## MAJESTIC AIRWAY

## TRANSPORTATION IMPACT STUDY

PTS\# 632813


OCTOBER 2023

Prepared By:

## EXECUTIVE SUMMARY

The following Transportation Impact Study ("TIS") has been prepared to determine and evaluate potential transportation impacts associated with the Majestic Airway project ("Project") and to recommend mitigation measures for any impacts due to the Project. The Project intends to tier off the Level Of Service (LOS)-based Otay Mesa Community Plan Final Program Environmental Impact Report (EIR), dated March 2014; therefore, a Vehicle Miles Traveled (VMT) analysis is not required. A LOS-based analysis has been prepared for this project following guidance outlined in the City of San Diego Traffic Impact Study Manual (TISM) (July 1998).

## Project Description

The Project is located within the Otay Mesa Community Planning Area, on the northeast corner of La Media Road and Airway Road, within the City of San Diego. This project proposes to construct three (3) industrial warehouse buildings consisting of a total of 408,607 square-feet on an existing undeveloped vacant lot. The Project will be constructed in a single development phase and is anticipated to be constructed and in operation in 2025, following the completion of the City's Capital Improvement Project (CIP) \#S-15018 for the La Media Road improvements. Access to the Project site will be provided along Airway Road only. The proposed primary access to the Project site is a full-access, signalized driveway approximately 700-feet east of La Media Road. A secondary access would be provided via an unsignalized right-in/right-out only driveway on the east side of the site. An emergency access only driveway is also proposed on Airway Road on the west side of the site. The Project is expected to generate a total of 2,043 daily trips with 306 morning peak-hour trips ( $215 \mathrm{in}, 91$ out) and 327 afternoon peak-hour trips (131 in, 196 out).

## Study Area

The study area was determined based on the Project's trip assignment and coordination with City staff. The study area reflects the main access routes to and from the Project site, mainly providing access to the adjacent freeways and use of Airway Road and La Media Road. Based on the expected traffic generated, distribution patterns and TISM requirements, the study area consists of seven (7) intersections, including the two (2) proposed access driveways, and eleven (11) roadway segments.

The intersections identified for evaluation include:

1. La Media Rd \& Otay Mesa Rd
2. La Media Rd \& St. Andrews Avenue/SR-905 WB Ramps
3. La Media Road \& SR-905 EB Ramps
4. La Media Road \& Airway Road
5. Airway Road \& Project Driveway 1
6. Airway Road \& Project Driveway 2
7. Avenida Costa Azul/Private Driveway \& Airway Road

The roadway segments identified for evaluation include:

1. La Media Road, between Otay Mesa Road and SR 905 WB Ramps/St. Andrews Avenue
2. La Media Road, between SR 905 WB Ramps/St. Andrews Avenue and SR 905 EB Ramps
3. La Media Road, between SR 905 EB Ramps and Airway Road
4. La Media Road, between Airway Road and Avenida de la Fuente
5. La Media Road, between Avenida de la Fuente and Siempre Viva Road
6. Airway Road, between La Media Road and Project Driveway 1
7. Airway Road, between Project Driveway 1 and Avenida Costa Azul
8. Airway Road, between Avenida Costa Azul and Piper Ranch Road
9. Airway Road, between Piper Ranch Road to Avenida de la Fuente N
10. Airway Road, between Avenida de la Fuente $N$ and Harvest Road
11. Airway Road, between Harvest Road and Sanyo Avenue

## Analysis Scenarios

Six (6) scenarios were evaluated as part of this TIS, listed below:

- Existing (2022) Conditions
- Existing (2022) Plus Project
- Opening Day (Year 2025) Conditions
- Opening Day (Year 2025) Plus Project
- Horizon Year (2062) Conditions
- Horizon Year (2062) Plus Project


## Analysis Findings - Existing (2022) Conditions

Under the Existing (2022) Conditions, all study area intersections operate at LOS D or better during both peak periods. All study area roadway segments operate at LOS D or better, except for the following locations:

- La Media Road, between SR 905 EB Ramps and Airway Road - LOS E
- Airway Road, between La Media Road and Project Driveway 1 - LOS F
- Airway Road, between Project Driveway 1 and Avenida Costa Azul - LOS E


## Analysis Findings - Existing (2022) Plus Project

Under the Existing (2022) Plus Project conditions, all study area intersections are expected to continue to operate at LOS D or better during both peak periods, except for the intersection of:

- La Media Road \& Airway Road (LOS F - AM and PM peak periods)

All study area roadway segments are expected to continue to operate at LOS D or better, except for the following locations:

- La Media Road, between SR 905 EB Ramps and Airway Road - LOS F
- Airway Road, between La Media Road and Project Driveway 1 - LOS F
- Airway Road, between Project Driveway 1 and Avenida Costa Azul - LOS E

The roadway network evaluated in this scenario is hypothetical since the Project intends to open after the implementation of the City's CIP Project \# S-15018, which will construct improvements along the Project's La Media frontage and a portion of the Project's Airway Road frontage. In this hypothetical situation, the Project would have significant direct impacts at these four locations and would be mitigated by the Project's frontage requirements on La Media Road [half width improvements to this roadway segment (with an ultimate roadway classification as a 6-Lane Prime Arterial) to provide a 5-Lane Collector] and Airway Road [half width improvements to this roadway segment (with an ultimate roadway classification as a 4-Lane Major Arterial) to provide a 3-Lane Collector]. The intersection of La Media Road \& Airway Road is currently signalized but functions as an All-Way Stop Control with the existing traffic signal set to flashing red. This intersection would be mitigated by modifying the existing traffic signal as part of the project's frontage improvements and returning the modified traffic signal system to normal operations.

Figure E-1 illustrates the geometrics of the study intersections and roadway segments with the addition of the Existing (2022) Plus Project hypothetical improvements.

## Analysis Findings - Opening Day (Year 2025) Conditions

Under the Opening Day (Year 2025) Conditions, all study area intersections are expected to operate at LOS D or better during both peak periods. All study area roadway segments are expected to operate at LOS D or better, except for the following locations:

- Airway Road, between La Media Road and Project Driveway 1 - LOS F
- Airway Road, between Project Driveway 1 and Avenida Costa Azul - LOS E


## Analysis Findings - Opening Day (Year 2025) Plus Project

Under the Opening Day (Year 2025) Plus Project conditions, all study area intersections are expected to continue to operate at LOS D or better during both peak periods. All study area roadway segments are expected to operate at LOS D or better, except for the following locations:

- Airway Road, between La Media Road and Project Driveway 1 - LOS F
- Airway Road, between Project Driveway 1 and Avenida Costa Azul - LOS E

The Project would have a significant direct impact on these two street segments under Opening Day (Year 2025) Plus Project conditions, which would be mitigated by the Project by construction of a raised median across the full project frontage to Avenida Costa Azul and second eastbound lane on Airway Road, between La Media Road and Avenida Costa Azul, to provide a 4-Lane Major Arterial.

## Analysis Findings - Horizon Year (2062) Conditions

Under Horizon Year (2062) Conditions, as evaluated in the OMCPU EIR, all study area intersections are expected to operate at LOS F during both peak periods:

- La Media Rd \& Otay Mesa Rd (LOS F - AM and PM peak periods)
- La Media Rd \& St. Andrews Avenue/SR-905 WB Ramps (LOS F - AM and PM peak periods)
- La Media Road \& SR-905 EB Ramps (LOS F - AM and PM peak periods)
- La Media Road \& Airway Road (LOS F - AM and PM peak periods)
- Avenida Costa Azul/Private Driveway \& Airway Road (LOS F - AM and PM peak periods)

The intersection of Avenida Costa Azul/Private Driveway \& Airway Road was not evaluated in the OMCPU EIR; however, this intersection is included in the OM PFFP as a planned signalized intersection (Project OM T-35).

All study roadway segments are expected to operate at LOS D or better, except for the following locations:

- La Media Road between SR-905 WB Ramps and SR-905 EB Ramps - LOS F
- La Media Road, between SR 905 EB Ramps and Airway Road - LOS F
- Airway Road, between La Media Road and Project Driveway 1 - LOS F
- Airway Road, between Project Driveway 1 and Avenida Costa Azul - LOS F
- Airway Road, between Avenida Costa Azul and Piper Ranch Road - LOS F
- Airway Road, between Piper Ranch Road and Avenida de la Fuente N - LOS F
- Airway Road, between Avenida de la Fuente N and Harvest Road - LOS F
- Airway Road, between Harvest Road and Sanyo Avenue - LOS F


## Analysis Findings - Horizon Year (2062) Plus Project

Under Horizon Year (2062) Plus Project conditions, as evaluated in the OMCPU EIR, all study area intersections are expected to continue to operate at LOS D or better during both peak periods, except for the following locations:

- La Media Rd \& Otay Mesa Rd (LOS F - AM and PM peak periods)
- La Media Rd \& St. Andrews Avenue/SR-905 WB Ramps (LOS F - AM and PM peak periods)
- La Media Road \& SR-905 EB Ramps (LOS F - AM and PM peak periods)
- La Media Road \& Airway Road (LOS F - AM and PM peak periods)
- Airway Road \& Project Driveway 1 (LOS F AM peak period)
- Avenida Costa Azul/Private Driveway \& Airway Road (LOS F - AM and PM peak periods)

The intersections of Airway Road \& Project Driveway 1, and Avenida Costa Azul/Private Driveway \& Airway Road were not evaluated in the OMCPU EIR. The intersection of Airway Road and Project Driveway 1 is required to provide access to the proposed project; and therefore, was not analyzed as part of the OMCPU EIR. The intersection of Avenida Costa Azul/Private Driveway and Airway Road was also not analyzed as part of the OMCPU EIR, however, this intersection is included in the OM PFFP as a planned signalized intersection (Project OM T-35).

All study area roadway segments are expected to operate at LOS D or better, except for the following locations:

- La Media Road between SR-905 WB Ramps and SR-905 EB Ramps - LOS F
- La Media Road, between SR 905 EB Ramps and Airway Road - LOS F
- Airway Road, between La Media Road and Project Driveway 1 - LOS F
- Airway Road, between Project Driveway 1 and Avenida Costa Azul - LOS F
- Airway Road, between Avenida Costa Azul and Piper Ranch Road - LOS F
- Airway Road, between Piper Ranch Road and Avenida de la Fuente N - LOS F
- Airway Road, between Avenida de la Fuente $N$ and Harvest Road - LOS F
- Airway Road, between Harvest Road and Sanyo Avenue - LOS F

The Project would have significant cumulative impacts at six (6) study intersections and eight (8) roadway segments under Horizon Year (2062) Plus Project conditions, which would be mitigated by fair share contributions to improvements recommended by the OMCPU EIR, described below.

## Site Improvements

Two access driveways and one emergency access only driveway are proposed along Airway Road. The middle driveway (Project Driveway 1) is proposed to be a full-access, signalized driveway, approximately 700 -feet east of La Media Road with a southbound shared left/right-turn (outbound) lane and a single inbound lane. A 200foot eastbound left-turn pocket will be provided by the Project. The queueing analysis indicates that the proposed 200 -foot eastbound left-turn pocket would provide sufficient storage capacity for the Project's inbound traffic. Signalization of Project Driveway 1 would allow full-access movements into/out of the site along Airway Road which has an ultimate roadway classification as a 4-Lane Major Arterial per the Otay Mesa Community Plan. The easternmost driveway (Project Driveway 2) would be a right-in/right-out only, stop-controlled driveway with a single inbound/outbound lane.

