6th Ctrl Delay 16.4

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

7: Vann Centre Blvd & Otay Mesa Rd

Opening Year 2026 + Project AM

05/08/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	425	69	4	153	26	13	0	3	11	0	14
Future Volume (veh/h)	33	425	69	4	153	26	13	0	3	11	0	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1752	1752	1870	1870	1752	1752	1870	1752	1870	1752	1752	1752
Adj Flow Rate, veh/h	36	582	95	6	212	28	21	0	5	12	0	15
Peak Hour Factor	0.92	0.73	0.73	0.72	0.72	0.92	0.63	0.92	0.63	0.92	0.92	0.92
Percent Heavy Veh, %	10	10	2	2	10	10	2	10	2	10	10	10
Cap, veh/h	54	988	161	11	532	70	186	0	44	43	0	86
Arrive On Green	0.03	0.35	0.35	0.01	0.35	0.35	0.14	0.00	0.14	0.03	0.00	0.03
Sat Flow, veh/h	1668	2844	463	1781	1513	200	1316	0	313	1668	0	1485
Grp Volume(v), veh/h	36	340	337	6	0	240	26	0	0	12	0	15
Grp Sat Flow(s), veh/h/ln	1668	1664	1643	1781	0	1712	1630	0	0	1668	0	1485
Q Serve(g_s), s	0.9	7.1	7.2	0.1	0.0	4.5	0.6	0.0	0.0	0.3	0.0	0.4
Cycle Q Clear(g_c), s	0.9	7.1	7.2	0.1	0.0	4.5	0.6	0.0	0.0	0.3	0.0	0.4
Prop In Lane	1.00		0.28	1.00		0.12	0.81		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	54	578	571	11	0	603	230	0	0	43	0	86
V/C Ratio(X)	0.66	0.59	0.59	0.52	0.00	0.40	0.11	0.00	0.00	0.28	0.00	0.17
Avail Cap(c_a), veh/h	235	1091	1077	197	0	1123	613	0	0	627	0	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.4	11.4	11.4	21.1	0.0	10.4	16.0	0.0	0.0	20.3	0.0	19.1
Incr Delay (d2), s/veh	12.9	1.0	1.0	32.4	0.0	0.4	0.2	0.0	0.0	3.5	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.2	2.2	0.2	0.0	1.4	0.2	0.0	0.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	12.3	12.4	53.4	0.0	10.8	16.2	0.0	0.0	23.8	0.0	20.0
LnGrp LOS	C	B	B	D	A	B	B	A	A	C	A	C
Approach Vol, veh/h	713			246			26			27		
Approach Delay, s/veh	13.4			11.9			16.2			21.7		
Approach LOS	B			B			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	21.3		5.1	5.4	21.5		10.6				
Change Period (Y+Rc), s	5.3	6.5		4.0	4.0	6.5		4.6				
Max Green Setting (Gmax), s	4.7	27.9		16.0	6.0	27.9		16.0				
Max Q Clear Time (g_c+I), s	12.1	9.2		2.4	2.9	6.5		2.6				
Green Ext Time (p_c), s	0.0	4.2		0.0	0.0	1.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary

8: Enrico Fermi Rd & Otay Mesa Rd

Opening Year 2026 + Project AM

05/08/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	188	86	98	70	3	291	166	411	0	57	20
Future Volume (veh/h)	55	188	86	98	70	3	291	166	411	0	57	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.94	1.00		0.98	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1752	1870	1752	1870	1752	1752	1870	1752	1870	1752	1752	1752
Adj Flow Rate, veh/h	64	219	100	166	119	5	327	187	462	0	84	29
Peak Hour Factor	0.86	0.86	0.86	0.59	0.59	0.59	0.89	0.89	0.89	0.68	0.68	0.68
Percent Heavy Veh, %	10	2	10	2	10	10	2	10	2	10	10	10
Cap, veh/h	122	468	204	285	742	31	412	786	825	3	192	66
Arrive On Green	0.07	0.20	0.19	0.08	0.23	0.22	0.23	0.45	0.45	0.00	0.16	0.16
Sat Flow, veh/h	1668	2373	1037	3456	3246	135	1781	1752	1548	1668	1217	420
Grp Volume(v), veh/h	64	161	158	166	61	63	327	187	462	0	0	113
Grp Sat Flow(s),veh/h/ln	1668	1777	1634	1728	1664	1717	1781	1752	1548	1668	0	1637
Q Serve(g_s), s	2.2	4.7	5.0	2.7	1.7	1.7	10.1	3.9	11.7	0.0	0.0	3.7
Cycle Q Clear(g_c), s	2.2	4.7	5.0	2.7	1.7	1.7	10.1	3.9	11.7	0.0	0.0	3.7
Prop In Lane	1.00		0.63	1.00		0.08	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	122	350	322	285	380	393	412	786	825	3	0	258
V/C Ratio(X)	0.53	0.46	0.49	0.58	0.16	0.16	0.79	0.24	0.56	0.00	0.00	0.44
Avail Cap(c_a), veh/h	600	1022	939	893	826	852	655	1271	1254	114	0	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	26.1	20.7	21.0	25.8	18.0	18.1	21.2	9.9	9.2	0.0	0.0	22.3
Incr Delay (d2), s/veh	3.5	0.9	1.2	1.9	0.2	0.2	3.5	0.2	0.6	0.0	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.9	1.9	1.1	0.6	0.7	4.2	1.3	3.2	0.0	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.6	21.7	22.2	27.7	18.2	18.3	24.7	10.1	9.8	0.0	0.0	23.4
LnGrp LOS	C	C	C	C	B	B	C	B	A	A	A	C
Approach Vol, veh/h	383		290				976			113		
Approach Delay, s/veh	23.2		23.7				14.8			23.4		
Approach LOS	C		C				B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	17.5	17.0	13.8	8.3	19.4	0.0	30.8				
Change Period (Y+Rc), s	5.3	6.5	4.0	* 4.6	4.0	6.5	4.0	4.6				
Max Green Setting (Gmax), s	15.1	33.1	21.0	* 26	21.0	28.5	4.0	42.4				
Max Q Clear Time (g_c+I), s	14.7	7.0	12.1	5.7	4.2	3.7	0.0	13.7				
Green Ext Time (p_c), s	0.5	1.3	0.9	0.5	0.1	0.4	0.0	3.7				

Intersection Summary

HCM 6th Ctrl Delay 18.7

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

9: La Media Rd & St Andrews Ave/SR-905 WB Ramps

Opening Year 2026 + Project AM

05/08/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											  	
Traffic Volume (veh/h)	3	0	67	20	51	94	98	410	145	0	376	23
Future Volume (veh/h)	3	0	67	20	51	94	98	410	145	0	376	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1826	1752	1826	1826	1752	1826	1826	1752	1826	0	1752	1826
Adj Flow Rate, veh/h	4	0	89	29	73	134	117	488	173	0	409	25
Peak Hour Factor	0.75	0.75	0.75	0.70	0.70	0.70	0.84	0.84	0.84	0.92	0.92	0.92
Percent Heavy Veh, %	5	10	5	5	10	5	5	10	5	0	10	5
Cap, veh/h	128	0	110	212	213	188	277	1620	725	0	1795	108
Arrive On Green	0.07	0.00	0.07	0.12	0.12	0.12	0.08	0.49	0.49	0.00	0.31	0.31
Sat Flow, veh/h	1739	0	1485	1739	1752	1547	3374	3328	1489	0	6091	350
Grp Volume(v), veh/h	4	0	89	29	73	134	117	488	173	0	314	120
Grp Sat Flow(s),veh/h/ln	1739	0	1485	1739	1752	1547	1687	1664	1489	0	1507	1677
Q Serve(g_s), s	0.1	0.0	2.8	0.7	1.8	4.0	1.6	4.2	3.3	0.0	2.5	2.6
Cycle Q Clear(g_c), s	0.1	0.0	2.8	0.7	1.8	4.0	1.6	4.2	3.3	0.0	2.5	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.00		0.21
Lane Grp Cap(c), veh/h	128	0	110	212	213	188	277	1620	725	0	1388	515
V/C Ratio(X)	0.03	0.00	0.81	0.14	0.34	0.71	0.42	0.30	0.24	0.00	0.23	0.23
Avail Cap(c_a), veh/h	184	0	157	264	265	234	385	2577	1153	0	2543	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	22.0	18.9	19.4	20.3	21.0	7.4	7.2	0.0	12.4	12.5
Incr Delay (d2), s/veh	0.1	0.0	18.5	0.3	0.9	7.3	0.4	0.1	0.2	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.5	0.3	0.7	1.7	0.6	1.2	0.8	0.0	0.7	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	0.0	40.5	19.2	20.3	27.6	21.4	7.5	7.3	0.0	12.5	12.7
LnGrp LOS	C	A	D	B	C	C	C	A	A	A	B	B
Approach Vol, veh/h	93				236				778			
Approach Delay, s/veh	39.7				24.3				9.6			
Approach LOS	D				C				A			
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	28.5		8.7		8.7	19.9	11.0					
Change Period (Y+Rc), s	5.1		5.1		* 4.7	5.1	5.1					
Max Green Setting (Gmax), s	37.3		5.1		* 5.5	27.1	7.3					
Max Q Clear Time (g_c+I1), s	6.2		4.8		3.6	4.6	6.0					
Green Ext Time (p_c), s	4.3		0.0		0.0	2.9	0.1					

Intersection Summary

HCM 6th Ctrl Delay 14.5

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary 10: La Media Rd & SR-905 EB Ramps

Opening Year 2026 + Project AM
05/08/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑↑↑	↑↑↑	↰
Traffic Volume (veh/h)	416	406	5	240	159	67
Future Volume (veh/h)	416	406	5	240	159	67
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1752	1752	1826
Adj Flow Rate, veh/h	547	534	5	255	187	79
Peak Hour Factor	0.76	0.76	0.94	0.94	0.85	0.85
Percent Heavy Veh, %	5	5	5	10	10	5
Cap, veh/h	856	691	23	2428	1270	958
Arrive On Green	0.25	0.25	0.01	0.51	0.38	0.38
Sat Flow, veh/h	3374	2723	3374	4940	3416	1482
Grp Volume(v), veh/h	547	534	5	255	187	79
Grp Sat Flow(s), veh/h/ln	1687	1362	1687	1594	1664	1482
Q Serve(g_s), s	6.2	7.8	0.1	1.2	1.6	0.9
Cycle Q Clear(g_c), s	6.2	7.8	0.1	1.2	1.6	0.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	856	691	23	2428	1270	958
V/C Ratio(X)	0.64	0.77	0.22	0.11	0.15	0.08
Avail Cap(c_a), veh/h	939	758	395	5920	3334	1877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	14.8	21.1	5.5	8.7	3.0
Incr Delay (d2), s/veh	1.3	4.6	4.8	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.4	0.0	0.3	0.5	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.5	19.4	25.9	5.5	8.7	3.0
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	1081			260	266	
Approach Delay, s/veh	17.4			5.9	7.0	
Approach LOS	B			A	A	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	26.8			15.9	5.4	21.4
Change Period (Y+Rc), s	5.1			5.1	5.1	5.1
Max Green Setting (Gmax), s	52.9			11.9	5.0	42.8
Max Q Clear Time (g_c+I1), s	3.2			9.8	2.1	3.6
Green Ext Time (p_c), s	1.9			1.1	0.0	1.6
Intersection Summary						
HCM 6th Ctrl Delay			13.8			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

1: La Media Rd & Otay Mesa Rd

Opening Year 2026 + Project PM

05/08/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		  	  					  		
Traffic Volume (veh/h)	23	240	119	412	212	30	61	37	161	37	102	23
Future Volume (veh/h)	23	240	119	412	212	30	61	37	161	37	102	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.94	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1752	1870	1870	1752	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	261	129	572	294	42	73	157	120	52	144	32
Peak Hour Factor	0.92	0.92	0.92	0.72	0.72	0.72	0.83	0.83	0.83	0.71	0.71	0.71
Percent Heavy Veh, %	2	10	2	2	10	2	2	2	2	2	2	2
Cap, veh/h	410	1080	345	733	875	120	146	441	351	242	330	73
Arrive On Green	0.23	0.23	0.23	0.21	0.21	0.20	0.08	0.24	0.23	0.07	0.22	0.22
Sat Flow, veh/h	1781	4782	1530	3456	4212	579	1781	1870	1531	3456	1471	327
Grp Volume(v), veh/h	25	261	129	572	220	116	73	157	120	52	0	176
Grp Sat Flow(s),veh/h/ln	1781	1594	1530	1728	1594	1602	1781	1870	1531	1728	0	1797
Q Serve(g_s), s	0.8	3.2	3.6	11.2	4.2	4.5	2.8	5.0	2.6	1.0	0.0	6.1
Cycle Q Clear(g_c), s	0.8	3.2	3.6	11.2	4.2	4.5	2.8	5.0	2.6	1.0	0.0	6.1
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	410	1080	345	733	662	333	146	441	351	242	0	403
V/C Ratio(X)	0.06	0.24	0.37	0.78	0.33	0.35	0.50	0.36	0.34	0.22	0.00	0.44
Avail Cap(c_a), veh/h	410	2898	927	953	2300	1156	300	1211	981	568	0	1167
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.6	22.8	11.8	26.7	24.2	24.4	31.6	22.9	7.1	31.5	0.0	24.0
Incr Delay (d2), s/veh	0.1	0.1	0.7	3.2	0.3	0.6	2.7	0.5	0.6	0.4	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.2	1.8	4.7	1.5	1.7	1.3	2.2	1.6	0.4	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.6	22.9	12.4	29.9	24.5	25.0	34.2	23.4	7.7	32.0	0.0	24.7
LnGrp LOS	C	C	B	C	C	C	C	C	A	C	A	C
Approach Vol, veh/h		415			908			350			228	
Approach Delay, s/veh		19.6			27.9			20.2			26.4	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.4	21.7	9.8	20.9	20.7	20.4	8.9	21.7				
Change Period (Y+Rc), s	4.7	* 6	4.4	* 5.3	4.7	* 6	4.4	5.3				
Max Green Setting (Gmax), s	19.3	* 43	11.6	* 46	11.3	* 51	11.3	46.0				
Max Q Clear Time (g_c+I1), s	13.2	5.6	4.8	8.1	2.8	6.5	3.0	7.0				
Green Ext Time (p_c), s	1.5	1.9	0.1	0.7	0.0	1.6	0.1	1.2				