The Project would construct non-contiguous sidewalk within the parkway along its frontage on Airway Road connecting to the City's CIP improvements to the west and the existing contiguous sidewalk at the site's eastern limits.

The Project would install a buffered Class II bike lane along the north side of Airway Road for the westbound direction, which would extend to Avenida Costa Azul, approximately 185 -feet east of the site's eastern limits.

Per Section 142.0527 of the City of San Diego's Municipal Code, the Project is required to provide 1 parking space per every 1,000 square feet of gross floor area. Therefore, the Project's minimum parking requirement would be 410 spaces. The proposed site plan includes 416 vehicle spaces ( +6 spaces from required), including 16 accessible spaces ( 15 spaces required). The Project is also required to provide 22 bicycle spaces, 9 motorcycle spaces, 51 clean air vehicle spaces, and 46 electric vehicle charging spaces. The Project would provide 34 bicycle spaces ( +12 spaces from required), 9 motorcycle spaces, 52 clean air vehicle spaces ( +1 space from required), and 48 electric vehicle charging spaces ( +2 spaces from required). The Project would also provide 85 truck spaces, in addition to the 99 truck dock stalls. Therefore, the Project's proposed parking spaces would exceed the minimum requirements.

## Opening Day (Year 2025) Plus Project Mitigations

## Roadway Segments:

## Airway Road, between La Media Road \& Project Driveway 1

Prior to issuance of the first building permit, the Project shall assure by permit and bond to widen this roadway segment (east of the CIP S-15018 eastern project limit) from a 3-Lane Collector to a 4-Lane Major Arterial and construct a full width raised median. All improvements shall be constructed and operational prior to first occupancy to the satisfaction of the City Engineer. This segment would operate at LOS B with the recommended mitigation measure under Opening Day (Year 2025) with Project Mitigated Conditions. Appendix L contains a conceptual design of the Project's proposed improvements along Airway Road.

## Airway Road, between Project Driveway 1 and Avenida Costa Azul

Prior to issuance of the first building permit, the Project shall assure by permit and bond to widen this roadway segment from a 3 -Lane Collector to a 4-Lane Major Arterial and construct a full width raised median. All improvements shall be constructed and operational prior to first occupancy to the satisfaction of the City Engineer. This segment would operate at LOS A with the recommended mitigation measure under Opening Day (Year 2025) with Project Mitigated Conditions. Appendix L contains a conceptual design of the Project's proposed improvements along Airway Road.

Figure E-2 illustrates the geometrics of the study intersections and roadway segments with the Opening Day (Year 2025) Plus Project mitigation measures.

## Horizon Year (2062) Plus Project Mitigations

## Intersections:

## La Media Road \& Otay Mesa Road

The OMCPU recommends the widening of all approaches along Otay Mesa Road and La Media Road to accommodate dual left-turn lanes and dual right-turn lanes on each intersection approach, two southbound thru lanes, and three through lanes on the northbound, eastbound, and westbound approaches. This intersection would continue to operate at LOS F during both the AM and PM peak hours with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigated conditions, which is consistent with findings of the OMCPU EIR. Prior to issuance of any building permit, the Owner/Permittee shall pay an $0.77 \%$ fair share towards these intersection improvements, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations.

## La Media Road \& St. Andrews Avenue/SR-905 WB Ramps

The OMCPU recommends restriping the west leg to restrict the EBT movement providing an eastbound left-turn lane and right-turn lane. It also includes restriping the south leg to provide dual left-turn lanes, three thru lanes, and right-turn pocket. This intersection would continue to operate at LOS F during both the AM and PM peak hours with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigated conditions, which is consistent with findings of the OMCPU EIR. Prior to issuance of any building permit, the Owner/Permittee shall pay a $2.63 \%$ fair share towards these intersection improvements, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations.

## La Media Road \& SR-905 EB Ramps

The OMCPU recommends widening the southbound La Media Road approach to accommodate three thru lanes and a right-turn lane. This intersection would continue to operate at LOS F during both the AM and PM peak hours with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigated conditions, which is consistent with findings of the OMCPU EIR. Prior to issuance of any building permit, the Owner/Permittee shall pay a $3.46 \%$ fair share towards this intersection improvement, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations.

## La Media Road \& Airway Road

This intersection would operate at LOS F during both the AM and PM peak hours, which is consistent with findings of the OMCPU EIR. Since the City's CIP \#S-15018 would construct the intersection to its ultimate intersection geometrics, as identified in the currently adopted Otay Mesa Community Plan, no project mitigation measures are required.

## Airway Road and Project Driveway 1

This intersection would improve from LOS F to LOS B by constructing a signalized driveway with a shared left/right-turn southbound lane as part of the site improvements, and by the implementation of the recommended mitigation measures under Opening Day (Year 2025) Plus Project Mitigated conditions, which includes widening Airway Road between La Media Road and Avenida de la Fuente from a 3-Lane Collector to a 4-Lane Major Arterial and constructing a full width raised median. These improvements would provide the following intersection conditions:

- SB : Shared left/right-turn lane;
- EB: Left-turn lane (200-foot pocket) and two thru lanes; and
- WB: Future left-turn lane (200-foot pocket), one thru lane, and a thru/right-turn lane.

These intersection improvements would accommodate a future driveway on the south leg of intersection (northbound approach), which would provide a full-access driveway for the property on south side of Airway. This intersection is not explicitly covered by OMCPU EIR Statement of Overriding Considerations.

## Avenida Costa Azul/Private Driveway \& Airway Road

Prior to issuance of any building permit, the Owner/Permittee shall pay a $3.57 \%$ fair share towards signalizing Avenida Costa Azul/Private Driveway \& Airway Road, as stated by PFFP OM T-35, and restriping to provide a northbound left-turn/thru lane and right-turn pocket, satisfactory to the City Engineer. This intersection would improve from LOS F to LOS D with the implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project conditions. See Appendix I for fair share calculations. This intersection is not explicitly covered by OMCPU EIR Statement of Overriding Considerations.

## Roadway Segments:

## La Media Road, between St. Andrews Avenue/ SR-905 WB Ramps and SR-905 EB Ramps

The OMCPU recommends constructing a raised median to provide a 6-Lane Primary Arterial. This roadway segment would continue to operate at LOS F with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigation conditions, which is consistent with findings of the OMCPU EIR. Prior to issuance of any building permit, the Owner/Permittee shall pay a $2.62 \%$ fair share towards this roadway improvement, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations.

## La Media Road, between SR-905 EB Ramps \& Airway Road

Since the City's CIP \#S-15018 would construct the roadway to its ultimate classification as a 6-lane Primary Arterial, as identified in the currently adopted Otay Mesa Community Plan, no project mitigation measures are required. This roadway segment would continue to operate at LOS F, which is consistent with the findings of the OMCPU EIR.

## Airway Road, between La Media Road \& Project Driveway 1

In the Opening Day (Year 2025) Plus Project Mitigations scenario, the project would widen this roadway segment from a 3-Lane Collector to a 4-Lane Major Arterial and construct a full width raised median. This roadway segment would operate at LOS D with implementation of the recommended mitigation measures under Opening Day (Year 2025) Plus Project Mitigated conditions. Therefore, no further mitigation is required. Appendix L contains a conceptual design of the Project's proposed improvements along Airway Road.

## Airway Road, between Project Driveway 1 \& Avenida Costa Azul

In the Opening Day (Year 2025) Plus Project Mitigations scenario, the project would widen this roadway segment from a 3-Lane Collector to a 4-Lane Major Arterial and construct a full width raised median. This roadway segment would operate at LOS D with implementation of the recommended mitigation measures under Opening Day (Year 2025) Plus Project Mitigated conditions. Therefore, no further mitigation is required. Appendix $L$ contains a conceptual design of the Project's proposed improvements along Airway Road.

## Airway Road, between Avenida Costa Azul \& Piper Ranch Road

The OMCPU recommends widening to provide a 4-Lane Major Arterial. This segment was previously constructed to 4-Lane Major Arterial standards, including 78-foot curb-to-curb width and a raised median. Therefore, only restriping of the segment is required to improve to a 4-Lane Major Arterial. This roadway segment would operate at LOS D with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigation conditions. Prior to issuance of any building permit, the Owner/Permittee shall pay a $1.21 \%$ fair share towards this roadway improvement, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations.

## Airway Road, between Piper Ranch Road \& Avenida de la Fuente N

The OMCPU recommends widening the roadway and constructing a raised median to provide a 4-Lane Major Arterial. This roadway segment would operate at LOS D with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigation conditions. Prior to issuance of any building permit, the Owner/Permittee shall pay a $1.21 \%$ fair share towards these roadway improvements, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations.

## Airway Road, between Avenida de la Fuente N \& Harvest Road

The OMCPU recommends widening the roadway and constructing a raised median to provide a 4-Lane Major Arterial. This roadway segment would operate at LOS D with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigated conditions. Prior to issuance of any building permit, the Owner/Permittee shall pay a $1.21 \%$ fair share towards these roadway improvements, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations.

## Airway Road, between Harvest Road \& Sanyo Avenue

The OMCPU recommends widening the roadway and constructing a raised median to provide a 4-Lane Major Arterial. This roadway segment would operate at LOS C with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigation conditions. Prior to issuance of any building permit, the Owner/Permittee shall pay a $1.70 \%$ fair share towards this roadway improvement, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations. PRJ-1042571, the Sanyo Logistics project, is currently under construction and includes widening the north side of Airway Road for a 4-Lane Major Arterial, constructing raised median along the project site's frontage, and restriping the segment with four travel lanes. Therefore, fair-share contributions will be based on the cost of constructing the remaining portion of raised median between Harvest Road and this PRJ-1042571 project's limits (approximately 450-feet), and any other improvements required to provide a 4-Lane Major Arterial, satisfactory to City Engineer.

Figure E-3 illustrates the geometrics of the study intersections and roadway segments with the Horizon Year (2062) Plus Project mitigation measures.

Table E-1 summarizes the intersection impacts and recommended mitigations. Table E-2 summarizes the roadway segment impacts and recommended mitigations.

FIGURE E-1

| La Media Road/ Otay Mesa Road | La Media/ SR-905 WB Ramps | La Media Road/ SR-905 EB Ramp | La Media Road/ Airway Road |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Project Driveway 1/ Airway Road | Project Driveway $2 /$ Airway Road | Avenida Costa Azul/ Airway Road | LEGEND |
|  |  |  | (X) Signalized <br> * Unsignalized <br> (30) Stop Controlled Leg <br> (xx) Storage Length <br> - Mitigation |

* The intersection is signalized but operates on flashing red for all-way stop. Westbound left and eastbound right movements are restricted by signage. Mitigation includes placing traffic signal back in operation.
The roadway network evaluated in this scenario is hypothetical since the Project intends to open after the implementation of the City's CIP Project \# S-15018, which will construct improvements along the Project's La Media frontage and a portion of the Project's Airway Road frontage.