Intersection Summary

HCM 6th Ctrl Delay	24.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

2: Otay Mesa Rd & Piper Ranch Rd

Opening Year 2026 + Project PM

05/08/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗	↔	↗	↗	↗	↔↔	↗
Traffic Volume (veh/h)	123	316	12	8	381	79	42	4	13	116	2	207
Future Volume (veh/h)	123	316	12	8	381	79	42	4	13	116	2	207
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.94	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1752	1752	1752	1752	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	140	359	14	9	428	89	100	10	31	106	0	337
Peak Hour Factor	0.88	0.88	0.88	0.89	0.89	0.89	0.42	0.42	0.42	0.74	0.74	0.74
Percent Heavy Veh, %	2	10	10	10	10	2	10	10	10	2	10	2
Cap, veh/h	1421	2651	805	48	702	499	191	41	127	311	0	531
Arrive On Green	0.41	0.55	0.55	0.01	0.15	0.15	0.11	0.11	0.11	0.17	0.00	0.17
Sat Flow, veh/h	3456	4782	1453	3237	4782	1511	1668	359	1114	1781	0	3040
Grp Volume(v), veh/h	140	359	14	9	428	89	100	0	41	106	0	337
Grp Sat Flow(s), veh/h/ln	1728	1594	1453	1618	1594	1511	1668	0	1473	1781	0	1520
Q Serve(g_s), s	3.6	5.2	0.6	0.4	12.2	6.2	8.2	0.0	3.7	7.6	0.0	14.9
Cycle Q Clear(g_c), s	3.6	5.2	0.6	0.4	12.2	6.2	8.2	0.0	3.7	7.6	0.0	14.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.76	1.00		1.00
Lane Grp Cap(c), veh/h	1421	2651	805	48	702	499	191	0	168	311	0	531
V/C Ratio(X)	0.10	0.14	0.02	0.19	0.61	0.18	0.52	0.00	0.24	0.34	0.00	0.63
Avail Cap(c_a), veh/h	1421	2651	805	156	914	566	496	0	438	553	0	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	0.97	0.97	0.97	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.2	15.6	14.5	70.6	58.0	35.5	60.5	0.0	58.5	52.5	0.0	55.5
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.7	3.8	0.8	2.5	0.0	0.8	1.1	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.0	0.2	0.2	5.2	3.1	3.6	0.0	1.4	3.5	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	15.7	14.6	71.3	61.8	36.2	63.0	0.0	59.4	53.6	0.0	57.6
LnGrp LOS	C	B	B	E	E	D	E	A	E	D	A	E
Approach Vol, veh/h	513			526			141			443		
Approach Delay, s/veh	18.5			57.6			62.0			56.6		
Approach LOS	B			E			E			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	86.4		30.6	65.6	27.3		21.5				
Change Period (Y+Rc), s	4.4	6.0		5.3	6.0	* 6		4.9				
Max Green Setting (Gmax), s	7.0	29.3		45.0	8.6	* 28		43.1				
Max Q Clear Time (g_c+I), s	12.4	7.2		16.9	5.6	14.2		10.2				
Green Ext Time (p_c), s	0.0	3.8		3.9	0.1	4.2		0.6				

Intersection Summary

HCM 6th Ctrl Delay 45.4

HCM 6th LOS D

Notes

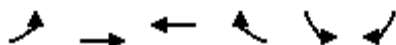
User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary 3: Otay Mesa Rd & SR 125 SB Off-Ramp

Opening Year 2026 + Project PM
05/08/2023



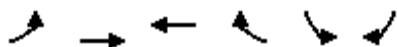
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	435	433	0	79	72
Future Volume (veh/h)	0	435	433	0	79	72
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1752	1752	0	1870	1870
Adj Flow Rate, veh/h	0	483	528	0	108	99
Peak Hour Factor	0.90	0.90	0.82	0.82	0.73	0.73
Percent Heavy Veh, %	0	10	10	0	2	2
Cap, veh/h	0	1423	991	0	1006	462
Arrive On Green	0.00	0.30	0.30	0.00	0.29	0.29
Sat Flow, veh/h	0	5098	3504	0	3456	1585
Grp Volume(v), veh/h	0	483	528	0	108	99
Grp Sat Flow(s),veh/h/ln	0	1594	1664	0	1728	1585
Q Serve(g_s), s	0.0	2.4	4.0	0.0	0.7	1.4
Cycle Q Clear(g_c), s	0.0	2.4	4.0	0.0	0.7	1.4
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1423	991	0	1006	462
V/C Ratio(X)	0.00	0.34	0.53	0.00	0.11	0.21
Avail Cap(c_a), veh/h	0	4349	3027	0	1213	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	8.2	8.8	0.0	7.8	8.0
Incr Delay (d2), s/veh	0.0	0.1	0.4	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.6	1.0	0.0	0.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	8.3	9.2	0.0	7.8	8.2
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		483	528		207	
Approach Delay, s/veh		8.3	9.2		8.0	
Approach LOS		A	A		A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		15.6		14.3		15.6
Change Period (Y+Rc), s		7.2		6.1		7.2
Max Green Setting (Gmax), s		26.7		10.0		26.7
Max Q Clear Time (g_c+I1), s		6.0		3.4		4.4
Green Ext Time (p_c), s		2.4		0.4		2.3
Intersection Summary						
HCM 6th Ctrl Delay			8.7			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary

4: Otay Mesa Rd & SR 125 NB On-Ramp

Opening Year 2026 + Project PM

05/08/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↰↰	↰		
Traffic Volume (veh/h)	161	350	432	227	0	0
Future Volume (veh/h)	161	350	432	227	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752		
Adj Flow Rate, veh/h	171	372	648	203		
Peak Hour Factor	0.94	0.94	0.81	0.81		
Percent Heavy Veh, %	10	10	10	10		
Cap, veh/h	809	2548	1735	490		
Arrive On Green	0.25	0.77	0.33	0.33		
Sat Flow, veh/h	3237	3416	5255	1485		
Grp Volume(v), veh/h	171	372	648	203		
Grp Sat Flow(s), veh/h/ln	1618	1664	1752	1485		
Q Serve(g_s), s	1.3	0.9	2.9	3.3		
Cycle Q Clear(g_c), s	1.3	0.9	2.9	3.3		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	809	2548	1735	490		
V/C Ratio(X)	0.21	0.15	0.37	0.41		
Avail Cap(c_a), veh/h	1054	4551	3781	1068		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	9.1	0.9	7.9	8.0		
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.7	0.7		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.3	1.0	8.0	8.5		
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h		543	851			
Approach Delay, s/veh		3.6	8.1			
Approach LOS		A	A			
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		30.7			13.4	17.3
Change Period (Y+Rc), s		* 7.2			* 5.7	7.2
Max Green Setting (Gmax), s		* 42			* 10	22.1
Max Q Clear Time (g_c+I1), s		2.9			3.3	5.3
Green Ext Time (p_c), s		2.7			0.3	4.9

Intersection Summary

HCM 6th Ctrl Delay	6.4
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

5: Harvest Road & Otay Mesa Rd

Opening Year 2026 + Project PM

05/08/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	268	0	0	515	10	2	0	0	14	0	154
Future Volume (veh/h)	76	268	0	0	515	10	2	0	0	14	0	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No				No			No		
Adj Sat Flow, veh/h/ln	1870	1752	1870	1870	1752	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	312	0	0	669	13	8	0	0	17	0	190
Peak Hour Factor	0.86	0.86	0.86	0.77	0.77	0.77	0.25	0.25	0.25	0.81	0.81	0.81
Percent Heavy Veh, %	2	10	2	2	10	2	2	2	2	2	2	2
Cap, veh/h	113	1582	0	0	1071	21	162	0	0	287	0	356
Arrive On Green	0.06	0.48	0.00	0.00	0.32	0.32	0.09	0.00	0.00	0.16	0.00	0.16
Sat Flow, veh/h	1781	3416	0	0	3423	65	1781	0	0	1781	0	1585
Grp Volume(v), veh/h	88	312	0	0	334	348	8	0	0	17	0	190
Grp Sat Flow(s),veh/h/ln	1781	1664	0	0	1664	1736	1781	0	0	1781	0	1585
Q Serve(g_s), s	2.1	2.4	0.0	0.0	7.5	7.5	0.2	0.0	0.0	0.4	0.0	4.6
Cycle Q Clear(g_c), s	2.1	2.4	0.0	0.0	7.5	7.5	0.2	0.0	0.0	0.4	0.0	4.6
Prop In Lane	1.00		0.00	0.00		0.04	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	113	1582	0	0	534	558	162	0	0	287	0	356
V/C Ratio(X)	0.78	0.20	0.00	0.00	0.62	0.62	0.05	0.00	0.00	0.06	0.00	0.53
Avail Cap(c_a), veh/h	405	3478	0	0	1210	1262	647	0	0	647	0	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.3	6.7	0.0	0.0	12.7	12.7	18.3	0.0	0.0	15.6	0.0	15.0
Incr Delay (d2), s/veh	11.1	0.1	0.0	0.0	1.2	1.2	0.1	0.0	0.0	0.1	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.6	0.0	0.0	2.4	2.5	0.1	0.0	0.0	0.1	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.4	6.7	0.0	0.0	13.9	13.8	18.4	0.0	0.0	15.7	0.0	16.3
LnGrp LOS	C	A	A	A	B	B	B	A	A	B	A	B
Approach Vol, veh/h	400		682				8			207		
Approach Delay, s/veh	12.2		13.9				18.4			16.2		
Approach LOS	B		B				B			B		
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	24.9		11.1		6.8	18.1	8.0					
Change Period (Y+Rc), s	4.0		4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	46.0		16.0		10.0	32.0	16.0					
Max Q Clear Time (g_c+I1), s	4.4		6.6		4.1	9.5	2.2					
Green Ext Time (p_c), s	2.3		0.5		0.1	4.4	0.0					

Intersection Summary

HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary

6: Sanyo Ave & Otay Mesa Rd

Opening Year 2026 + Project PM

05/08/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	140	130	45	235	12	197	11	46	16	21	71
Future Volume (veh/h)	32	140	130	45	235	12	197	11	46	16	21	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1752	1752	1870	1870	1752	1752	1870	1752	1870	1752	1752	1752
Adj Flow Rate, veh/h	35	165	153	56	290	13	162	139	59	17	23	77
Peak Hour Factor	0.92	0.85	0.85	0.81	0.81	0.92	0.78	0.92	0.78	0.92	0.92	0.92
Percent Heavy Veh, %	10	10	2	2	10	10	2	10	2	10	10	10
Cap, veh/h	52	434	367	79	470	21	238	267	113	28	165	187
Arrive On Green	0.03	0.26	0.26	0.04	0.28	0.28	0.13	0.23	0.23	0.02	0.09	0.09
Sat Flow, veh/h	1668	1665	1406	1781	1662	75	1781	1159	492	1668	1752	1485
Grp Volume(v), veh/h	35	165	153	56	0	303	162	0	198	17	23	77
Grp Sat Flow(s),veh/h/ln	1668	1664	1406	1781	0	1737	1781	0	1650	1668	1752	1485
Q Serve(g_s), s	1.0	3.7	4.1	1.4	0.0	6.9	4.0	0.0	4.8	0.5	0.6	2.2
Cycle Q Clear(g_c), s	1.0	3.7	4.1	1.4	0.0	6.9	4.0	0.0	4.8	0.5	0.6	2.2
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	52	434	367	79	0	491	238	0	380	28	165	187
V/C Ratio(X)	0.67	0.38	0.42	0.71	0.00	0.62	0.68	0.00	0.52	0.60	0.14	0.41
Avail Cap(c_a), veh/h	218	1159	979	439	0	1440	416	0	540	411	612	565
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	13.9	14.0	21.6	0.0	14.3	18.9	0.0	15.4	22.4	19.0	18.5
Incr Delay (d2), s/veh	13.7	0.5	0.8	10.9	0.0	1.3	3.4	0.0	1.1	18.6	0.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.3	1.2	0.8	0.0	2.5	1.7	0.0	1.7	0.3	0.2	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.7	14.4	14.8	32.5	0.0	15.6	22.4	0.0	16.5	41.0	19.4	19.9
LnGrp LOS	D	B	B	C	A	B	C	A	B	D	B	B
Approach Vol, veh/h	353			359			360			117		
Approach Delay, s/veh	16.7			18.2			19.2			22.9		
Approach LOS	B			B			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	18.3	11.4	9.6	5.4	19.3	5.2	15.9				
Change Period (Y+Rc), s	4.4	6.4	5.3	* 5.3	4.0	* 6.4	4.4	5.3				
Max Green Setting (Gmax), s	1.3	31.9	10.7	* 16	6.0	* 38	11.3	15.0				
Max Q Clear Time (g_c+I), s	13.4	6.1	6.0	4.2	3.0	8.9	2.5	6.8				
Green Ext Time (p_c), s	0.1	1.4	0.2	0.2	0.0	1.2	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay 18.5