Existing (2022) Plus Project Mitigated (Hypothetical) Intersection and Roadway Segment Geometrics

FIGURE E-2

| La Media Road/ Otay Mesa Road | La Media/ SR-905 WB Ramps | La Media Road/ SR-905 EB Ramp | La Media Road/ Airway Road |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Airway Road | Airway Road | Avenida Costa Azul/ Airway Road | LEGEND |
|  |  |  | $\begin{array}{ll} \otimes & \text { Signalized } \\ \otimes & \text { Unsignalized } \\ 0 & \text { Stop Controlled Leg } \\ \text { (xx) } & \text { Storage Length } \\ & \text { Mitigation } \end{array}$ |

* Additional eastbound lane added as part of roadway segment mitigation to be constructed by the Project at Opening Day (Year 2025).


Opening Day (Year 2025) Plus Project Mitigated Intersection and Roadway Segment Geometrics

FIGURE E-3

| La Media Road/ Otay Mesa Road | La Media/ SR-905 WB Ramps | La Media Road/ SR-905 EB Ramp | La Media Road/ Airway Road |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Project Driveway 1/ Airway Road | Project Driveway $2 /$ Airway Road | Avenida Costa Azul/ Airway Road | LEGEND |
|  |  |  | (×) Signalized <br> * Unsigalized <br> (5T0) Stop Controlled Leg <br> (xx) Storage Length Mitigation |

* Additional eastbound lane added as part of roadway segment mitigation to be constructed by the Project at Opening Day (Year 2025).


Horizon Year (2062) Plus Project Mitigated Intersection and Roadway Segment Geometrics

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Appendix K CA MUTCD Signal Warrant Analysis
Appendix L Airway Road Recommended Widening Concept
Appendix M Otay Mesa Truck Route Phase 4 Estimated Project Schedule

## 1 INTRODUCTION

The following Transportation Impact Study ("TIS") has been prepared to determine and evaluate potential transportation impacts associated with the Majestic Airway project ("Project") and to recommend mitigation measures for any impacts due to the Project. Figure 1-1 depicts the Project location in a regional context. The Project intends to tier off the Level Of Service (LOS)-based Otay Mesa Community Plan Environmental Impact Report (EIR), dated March 2014; therefore, a Vehicle Miles Traveled (VMT) analysis is not required. A LOS-based analysis has been prepared for this project following guidance outlined in the City of San Diego Traffic Impact Study Manual (TISM) (July 1998).

### 1.1 PROJECT DESCRIPTION

The Project is located within the Otay Mesa Community Planning Area, on the northeast corner of La Media Road and Airway Road, within the City of San Diego. The development is located in the IL-3-1 zone for industrial development, including a wide range of manufacturing and distribution activities. This project proposes to construct three (3) industrial warehouse buildings consisting of a total of 408,607 square-feet on an existing undeveloped vacant lot. The Project will be constructed in a single development phase and is anticipated to be constructed and in operation in 2025, following the completion of the City's Capital Improvement Project (CIP) \#S-15018 for the La Media Road improvements, described in further detail in Section 6.2. Access to the Project site will be provided along Airway Road only. The proposed primary access to the Project site is a full-access, signalized driveway (signal warrant analysis included in Section 11.4) approximately 700 -feet east of La Media Road. A secondary access would be provided via an unsignalized right-in/right-out only driveway on the east side of the site. An emergency access only driveway is also proposed on Airway Road on the west side of the site. The proposed site plan is presented in Figure 12.

### 1.2 ANALYSIS SCENARIOS

Six (6) scenarios were evaluated as part of this TIS, listed below:

- Existing (2022) Conditions: Represents the traffic conditions of the existing street network in place in 2022. Traffic counts were collected in August 2022.
- Existing (2022) Plus Project: Represents the traffic conditions on the existing street network with the addition of the Project. The roadway network evaluated in this scenario is hypothetical, since the Project intends to open after the implementation of the City's CIP Project \# S-15018, which will construct improvements along the project's La Media frontage and a portion of the project's Airway Road frontage.
- Opening Day (Year 2025) Conditions: Represents the traffic conditions of the street network assumed in year 2025, the projected opening year. Volumes associated with reasonably foreseeable cumulative projects in the area were included.
- Opening Day (Year 2025) Plus Project: Represents the traffic conditions under Opening Day (Year 2025) with the addition of the Project. Comparison of this scenario to the Opening Day (Year 2025) Baseline Conditions scenario determines direct project impacts associated with the Project.
- Horizon Year (2062) Conditions: Represents the projected traffic conditions in year 2062 under the buildout of Otay Mesa, as described in the OMCPU EIR and TIS, with the removal of traffic generated by the Project.
- Horizon Year (2062) Plus Project: Represents the projected traffic conditions in year 2062 under the buildout of Otay Mesa, as described in the OMCPU EIR and TIS, with the traffic generated by the Project. Comparison of this scenario to the Horizon Year (2062) Baseline Conditions Scenario determines cumulative project impacts associated with the Project.

FIGURE 1-1

FIGURE 1-2


## 2 METHODOLOGY

The following section describes the methodology used to establish the geographic study area, analyze study area conditions, and determine significant transportation impacts. This scope is based on the City's TISM requirements.

### 2.1 STUDY AREA

The study area was determined based on the Project's trip assignment and coordination with City staff. The study area reflects the main access routes to and from the Project site, mainly providing access to the adjacent freeways and use of Airway Road and La Media Road.

According to the City's TISM, the contents and geographic extent of a transportation impact study depend on the location and size of the proposed development and the conditions prevailing in the surrounding area. At a minimum, the study must address site access and adjacent intersections, plus the first major signalized intersection in each direction from the site. Beyond this minimum requirement, all known congested or potentially congested locations that may be impacted by the proposed development should be studied. The geographic area examined in the TIS must include the following:

- All Regionally Significant Arterial system segments and intersections, including freeway on/off ramp intersections, where the Project will add 50 or more peak hour trips in either direction to adjacent street traffic.
- Mainline freeway locations where the Project will add 150 or more peak hour trips in either direction.

Based on the requirements above, the study area consists of seven (7) intersections, including the two (2) proposed access driveways, and eleven (11) roadway segments. The study area locations are shown in Figure 2-1. The intersections identified for evaluation are listed in Table 2-1.

The roadway segments identified for evaluation include:

1. La Media Road, between Otay Mesa Road and SR 905 WB Ramps/St. Andrews Avenue
2. La Media Road, between SR 905 WB Ramps/St. Andrews Avenue and SR 905 EB Ramps
3. La Media Road, between SR 905 EB Ramps and Airway Road
4. La Media Road, between Airway Road and Avenida de la Fuente
5. La Media Road, between Avenida de la Fuente and Siempre Viva Road
6. Airway Road, between La Media Road and Project Driveway 1
7. Airway Road, between Project Driveway 1 and Avenida Costa Azul
8. Airway Road, between Avenida Costa Azul and Piper Ranch Road
9. Airway Road, between Piper Ranch Road to Avenida de la Fuente $N$
10. Airway Road, between Avenida dl la Fuente $N$ and Harvest Road
11. Airway Road, between Harvest Road and Sanyo Avenue
เ-て ョยกตเง


Table 2-1 Study Intersections

| Intersection | Traffic <br> Control (a) |  |
| :---: | :--- | :---: |
| 1 | La Media Rd \& Otay Mesa Rd | Signal |
| 2 | La Media Rd \& St. Andrews Avenue/SR-905 WB Ramps | Signal |
| 3 | La Media Road \& SR-905 EB Ramps | Signal |
| 4 | La Media Road \& Airway Road* $^{*}$AWSC/Signal  <br> 5 Airway Road \& Project Driveway 1 Future Signal |  |
| 6 | Airway Road \& Project Driveway 2 | Future SSSC |
| 7 | Avenida Costa Azul/Private Driveway \& Airway Road | SSSC |

(a) Signal = Traffic Signal;

SSSC = Side Street Stop Control
AWSC = All-Way Stop Control
Future Signal = Traffic Signal built as a project feature
*Intersection is signalized but currently functions as an AWSC (flashing red). Intersection is evaluated as ASWC under Existing conditions and as Signal for the Opening Day (Year 2025) and Horizon conditions.

Mainline freeway locations were not analyzed since less than 150 Project-related peak hour trips are expected to travel along the SR-905 in a single direction.

### 2.2 ANALYSIS PROCESS

The City's TISM provides guidelines for preparing a traffic impact analysis. The analysis process includes determining the operations at the study intersections for the a.m. and p.m. peak periods and operations along the roadway segments. Intersection analysis was quantified using the Synchro 11 traffic analysis software package. Roadway segments were quantified by the applicable roadway classifications' capacity and average daily traffic (ADT) volume. Analysis results were compared to the City's thresholds for significance to determine if the Project has any significant impacts.

### 2.2.1 ANALYSIS SOFTWARE

To analyze the operations of both signalized and unsignalized intersections, Synchro 11 (Trafficware), using the methodologies outlined in the Highway Capacity Manual (HCM) 6th Edition, was used for the analysis. Roadway segment analysis was conducted using Excel spreadsheet software.

### 2.2.2 SIGNALIZED AND UNSIGNALIZED INTERSCTIONS

The HCM published by the Transportation Research Board establishes procedures to evaluate highway facilities and rate their ability to process traffic volumes. The terminology LOS is used to provide a qualitative evaluation based on certain quantitative calculations, which are related to empirical values. The criteria for the various levels of service designations for intersections are given in Table 2-2.

LOS for signalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and loss of travel time. Specifically, LOS criteria are stated in terms of the
average control delay per vehicle for the peak 15-minute period within the hour analyzed. The average control delay includes initial deceleration delay, queue move-up time, and final acceleration time in addition to the stop delay.

LOS for unsignalized intersections is determined by the computed or measured control delay and is defined for each movement. At an all-way stop control intersection, the delay reported is the average control delay of all movements at the intersection. At a one-way or two-way stop control intersection, the delay reported represents the worst movement, which is typically the left-turn from the minor street approach.

The following list contains the assumptions used for the intersection analyses:

- $\mathrm{HCM} 6^{\text {th }}$ Edition methodology
- Peak-hour factor (PHF) - Measured in field PHFs were used for the existing and opening day scenarios; default value of 0.92 was used for horizon year
- Percent of heavy vehicle (PHV) - 16 percent on all intersection turning movements with the exception of La Media Road \& Airway Road, which has a PHV of 32 percent applied to all turning movements due to the truck-border crossing.
- Signal Timing - Existing signal timing was used for existing and opening day scenarios; signal timing was optimized for the horizon year scenarios to account for future traffic demand.

Appendix A contains the existing traffic signal timing plans at the signalized study intersections. The acceptable LOS standard for intersections in the City of San Diego is LOS D.