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

7: Vann Centre Blvd & Otay Mesa Rd

Opening Year 2026 + Project PM

05/08/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	224	37	3	182	13	38	0	8	27	0	33
Future Volume (veh/h)	18	224	37	3	182	13	38	0	8	27	0	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1752	1752	1870	1870	1752	1752	1870	1752	1870	1752	1752	1752
Adj Flow Rate, veh/h	20	311	51	4	253	14	73	0	15	29	0	36
Peak Hour Factor	0.92	0.72	0.72	0.72	0.72	0.92	0.52	0.92	0.52	0.92	0.92	0.92
Percent Heavy Veh, %	10	10	2	2	10	10	2	10	2	10	10	10
Cap, veh/h	33	714	115	8	443	24	213	0	44	87	0	107
Arrive On Green	0.02	0.25	0.25	0.00	0.27	0.27	0.16	0.00	0.16	0.05	0.00	0.05
Sat Flow, veh/h	1668	2843	459	1781	1643	91	1355	0	279	1668	0	1485
Grp Volume(v), veh/h	20	180	182	4	0	267	88	0	0	29	0	36
Grp Sat Flow(s),veh/h/ln	1668	1664	1638	1781	0	1733	1634	0	0	1668	0	1485
Q Serve(g_s), s	0.5	3.5	3.6	0.1	0.0	5.1	1.8	0.0	0.0	0.6	0.0	0.9
Cycle Q Clear(g_c), s	0.5	3.5	3.6	0.1	0.0	5.1	1.8	0.0	0.0	0.6	0.0	0.9
Prop In Lane	1.00		0.28	1.00		0.05	0.83		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	33	418	411	8	0	467	257	0	0	87	0	107
V/C Ratio(X)	0.60	0.43	0.44	0.52	0.00	0.57	0.34	0.00	0.00	0.33	0.00	0.34
Avail Cap(c_a), veh/h	175	1200	1182	220	0	1341	703	0	0	700	0	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.5	12.0	12.0	18.9	0.0	12.0	14.3	0.0	0.0	17.4	0.0	16.8
Incr Delay (d2), s/veh	15.9	0.7	0.7	44.4	0.0	1.1	0.8	0.0	0.0	2.2	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.1	1.1	0.1	0.0	1.7	0.6	0.0	0.0	0.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	12.7	12.8	63.4	0.0	13.1	15.1	0.0	0.0	19.6	0.0	18.6
LnGrp LOS	C	B	B	E	A	B	B	A	A	B	A	B
Approach Vol, veh/h	382			271			88			65		
Approach Delay, s/veh	13.9			13.9			15.1			19.1		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	16.1		6.0	4.8	16.8		10.6				
Change Period (Y+Rc), s	5.3	6.5		4.0	4.0	6.5		4.6				
Max Green Setting (Gmax), s	4.7	27.5		16.0	4.0	29.5		16.4				
Max Q Clear Time (g_c+I), s	12.1	5.6		2.9	2.5	7.1		3.8				
Green Ext Time (p_c), s	0.0	2.1		0.1	0.0	1.5		0.3				

Intersection Summary

HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary

8: Enrico Fermi Rd & Otay Mesa Rd

Opening Year 2026 + Project PM

05/08/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	58	127	288	149	1	66	22	110	1	200	68
Future Volume (veh/h)	19	58	127	288	149	1	66	22	110	1	200	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	1.00		0.97	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1752	1870	1752	1870	1752	1752	1870	1752	1870	1752	1752	1752
Adj Flow Rate, veh/h	26	79	174	411	213	1	80	27	134	2	323	110
Peak Hour Factor	0.73	0.73	0.73	0.70	0.70	0.70	0.82	0.82	0.82	0.62	0.62	0.62
Percent Heavy Veh, %	10	2	10	2	10	10	2	10	2	10	10	10
Cap, veh/h	91	340	292	551	1066	5	142	658	832	4	376	128
Arrive On Green	0.05	0.19	0.18	0.16	0.31	0.31	0.08	0.38	0.38	0.00	0.30	0.30
Sat Flow, veh/h	1668	1777	1522	3456	3396	16	1781	1752	1544	1668	1232	420
Grp Volume(v), veh/h	26	79	174	411	104	110	80	27	134	2	0	433
Grp Sat Flow(s),veh/h/ln	1668	1777	1522	1728	1664	1748	1781	1752	1544	1668	0	1651
Q Serve(g_s), s	1.1	2.8	7.7	8.3	3.4	3.4	3.2	0.7	3.2	0.1	0.0	18.1
Cycle Q Clear(g_c), s	1.1	2.8	7.7	8.3	3.4	3.4	3.2	0.7	3.2	0.1	0.0	18.1
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	91	340	292	551	523	549	142	658	832	4	0	503
V/C Ratio(X)	0.29	0.23	0.60	0.75	0.20	0.20	0.57	0.04	0.16	0.55	0.00	0.86
Avail Cap(c_a), veh/h	478	698	598	939	659	692	523	1014	1146	91	0	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.3	25.1	27.3	29.4	18.4	18.4	32.5	14.5	8.7	36.5	0.0	24.0
Incr Delay (d2), s/veh	1.7	0.3	2.0	2.0	0.2	0.2	3.5	0.0	0.1	90.6	0.0	11.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.2	2.8	3.5	1.3	1.3	1.5	0.3	1.0	0.1	0.0	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.0	25.4	29.2	31.4	18.6	18.6	36.0	14.5	8.8	127.1	0.0	35.0
LnGrp LOS	C	C	C	C	B	B	D	B	A	F	A	D
Approach Vol, veh/h	279			625			241			435		
Approach Delay, s/veh	28.7			27.0			18.5			35.5		
Approach LOS	C			C			B			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.0	20.0	9.3	26.9	8.0	29.0	4.2	32.1				
Change Period (Y+Rc), s	5.3	6.5	4.0	* 4.6	4.0	6.5	4.0	4.6				
Max Green Setting (Gmax), s	19.9	28.3	21.0	* 26	21.0	28.5	4.0	42.4				
Max Q Clear Time (g_c+110), s	10.3	9.7	5.2	20.1	3.1	5.4	2.1	5.2				
Green Ext Time (p_c), s	1.4	1.0	0.2	1.4	0.0	0.8	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay 28.3

HCM 6th LOS C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

9: La Media Rd & St Andrews Ave/SR-905 WB Ramps

Opening Year 2026 + Project PM

05/08/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	0	156	47	29	68	57	232	299	0	635	19
Future Volume (veh/h)	6	0	156	47	29	68	57	232	299	0	635	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1826	1752	1826	1826	1752	1826	1826	1752	1826	0	1752	1826
Adj Flow Rate, veh/h	7	0	193	48	52	86	66	270	348	0	907	27
Peak Hour Factor	0.81	0.81	0.81	0.79	0.79	0.79	0.86	0.86	0.86	0.70	0.70	0.70
Percent Heavy Veh, %	5	10	5	5	10	5	5	10	5	0	10	5
Cap, veh/h	241	0	206	161	162	144	203	1536	687	0	1858	55
Arrive On Green	0.14	0.00	0.14	0.09	0.09	0.09	0.06	0.46	0.46	0.00	0.31	0.31
Sat Flow, veh/h	1739	0	1485	1739	1752	1547	3374	3328	1488	0	6299	179
Grp Volume(v), veh/h	7	0	193	48	52	86	66	270	348	0	676	258
Grp Sat Flow(s),veh/h/ln	1739	0	1485	1739	1752	1547	1687	1664	1488	0	1507	1713
Q Serve(g_s), s	0.2	0.0	6.4	1.3	1.4	2.7	0.9	2.4	8.2	0.0	6.1	6.1
Cycle Q Clear(g_c), s	0.2	0.0	6.4	1.3	1.4	2.7	0.9	2.4	8.2	0.0	6.1	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.00		0.10
Lane Grp Cap(c), veh/h	241	0	206	161	162	144	203	1536	687	0	1387	526
V/C Ratio(X)	0.03	0.00	0.94	0.30	0.32	0.60	0.33	0.18	0.51	0.00	0.49	0.49
Avail Cap(c_a), veh/h	241	0	206	175	176	155	339	2526	1129	0	2550	967
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	0.0	21.2	21.1	21.1	21.7	22.4	7.9	9.4	0.0	14.1	14.1
Incr Delay (d2), s/veh	0.0	0.0	45.5	1.0	1.1	5.5	0.3	0.1	0.6	0.0	0.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	4.6	0.5	0.6	1.1	0.4	0.7	2.2	0.0	1.8	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.6	0.0	66.8	22.1	22.2	27.2	22.8	7.9	10.0	0.0	14.3	14.8
LnGrp LOS	B	A	E	C	C	C	C	A	B	A	B	B
Approach Vol, veh/h	200				186				684			
Approach Delay, s/veh	65.1				24.5				10.4			
Approach LOS	E				C				B			
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	28.1		12.0		7.7	20.4	9.7					
Change Period (Y+Rc), s	5.1		5.1		* 4.7	5.1	5.1					
Max Green Setting (Gmax), s	37.8		6.9		* 5	28.1	5.0					
Max Q Clear Time (g_c+I1), s	10.2		8.4		2.9	8.1	4.7					
Green Ext Time (p_c), s	3.2		0.0		0.0	6.4	0.0					

Intersection Summary

HCM 6th Ctrl Delay 19.1

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary 10: La Media Rd & SR-905 EB Ramps

Opening Year 2026 + Project PM
05/08/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↱	↰↱	↰↱	↑↑↑	↑↑↑	↰
Traffic Volume (veh/h)	176	210	42	416	199	220
Future Volume (veh/h)	176	210	42	416	199	220
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1752	1752	1826
Adj Flow Rate, veh/h	198	236	55	547	258	286
Peak Hour Factor	0.89	0.89	0.76	0.76	0.77	0.77
Percent Heavy Veh, %	5	5	5	10	10	5
Cap, veh/h	474	383	194	2862	1366	827
Arrive On Green	0.14	0.14	0.06	0.60	0.41	0.41
Sat Flow, veh/h	3374	2723	3374	4940	3416	1484
Grp Volume(v), veh/h	198	236	55	547	258	286
Grp Sat Flow(s),veh/h/ln	1687	1362	1687	1594	1664	1484
Q Serve(g_s), s	2.1	3.2	0.6	2.0	1.9	4.2
Cycle Q Clear(g_c), s	2.1	3.2	0.6	2.0	1.9	4.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	474	383	194	2862	1366	827
V/C Ratio(X)	0.42	0.62	0.28	0.19	0.19	0.35
Avail Cap(c_a), veh/h	613	495	432	6448	3628	1835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	15.8	17.6	3.6	7.4	4.9
Incr Delay (d2), s/veh	0.6	1.6	0.8	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.5	0.2	0.3	0.5	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.9	17.4	18.4	3.6	7.4	5.1
LnGrp LOS	B	B	B	A	A	A
Approach Vol, veh/h	434			602	544	
Approach Delay, s/veh	16.7			4.9	6.2	
Approach LOS	B			A	A	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	28.5			10.6	7.3	21.1
Change Period (Y+Rc), s	5.1			5.1	5.1	5.1
Max Green Setting (Gmax), s	52.7			7.1	5.0	42.6
Max Q Clear Time (g_c+I1), s	4.0			5.2	2.6	6.2
Green Ext Time (p_c), s	4.4			0.4	0.0	2.9
Intersection Summary						
HCM 6th Ctrl Delay			8.6			
HCM 6th LOS			A			

APPENDIX G

EAST OTAY MESA SPECIFIC PLAN CIRCULATION ELEMENT

2.2 Mobility Element

Goal:

Provide a multi-modal transportation system consisting of highways, streets, and transit networks adequate to serve subregional transportation needs at an acceptable level of service.

The Mobility Element sets the planning framework and provides a safe, convenient and efficient circulation system.

2.2.1 Introduction

The Mobility Element of the Specific Plan and the General Plan set the planning framework to provide a safe, convenient and efficient circulation system. The East Otay Mesa Specific Plan identifies transportation facilities capable of supporting the anticipated growth in this area, consistent with policies presented in the Land Use Element of the Specific Plan and the County's General Plan.

2.2.2 Goals and Policies

GOAL:

Provide a multi-modal transportation system consisting of highways, streets, and transit networks adequate to serve sub-regional transportation needs at an acceptable level of service.

POLICIES:*Regional Road Policies*

Policy C-1: Promote the development of regional road facilities as necessary to accommodate future development in the East Otay Mesa Specific Plan Area.

Implementation: Property owners shall be required to reserve right-of-way for the SR-905, SR-125 and SR-11 freeways and the planned International Border Crossing. Property owners will also be required to reserve additional road right-of-

way on Enrico Fermi Drive and Siempre Viva Road for future ramps and auxiliary lanes to access the SR-11 freeway extension.

Policy C-2: Promote the development of inter-state freeway facilities to the existing Otay Mesa Border Crossing and planned international border crossings in the East Otay Mesa Specific Plan Area.

Implementation: The County will coordinate with Caltrans to promote the development of SR-905 and SR-11 from the existing and planned international border crossings to I-805.

Local Road Policies

Policy C-3: Promote the development of local road network to adequately serve the planned land uses in the East Otay Mesa Specific Plan Area.

Implementation: The local road system, which includes Mobility Element and Specific Plan roads indicated in the Circulation Plan, will be built by the adjacent property owners according to County policies. Through the discretionary permit process, property owners will be required to dedicate and improve roads.

Policy C-4: Ensure that new development provides adequate access to existing land owned and operated by the federal Border Patrol along the USA/Mexico border.

Implementation: The Border Patrol currently owns and operates an approximately 150-foot-wide corridor that functions as a view and emergency access area, consistent with Board Policy I-111. Property owners with projects adjacent to the international border shall consult with the Border Patrol during the discretionary review process to determine whether land must be acquired by the Border Patrol to access this corridor from north/south oriented Mobility Element or Specific Plan roads.

City of San Diego Road Coordination

Policy C- 5: Promote circulation coordination between the County of San Diego and the City of San Diego to develop a safe and efficient roadway system for Otay Mesa.

Alternative Modes of Transportation Policies

Policy C- 6: Promote the development and use of a regional transit system to serve the East Mesa.

Implementation: The County will coordinate with SANDAG/MTS to implement regional bus and future LRT service to the East Otay Mesa area.

Policy C-7: Property owners shall dedicate right-of-way for transit facilities as shown in the SANDAG Regional Transportation Plan (RTP)/MTS South Bay Public Transportation Plan.

Implementation: Property owners would dedicate right-of-way for transit facilities during the discretionary review process.

Policy C-8: Promote connections between transit stops and employment destinations in East Otay Mesa.

Implementation: Adequate shoulder space should be retained within the public right-of way to allow a loop bus system to be developed in the future. When development levels are adequate to support a shuttle bus service, the County DPLU and DPW will coordinate with SANDAG, appropriate transit agencies (MTS), and property owners to plan a local bus shuttle service to serve the East Otay Mesa Area. This will include provision of bus stop shelters along the proposed bus route for the convenience of bus patrons as well as a bus stop on Otay Mesa Road adjacent to the Mixed-Use Village Core area. This service would be implemented in conjunction with a Transportation System Demand Program.