Table 2-2 LOS Criteria for Intersections

| LOS | Control Delay (sec/veh) |  | Description |
| :---: | :---: | :---: | :---: |
|  | Signalized Intersections (a) | Unsignalized Intersections (b) |  |
| A | $\leq 10.0$ | $\leq 10.0$ | Operations with very low delay and most vehicles do not stop. |
| B | >10.0 and $\leq 20.0$ | >10.0 and $\leq 15.0$ | Operations with good progression but with some restricted movement. |
| C | >20.0 and $\leq 35.0$ | >15.0 and $\leq 25.0$ | Operations where a significant number of vehicles are stopping with some backup and light congestion. |
| D | >35.0 and $\leq 55.0$ | >25.0 and $\leq 35.0$ | Operations where congestion is noticeable, longer delays occur, and many vehicles stop. The proportion of vehicles not stopping declines |
| E | >55.0 and $\leq 80.0$ | >35.0 and $\leq 50.0$ | Operations where there is significant delay, extensive queuing, and poor progression. |
| F | >80.0 | >50.0 | Operations that is unacceptable to most drivers, when the arrival rates exceed the capacity of the intersection. |

Notes:
(a) $6^{\text {th }}$ Edition of the HCM, Chapter 18, Page 6, Exhibit 18-4
(b) $6^{\text {th }}$ Edition of the HCM, Chapter 19, Page 2, Exhibit 19-1 $6^{\text {th }}$ Edition of the HCM, Chapter 20, Page 3, Exhibit 20-2

## ROADWAY SEGMENTS

To determine the impacts on the study area roadway segments, capacity thresholds and associated LOS documented in the City's TISM were utilized, as shown in Table 2-3. The segment traffic volumes under LOS E is considered at capacity because the v/c Ratio is equal to 1.0.

Table 2-3 City of San Diego Roadway Segment Capacity and LOS

| Road |  |  | LOS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Class | Lanes | A | B | C | D |
| Expressway | 6 | 30,000 | 42,000 | 60,000 | 70,000 |
| Prime Arterial | 6 | 25,000 | 35,000 | 50,000 | 55,000 |
| Major Arterial | 6 | 20,000 | 28,000 | 40,000 | 45,000 |
| Major Arterial | 4 | 15,000 | 21,000 | 30,000 | 35,000 |
| Collector | 4 | 10,000 | 14,000 | 20,000 | 25,000 |
| Collector (No center lane) <br> (Continuous left-turn lane) <br> Collector <br> (No fronting property) <br> Collector <br> (Commercial/Industrial <br> fronting) <br> Collector <br> (Multi-family) <br> Sub-Collector <br> (Single family) | 2 | 2 | 5,000 | 7,000 | 10,000 |

Notes:
XXXX = Approximate recommended ADT based on the City of San Diego Street Design Manual.
The volumes and the average daily level of service listed above are only intended as a general planning guideline.
LOS are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic.
LOS normally apply to roads carrying through traffic between major trip generators and attractors.
Source: City of San Diego Traffic Impact Study Manual, Table 2, Page 8, July 1998.

### 2.3 SIGNIFICANCE DETERMINATION

The City of San Diego and Caltrans have developed acceptable threshold standards to determine the significance of project impacts to intersections, roadway segments, freeway segments, and metered freeway on-ramps. At intersections, the measurement of effectiveness (MOE) is based on allowable increases in delay. Along roadway segments and freeway segments, the MOE is based on allowable increases in the $\mathrm{v} / \mathrm{c}$ ratio.

For intersections, LOS D is considered acceptable. If vehicle trips from a project cause a signalized intersection to operate at LOS E or LOS F, this would be considered a significant project traffic impact that requires mitigation. At intersections that are expected to operate at LOS E or $F$ without the project, the allowable increase in delay is two seconds overall at LOS E and one second overall at LOS F, with the addition of the project. If vehicle trips from a project cause the delay at an intersection to increase by more than the allowable threshold, this would be considered a significant project impact that requires mitigation by the project.

For roadway segments that are forecasted to operate at LOS E or F with the project, the allowable increase in $\mathrm{v} / \mathrm{c}$ ratio is 0.02 at LOS E and 0.01 at LOS $F$. If vehicle trips from a project cause the $\mathrm{v} / \mathrm{c}$ ratio to increase by more than the allowable threshold, this would be considered a significant project traffic impact that requires mitigation by the project.

In certain instances, if a roadway segment operates at LOS E or LOS F and the following three conditions are met:

1. the roadway is built to its ultimate classification per the community plan;
2. the intersections on both ends of the failing segment operate at an acceptable LOS; and
3. an HCM arterial analysis indicates an acceptable LOS on the segment;
then the project impact could be determined to be less than significant and no mitigation would be required.
Table 2-4 summarizes the criteria for determining levels of significance for the different facilities in the study area.

Table 2-4 Significance Criteria for Facilities in the Study Area

| Facility | MOE | Significance Threshold (a) |
| :---: | :---: | :---: |
| Intersection | Seconds of delay | $>2.0$ seconds at LOS E or |
|  |  | $>1.0$ seconds at LOS F |
| Roadway |  |  |
| Segment | ADT, v/c ratio | $>0.02$ at LOS E or |
| 0.01 at LOS F |  |  |

Note: If a project adds any increment of delay to cause the operations of an intersection or segment to go from LOS D to either
LOS E or LOS F, then the project is considered to cause a significant impact.
Source: City of San Diego Significance Determination Thresholds, page 71, January 2011.
(a) Significance threshold applies only when the type of facility operates at LOS E or F.

## 3 EXISTING (2022) CONDITIONS

This section summarizes the existing roadway circulation network, daily and peak-hour traffic volumes, and operations at the study intersections and roadway segments.

### 3.1 ROADWAY NETWORK

The following provides a description of the existing street system within the study area as of Thursday, August 4, 2022, when traffic counts were collected.

Otay Mesa Road provides east-west connectivity through the community and currently functions as a sixlane prime arterial between Ocean View Hills Parkway and SR-125, and as a four-lane collector between SR-125 and Sanyo Avenue. The Otay Mesa Community Plan Mobility Element designates Otay Mesa Road as a six-lane prime arterial with a planned buffered Class II bike facility. The posted speed limit along Otay Mesa Road is generally 55 mph and reduces to 50 mph east of La Media Road. Parking is prohibited on both sides of Otay Mesa Road. Within the study area, portions of Class II bike lanes are present along the south side of Otay Mesa Road between Ailsa Court and Otay Mesa Center Road, and between La Media Road and SR-125 SB Ramps. Striped shoulders are present along the north side of road and on the south side of road where the bike lanes have not yet been installed.

La Media Road is a major north-south connection within the study area. The segment between Otay Mesa Road and St Andrews Avenue functions as a six-lane collector with four southbound lanes and two northbound lanes. Between St Andrews Avenue and SR-905 WB Ramps, La Media Road functions as a five-lane collector with three southbound lanes and two northbound lanes. Between SR-905 WB Ramps and SR-905 EB, La Media Road functions as a six-lane major arterial with three lanes in each direction. Between SR-905 EB Ramps and Airway Road, there are two southbound lanes and one northbound lane that expands into three lanes at the intersection of La Media Road/SR-905 EB Ramps. South of Airway Road, La Media Road is one-way (southbound) truck route with two travel lanes. La Media Road is designated as a six-lane prime arterial between Otay Mesa Road to Airway Road and a five-lane major road (two northbound lanes and three southbound lanes) between Airway Road and Siempre Viva in the Otay Mesa Community Plan Mobility Element, with a planned buffered Class II bike facility. La Media Road, south of Airway Road, currently serves laden trucks travelling south on La Media Road to the one-way truck route along the Mexican Border. Upon completion of the Otay Mesa Truck Route Phase 4 project (S11060), La Media Road will be used by Unladen trucks for access to the Port of Entry. As of August 2023, these improvements are expected to be completed around the end of 2025. Appendix M contains the current project schedule for S 11060 project. The speed limit on La Media Road is 35 miles per hour south of Otay Mesa Road. Parking is prohibited on both sides. Within the study area, Class II bicycle lanes are present on both sides of road, from Otay Mesa Road to just south of the SR-905 EB Ramps. Between SR-905 EB Ramps and Airway Road, Class II bicycle lane is present for the SB direction only.

Airway Road provides east-west connectivity through the community and currently functions as a two-lane collector between La Media Road and Avenida Costa Azul, and between Piper Ranch Road and Avenida de la Fuente N. Between Avenida Costa Azul and Piper Ranch Road, the road functions as a three-lane collector (two westbound lanes and one eastbound lane) with a raised median constructed for the ultimate roadway classification as a four-lane major roadway. Between Avenida de la Fuente N and Sanyo Avenue, the road functions as a three-lane collector (two westbound lanes and one eastbound lane) with a striped
median. The segment west of La Media Road was under an extended closure to traffic as of August 2022. The Otay Mesa Community Plan Mobility Element designates Airway Road as a four-lane major road with a planned buffered Class II bike facility and planned Class I bike path along the south side of Airway Road. The posted speed limit along Airway Road is 40 miles per hour and parking is prohibited on both sides of road. Currently, Airway Road does not provide bicycle facilities within the study area.

SR-905 is a six-lane freeway that provides east-west connectivity within the vicinity of the project site. There are currently interchanges at Caliente Avenue, Britannia Boulevard, La Media Road, and Siempre Viva Road. The posted speed limit along SR-905 is 65 miles per hour.

Figure 3-1 shows the existing geometrics of the study intersections and functional classification for the roadways within the study area.

### 3.2 TRAFFIC VOLUMES

Peak-Hour intersection turning movement counts and 24-Hour roadway segment volumes were collected by National Data and Surveying Services (NDS) on Thursday August 4, 2022. Vehicular classifications were obtained along La Media Road, north of Airway Road, for the development of PHV assumptions. It should be noted that these traffic counts were collected when local schools were on summer break. Because the study area roadways and intersections are not located near residential uses or schools, an insignificant seasonal variation of traffic is expected. Southwestern College is located along Airway Road, just west of the study area. However, this location is not currently accessible from La Media Road because of the long-term closure of Airway Road, just west of La Media Road. Prior to collection of this data, approval was obtained from City staff.

Due to the closure of the west leg of La Media Road \& Airway Road, recent traffic data is not available for the SBR, EBL, EBT and WBT movements. Additionally, data is not available for the prohibited EBR movement. To account for these turning movement volumes that would occur with the removal of Airway Road closure, traffic volumes at this location were developed based on traffic data collected in November 2015 for the Plaza La Media North Traffic Impact Study (PTS\# 334235, dated January 2021). A 14 percent growth rate (to account for 7 years of traffic growth) was applied to these 2015 traffic volumes for the SBR, EBL, EBT, EBR and WBT turning movement volumes to develop the assumptions of existing traffic for these movements. The traffic data collected in 2022 for the SBL, SBT, WBL and WBR was utilized. Furthermore, to account for the reduction in traffic along roadway segment of La Media Road, between SR905 EB Ramps and Airway Road, a 21.8 percent increase in traffic was assumed based on the comparison of ADT evaluated by the La Media Retail TIS.

Appendix B contains the existing traffic counts at the study intersections and roadway segments, and documentation of the City's approval for summer counts. Appendix B also contains the historic counts, assumptions, and calculations for normalizing the existing peak hour turning movement volumes at La Media Road \& Airway Road, and the existing ADT collected along La Media Road, between SR-905 EB Ramps and Airway Road.

Based on the vehicle classification information obtained along La Media Road, a 32-percent heavy vehicle factor was applied to the intersection of Airway Road and La Media Road. For all other intersections on the network, a 16 percent heavy vehicles factor was assumed based on vehicle classification counts collected
by NDS in February 2018 as part of the Sunroad Otay Mesa TIA (PTS\# 538140), prepared by Kimley-Horn and Associates. This 16 percent classification is consistent with recent traffic studies approved in the area.