Policy C-9: Promote development of freight rail service to East Otay Mesa.

Implementation: The County and Caltrans will coordinate with rail line operators and other agencies as appropriate to promote freight rail service to East Otay Mesa.

Policy C-10: Provide for development of a bicycle system that will provide a safe and convenient means of transportation for bicyclists.

Implementation: Implement the bicycle network as defined by Table 2.2-1 of the Mobility Element. The objective of these bicycle routes would be connecting transit facilities with

appropriate employment areas as individual projects are reviewed. To encourage bicycle use, bicycle parking should be provided at all commercial and industrial facilities.

Policy C-11: Promote pedestrian circulation in East Otay Mesa.

Implementation: Require all road rights-of-way in East Otay Mesa to include a sidewalk in accordance with Specific Plan standards. As part of the discretionary permit review process, the County will require pedestrian connections between commercial and industrial facilities and the pedestrian network located on public roads. Large developments should include on-site pedestrian access networks.

Regional Transportation Management

Policy C-12: Promote a variety of techniques to maximize the efficiency of the existing and planned transportation network.

Implementation: The County will work with other agencies in the region to comply with the San Diego County Regional Growth Management Strategy (RGMS), Congestion Management Pro-gram (CMP), and Air Quality Plan Transportation Control Measures. Businesses within East Otay Mesa will need to comply with any Regional Transportation Demand Management (TDM) Pro-gram as it is promulgated.

Phasing and Monitoring Policies

Policy C-13: Work with the City of San Diego and Caltrans to expedite the construction of the SR-905 freeway and to plan the SR-11 freeway to support development within the Specific Plan.

Implementation: The County will maintain contact with the City of San Diego and Caltrans to keep abreast of planning and funding developments pertaining to regional roadways. The County will assist property owners by working with SANDAG, Caltrans, and the federal government to ensure that SR-11 and the second Otay Mesa Port of Entry will be planned, designed and constructed in a manner consistent with this Specific Plan. Important features include road alignment, two interchanges (Enrico Fermi Road, Siempre Viva Road), and elevated road segments to ensure connectivity within the local road network without the use of bridges.

Policy C-14: Monitor traffic growth in East Otay Mesa and its effects on the transportation system.

Implementation: Traffic will be monitored as part of the discretionary review process, and the Specific Plan will be updated, as appropriate, in response to major changes in regional roadway or transit systems. When appropriate, staff will prepare a summary report on traffic conditions for submittal to the Directors of DPLU and DPW identifying traffic-related issues and recommending appropriate actions.

Other Circulation Issues

Policy C-15: Assure that necessary, feasible road improvements are provided to mitigate project impacts.

Implementation: Conditions prepared for discretionary projects will comply with the Specific Plan, Board Policies and CEQA. Applicants for discretionary permits shall also be required to comply with the requirements of the County's Transportation Impact Fee (TIF) Ordinance to pay their fair share of cumulative transportation impacts.

Policy C-16: Support a future international border crossing in East Otay Mesa.

Implementation: The Specific Plan should be compatible and consistent with the proposed location of an international border crossing in the southeastern portion of the Specific Plan as well as expansion plans for the existing border crossing in the City of San Diego.

Policy C-17: Facilitate the implementation of the Otay River Valley Regional Park and trails (previous policies COS-3 and COS-4).

Implementation: The County will coordinate with the Otay Valley Regional Park Policy Committee to ensure that the Otay Valley Regional Park Plan shows trail links in Johnson and O'Neal Canyons in accordance with the East Otay Mesa Specific Plan (see Figure 2.2-1 Circulation Plan). Commercial or industrial development will be reviewed for compliance with trail requirements in the Specific Plan during the discretionary review process. Property owners will be required to dedicate an easement for trail right-of-way in Johnson and O'Neal Canyons for future trail connections within the regional trail system. The precise alignment of the trail corridor should be located

within one-quarter mile of its depiction in Figure 2.2-1, or as required by the County Trails Program.

2.2.3 Circulation Plan

Figure 2.2-1, Circulation Plan, shows the roadway network and road classifications for the East Otay Mesa Specific Plan. Roadway classifications by roadway segments are shown in Table 2.2-1a, East Otay Mesa Roadway Network. Please note that Figure 2.2-1 depicts a conceptual alignment for Mobility Element and Specific Plan roads. Precise alignments shall be determined during the discretionary review process or through special studies conducted by the County of San Diego.

In preparation of this element, coordination occurred with the City of Chula Vista, the City of San Diego, the California Department of Transportation (CalTrans), the San Diego Association of Governments (SANDAG), and the City of Tijuana, Mexico.

2.2.4 Regional Access

Future regional thoroughfares play an important role in the development of East Otay Mesa. Planned State Routes (SR-125 and SR-11), along with the extension of SR-905 to the Otay Mesa Border crossing, are critical to accommodating the future development of the entire Otay Mesa area. In addition to freeways, planned local roads within East Otay Mesa will play an important role in the area's future. Planned improvements to regional highway system in the area include:

- **State Route 905 (SR-905):** The ultimate plan for the extension of SR-905 is to provide six single occupancy vehicle (SOV) lanes and two high occupancy vehicle (HOV) lanes between Interstate 805 (I-805) and SR-125/Harvest Road.

Table 2.2-1a
East Otay Mesa Roadway Network

ROAD NAME	FROM	TO	CLASSIFICATION	Road Type	Bicycle Network ?
Airway Road	City of San Diego	Alta Road	4L-Major	Mobility Element (ME)	Yes
Alejandro Drive	Zinser Road	David Ridge Drive	2L-MXU Collector	Specific Plan (SP)	Yes
Alta Road	Specific Plan Boundary	Lone Star Road	4L-I/C Collector	Specific Plan (SP)	No
	Lone Star Road	Otay Mesa Road	4L-Major	Mobility Element (ME)	Yes
	Otay Mesa Road	Siempre Viva Road	4L-Major	Mobility Element (ME)	Yes
	Siempre Viva Road	Via de la Amistad	2L-I/C Collector	Specific Plan (SP)	No
David Ridge Drive	Sunroad Blvd.	Vann Centre Blvd.	2L-MXU Collector	Specific Plan (SP)	Yes
Calzada de la Fuente	Alta Road	East end of E.C. Way	2L-I/C Collector	Specific Plan (SP)	No
Enrico Fermi Drive	Lone Star Road	Otay Mesa Road	4L-Major	Mobility Element (ME)	Yes
	Otay Mesa Road	Airway Road	4L-Enhanced Major ¹	Mobility Element (ME)	Yes
	Airway Road	Siempre Viva Road	4L-Major	Mobility Element (ME)	Yes
	Siempre Viva Road	Via de la Amistad	2L-I/C Collector	Specific Plan (SP)	No
Harvest Road	Sunroad Blvd.	Otay Mesa Road	4L-MXU Collector	Specific Plan (SP)	Yes
	Sunroad Blvd.	Alejandro Drive	2L MXU Collector	Specific Plan (SP)	Yes
Lone Star Road	City of San Diego	Sunroad Blvd.	6L-Prime Arterial	Mobility Element (ME)	Yes
	Sunroad Blvd.	Siempre Viva Road	4L-Major	Mobility Element (ME)	Yes
	Siempre Viva Road	End Of Road	4L I/C Collector	Specific Plan (SP)	Yes
Otay Mesa Road	City of San Diego	Enrico Fermi Drive	6L-Prime Arterial	Mobility Element (ME)	Yes
	Enrico Fermi Drive	Alta Road	4L-Major	Mobility Element (ME)	Yes
	Alta Road	Lone Star Road	4L-Major	Mobility Element (ME)	Yes
Piper Ranch Road	Lone Star Road	Otay Mesa Road	4L-Collector	Mobility Element (ME)	Yes
Siempre Viva Road	City of San Diego	Lone Star Road	4L-Major	Mobility Element (ME)	Yes
	Lone Star Road	End of Road	4L I/C Collector	Specific Plan (SP)	Yes
Sunroad Boulevard	Lone Star Road	Otay Mesa Road	4L-Major	Mobility Element (ME)	Yes
Sunroad View Drive	Sunroad Blvd.	Lone Star Road	2L MXU Collector	Specific Plan (SP)	Yes
Vann Centre Blvd.	Otay Mesa Road	David Ridge Drive	4L-I/C Collector	Specific Plan (SP)	Yes
	David Ridge Drive	Lone Star Road	4L-I/C/MXU Collector	Specific Plan (SP)	Yes
	Lone Star Road	End of Road	4L-I/C/MXU Collector	Specific Plan (SP)	No

ROAD NAME	FROM	TO	CLASSIFICATION	Road Type	Bicycle Network ?
Via de la Amistad	City of San Diego	Alta Road	2L-I/C Collector	Specific Plan (SP)	No
Zinser Road	Piper Ranch Road	Sunroad Blvd.	4L- I/C/MXU Collector	Specific Plan (SP)	Yes
	Sunroad Blvd.	Lone Star Road	2L-I/C/MXU Collector	Specific Plan (SP)	Yes
State Route 11	City of San Diego	Port of Entry	Freeway	Mobility Element (ME)	No
State Route 125	City of San Diego	City of San Diego	Freeway	Mobility Element (ME)	No

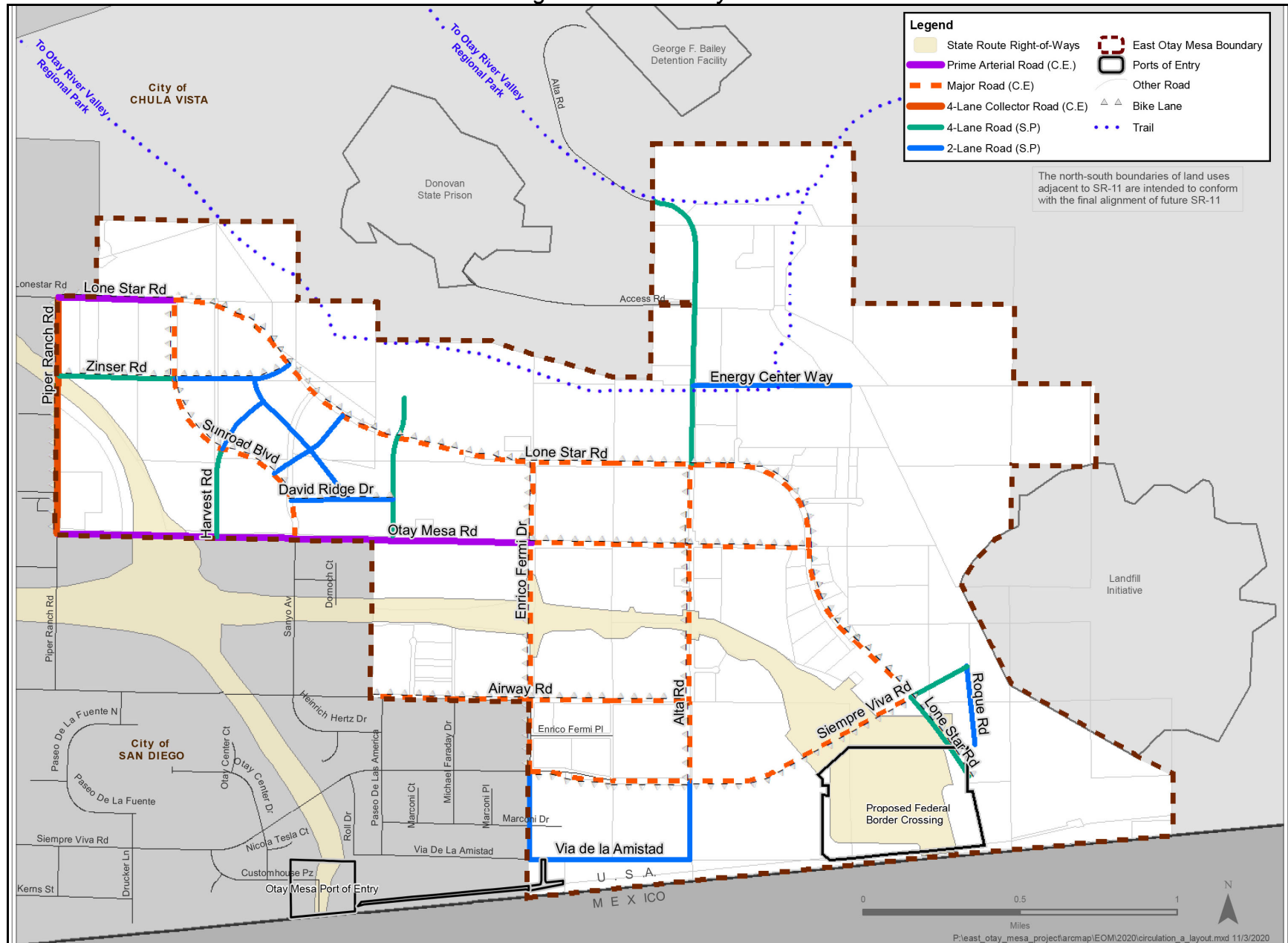
¹ Enhanced Major Road (CE) requires additional Right-Of-Way to accommodate turn movements and freeway access from Otay Mesa Road to SR-11.

Table 2.2-1b
Mixed-Use Village Core Roadway Dimensions

ROADWAY NAME	FROM	TO	RIGHT-OF-WAY WIDTH	CURB TO CURB WIDTH	MIN. DESIGN SPEED	BIKE LANE WIDTH	SHOULDER WIDTH	PARKING?
Otay Mesa Road	Harvest Road	Sunroad Blvd.	Varies: 142'-130'	Varies: 120'-110'	65mph	6'	0'	No
Otay Mesa Road	Sunroad Blvd.	Vann Centre Blvd.	130'	110'	65mph	6'	0'	No
Alejandro Dr.	Zinser Road	David Ridge Dr.	72'	52'	30mph	6'	8'	Yes
Sunroad View Drive	Sunroad Blvd.	Lone Star Road	72'	52'	30mph	6'	8'	Yes
Harvest Road	Otay Mesa Road	Sunroad Blvd.	96'	76'	30mph	6'	8'	No
Harvest Road	Sunroad Blvd.	Alejandro Dr.	72'	52'	30mph	6'	8'	Yes
Lone Star Road	Zinser Road	Vann Centre Blvd.	98'	78'	55mph	6'	8'	No
Sunroad Blvd.	Otay Mesa Road	Zinser Road	98'	78'	45mph ¹	6'	8'	No
Vann Centre Blvd.	Otay Mesa Road	Project Boundary	96'	76'	30mph	6'	8'	No
David Ridge Dr.	Sunroad Blvd.	Vann Centre Blvd.	72'	52'	30mph	6'	8'	Yes
Zinser Road	Sunroad Blvd.	Lone Star Road	72'	52'	30mph	6'	8'	No
Zinser Road	Sunroad Blvd.	Project Boundary	96'	76'	30mph	6'	8'	No

¹An approved design exception allows for this speed.