Figure 3-2 illustrates the existing traffic volumes at the study intersections and ADT volumes along the roadway segments.

### 3.3 INTERSECTION ANALYSIS

Table 3-1 displays the LOS analysis results for the study intersections under Existing (2022) Conditions. As shown in the table, all intersections currently operate at LOS D or better during both peak periods.

Appendix C1 contains the Existing (2022) Conditions intersection LOS calculation worksheets.
Table 3-1 Existing (2022) Conditions Intersection LOS Summary

| Intersection |  | Traffic Control | Peak Hour | Existing (2022) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Delay (a) |  | LOS (b) |
| 1 | La Media Rd \& Otay Mesa Rd |  | Signal | $\begin{aligned} & \mathrm{AM} \\ & \mathrm{PM} \end{aligned}$ | $\begin{aligned} & 46.6 \\ & 46.9 \end{aligned}$ | $\begin{aligned} & \mathrm{D} \\ & \mathrm{D} \end{aligned}$ |
| 2 | La Media Rd \& St. Andrews Avenue/SR-905 WB Ramps | Signal | $\begin{aligned} & \mathrm{AM} \\ & \mathrm{PM} \end{aligned}$ | $\begin{aligned} & 12.4 \\ & 22.7 \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{C} \end{aligned}$ |
| 3 | La Media Road \& SR-905 EB Ramps | Signal | AM <br> PM | $\begin{aligned} & 8.5 \\ & 8.1 \end{aligned}$ | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~A} \end{aligned}$ |
| 4 | La Media Road \& Airway Road | AWSC* | $\begin{aligned} & \mathrm{AM} \\ & \mathrm{PM} \end{aligned}$ | $\begin{aligned} & 31.2 \\ & 34.1 \end{aligned}$ | D <br> D |
| 5 | Airway Road \& Project Driveway 1 | SSSC | $\begin{aligned} & \mathrm{AM} \\ & \mathrm{PM} \end{aligned}$ | Futu re Driveway |  |
| 6 | Airway Road \& Project Driveway 2 | SSSC | $\begin{aligned} & \mathrm{AM} \\ & \mathrm{PM} \end{aligned}$ | Future Driveway |  |
| 7 | Avenida Costa Azul/Private Driveway \& Airway Road | SSSC | $\begin{aligned} & \mathrm{AM} \\ & \mathrm{PM} \end{aligned}$ | $\begin{aligned} & 13.9 \\ & 17.1 \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{C} \\ & \hline \end{aligned}$ |

Bold values indicate intersections operating at LOS E or F. SSSC = Side Street Stop Control; AWSC = All Way Stop Control
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At SSSC intersections, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the HCM 6 ${ }^{\text {th }}$ Edition and performed using Synchro 11. *Intersection is signalized, but operating in flashing all-red mode.

FIGURE 3-1

| La Media Road/ Otay Mesa Road | La Media/ SR-905 WB Ramps | La Media Road/ SR-905 EB Ramp | La Media Road/ Airway Road |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Project Driveway 1/ Airway Road | Project Driveway $2 /$ Airway Road | Avenida Costa Azul/ Airway Road | LEGEND |
| Future Driveway | Future Driveway | $\frac{\cos ^{4}{\frac{1}{r^{(350)}}}_{\frac{1}{4}}^{4-6}}{}$ | (8) Signalized <br> * Unsignalized <br> (30) Stop Controlled Leg <br> (xx) Storage Length |

* The intersection is signalized but operates on flashing red for all-way stop. Westbound left and eastbound right movements are restricted by signage.


Existing (2022) Intersection and Roadway Segment Geometrics

FIGURE 3-2

| 1 | $\frac{\underset{N}{N}}{\underset{\sim}{N}}$ | $\stackrel{\infty}{\sim}$ |  | $\begin{array}{cc} \text { } & 26 / 29 \\ 6 & 243 / 172 \\ \quad & 260 / 301 \\ \text { Otay Mesa Rd } \end{array}$ |  |  |  | $\begin{array}{ll} \approx & 60 / 40 \\ \hdashline & 50 / 25 \\ & 28 / 54 \end{array}$ <br> SR-905 WB Ramps |  | SR-905 EB Ramps |  | 4 |  | $\begin{array}{cc} \approx & 234 / 418 \\ \hdashline & 52 / 67 \\ & 5 / 7 \\ & \text { Airway Rd } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 39 / 37 \\ 188 / 178 \\ 80 / 129 \end{gathered}$ |  |  |  |  | $\begin{gathered} 4 / 7 \\ 1 / 2 \\ 66 / 147 \end{gathered}$ | $\begin{aligned} & \pi \\ & \Rightarrow \\ & y \end{aligned}$ |  |  | $\begin{aligned} & 318 / 130 \\ & 391 / 311 \end{aligned}$ |  |  | $\begin{aligned} & 10 / 43 \\ & 47 / 81 \\ & 26 / 40 \end{aligned}$ |  |
| 5 |  |  | - | $\begin{gathered} 177 / 406 \\ \text { Airway Rd } \end{gathered}$ | 6 |  |  | $\begin{gathered} 177 / 406 \\ \text { Airway Rd } \end{gathered}$ |  | $\frac{0}{N}=\frac{m}{N}=0$ | $\begin{array}{cc} \text { ® } & 2 / 1 \\ \square & 108 / 216 \\ 0 & 25 / 50 \\ & \text { Airway Rd } \end{array}$ |  |  |  |
|  | 281/210 |  |  |  |  | 281 / 210 | $\Rightarrow$ |  |  |  |  |  |  |  |



Existing (2022) Peak Hour and ADT Volumes

### 3.4 ROADWAY SEGMENT ANALYSIS

Table 3-2 displays the roadway segments analysis under Existing (2022) Conditions. As shown in the table, all roadway segments within the study area currently operate at LOS D or better with the exception of the following locations:

- La Media Road, between SR 905 EB Ramps and Airway Road - LOS E
- Airway Road, between La Media Road and Project Driveway 1 - LOS F
- Airway Road, between Project Driveway 1 and Avenida Costa Azul - LOS E

Table 3-2 Existing (2022) Conditions Roadway Segment LOS Summary

| Roadway Segment | Roadway Classification <br> (a) | LOS E Capacity | Existing (2022) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ADT (b) | V/C <br> Ratio(c) | LOS |
| La Media Road |  |  |  |  |  |
| Otay Mesa Rd to SR 905 WB Ramps/St. Andrews Ave | 6L Collector(d) | 45,000 | 13,886 | 0.309 | A |
| SR 905 WB Ramps/St. Andrews Ave to SR 905 EB Ramps | 6L Collector(d) | 45,000 | 13,683 | 0.304 | A |
| SR 905 EB Ramps to Airway Road | 3L Collector (2L SB, 1L NB) <br> (e) | 15,000 | 14,664 | 0.978 | E |
| Airway Road to Avenida de la Fuente | 2L Collector (One-Way) (f) | 8,000 | 3,765 | 0.471 | A |
| Avenida de la Fuente to Siempre Viva Road | 2L Collector (One-Way) (f) | 8,000 | 3,765 | 0.471 | A |
| Airway Road |  |  |  |  |  |
| La Media Road to Project Driveway 1 | 2 Lane Collector (f) | 8,000 | 9,312 | 1.164 | F |
| Project Driveway 1 to Avenida Costa Azul | 2 Lane Collector (f) | 8,000 | 7,244 | 0.906 | E |
| Avenida Costa Azul to Piper Ranch Road | 3 Lane Collector (2L WB, 1L EB) (g) | 15,000 | 8,562 | 0.571 | C |
| Piper Ranch Road to Avenida de la Fuente N | 2 Lane Collector (TWLTL) <br> (h) | 15,000 | 8,562 | 0.571 | C |
| Avenida de la Fuente N to Harvest Road | 3 Lane Collector (2L WB, 1L EB) (i) | 15,000 | 8,562 | 0.571 | C |
| Harvest Road to Sanyo Avenue | 3 Lane Collector (j) | 15,000 | 8,443 | 0.563 | C |

\#L = total number of lanes; TWLTL = Two-way left-turn lane. Bold values indicate segment operating at LOS E or F.
(a) Existing roads street classification is based on field observations.
(b) ADT volumes for the roadway segments were collected by NDS in August 2022.
(c) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.
(d) Collector roadway due to lack of raised median
(e) Collector roadway - no fronting property
(f) Collector roadway - commercial/industrial fronting property
(g) Collector roadway - existing raised median and left-turn pockets
(h) Collector roadway - with continuous two-way left-turn lane or left-turn pockets
(f) Collector roadway - existing painted median
(j) Collector roadway - north half of roadway under construction (West Half: 2L WB / 1L EB with pained median | East Half: 1L WB /

1L EB with TWLTL)

## 4 PROJECT TRAFFIC

The following section describes the trip generation, distribution and assignment related to the Project, which includes the addition of 408,607 square feet of warehousing on an undeveloped vacant lot within the Otay Mesa area of San Diego.

### 4.1 TRIP GENERATION

The City of San Diego Trip Generation Manual (May 2003) was referenced to calculate the estimated trip generation for the Project. The "Warehousing" land use was used to forecast daily and peak-hour trips for the Project. Due to the land use type and the location of the site, no pass-by trips, internal capture, nor transit, bicycle, or pedestrian credits were applied.

The proposed Project would construct three (3) industrial warehouse buildings consisting of a total of 408,607 square feet. Using the trip generation rate for warehousing, the Project is expected to generate a total of 2,043 daily trips with 306 morning peak-hour trips ( $215 \mathrm{in}, 91$ out) and 327 afternoon peak-hour trips ( 131 in, 196 out). Table 4-1 summarizes the trip generation for the site.

Table 4-1 Project Trip Generation

| Land Use | Units ${ }^{\mathbf{1}}$ | Trip <br> Rate | Daily <br> Trips | \% <br> ADT $^{\mathbf{2}}$ | In:Out <br> Ratio $^{2}$ | In | Out | Total | \% <br> ADT $^{\mathbf{2}}$ | In:Out <br> Ratio $^{2}$ | In | Out | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Warehousing | 408.61 <br> KSF | $5 /$ <br> KSF | 2,043 | $15 \%$ | $7: 3$ | 215 | 91 | 306 | $16 \%$ | $4: 6$ | 131 | 196 | 327 |
| Proposed <br> Total |  |  | 2,043 |  |  | $\mathbf{2 1 5}$ | $\mathbf{9 1}$ | $\mathbf{3 0 6}$ |  |  | $\mathbf{1 3 1}$ | $\mathbf{1 9 6}$ | $\mathbf{3 2 7}$ |

Notes:

1. $K S F=1,000$ square feet
2. Trip rates referenced from the City of San Diego Land Development Code - Trip Generation Manual, May 2003.

### 4.2 TRIP DISTRIBUTION AND ASSIGNMENT

The Project traffic distribution was based on current network configuration, knowledge of the area, and a review of recent traffic studies in the area. The trip distribution is presented in Figure 4-1.

- $10 \%$ to/from SR 125 north of Otay Mesa Road On/Off Ramps
- $15 \%$ to/from Otay Mesa Road west of La Media Road
- $55 \%$ to/from SR 905 west of La Media Road
- $5 \%$ to/from Airway Road west of La Media Road
- $5 \%$ to/from Airway Road west of Enrico Fermi Drive
- $10 \%$ to/from SR 905 south of Siempre Viva Road

Based on the Project trip generation and trip distribution, project trips were assigned to the local roadway network and through the study intersections.

Figure 4-2 shows the trip assignment for the Project at the study intersections and roadway segments within the study area.

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## 5 EXISTING (2022) PLUS PROJECT

This section provides a description of the Existing (2022) Conditions with the addition of the Project. The roadway network evaluated in this scenario is hypothetical, since the Project intends to open after the implementation of the City's CIP Project \# S-15018, which will construct improvements along the project's La Media frontage and a portion of the project's Airway Road frontage.

### 5.1 TRAFFIC VOLUMES

The Project is expected to generate 2,043 Daily trips, with 306 trips ( $215 \mathrm{in}, 91$ out) during the AM Peak, and 327 trips (131 in, 196 out) during the PM Peak. Existing (2022) Plus Project volumes were determined by adding the Project traffic to the Existing (2022) Conditions volumes. These volumes are shown in Figure 5-1.

### 5.2 ROADWAY NETWORK CHANGES

Since the Existing (2022) Plus Project scenario is hypothetical, the roadway network conditions were assumed to be the same as the Existing (2022) Conditions, with the addition the Project's driveways only. Therefore, improvements that would normally be required as part of the Project's frontage requirements on La Media Road were not assumed.

The two (2) access driveways and one (1) emergency access only driveway are proposed along Airway Road. The middle driveway (Project Driveway 1 ) is proposed to be a full-access, signalized driveway (signal warrant analysis discussed in Section 11) approximately 700 -feet east of La Media Road with a southbound shared left/right-turn (outbound) lane and a single inbound lane. In addition to the traffic volume demand, the signalization of Project Driveway 1 would allow full-access movements into/out of the site along Airway Road, which has an ultimate classification as a 4-Lane Major Arterial in the Otay Mesa Community Plan. The eastern driveway (Project Driveway 2) would be a right-in/right-out only, stop-controlled driveway with a single inbound/outbound lane.

Figure $\mathbf{5 - 2}$ shows the assumed geometrics of the study intersections with the addition of the Project.

### 5.3 INTERSECTION ANALYSIS

Table 5-1 displays the LOS analysis results for the study intersections under the Existing (2022) Plus Project conditions. As shown in the table, all intersections within the study area would operate at LOS D or better during both peak periods with the addition of the Project except for the following intersection:

- La Media Road \& Airway Road (LOS F - AM and PM Peak)

Appendix C2 contains the Existing (2022) Plus Project intersection LOS calculation worksheets.

## FIGURE 5-1




Existing (2022) Plus Project Peak Hour and ADT Volumes

FIGURE 5-2


Existing (2022) Plus Project Intersection and Roadway Segment Geometrics

Table 5-1 Existing (2022) Plus Project Intersection LOS Summary

| Intersection |  | Traffic Control | Peak <br> Hour | Existing$(2022)$ |  | Existing(2022) PlusProject |  | $\Delta(\mathrm{c})$ | Significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Delay <br> (a) |  | LOS <br> (b) | Delay <br> (a) | LOS <br> (b) |  |  |
| 1 | La Media Rd \& Otay Mesa |  | Sign | AM | 46.6 | D | 46.6 | D | 0.0 | NO |
|  | Rd | Signa | PM | 46.9 | D | 47.2 | D | 0.3 | NO |
| 2 | La Media Rd \& St. | Si | AM | 12.4 | B | 12.3 | B | -0.1 | NO |
| 2 | WB Ramps | Signal | PM | 22.7 | C | 22.4 | C | -0.3 | NO |
| 3 | La Media Road \& SR-905 |  | AM | 8.5 | A | 9.2 | A | 0.7 | NO |
|  | EB Ramps | Signa | PM | 8.1 | A | 8.6 | A | 0.5 | NO |
| 4 | La Media Road \& Airway | AWSC* | AM | 31.2 | D | 114.0 | F | 82.8 | YES |
|  | Road |  | PM | 34.1 | D | 98.2 | F | 64.1 | YES |
| 5 | Airway Road \& Project Driveway 1 | Signal | AM | Future Driveway |  | 6.3 | A | - | NO |
|  |  |  | PM |  |  | 7.6 | A | - | NO |
| 6 | Airway Road \& Project Driveway 2 | SSSC | AM | Future Driveway |  | 9.3 | A | - | NO |
|  |  |  | PM |  |  | 10.3 | B | - | NO |
| 7 | Avenida Costa <br>  <br> Airway Road | SSSC | AM | 13.9 | B | 14.5 | B | 0.6 | NO |
|  |  |  | PM | 17.1 | C | 18.6 | C | 1.5 | NO |

Notes:
Bold values indicate intersections operating at LOS E or F. Bold and shaded values indicate project significant impact. SSSC = Side Street Stop Control; AWSC = All Way Stop Control
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the HCM $6^{\text {th }}$ Edition and performed using Synchro 11.
(c) Change in delay due to addition of project traffic. Addition of project traffic may cause a decrease in delay at some locations. This counterintuitive result occurs when the volume being added to the intersection is on movements with less delay than the current overall intersection average delay, decreasing the overall intersection average delay.
*Intersection is signalized, but operating in flashing all-red mode.

### 5.4 ROADWAY SEGMENT ANALYSIS

Table 5-2 displays the roadway segments analysis under the Existing (2022) Plus Project Conditions. As shown in the table, all roadway segments within the study area would operate at LOS D or better with the addition of the Project traffic with the exception of the following locations:

- La Media Road, between SR 905 EB Ramps and Airway Road - LOS F
- Airway Road, between La Media Road and Project Driveway 1 - LOS F
- Airway Road, between Project Driveway 1 and Avenida Costa Azul - LOS E


### 5.5 FINDINGS AND CONCLUSIONS

The results of the analysis indicates that the Project would have a significant direct impact under the Existing (2022) Plus Project scenario at the following intersection:

- La Media Road \& Airway Road

The results of the analysis indicate that the Project would have significant direct impacts under the Existing (2022) Plus Project scenario at the following roadway segments:

- La Media Road, between SR 905 EB Ramps and Airway Road
- Airway Road, between La Media Road and Project Driveway 1
- Airway Road, between Project Driveway 1 and Avenida Costa Azul

The roadway network evaluated in this scenario is hypothetical since the Project intends to open after the implementation of the City's CIP Project \# S-15018, which will construct improvements along the Project's La Media frontage and a portion of the Project's Airway Road frontage. In this hypothetical situation, the Project would have significant direct impacts at these four locations, and would be mitigated by the Project's frontage requirements on La Media Road [half width improvements to this roadway segment (with an ultimate roadway classification as a 6-Lane Prime Arterial) to provide a 5-Lane Collector] and Airway Road [half width improvements to this roadway segment (with an ultimate roadway classification as a 4-Lane Major Arterial) to provide a 3-Lane Collector]. The intersection of La Media Road \& Airway Road is currently signalized but functions as an All-Way Stop Control with the existing traffic signal set to flashing red. This intersection would be mitigated by modifying the existing traffic signal as part of the project's frontage improvements and returning the modified traffic signal system to normal operations.

As shown in Table 5-3, the intersection would operate at LOS B during the AM peak and LOS D during the PM peak, with the hypothetical mitigations recommended. As shown in Table 5-4, the roadway segments would operate at LOS D or better with the hypothetical mitigations recommended. Figure 5-3 illustrates the geometrics of the study intersections and roadway segments with the addition of these hypothetical improvements. Appendix C3 contains the Existing (2022) Plus Project Mitigated intersection LOS calculation worksheets.
Table 5-2 Existing (2022) Plus Project Roadway Segment LOS Summary

| Roadway Segment | Roadway Classification <br> (a) | LOS E Capacity | Existing (2022) |  |  | Existing (2022) PlusProject |  |  | $\begin{gathered} \Delta \\ \text { ADT } \end{gathered}$ | $\Delta \mathrm{V} / \mathrm{C}$ | Significant? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ADT (b) | $\begin{gathered} \text { V/C } \\ \text { Ratio(c) } \end{gathered}$ | LOS | ADT | V/C <br> Ratio | LOS |  |  |  |
| La Media Road |  |  |  |  |  |  |  |  |  |  |  |
| Otay Mesa Rd to SR 905 WB Ramps/St. <br> Andrews Ave | 6L Collector(d) | 45,000 | 13,886 | 0.309 | A | 14,295 | 0.318 | A | 409 | 0.009 | NO |
| SR 905 WB Ramps/St. Andrews Ave to SR 905 EB Ramps | 6L Collector(d) | 45,000 | 13,683 | 0.304 | A | 14,653 | 0.326 | A | 970 | 0.022 | NO |
| SR 905 EB Ramps to Airway Road | $\begin{gathered} \text { 3L Collector (2L SB, 1L } \\ \text { NB) (e) } \end{gathered}$ | 15,000 | 14,664 | 0.978 | E | 16,196 | 1.08 | F | 1,532 | 0.102 | YES |
| Airway Road to Avenida de la Fuente | 2L Collector (One-Way) (f) | 8,000 | 3,765 | 0.471 | A | 3,867 | 0.483 | A | 102 | 0.012 | NO |
| Avenida de la Fuente to Siempre Viva Road | 2L Collector (One-Way) (f) | 8,000 | 3,765 | 0.471 | A | 3,867 | 0.483 | A | 102 | 0.012 | NO |
| Airway Road |  |  |  |  |  |  |  |  |  |  |  |
| La Media Road to Project Driveway 1 | 2 Lane Collector (f) | 8,000 | 9,312 | 1.164 | F | 11,049 | 1.381 | F | 1,737 | 0.217 | YES |
| Project Driveway 1 to Avenida Costa Azul | 2 Lane Collector (f) | 8,000 | 7,244 | 0.906 | E | 7,551 | 0.944 | E | 307 | 0.038 | YES |
| Avenida Costa Azul to Piper Ranch Road | 3L Collector (2L WB, 1L EB) (g) | 15,000 | 8,562 | 0.571 | C | 8,869 | 0.591 | C | 307 | 0.020 | NO |
| Piper Ranch Road to Avenida de la Fuente N | 2L Collector (TWLTL) (h) | 15,000 | 8,562 | 0.571 | C | 8,869 | 0.591 | C | 307 | 0.020 | NO |
| Avenida de la Fuente N to Harvest Road | 3L Collector (2L WB, 1L EB) (i) | 15,000 | 8,562 | 0.571 | C | 8,869 | 0.591 | C | 307 | 0.020 | NO |
| Harvest Road to Sanyo Avenue | 3L Collector (j) | 15,000 | 8,443 | 0.563 | C | 8,750 | 0.583 | C | 307 | 0.020 | NO |

project significant impact.
Majestic Airway | Final TIS

Table 5-3 Existing Plus Project Mitigation Intersection LOS Summary


Notes:
Bold values indicate intersections operating at LOS E or F.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle.