Figure 2.2-1 Mobility Plan



Major Roads and Local Industrial/Commercial/Mixed-Use Collector Roads provide through access into the center of development areas and the Activity Nodes.

- **State Route 125 (SR-125):** SR-125 is constructed as a 4-lane freeway/toll facility from Otay Mesa Road to San Miguel Road. Future planned improvements include a connecting interchange between SR-905 and future SR-11 as well as an interchange at Lonestar Road. The connections with SR-905 and SR-11 are fully funded and under construction. The Lonestar Road interchange is located in the City of San Diego, and it is part of the City's community plan for the Otay Mesa area. The future Lone Star Road planned SR-125 improvements are currently unfunded and therefore have no projected opening date or completion target. The EIR prepared for SB 125 evaluated the Lone Star Road interchange. The developer (SBX) agreement for SR-125 requires construction of the Lone Star interchange when warranted by traffic conditions.
- **Future Border Crossing and State Route 11 (SR-11):** State Route 11 is under construction as a new freeway/toll facility to extend easterly of SR-905 to connect with the future third border crossing east of Alta Road. The extension would revise the SR-905/125 interchange and provide two new interchanges at Enrico Fermi Drive and Siempre Viva Road.

2.2.5 Local Access Road Network

To plan for future travel demand to and from as well as within East Otay Mesa, traffic forecasts were generated for build-out of the Specific Plan. The traffic forecasts incorporate the type and density of future land uses, the location and potential interaction of various land use types, as well as specific characteristics and the capacity of each of the area's future roads. The East Otay Mesa Specific Plan's roadways are forecasted to operate at an acceptable Level of Service (LOS) at buildout (EIR Addendum No. 6).

The East Otay Mesa Specific Plan is based on a hierarchy of circulation roads as designated on the County's General Plan Mobility Element, and non-Mobility Element Local Industrial/Commercial/Mixed-Use Collectors designated on the Specific Plan as indicated in Table 2.2-1. Prime Arterial, Major and Industrial/Commercial/Mixed-Use Collector Roads provide the regional connections through the Specific Plan and beyond. Major Roads and Industrial/Commercial/Mixed-Use Collector Roads provide through access into the center of the development areas and the Activity Nodes. Figure 2.2-1, Circulation Plan, shows the road classifications. Roadway classifications by roadway

segments are shown in Table 2.2-1a, East Otay Mesa Roadway Network. These classifications have been designated to serve Specific Plan build-out traffic needs. These classifications (Mobility Element and/or Specific Plan Roads) have been designated to accommodate build-out traffic volumes assessed through the preparation of traffic forecasts for the land use development pattern and circulation network identified in this plan. Implementation of this circulation network shall be through the incremental approval and eventual development of individual public and/or private projects.

It is the intent of this Specific Plan that all private discretionary projects shall be required to:

- Dedicate and improve all adjacent rights-of-way necessary to provide access to the project and to complete the Specific Plan circulation system,
- Dedicate and agree to construct, through means acceptable to the Director of Public Works, all adjacent rights-of-way necessary to further implement the Specific Plan circulation system, including where the rights-of-way do not provide direct access to the site. The purpose of this requirement is to implement the circulation system of the Specific Plan, and
- Acquire and construct (or agree to construct if acceptable to the Director of Public Works) all off-site Mobility Element roads necessary to provide access to the site and to ensure off-site road access will meet County standards.

The Board of Supervisors adopted a Transportation Impact Fee (TIF) program in April 2005 to facilitate mitigation of cumulative traffic impacts. The TIF program was updated in January 2008.

Principal County arterials in the circulation network are described below:

- **Otay Mesa Road:** Otay Mesa Road is shown in the City of San Diego's most recent Mobility Element for the Otay Mesa Community as a four-lane Major between the terminus of SR-905 and SR-125/Harvest Road. The County General Plan includes the road as a six-lane Prime Arterial between Piper Ranch Road and Enrico Fermi Drive. The road continues east to Lone Star Road as a

four-lane Major. A cross-section of a portion of Otay Mesa Road from the General Plan Mobility Element is included in Appendix 4.

- **Lone Star Road:** In the City of San Diego Lone Star Road is classified as a four-lane Major. In the County it becomes a six-lane Prime Arterial to Sunroad Boulevard. East of Sunroad Boulevard it transitions into a four-lane Major. This roadway will carry traffic from SR-125 east into the northern portions of the Specific Plan. As Lone Star Road travels east past Alta Road, it heads south to Siempre Viva Road in SubArea 2 of the Specific Plan.
- **Airway Road, Siempre Viva Road and Via de la Amistad:** The City of San Diego's Mobility Element shows Airway Road as four-lane Major Road, Siempre Viva Road as a six-lane Prime Arterial Road and Via de la Amistad as a four-lane Collector Road. These roads continue east from Enrico Fermi Drive, a north/south Major located on the border between the City of San Diego and the County to Alta Road as four-lane Major Roads to serve SubArea 1 Siempre Viva Road is planned to extend east into SubArea 2 terminating at Roque Road. Via de la Amistad will continue east from Enrico Fermi Drive to Alta Road as a two-lane Industrial/Commercial Collector Road.
- **Piper Ranch and Harvest Roads:** Piper Ranch Road and Harvest Road are both north-south four-lane Collector Roads in the County of San Diego that provide access into the Specific Plan Area. Within the County of San Diego's Specific Plan Area, Piper Ranch Road is planned as a four-lane Collector Road. Harvest Road will terminate at Sunroad Boulevard as a four-lane Mixed-Use Collector Road and then proceed to Alejandro Drive as a two-lane Mixed-Use Collector Road.
- **Enrico Fermi Drive:** In the City of San Diego, Enrico Fermi Drive is classified as a four-lane Major Road. In the County of San Diego's East Otay Mesa Specific Plan Area, it is also planned as a north-south four-lane Major Road between Lone Star Road and Siempre Viva Road. It continues south to Via de la Amistad as a two-lane Industrial/Commercial Collector Road. A cross-section of a portion of Enrico Fermi Drive from the General Plan Mobility Element is included in Appendix 4.

- **Alta Road:** Alta Road is planned as a north/south four-lane Industrial/Commercial Collector Road extending north from Lone Star Road. North of Lone Star Road, its main function is to provide access for planned adjacent development and to the detention facilities to the north. It is not proposed to be extended over the Otay Valley. South of Lone Star Road it is planned as a four-lane Major Road to Siempre Viva Road. Alta Road will continue south as a two-lane Industrial/Commercial Collector Road to Via de la Amistad. A cross-section of a portion of Alta Road from the General Plan Mobility Element is included in Appendix 4.
- **Sunroad Boulevard/Sanyo Avenue:** Sunroad Boulevard is classified as a Major Road between Lone Star Road and Otay Mesa Road in the County of San Diego. South of Otay Mesa Road the road is referred to as Sanyo Avenue, a four-lane collector road.
- **Calzada de la Fuente:** This road will be located entirely within the Specific Plan Area and is planned as an Industrial/Commercial Collector Road.
- **Zinser Road, Vann Centre Boulevard and David Ridge Drive:** These roads are planned as Industrial/Commercial/Mixed-Use Collector Roads between Lone Star and Otay Mesa Roads within the Specific Plan Area.

Please note that development projects in East Otay Mesa shall utilize names identified in this chapter for all Mobility Element and Specific Plan roads.

As site plan applications are developed for the Mixed-Use Village Core, additional local roads not designated within the Specific Plan will be designed to serve the mixed-use development. These roadways may include a 40-foot curb to curb width within a 60-foot right-of-way to accommodate two 12-foot travel lanes, 8-foot shoulders for parking, and 10-foot parkways containing a non-contiguous 5-foot sidewalk separated from the curb by a 4.5-foot landscape strip (5-feet as measured from face of curb). Narrower street sections are permitted where on-street parking is not desired.

2.2.6 Road Operation

Truck Routes

Through trucks are expected to follow the Prime Arterial, Major, Collector and (non-Mobility Element) selected Local Industrial/Commercial Road street system. Due to the industrial character of the Specific Plan Area, all streets shall be designed to accommodate truck traffic except for the non-Mobility Element roads located within the Mixed-Use area.

In order to minimize impediments for truck operation and allow access for each of the land uses in East Otay Mesa SubArea 1, the circulation network shall be designed according to the County Public Road Standards. The needs of truck traffic, access, and loading activities shall be incorporated in the design of the roadways. In addition, on-street parking shall be prohibited on all Prime Arterial, Major and four-lane Industrial/Commercial Collector public roads within the Specific Plan Area.

It should be noted that CalTrans may also designate truck only routes to accommodate the future Port of Entry.

2.2.7 Alternative Modes of Transportation

Public Transit

Public transit represents an opportunity to provide a convenient and inexpensive transportation choice for employees, help achieve air quality enhancement goals and reduce vehicular traffic. The development of public transportation facilities, while considered highly desirable for East Otay Mesa, will take place over a period of time. The County of San Diego will continue to work with SANDAG to extend public transit facilities into East Otay Mesa.

SANDAG is currently refining the transit network for the South Bay and once this study is complete, they expect to have a reasonably well-defined network for this area. The SANDAG Plan will include a bus rapid transit (BRT) line to serve the Otay Mesa. A 29-mile loop line would connect the existing light rail station at 24th Street in National

Public transit represents an opportunity to provide a convenient and inexpensive transportation choice for employees.

City with the Otay Ranch area, the Otay Mesa International Border Crossing, and the Iris Street station in San Ysidro. Future developments will be required to coordinate with SANDAG and the County to ensure that transit is a consideration when planning their development. When the County Board of Supervisors adopts a Transit Plan, including development standards and route locations, all development within East Otay Mesa shall be required to comply with that plan and its implementation including the dedication of right-of-way for light rail and/or bus facilities.

The north-south line would generally follow the SR-125 alignment to provide access between Chula Vista, Otay Ranch, and the International Border. The east-west BRT line may follow Otay Mesa Road or Airway Road and potentially continue along this road into the Specific Plan Area to the proposed third border crossing. If this should occur, then a transit station at SR-125/Otay Mesa Road interchange, a station at the border, and possibly one intervening station would be feasible.

Bicycle Network

Use of bicycles as a commuting mode of transportation is encouraged as a means to reduce traffic congestion and minimize greenhouse gas emissions. The bicycle network of East Otay Mesa is focused to safely direct bicycle traffic to and from key locations. It is the intent of the plan to link all transit, mixed-use, commercial, and employment locations via certain Mobility Element roads and Specific Plan roads that would allow bicycling commuters the ability to access East Otay Mesa in a direct manner. The General Plan bike routes are shown on Sheet 6 of the General Plan Mobility Element. Additional bike routes are provided in the Specific Plan.

It is likely that the vast majority of workers within East Otay Mesa will be traveling from either the Mixed-Use Village Core or areas outside of the Mesa, such as Otay Ranch, portions of the City of San Diego, and Chula Vista, and possibly from the International Border Crossing. To encourage bicycle use within the Specific Plan Area, a connected system of roads suitable for bicycle traffic has been designated for the Mesa. This bike network is detailed on Figures 2.2-1 and 3.3-1 and in Table 2.2-1 of the Specific Plan. The bicycle network in East Otay Mesa is composed of Class II facilities (bike lanes), and bicyclists are permitted to travel on all public roadways within the Specific Plan. The State of California, Department of Transportation publication, Planning and Design

Criteria for Bikeways in California, is the bikeway standard of San Diego County. These regulations shall also apply to the East Otay Mesa Specific Plan.

Pedestrian Circulation

The amount of projected employees in the Specific Plan Area that would take mid-day lunches and shopping trips necessitates the establishment of a pedestrian circulation and trails system that will support and encourage walking as a mode of transportation.

Walking is encouraged within the East Otay Mesa Specific Plan. The amount of projected residents within the Mixed-Use Village Core as well as employees throughout the Specific Plan Area that would take mid-day lunches and shopping trips necessitates the establishment of a pedestrian circulation and trails system that will support and encourage walking as a mode of transportation. To create safe and attractive pedestrian travel, it is necessary to keep sidewalk areas free of obstructions and allow for the flow of pedestrians. Crosswalks and signal timing help reduce pedestrian/auto conflicts and improve safety conditions. Sidewalks are required on both sides of all public streets. Sidewalks shall meet the guidelines of the County of San Diego Public Road Standards except that sidewalks on all Mobility Element and Specific Plan roads shall be 4-feet wide and shall be separated from the traveled way by a 3-foot landscaped parkway (Section 2.3.7). Sidewalks within the Mixed-Use designation shall be at least 5-feet wide and separated from the traveled way by a 4.5-foot landscaped parkway (5-feet as measured from face of curb) (Section 2.3.7). Sidewalks shall meet the Americans with Disabilities Act (ADA) standards. The Director of Public Works may allow sidewalks to meander around existing utility poles (69kv or greater) that will not be placed underground. In limited circumstances, the Director of Public Works may waive sidewalk requirements where existing utility poles (69kv or greater) will not be placed underground if the applicant can demonstrate that no loss of pedestrian movement or connectivity would result.