At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the HCM 6th Edition and performed using Synchro 11.0

Table 5-4 Existing Plus Project Mitigation Roadway Segment LOS Summary

| Roadway Segment | Existing Plus Project ADT | Before Mitigation |  | After Mitigation |  | Significant Impact Mitigated? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Classification / LOS E Capacity | $\begin{aligned} & \text { V/C } \\ & \text { LOS } \end{aligned}$ | Classification / LOS E Capacity | $\begin{aligned} & \text { V/C } \\ & \text { LOS } \end{aligned}$ |  |
| La Media Road |  |  |  |  |  |  |
| SR 905 EB Ramps to Airway Road | 16,196 | $\begin{gathered} 3 \mathrm{~L} \text { Collector }{ }^{\mathrm{a}} \text { / } \\ 15,000 \end{gathered}$ | $\begin{gathered} 1.080 \\ F \end{gathered}$ | $\begin{gathered} \text { 5L Collector }{ }^{\text {c }} \\ 37,500 \end{gathered}$ | $\begin{gathered} 0.432 \\ \text { B } \end{gathered}$ | Yes |
| Airway Road |  |  |  |  |  |  |
| La Media Road to Project Driveway 1 | 11,049 | $\begin{aligned} & \text { 2L Collector }{ }^{\mathrm{b}} \text { / } \\ & 8,000 \end{aligned}$ | $\begin{gathered} 1.381 \\ \mathbf{F} \end{gathered}$ | $\begin{aligned} & \text { 3L Collector }{ }^{\text {d }} \text { / } \\ & 15,000 \end{aligned}$ | $\begin{gathered} 0.737 \\ \mathrm{D} \end{gathered}$ | Yes |
| Project Driveway 1 to Avenida Costa Azul | 7,551 | $\begin{gathered} \hline \text { 2L Collector }{ }^{\mathrm{b}} \text { / } \\ 8,000 \end{gathered}$ | $\begin{gathered} 0.944 \\ \text { E } \end{gathered}$ | $\begin{gathered} \hline \text { 3L Collector }{ }^{\mathrm{d}} / \\ 15,000 \end{gathered}$ | $\begin{gathered} 0.503 \\ \mathrm{C} \end{gathered}$ | Yes |

Notes:
Bold values indicate roadway segment operating at LOS E or F.
a) Collector roadway - no fronting property (2 lanes southbound | 1 lane northbound)
b) Collector roadway - commercial/industrial fronting property
c) Collector roadway - no fronting property (2 lanes southbound | 3 lanes northbound)
d) Collector roadway - commercial/industrial fronting property (2 lanes westbound | 1 lane eastbound)

FIGURE 5-3

| La Media Road/ Otay Mesa Road | La Media/ SR-905 WB Ramps | La Media Road/ SR-905 EB Ramp | La Media Road/ Airway Road |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Project Driveway 1/ Airway Road | Project Driveway $2 /$ Airway Road | Avenida Costa Azul/ Airway Road | LEGEND |
|  |  |  | (x) Signalized <br> * Unsignalized <br> (10) Stop Controlled Leg <br> (xx) Storage Length <br> - Mitigation |

* The intersection is signalized but operates on flashing red for all-way stop. Westbound left and eastbound right movements are restricted by signage. Mitigation includes placing traffic signal back in operation.
The roadway network evaluated in this scenario is hypothetical since the Project intends to open after the implementation of the City's CIP Project \# S-15018, which will construct improvements along the Project's La Media frontage and a portion of the Project's Airway Road frontage.


Existing (2022) Plus Project Mitigated (Hypothetical) Intersection and Roadway Segment Geometrics

## 6 OPENING DAY (YEAR 2025) CONDITIONS

This section provides a description of the Opening Day (Year 2025) Conditions. 2025 is expected to be the opening year of the Project. This scenario establishes a baseline to compare against plus project scenario to determine the Project's direct impacts.

### 6.1 TRAFFIC VOLUMES

Since the Opening Day (Year 2025) scenario includes the completion of La Media Road CIP Project \#S15018, and the addition of northbound travel lanes and traffic volumes, traffic volumes at the intersection of La Media Road and Airway Road were developed based on traffic data collected in 2015 for the Plaza La Media North Traffic Impact Study (PTS\# 334235, dated January 2021). The intersection turning movement volumes were increased by 21 percent total, or 3 percent annually over 7 years ( 2015 to 2022, when existing traffic data was collected for the proposed Project). This growth rate was calculated using roadway segment volumes included in the SANDAG Model Series 14 (ABM 2+) for 2016 baseline model year and 2025. Appendix D contains the 2015 traffic counts used for development of La Media Road and Airway Road, screen capture of the model plots utilized, and 9 -year and annual growth rate calculations for each intersection approach and the total approach volumes. Based on the model volume projections, the intersection volumes are expected to increase $2.9 \%$ annually, or $17.4 \%$ between 2016 and 2022. 3\% annually / $21 \%$ total growth rate was selected for conservative and rounding purposes.

Opening Day (Year 2025) traffic volumes were developed by adding traffic generated by reasonably foreseeable cumulative projects in the Project's vicinity that are planned to open at or around year 2025. These projects were obtained from a review of City of San Diego Discretionary and Ministerial Approvals on Open DSD and recent traffic studies in the area. Cumulative Projects are listed below in Table 6-1 and are displayed in Figure 6-1. The cumulative projects identified are estimated to generate approximately 70,935 daily trips with 5,364 morning peak-hour trips and 6,234 afternoon peak-hour trips. Traffic volumes associated with these cumulative projects were added, and the resulting Opening Day (Year 2025) traffic volumes are shown in Figure 6-2.

It should be noted that the Tijuana Cross Border Phase 1 development (PTS \#597523), which included the addition of 6,838 passengers, was complete when existing traffic counts were collected in August 2022. However, all Phase 1 trips generated by development were included in the Cumulative Project list and added to the study area. This is due to the existing closure of Airway Road and the restriction of northbound traffic along La Media Road, south of Airway Road. It is assumed that all trips associated by the Phase 1 development are currently utilizing intersections and roadway outside of the proposed Project's study area but would begin traveling through the Project's study area once improvements to the intersection of La Media Road and Airway Road are complete and the NBL, SBR, EBL, EBT, EBR and WBT movements are accommodated. The Marijuana Production Facility development (PTS \#585510) was operational in August 2022. Therefore, trips associated with development were excluded since they were present when existing traffic counts were conducted. Phase 1 of the Sunroad Otay Mesa development was completed prior to August 2022 but was not yet operational. Therefore, traffic generated by Phase 1 was included. Additionally, BDM Mixed Use and Metro Airpark SCR Phase 2 developments are expected to open around year 2027, shortly after the Project is constructed and operating. Trips associated with these projects are included for a more conservative evaluation of the potential Opening Day (Year 2025) Conditions.

Table 6-1 Trip Generation Summary for Cumulative Projects

| Project Name | PTS \# | Status | Land Use | Units ${ }^{1}$ |  | Daily Trips | AM Peak Hour |  |  | PM Peak Hour |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | In | Out | Total | In | Out | Total |
| Cumulative Trips |  |  |  |  |  |  |  |  |  |  |  |  |
| Proposed |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Plaza La Media North ${ }^{4}$ | 334235 | Approved/Unconstructed | Community Retail | 106.7 | ksf |  | 7,469 | 134 | 90 | 224 | 374 | 373 | 747 |
|  |  |  | Drugstore | 13.5 | ksf | 1,215 | 29 | 20 | 49 | 61 | 61 | 122 |
|  |  |  | Fast Food w/ Drive Trhu | 6 | ksf | 4,200 | 101 | 67 | 168 | 168 | 168 | 336 |
|  |  |  | Gas Station w/ Food Mart \& Carwash | 12 | vis | 1,860 | 75 | 74 | 149 | 84 | 83 | 167 |
|  |  |  | Project Driveay Trips Total |  |  | 14,744 | 339 | 251 | 590 | 687 | 685 | 1,372 |
|  |  |  | Project Cumulative Trips Total |  |  | 8,660 | 183 | 127 | 310 | 407 | 405 | 812 |
| *2. 7-Eleven | 540084 | Closed. Permit not issued. | Convenience Store - Open 24 Hours | 0 | ksf | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  |  | Subtotal |  |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *3. Candlelight Amendment ${ }^{5}$ | 691625 | Under Review | Multi-Family Residential (Under 20 dulacre) | 450 | du | 3,600 | 58 | 230 | 288 | 252 | 108 | 360 |
|  |  |  | Subtotal |  |  | 3,600 | 58 | 230 | 288 | 252 | 108 | 360 |
| *4. Southwind | 412529 | Closed. Permit not issued. | Single Family Detached - Urbanized Area | 0 | du | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  |  | Subtotal |  |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *5. BDM Mixed Use ${ }^{6}$ | 673818 | Approved/Unconstructed | Commercial | 6 | ksf | 240 | 5 | 3 | 8 | 11 | 11 | 22 |
|  |  |  | Mutti-Family | 430 | du | 2,580 | 41 | 166 | 207 | 163 | 70 | 233 |
|  |  |  | Subtotal |  |  | 2,820 | 46 | 169 | 215 | 174 | 81 | 255 |
| *6. Marijuana Production Facility ${ }^{14}$ | 585510 | Approved/Constructed ${ }^{14}$ | Marijuana Facility | 6 | ksf | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  |  | Subtotal |  |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7. PA $61-$ Lot $1 \mathrm{CPA}^{7}$ | 664354 | Approved/Under Construction | Mixed Use Residential / Commercial ( 45 ksf ) | 267 | du | 4,716 | 101 | 151 | 252 | 271 | 215 | 486 |
|  |  |  | Subtotal |  |  | 4,716 | 101 | 151 | 252 | 271 | 215 | 486 |
| 8. Tijuana Cross Border - Amendment (Phase 1 and Phase 2) ${ }^{8}$ | 597523 | Approved/Under Construction | Cross Border Facility |  |  | 24,652 | 606 | 450 | 1,056 | 587 | 580 | 1,167 |
|  |  |  | Subtotal |  |  | 24,652 | 606 | 450 | 1,056 | 587 | 580 | 1,167 |
| 9. Metro Airpark SCR (Phase 1 and 2) ${ }^{9}$ | 559378 \& 664354 | Approved/Under Construction | Airport (Phase 1) | 163 | Flights | 327 | 12 | 8 | 20 | 11 | 12 | 23 |
|  |  |  | Commercial Office (Phase 1) | 51 | ksf | 1,017 | 119 | 13 | 132 | 28 | 114 | 142 |
|  |  |  | Airport (Phase 2) | 9 | Flights | 18 | 1 | 1 | 2 | 1 | 1 | 2 |
|  |  |  | Industrial (Phase 2) | 905 | ksf | 7,240 | 718 | 79 | 797 | 75 | 694 | 769 |
|  |  |  | Subtotal |  |  | 8,602 | 850 | 101 | 951 | 115 | 821 | 936 |
| 10. Sunroad Otay Mesa (Phase 1) ${ }^{10}$ | 538140 | Approved/Constructed ${ }^{10}$ | Warehousing | 370 | ksf | 1,849 | 195 | 82 | 277 | 118 | 178 | 296 |
|  |  |  | Subtotal |  |  | 1,849 | 195 | 82 | 277 | 118 | 178 | 296 |
| 10. Sunroad Otay Mesa (Phase 2) ${ }^{10}$ | 538140 | Approved/Under Construction | Warehousing | 475 | ksf | 2,376 | 249 | 107 | 356 | 152 | 228 | 380 |
|  |  |  | Subtotal |  |  | 2,376 | 249 | 107 | 356 | 152 | 228 | 380 |
| 11. Lumina (Phase 1) ${ }^{11}$ | 555609 | Approved/Unconstructed | Mutit-Family Residential (Over 20 du/acre) | 1,129 | du | 6,774 | 108 | 434 | 542 | 427 | 183 | 610 |
|  |  |  | Commercial | 62.5 | ksf | 4,377 | 79 | 52 | 131 | 219 | 219 | 438 |
|  |  |  | Subtotal |  |  | 11,151 | 187 | 486 | 673 | 646 | 402 | 1,048 |
| 12. Lumina (Phase 2) ${ }^{11}$ | 555609 | Approved/Unconstructed | Mutit-Family Residential (Over 20 du/acre) | 562 | du | 3,156 | 51 | 201 | 252 | 199 | 85 | 284 |
|  |  |  | Multi-Family Residential (Under 20 dulacre) | 213 | du | 1,704 | 27 | 109 | 136 | 119 | 51 | 170 |
|  |  |  | Park (Developed) | 6.6 | ac | 330 | 7 | 6 | 13 | 13 | 13 | 26 |
|  |  |  | Elementary School | 6.3 | ac | 857 | 159 | 107 | 266 | 65 | 98 | 163 |
|  |  |  | Subtotal |  |  | 6,047 | 244 | 423 | 667 | 396 | 247 | 643 |
| 13. Airway Logistics Center ${ }^{12}$ | 665589 | Approved/Unconstructed | Warehousing | 235.5 | ksf | 1,178 | 124 | 53 | 177 | 76 | 113 | 189 |
|  |  |  | Commercial Office | 12 | ksf | 340 | 41 | 4 | 45 | 10 | 38 | 48 |
|  |  |  | Subtotal |  |  | 1,518 | 165 | 57 | 222 | 86 | 151 | 237 |
| *14. Otay Truck Storage | 603927 | Under Review | Truck Storage Facility and Auto Parking | 1,050 | spaces | 2,142 | 89 | 104 | 193 | 84 | 113 | 197 |
|  |  |  | Subtotal |  |  | 2,142 | 89 | 104 | 193 | 84 | 113 | 197 |
| 15. Sanyo Logistics ${ }^{\text {13 }}$ | 668005 | Approved/Under Construction | Warehousing | 243 | ksf | 1,165 | 123 | 52 | 175 | 75 | 112 | 187 |
|  |  |  | Commercial Office | 10 | ksf | 297 | 35 | 4 | 39 | 8 | 34 | 42 |
|  |  |  | Subtotal |  |  | 1,462 | 158 | 56 | 214 | 83 | 146 | 229 |
| NET CUMULATIVE PROJECTS TRIP GENERATION = |  |  |  |  |  | 70,935 | 2,948 | 2,416 | 5,364 | 2,964 | 3,270 | 6,234 |