Trails and Pathways

Since the approval of the East Otay Mesa Specific Plan in 1994, the County adopted a Community Trails Master Plan that governs the type and location of trails throughout the unincorporated area. Trails proposed in the Specific Plan are non-motorized, multi-use trails that allow public access to natural scenic areas. Trails and pathways in East Otay Mesa shall meet the Community Trails Master Plan Design and Construction Guidelines. All development adjacent to the Otay Valley Regional Park shall improve a 10-foot-wide trail (or pathway along Lone Star Road where adjacent to open space) for passive viewing and as a potential connection to the regional park trail system. The trail (or pathway) shall be open to the public and shall connect to a public sidewalk or an alternative location acceptable to the County. A 10-foot-wide pathway may also be provided along Harvest Road between Otay Mesa Road and Sunroad Boulevard, if feasible. This pathway provides a connection to the trail that extends north of Sunroad Boulevard and links to the Otay Valley Regional Park. Trails and pathways are identified on Figures 2.2-1 and 3.3-1.

APPENDIX H

EXPLANATION OF INTERSECTION DELAY DECREASE WITH THE ADDITION OF PROJECT TRAFFIC

Explanation of Intersection Delay Decrease with the Addition of Project Traffic:

For purposes of this report, a decrease in delay was not shown in the report tables. Where a project induced decrease occurred, the previous scenario's (without project) delay was shown. This reduces any confusion on behalf of the reviewer while still showing there is no significant change in delay due to the project.

Under the HCM unsignalized/signalized methodology, it is possible to have better LOS or a decrease in delay with the project (in comparison to base conditions without the project), because the delay reported for the entire intersection is a weighted average of the different traffic movements on each approach based upon volumes. Therefore, the project-generated traffic may have been added to those movements with very good LOS, so that this benefit is further exemplified in the weighted average reported for the entire intersection.

Typically when the delay improves when volume is added it is due to the effect of volumes being added to movements that previously had lower delays than the intersection average delay, and therefore by adding more volume to those movements the intersection average delay actually decreases. Another factor may be that the allocation of green time given to each phase to balance the allocated green time for heavier movements.

APPENDIX I

BUS ROUTE SCHEDULES

Exact fare, please Favor de pagar la cantidad exacta		
Fares Tarifas	Adult Adulto	Senior/Disabled/ Medicare/Youth* Personas Mayores/con Discapacidades/Medicare/Jóvenes*
ONE-WAY FARES Tarifas Sencillas	\$2.50	\$1.25
EARNED DAY PASS Pase del Día Ganado	\$6.00	\$3.00
MONTH PASS Pase mensual	\$72.00	\$23.00
Load money into your PRONTO account to earn Day Passes and Month Passes. Tap your PRONTO card (\$2) or scan your PRONTO mobile app (free) to ride. Carga dinero a tu cuenta de PRONTO para ganar Pases del Día y Pases Mensuales. Toca tu tarjeta PRONTO (\$2) o escanea tu aplicación móvil PRONTO (gratis) para viajar.		
• One-ways with PRONTO receive free transfers for two hours. No free transfers for cash. Los viajes de ida con PRONTO reciben transbordes gratuitos por dos horas. No se permiten transbordes gratuitos con pagos en efectivo.		
• Day Passes not sold in advance. Earned with PRONTO. Los pases diarios no se venden por adelantado. Se obtienen con PRONTO.		
• A month pass can be purchased in advanced or earned with PRONTO. Good from first day to last day of the month. El Pase Mensual se puede comprar por adelantado o se obtiene mientras viaja con PRONTO. Válido desde el primer día hasta el último día del mes.		
*Proof of eligibility required. Senior Eligibility: Age 65+ or born on or before September 1, 1959. Youth Eligibility: Ages 6-18 *Se requiere verificación de elegibilidad. Elegibilidad para Personas Mayores: Edad 65+ o nacido en o antes del 1 de septiembre, 1959. Elegibilidad para Jóvenes: edades 6-18		
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DESTINATIONS

- East Palomar Transit Station
- City College Transit Center
- Otay Mesa Port of Entry
- Otay Ranch Town Center
- Santa Fe Depot

TROLLEY CONNECTIONS

- City College
- America Plaza
- Santa Fe Depot

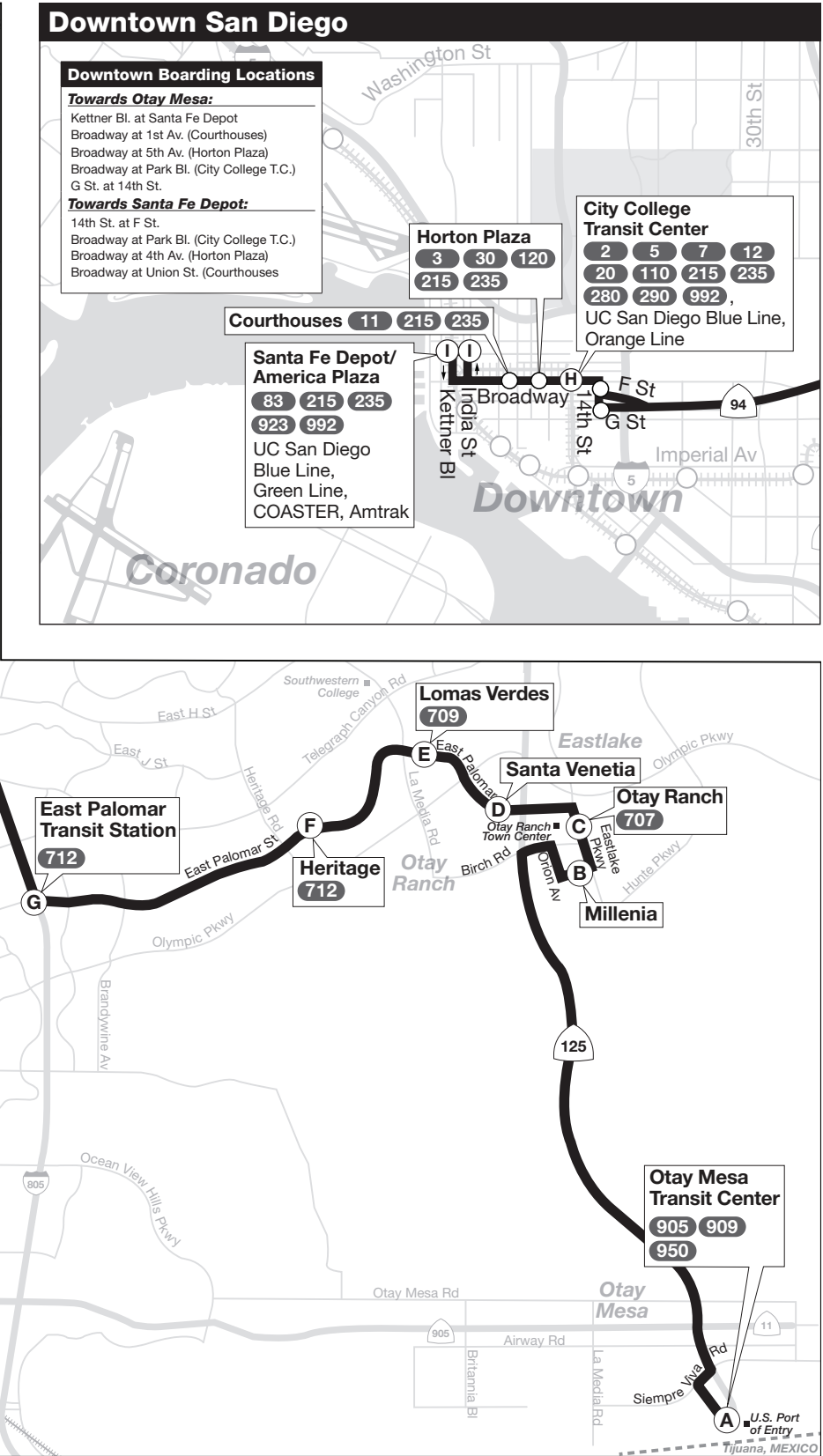


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(A) Otay Mesa Transit Center DEPART	(B) Millenia Station	(C) Otay Ranch Station	(D) Santa Venetia Station	(E) Lomas Verdes Station	(F) Heritage Station	(G) East Palomar Station	(H) City College Transit Station (Broadway)	(I) America Plaza Trolley Station ARRIVE	(I) Santa Fe Depot Transit Ctr. DEPART	(H) City College Transit Station (Broadway)	(G) East Palomar Station	(F) Heritage Station	(E) Lomas Verdes Station	(D) Santa Venetia Station	(C) Otay Ranch Station	(B) Millenia Station	(A) Otay Mesa Transit Center ARRIVE
4:27a	4:37a	4:40a	4:43a	4:47a	4:51a	4:58a	5:13a	5:20a	5:34a	5:41a	5:56a	6:03a	6:07a	6:10a	6:14a	6:17a	6:30a
4:47	4:57	5:00	5:03	5:07	5:11	5:18	5:33	5:40	5:59	6:06	6:21	6:28	6:32	6:35	6:39	6:42	6:55
5:07	5:18	5:21	5:24	5:28	5:32	5:39	5:58	6:05	6:19	6:27	6:43	6:50	6:54	6:57	7:01	7:04	7:18
5:27	5:38	5:41	5:44	5:48	5:52	5:59	6:21	6:28	6:39	6:47	7:03	7:10	7:14	7:17	7:21	7:24	7:38
5:47	5:58	6:01	6:04	6:08	6:12	6:19	6:42	6:49	7:00	7:08	7:24	7:31	7:35	7:38	7:42	7:45	7:59
6:07	6:18	6:21	6:24	6:28	6:32	6:39	7:04	7:12	7:20	7:28	7:44	7:51	7:55	7:58	8:02	8:05	8:19
6:27	6:38	6:41	6:44	6:48	6:52	6:59	7:26	7:34	7:40	7:48	8:04	8:11	8:15	8:18	8:22	8:25	8:39
6:47	6:58	7:01	7:04	7:08	7:12	7:19	7:49	7:58	8:02	8:10	8:26	8:33	8:37	8:40	8:44	8:47	9:01
7:07	7:18	7:21	7:24	7:28	7:32	7:39	8:09	8:18	8:22	8:30	8:46	8:53	8:57	9:00	9:04	9:07	9:21
7:30	7:41	7:44	7:47	7:51	7:55	8:02	8:29	8:38	8:42	8:50	9:06	9:13	9:17	9:20	9:24	9:27	9:41
7:50	8:01	8:04	8:07	8:11	8:15	8:22	8:47	8:56	9:02	9:10	9:26	9:33	9:37	9:40	9:44	9:47	10:01
8:11	8:22	8:25	8:28	8:32	8:36	8:43	9:05	9:14	9:22	9:30	9:46	9:53	9:57	10:00	10:04	10:07	10:21
8:31	8:42	8:45	8:48	8:52	8:56	9:03	9:20	9:29	9:40	9:48	10:04	10:11	10:15	10:18	10:22	10:25	10:39
8:51	9:02	9:05	9:08	9:12	9:16	9:23	9:40	9:49	10:07	10:15	10:31	10:38	10:42	10:45	10:49	10:52	11:06
9:17	9:28	9:31	9:34	9:38	9:42	9:49	10:06	10:15	10:38	10:46	11:02	11:09	11:13	11:16	11:20	11:23	11:37
9:48	9:59	10:02	10:05	10:09	10:13	10:20	10:37	10:46	11:08	11:16	11:32	11:39	11:43	11:46	11:50	11:53	12:07p
10:20	10:31	10:34	10:37	10:41	10:45	10:52	11:09	11:18	11:38	11:46	12:02p	12:09p	12:13p	12:16p	12:20p	12:23p	12:37
10:50	11:01	11:04	11:07	11:11	11:15	11:22	11:39	11:48	12:07p	12:16p	12:32	12:39	12:43	12:46	12:50	12:53	1:07
11:20	11:31	11:34	11:37	11:41	11:45	11:52	12:09p	12:18p	12:37	12:46	1:02	1:09	1:13	1:16	1:20	1:23	1:37
11:50	12:01p	12:04p	12:07p	12:11p	12:15p	12:22p	12:39	12:48	1:06	1:15	1:31	1:38	1:42	1:45	1:49	1:52	2:06
12:20p	12:31	12:34	12:37	12:41	12:45	12:52	1:09	1:18	1:37	1:46	2:02	2:09	2:13	2:16	2:20	2:23	2:37
12:50	1:01	1:04	1:07	1:11	1:15	1:22	1:39	1:48	2:06	2:15	2:33	2:40	2:44	2:47	2:51	2:54	3:07
1:21	1:32	1:35	1:38	1:42	1:46	1:53	2:10	2:19	2:37	2:46	3:05	3:12	3:16	3:19	3:23	3:26	3:42
1:51	2:02	2:05	2:08	2:12	2:16	2:23	2:40	2:49	2:56	3:05	3:25	3:32	3:36	3:39	3:43	3:46	4:02
2:20	2:31	2:34	2:37	2:41	2:45	2:52	3:09	3:18	3:16	3:25	3:45	3:52	3:56	3:59	4:03	4:06	4:22
2:38	2:49	2:52	2:55	2:59	3:03	3:10	3:27	3:36	3:36	3:46	4:06	4:13	4:17	4:20	4:24	4:27	4:43
2:58	3:09	3:12	3:15	3:19	3:23	3:30	3:47	3:56	3:55	4:05	4:25	4:32	4:36	4:39	4:43	4:46	5:02
3:18	3:29	3:32	3:35	3:39	3:43	3:50	4:07	4:16	4:15	4:25	4:45	4:52	4:56	4:59	5:03	5:06	5:22
3:40	3:51	3:54	3:57	4:01	4:05	4:12	4:29	4:38	4:35	4:45	5:05	5:12	5:16	5:19	5:23	5:26	5:42
4:00	4:11	4:14	4:17	4:21	4:25	4:32	4:49	4:58	4:57	5:07	5:27	5:34	5:38	5:41	5:45	5:48	6:04
4:20	4:31	4:34	4:37	4:41	4:45	4:52	5:09	5:18	5:17	5:27	5:47	5:54	5:58	6:01	6:05	6:08	6:24
4:40	4:51	4:54	4:57	5:01	5:05	5:12	5:29	5:38	5:37	5:46	6:05	6:12	6:16	6:19	6:23	6:26	6:41
5:00	5:11	5:14	5:17	5:21	5:25	5:32	5:49	5:58	5:57	6:06	6:25	6:32	6:36	6:39	6:43	6:46	7:01
5:20	5:31	5:34	5:37	5:41	5:45	5:52	6:08	6:16	6:17	6:25	6:43	6:50	6:54	6:57	7:01	7:04	7:17
5:40	5:51	5:54	5:57	6:01	6:05	6:12	6:28	6:36	6:38	6:46	7:02	7:09	7:13	7:16	7:20	7:23	7:37
5:58	6:09	6:12	6:15	6:19	6:23	6:30	6:46	6:54	7:09	7:17	7:33	7:40	7:44	7:47	7:51	7:54	8:08
6:22	6:33	6:36	6:39	6:43	6:47	6:54	7:10	7:18	7:40	7:48	8:04	8:11	8:15	8:18	8:22	8:25	8:39
6:52	7:03	7:06	7:09	7:13	7:17	7:24	7:40	7:48	8:10	8:18	8:34	8:41	8:45	8:48	8:52	8:55	9:09
7:22	7:33	7:36	7:39	7:43	7:47	7:54	8:10	8:18	8:41	8:48	9:04	9:11	9:15	9:18	9:22	9:25	9:39
7:52	8:03	8:06	8:09	8:13	8:17	8:24	8:40	8:48	9:10	9:17	9:32	9:39	9:43	9:46	9:50	9:53	10:06
8:22	8:33	8:36	8:39	8:43	8:47	8:54	9:10	9:18	9:40	9:47	10:02	10:09	10:13	10:16	10:20	10:23	10:36
8:53	9:03	9:06	9:09	9:13	9:17	9:24	9:40	9:47	10:10	10:17	10:32	10:39	10:43	10:46	10:50	10:53	11:06
9:23	9:33	9:36	9:39	9:43	9:47	9:54	10:10	10:17	10:40	10:47	11:02	11:09	11:13	11:16	11:20	11:23	11:36
9:53	10:03	10:06	10:09	10:13	10:17	10:24	10:40	10:47	11:10	11:17	11:32	11:39	11:43	11:46	11:50	11:53	12:06a

Route 225 – Saturday & Sunday / *sábado y domingo*

Otay Mesa ➡ Downtown San Diego									Downtown San Diego ➡ Otay Mesa								
(A) Otay Mesa Transit Center DEPART	(B) Millenia Station	(C) Otay Ranch Station	(D) Santa Venetia Station	(E) Lomas Verdes Station	(F) Heritage Station	(G) East Palomar Station	(H) City College Transit Station (Broadway)	(I) America Plaza Trolley Station ARRIVE	(I) Santa Fe Depot Transit Ctr. DEPART	(H) City College Transit Station (Broadway)	(G) East Palomar Station	(F) Heritage Station	(E) Lomas Verdes Station	(D) Santa Venetia Station	(C) Otay Ranch Station	(B) Millenia Station	(A) Otay Mesa Transit Center ARRIVE
4:49a	4:58a	5:01a	5:04a	5:08a	5:12a	5:19a	5:33a	5:40a	6:08a	6:15a	6:29a	6:36a	6:40a	6:43a	6:47a	6:50a	7:03a
5:18	5:27	5:30	5:33	5:37	5:41	5:48	6:03	6:10	6:38	6:45	6:59	7:06	7:10	7:13	7:17	7:20	7:33
5:48	5:57	6:00	6:03	6:07	6:11	6:18	6:33	6:40	7:06	7:14	7:29	7:36	7:40	7:43	7:47	7:50	8:03
6:18	6:28	6:31	6:34	6:38	6:42	6:49	7:04	7:12	7:36	7:44	7:59	8:06	8:10	8:13	8:17	8:20	8:33
6:48	6:58	7:01	7:04	7:08	7:12	7:19	7:34	7:42	8:06	8:14	8:29	8:36	8:40	8:43	8:47	8:50	9:03
7:18	7:28	7:31	7:34	7:38	7:42	7:49	8:04	8:12	8:36	8:44	8:59	9:06	9:10	9:13	9:17	9:20	9:33
7:47	7:57	8:00	8:03	8:07	8:11	8:18	8:33	8:41	9:06	9:14	9:29	9:36	9:40	9:43	9:47	9:50	10:03
8:17	8:27	8:30	8:33	8:37	8:41	8:48	9:03	9:11	9:36	9:44	9:59	10:06	10:10	10:13	10:17	10:20	10:34
8:52	9:02	9:05	9:08	9:12	9:16	9:23	9:38	9:46	10:08	10:16	10:31	10:38	10:42	10:45	10:49	10:52	11:06
9:22	9:32	9:35	9:38	9:42	9:46	9:53	10:08	10:16	10:38	10:46	11:01	11:08	11:12	11:15	11:19	11:22	11:36
9:52	10:02	10:05	10:08	10:12	10:16	10:23	10:38	10:46	11:08	11:16	11:31	11:38	11:42	11:45	11:49	11:52	12:06p
10:22	10:32	10:35	10:38	10:42	10:46	10:53	11:08	11:16	11:38	11:46	12:01p	12:08p	12:12p	12:15p	12:19p	12:22p	12:36
10:52	11:02	11:05	11:08	11:12	11:16	11:23	11:38	11:46	12:08p	12:16p	12:31	12:38	12:42	12:45	12:49	12:52	1:06
11:22	11:32	11:35	11:38	11:42	11:46	11:53	12:08p	12:16p	12:38	12:46	1:01	1:08	1:12	1:15	1:19	1:22	1:36
11:52	12:02p	12:05p	12:08p	12:12p	12:16p	12:23p	12:38	12:46	1:08	1:16	1:31	1:38	1:42	1:45	1:49	1:52	2:06
12:22p	12:32	12:35	12:38	12:42	12:46	12:53	1:08	1:16	1:38	1:46	2:01	2:08	2:12	2:15	2:19	2:22	2:36
12:52	1:02	1:05	1:08	1:12	1:16	1:23	1:38	1:46	2:08	2:16	2:31	2:38	2:42	2:45	2:49	2:52	3:06
1:22	1:32	1:35	1:38	1:42	1:46	1:53	2:08	2:16	2:38	2:46	3:01	3:08	3:12	3:15	3:19	3:22	3:36
1:52	2:02	2:05	2:08	2:12	2:16	2:23	2:38	2:46	3:07	3:16	3:31	3:38	3:42	3:45	3:49	3:52	4:07
2:22	2:32	2:35	2:38	2:42	2:46	2:53	3:08	3:16	3:37	3:46	4:01	4:08	4:12	4:15	4:19	4:22	4:37
2:52	3:02	3:05	3:08	3:12	3:16	3:23	3:38	3:46	4:07	4:16	4:31	4:38	4:42	4:45	4:49	4:52	5:0

Exact fare, please Favor de pagar la cantidad exacta

Fares <i>Tarifas</i>	Adult <i>Adulto</i>	Senior/Disabled/ Medicare/Youth* <i>Personas Mayores/con Discapacidades/Medicare/Jóvenes*</i>
ONE-WAY FARES <i>Tarifas Sencillas</i>	\$2.50	\$1.25
EARNED DAY PASS <i>Pase del Día Ganado</i>	\$6.00	\$3.00
MONTH PASS <i>Pase mensual</i>	\$72.00	\$23.00

Load money into your PRONTO account to earn Day Passes and Month Passes. Tap your PRONTO card (\$2) or scan your PRONTO mobile app (free) to ride. *Carga dinero a tu cuenta de PRONTO para ganar Pases del Día y Pases Mensuales. Toca tu tarjeta PRONTO (\$2) o escanea tu aplicación móvil PRONTO (gratis) para viajar.*

- One-ways with PRONTO receive free transfers for two hours. No free transfers for cash. *Los viajes de ida con PRONTO reciben transbordos gratuitos por dos horas. No se permiten transbordos gratuitos con pagos en efectivo.*
- Day Passes not sold in advance. Earned with PRONTO. *Los pases diarios no se venden por adelantado. Se obtienen con PRONTO.*
- A month pass can be purchased in advanced or earned with PRONTO. Good from first day to last day of the month. *El Pase Mensual se puede comprar por adelantado o se obtiene mientras viaja con PRONTO. Válido desde el primer día hasta el último día del mes.*

*Proof of eligibility required. Senior Eligibility: Age 65+ or born on or before September 1, 1959. Youth Eligibility: Ages 6-18
*Se requiere verificación de elegibilidad. Elegibilidad para Personas Mayores: Edad 65+ o nacido en o antes del 1 de septiembre, 1959. Elegibilidad para Jóvenes: edades 6-18

For more information, visit: / Para más información, visite: sdmts.com/fares

DIRECTORY / *Directorio*

MTS Information & Trip Planning <i>MTS Información y planeo de viaje</i>	511 or/ó (619) 233-3004
TTY/TDD (teletype for hearing impaired) <i>Teletipo para sordos</i>	(619) 234-5005 or/ó (888) 722-4889
InfoExpress (24-hour info via Touch-Tone phone) <i>Información las 24 horas (vía teléfono de teclas)</i>	(619) 685-4900
Customer Service / Suggestions <i>Servicio al cliente / Sugerencias</i>	(619) 557-4555
MTS Security <i>MTS Seguridad</i>	(619) 595-4960
Lost & Found <i>Objetos extraviados</i>	(619) 233-3004
Transit Store	12th & Imperial Transit Center M–F 8am–5pm
For MTS online trip planning <i>Planificación de viajes por Internet</i>	sdmts.com

For more information on riding MTS services, pick up a Rider's Guide on a bus or at the Transit Store, or visit sdmts.com.

Para obtener más información sobre el uso de los servicios de MTS, recoja un 'Rider's Guide' en un autobús o en la Transit Store, o visita a sdmts.com.

Thank you for riding MTS! ¡Gracias por viajar con MTS!

Effective NOVEMBER 21, 2021

905909950

Otay Mesa – Iris Transit Center
via SR-905 / Otay Mesa Road

Otay Mesa – Southwestern College
Otay Mesa

Otay Mesa – Iris Transit Center Express
via SR-905

DESTINATIONS

- Brown Field
- Otay Mesa Industrial Parks
- Otay Mesa Port of Entry
- San Ysidro High School (905)
- Southwestern College Otay Mesa (909)



TROLLEY CONNECTIONS

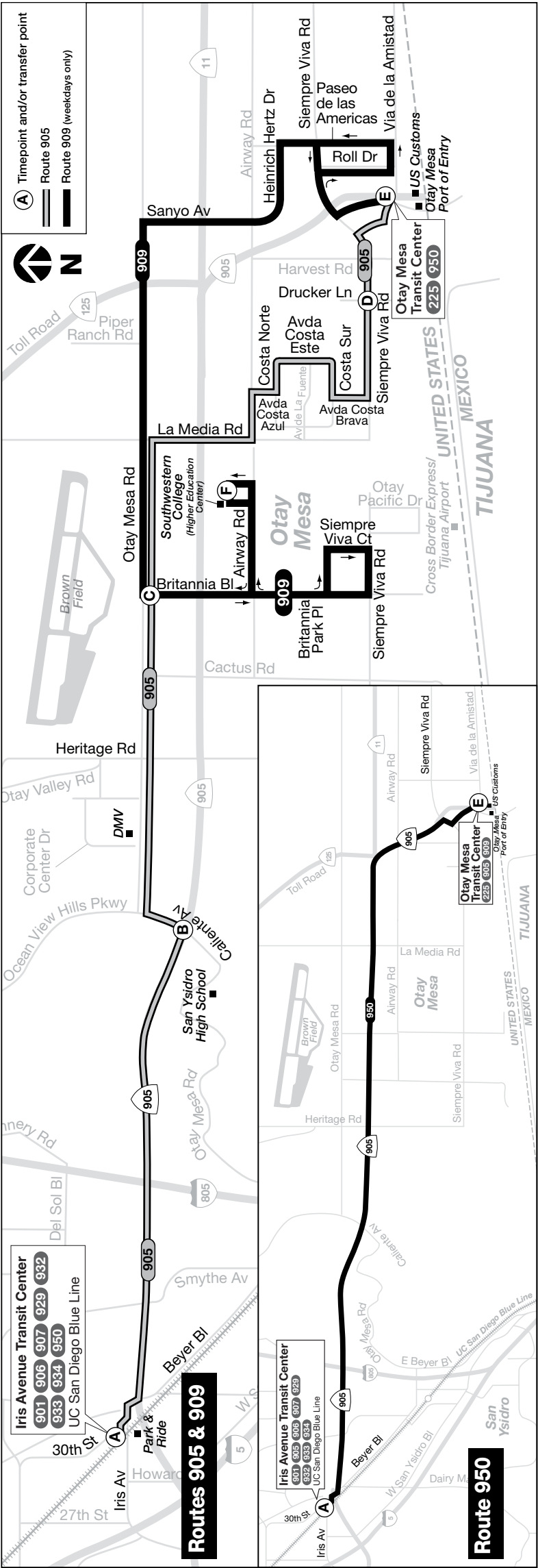
- Iris Avenue



11/21

sdmts.com

Route Alerts, Updated Schedules, Connections & More



Alternative formats available upon request. Please call: (619) 557-4555
Formato alternativo disponible al preguntar. Favor de llamar: (619) 557-4555

The schedules and other information shown in this timetable are subject to change. MTS does not assume responsibility for errors in timetables nor for any inconvenience caused by delayed buses.

Los horarios e información que se indican en este itinerario están sujetos a cambios. MTS no asume responsabilidad por errores en los itinerarios, ni por ningún perjuicio que se origine por los autobuses demorados.

Route 950 – Monday through Friday / lunes a viernes

Otay Mesa ➡ Iris Avenue

Ⓔ Otay Mesa Transit Center DEPART	Ⓐ Iris Avenue Transit Center ARRIVE
4:30a	4:44a
4:45	4:59
5:00	5:14
5:12	5:26
5:24	5:38
5:36	5:50
5:48	6:02
6:00	6:14
6:12	6:26
6:24	6:38
6:36	6:50
6:48	7:02
7:00	7:14
7:12	7:26
7:24	7:38
7:36	7:50
7:48	8:02
8:04	8:18
8:24	8:38
8:44	8:58
9:04	9:18
9:24	9:38
9:44	9:58
10:15	10:29
10:45	10:59
11:15	11:29
11:45	11:59
12:15p	12:29p

Iris Avenue ➡ Otay Mesa

Ⓐ Iris Avenue Transit Center DEPART	Ⓔ Otay Mesa Transit Center ARRIVE
12:15p	12:29p
12:44	12:59
1:15	1:29
1:42	1:56
2:02	2:16
2:22	2:36
2:42	2:56
3:02	3:16
3:22	3:36
3:42	3:56
4:02	4:16
4:22	4:36
4:42	4:56
5:02	5:16
5:22	5:36
5:42	5:56
6:02	6:16
6:22	6:36
6:42	6:56
7:02	7:16
7:23	7:37
7:53	8:07
8:23	8:37

Route 950 – Saturday / sábado

Otay Mesa ➡ Iris Avenue

Ⓔ Otay Mesa Transit Center DEPART	Ⓐ Iris Avenue Transit Center ARRIVE
4:54a	5:08a
5:14	5:28
5:34	5:48
5:54	6:08
6:14	6:28
6:34	6:48
6:54	7:08
7:14	7:28
7:34	7:48
7:54	8:08
8:15	8:29
8:45	8:59
9:15	9:29
9:45	9:59
10:15	10:29
10:53	11:07
11:53	12:07p

Iris Avenue ➡ Otay Mesa

Ⓐ Iris Avenue Transit Center DEPART	Ⓔ Otay Mesa Transit Center ARRIVE
12:23p	12:37p
1:06	1:20
1:36	1:50
2:06	2:20
2:23	2:37
2:43	2:57
3:03	3:17
3:23	3:37
3:43	3:57
4:03	4:17
4:23	4:37
4:44	4:58
5:06	5:20
5:28	5:42
5:51	6:05
6:15	6:29
6:45	6:59
7:23	7:37

Route 950 – Sunday / domingo

Otay Mesa ➡ Iris Avenue

Ⓔ Otay Mesa Transit Center DEPART	Ⓐ Iris Avenue Transit Center ARRIVE
5:15a	5:29a
5:45	5:59
6:15	6:29
6:45	6:59
7:15	7:29
7:45	7:59
8:15	8:29
8:45	8:59
9:15	9:29
10:00	10:14
11:00	11:14
12:00p	12:14p

Iris Avenue ➡ Otay Mesa

Ⓐ Iris Avenue Transit Center DEPART	Ⓔ Otay Mesa Transit Center ARRIVE
12:23p	12:37p
1:23	1:37
2:08	2:22
2:38	2:52
3:08	3:22
3:38	3:52
4:08	4:22
4:38	4:52
5:08	5:22
5:38	5:52
6:23	6:37
7:23	7:37

A Saturday or Sunday schedule will be operated on the following holidays and observed holidays
Se operará con horario de sábado o domingo durante los siguientes días festivos y feriados observados

>>>>

New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

Route 905 – Monday through Friday / lunes a viernes

Otay Mesa ➡ Iris Avenue Transit Center				
Ⓔ	Ⓓ	Ⓒ	Ⓑ	Ⓐ
Otay Mesa Transit Center DEPART	Siempre Viva Rd. & Drucker Lane	Otay Mesa Rd. & Britannia Bl.	SR-905 & Caliente Av.	Iris Avenue Transit Center ARRIVE
4:13a	4:16a	4:25a	4:30a	4:38a
4:48	4:51	5:00	5:05	5:13
5:23	5:26	5:35	5:40	5:48
5:57	6:00	6:09	6:14	6:22
6:30	6:33	6:43	6:49	6:58
7:03	7:06	7:16	7:22	7:31
7:33	7:36	7:46	7:52	8:01
8:03	8:06	8:16	8:22	8:31
8:33	8:36	8:46	8:52	9:01
9:00	9:03	9:13	9:19	9:28
9:30	9:33	9:43	9:49	9:58
10:00	10:03	10:13	10:19	10:28
10:30	10:33	10:43	10:49	10:58
11:00	11:03	11:13	11:19	11:28
11:30	11:33	11:43	11:49	11:58
12:00p	12:03p	12:13p	12:19p	12:28p
12:30	12:33	12:43	12:49	12:58
12:55	12:58	1:08	1:14	1:23
1:23	1:27	1:37	1:44	1:53
1:53	1:57	2:07	2:14	2:23
2:15	2:19	2:29	2:36	2:45
2:30	2:34	2:44	2:51	3:00
2:45	2:49	2:59	3:06	3:15
2:59	3:03	3:13	3:20	3:29
3:13	3:17	3:27	3:34	3:43
—	—	—	P 3:44	3:53
3:30	3:34	3:44	3:51	4:00
—	—	—	P 3:58	4:07
3:44	3:48	3:58	4:05	4:14
—	—	—	P 4:13	4:22
3:59	4:03	4:13	4:20	4:29
4:14	4:18	4:28	4:35	4:44
4:31	4:35	4:45	4:52	5:01
4:47	4:51	5:01	5:08	5:17
5:02	5:06	5:16	5:23	5:32
5:18	5:22	5:32	5:39	5:48
5:45	5:49	5:59	6:06	6:15
6:18	6:21	6:30	6:37	6:46
6:55	6:58	7:07	7:14	7:23
7:33	7:36	7:45	7:52	8:01
8:04	8:07	8:16	8:22	8:30

P = Trip operates when San Ysidro High School is in session & classes end at regular bell schedule (3:35PM).
Este viaje opera durante los días escolares de San Ysidro High School y cuando las clases terminan en horario regular (3:35PM).

Iris Avenue Transit Center ➡ Otay Mesa				
Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
Iris Avenue Transit Center DEPART	SR-905 & Caliente Av.	Otay Mesa Rd. & Britannia Bl.	Siempre Viva Rd. & Drucker Lane	Otay Mesa Transit Center ARRIVE
4:53a	4:59a	5:04a	5:14a	5:18a
5:23	5:29	5:34	5:44	5:48
5:54	6:00	6:05	6:15	6:19
6:09	6:16	6:21	6:32	6:37
6:28	6:35	6:40	6:51	6:56
6:43	6:50	6:55	7:06	7:11
6:59	7:06	7:11	7:22	7:27
7:14	7:21	7:26	7:37	7:42
7:30	7:37	7:42	7:53	7:58
T 7:38	7:45	—	—	—
7:44	7:51	7:56	8:07	8:12
T 7:53	8:00	—	—	—
7:59	8:06	8:11	8:22	8:27
T 8:08	8:15	—	—	—
8:15	8:22	8:27	8:38	8:43
T 8:23	8:30	—	—	—
8:30	8:37	8:42	8:53	8:58
8:46	8:53	8:58	9:09	9:14
9:08	9:15	9:20	9:31	9:36
9:38	9:45	9:50	10:01	10:06
10:08	10:15	10:20	10:31	10:36
10:38	10:45	10:50	11:01	11:06
11:08	11:15	11:20	11:31	11:36
11:38	11:45	11:50	12:01p	12:06p
12:08p	12:15p	12:20p	12:31	12:36
12:38	12:45	12:50	1:01	1:06
1:08	1:15	1:20	1:31	1:36
1:38	1:45	1:51	2:03	2:08
2:07	2:14	2:20	2:32	2:37
2:31	2:38	2:44	2:56	3:01
3:01	3:08	3:14	3:26	3:31
3:31	3:38	3:44	3:56	4:01
4:07	4:14	4:20	4:32	4:37
4:38	4:45	4:51	5:03	5:08
5:08	5:15	5:20	5:31	5:36
5:38	5:45	5:50	6:01	6:06
6:08	6:15	6:20	6:31	6:36
6:34	6:41	6:46	6:57	7:02
7:00	7:07	7:12	7:23	7:28
7:30	7:37	7:42	7:53	7:58
8:01	8:07	8:12	8:22	8:26
8:37	8:43	8:48	8:58	9:02
9:08	9:14	9:19	9:29	9:33
9:38	9:44	9:49	9:59	10:03

T = Trip operates when San Ysidro High School is in session & classes begin at regular bell schedule (8:30AM).
Este viaje opera durante los días escolares de San Ysidro High School y cuando las clases comienzan en horario regular (8:30AM).

Route 905 – Saturday / sábado

Otay Mesa ➡ Iris Avenue Transit Center				
Ⓔ	Ⓓ	Ⓒ	Ⓑ	Ⓐ
Otay Mesa Transit Center DEPART	Siempre Viva Rd. & Drucker Lane	Otay Mesa Rd. & Britannia Bl.	SR-905 & Caliente Av.	Iris Avenue Transit Center ARRIVE
5:16a	5:19a	5:28a	5:32a	5:38a
6:15	6:18	6:27	6:31	6:37
7:15	7:18	7:27	7:31	7:37
8:15	8:18	8:27	8:31	8:37
9:15	9:18	9:27	9:31	9:37
10:15	10:18	10:27	10:31	10:37
11:14	11:17	11:27	11:32	11:38
12:14p	12:17p	12:27p	12:32p	12:38p
1:14	1:17	1:27	1:32	1:38
2:14	2:17	2:27	2:32	2:38
3:14	3:17	3:27	3:32	3:38
4:14	4:17	4:27	4:32	4:38
5:14	5:17	5:27	5:32	5:38
6:15	6:18	6:27	6:31	6:37
7:15	7:18	7:27	7:31	7:37
8:15	8:18	8:27	8:31	8:37

Iris Avenue Transit Center ➡ Otay Mesa				
Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
Iris Avenue Transit Center DEPART	SR-905 & Caliente Av.	Otay Mesa Rd. & Britannia Bl.	Siempre Viva Rd. & Drucker Lane	Otay Mesa Transit Center ARRIVE
5:45a	5:51a	5:56a	6:04a	6:07a
6:44	6:50	6:55	7:04	7:08
7:44	7:50	7:55	8:04	8:08
8:44	8:50	8:55	9:04	9:08
9:44	9:50	9:55	10:04	10:08
10:44	10:50	10:55	11:04	11:08
11:44	11:50	11:55	12:04p	12:08p
12:44p	12:50p	12:55p	1:04	1:08
1:44	1:50	1:55	2:04	2:08
2:44	2:50	2:55	3:04	3:08
3:44	3:50	3:55	4:04	4:08
4:44	4:50	4:55	5:04	5:08
5:44	5:50	5:55	6:04	6:08
6:44	6:50	6:55	7:04	7:08
7:44	7:50	7:55	8:04	8:08
8:44	8:50	8:55	9:03	9:06

Route 905 – Sunday / domingo

Otay Mesa ➡ Iris Avenue Transit Center				
Ⓔ	Ⓓ	Ⓒ	Ⓑ	Ⓐ
Otay Mesa Transit Center DEPART	Siempre Viva Rd. & Drucker Lane	Otay Mesa Rd. & Britannia Bl.	SR-905 & Caliente Av.	Iris Avenue Transit Center ARRIVE
5:30a	5:33a	5:42a	5:46a	5:52a
6:30	6:33	6:42	6:46	6:52
7:30	7:33	7:42	7:46	7:52
8:30	8:33	8:42	8:46	8:52
9:30	9:33	9:42	9:46	9:52
10:30	10:33	10:42	10:46	10:52
11:29	11:32	11:42	11:47	11:53
12:29p	12:32p	12:42p	12:47p	12:53p
1:29	1:32	1:42	1:47	1:53
2:29	2:32	2:42	2:47	2:53
3:29	3:32	3:42	3:47	3:53
4:29	4:32	4:42	4:47	4:53
5:29	5:32	5:42	5:47	5:53
6:30	6:33	6:42	6:46	6:52
7:30	7:33	7:42	7:46	7:52
8:30	8:33	8:42	8:46	8:52

Iris Avenue Transit Center ➡ Otay Mesa				
Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
Iris Avenue Transit Center DEPART	SR-905 & Caliente Av.	Otay Mesa Rd. & Britannia Bl.	Siempre Viva Rd. & Drucker Lane	Otay Mesa Transit Center ARRIVE
6:00a	6:06a	6:12a	6:20a	6:24a
6:59	7:05	7:10	7:19	7:23
7:59	8:05	8:10	8:19	8:23
8:59	9:05	9:10	9:19	9:23
9:59	10:05	10:10	10:19	10:23
10:59	11:05	11:10	11:19	11:23
11:59	12:05p	12:10p	12:19p	12:23p
12:59p	1:05	1:10	1:19	1:23
1:59	2:05	2:10	2:19	2:23
2:59	3:05	3:10	3:19	3:23
3:59	4:05	4:10	4:19	4:23
4:59	5:05	5:10	5:19	5:23
5:59	6:05	6:10	6:19	6:23
6:59	7:05	7:10	7:19	7:23
7:59	8:05	8:10	8:19	8:23

Route 909 – Monday through Friday / lunes a viernes

Otay Mesa ➡ Southwestern College Otay Mesa		
Ⓔ	Ⓒ	Ⓕ
Otay Mesa Transit Center DEPART	Otay Mesa Rd. & Britannia Bl.	Southwestern College Otay Mesa ARRIVE
4:59a	5:11a	5:21a
6:01	6:13	6:23
7:06	7:19	7:30
8:09	8:22	8:33
9:10	9:23	9:34
10:10	10:23	10:34
11:10	11:23	11:34
12:10p	12:23p	12:34p
1:15	1:28	1:39
2:10	2:23	2:34
3:10	3:23	3:34
4:10	4:23	4:34
4:58	5:11	5:22
5:56	6:08	6:18
7:08	7:20	7:30

Southwestern College Otay Mesa ➡ Otay Mesa		
Ⓕ	Ⓒ	Ⓔ
Southwestern College Otay Mesa DEPART	Otay Mesa Rd. & Britannia Bl.	Otay Mesa Transit Center ARRIVE
5:24a	5:28a	5:39a
6:26	6:30	6:41
7:33	7:38	7:50
8:36	8:41	8:53
9:35	9:40	9:52
10:35	10:40	10:52
11:35	11:40	11:52
12:35p	12:40p	12:52p
1:42	1:47	1:59
2:35	2:40	2:52
3:37	3:42	3:54
4:35	4:40	4:52
5:23	5:28	5:40
6:21	6:26	6:38
7:33	7:37	7:48

Route 909 does not operate on weekends or on the following holidays and observed holidays
La ruta 909 no ofrece servicio durante el fin de semana ó durante los siguientes días festivos y feriados observados

>>>

New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

END OF APPENDICES