Note:
1.
DU $=$ dwelling unit ksf $=$ one thousand square feet
2.
Trip rates referenced from the City of San Diego Land Development Code - Trip Generation Manual, May 2003 .
Cumulative trips are the total trips generated by the site exclusive of pass-by tips aled
.

Horn, June 2023. The decrease in residential units increases trip generation requirements due to a decrease in residential dwelling unity density, requiring higher trip generation rates
Trip Generaion obtained from BDM Mixed Use Technical Memorandum prepared by CR Assosiales, October 2019. Project expected to open in 2027 , shorlly after the Majestic Airway Project begins operations.
Tip Generation oblained from Calliomia Terraces PA 61 Trafic impact Analysis prepared by Los Engineening, January 201
8. Trip Generation obtained from San Diego-Tiuana Cross Border Facility Traffic Impact Analysis prepared by LSA Associates, June 2011. Phase 1 development was complete when existing trafic counts were collected in August 2022 . All Phase 1 trips generated by
development are included and added to the study area due to the existing closure of Airvay Road and the restriction of northbound trafic along La Media Road. It is assumed that all trips associated by the Phase 1 development are currently utilizing intersections and roadu
outside of te proposed Project's study area for
outside of the proposed Project's study area for more conservative analysis.
10. Trip Generation obtained from Surroad Otay Mesa Trafficic Impact Analysis prepared by Kimiey-Horn, February 2018 . Phase 1 construction completed prior to to August 2022, whene existing traficic counts were coollected. However, building was not in operation at the time of
data collection. Therefore, both Phase 1 and Phase 2 trips are included.
11. Trip Generation obtained from Otay Mesa Lumina Transportation Impact Study prepared by CR Associates, February 2019

1. Trip Generation obtained from Otay Mesa Lumina Transportation Impact Study prepared by CR Associates, February 2019
2. Trip Generation obtained from Sanyo Loogistics Center Access Analysis prepared by by LIG Engineers, Appil 2021
3. Trip Generation obtained from Sanyo Logistics Center Access Analysis prepared by LLG Engineers, April 2021
4. Project in operation in August 2022 , when existing traffic counts were collected. Therefore, trips excluded.

Project not expected to generate trips within proposed study area.

| No. | Project Name |
| :---: | :--- |
| 1 | Plaza La Media North |
| 2 | 7-Eleven |
| 3 | Candlelight Amendment |
| 4 | Southwind |
| 5 | BDM Mixed Use |
| 6 | Marijuana Production Facility <br> 7 |
| 8 | PA 61 - Lot 1 CPA <br> (Phase 1 and Phase 2) |
| 9 | Metro Airpark SCR (Phase 1 and 2) |
| 10 | Sunroad Otay Mesa (Phase 1 and Phase 2) |
| 11 | Lumina (Phase 1) |
| 12 | Lumina (Phase 2) |
| 13 | Airway Logistics Center |
| 14 | Otay Truck Storage |
| 15 | Sanyo Logistics |

## FIGURE 6-2




Opening Day (Year 2025) Peak Hour and ADT Volumes

Appendix E contains trip generation and assignment information for each project referenced, and a breakdown of each cumulative project's traffic volumes at the study area intersections and roadways for reference.

### 6.2 ROADWAY NETWORK CHANGES

Network changes are anticipated to be constructed between Existing (2022) and Opening Day (Year 2025) Conditions since the Project intends to open after the implementation of the La Media Road CIP Project \#S15018, which would be constructed and operational at this time. Per the City's CIP Project Map Viewer, construction began in March/April 2023 and is expected to be completed by fall 2024. Improvements include widening La Media Road between SR-905 EB Ramps to Siempre Viva Road. La Media Road will be widened to a six-lane primary arterial from SR-905 EB Ramps to Airway Road, a five-lane major arterial between Airway Road and Avenida De La Fuente, and a four-lane major arterial between Avenida de la Fuente and Siempre Viva Road. The intersection of La Media Road and Airway Road would be constructed as follows:

- NB: Dual left-turn lanes, two thru lanes, and an exclusive right-turn pocket;
- SB: Dual left-turn lanes, three thru lanes, and two exclusive right-turn pockets;
- EB: Dual left-turn lanes, two thru lanes, and an exclusive right-turn pocket; and
- WB: Dual left-turn lanes, two thru lanes, and two exclusive right-turn pockets.

It should be noted that a portion of the power line on the south side of Airway Road would be relocated as part of the CIP project, as indicated by the project's approved improvement plans, Dwg \#41750-17-D.

Figure 6-3 shows the Opening Day (Year 2025) geometrics of the study intersections and roadways with the improvements by La Media Road CIP \#S15018. Appendix F contains CIP project description, schedule, approved signing/striping plans, and improvement plan showing the location of power poles and overhead lines proposed to be removed by others.

The construction of the CIP improvements would provide for the following roadway segment functional classification upgrades:

## La Media Road:

- between SR 905 EB Ramps and Airway Road - 6 Lane Prime Arterial
- between Airway Road and Avenida de la Fuente - 5 Lane Major Arterial (3L SB / 2L NB)
- between Avenida de la Fuente and Siempre Viva Road - 4 Lane Major Arterial


## Airway Road:

- between La Media Road and Project Driveway 1 - 3 Lane Collector (2L WB / 1L EB)
- between Project Driveway 1 and Avenida Costa Azul - 3 Lane Collector (2L WB / 1L EB)

No additional roadway network changes are assumed to occur between the Existing (2022) and Opening Day (Year 2025) scenarios since there are no fully-funded cumulative project improvements in the study area at this time.

FIGURE 6-3


Opening Day (Year 2025) Intersection and Roadway Segment Geometrics

### 6.3 INTERSECTION ANALYSIS

Table 6-2 displays the LOS analysis results for the study intersections under the Opening Day (Year 2025) Conditions. As shown in the table, all intersections within the study area would operate at LOS D or better during both peak periods.

Appendix C4 contains the Opening Day (Year 2025) Conditions intersection LOS calculation worksheets.
Table 6-2 Opening Day (Year 2025) Conditions Intersection LOS Summary

| Intersection |  | Traffic Control | Peak Hour | Opening Day (Year2025) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Delay (a) |  | LOS (b) |
|  |  |  |  | AM | 46.0 | D |
| 1 | La Media Rd \& Otay Mesa Rd | Signa | PM | 48.6 | D |
|  | La Media Rd \& St. Andrews Avenue/SR-905 WB |  | AM | 13.2 | B |
| 2 | Ramps | Signal | PM | 26.4 | C |
|  |  |  | AM | 9.9 | A |
| 3 | La Media Road \& SR-905 EB Ramps | Signa | PM | 9.7 | A |
| 4 | La Media Road \& Airway Road | Signal | AM | 18.7 | B |
|  |  |  | PM | 20.6 | C |
| 5 | Airway Road \& Project Driveway 1 | SSSC | AM | Future Driveway |  |
|  |  |  | PM |  |  |
| 6 | Airway Road \& Project Driveway 2 | SSSC | AM | Future Driveway |  |
|  |  |  | PM |  |  |
| 7 | Avenida Costa Azul/Private Driveway \& Airway Road | SSSC | AM | 15.5 | C |
|  |  |  | PM | 21.8 | C |

Bold values indicate intersections operating at LOS E or F. SSSC = Side Street Stop Control
a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At SSSC intersections, delay refers to the worst movement.
b) LOS calculations are based on the methodology outlined in the HCM $6^{\text {th }}$ Edition and performed using Synchro 11.

### 6.4 ROADWAY SEGMENT ANALYSIS

Table 6-3 displays the roadway segments analysis under the Opening Day (Year 2025) Conditions. As shown in the table, all study roadway segments would operate at LOS D or better with the exception of the following locations:

- Airway Road, between La Media Road and Project Driveway 1 - LOS F
- Airway Road, between Project Driveway 1 and Avenida Costa Azul - LOS E

Table 6-3 Opening Day (Year 2025) Conditions Roadway Segment LOS Summary

| Roadway Segment | Roadway Classification <br> (a) | LOS E Capacity | Opening Day (Year 2025) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ADT | V/C <br> Ratio(b) | LOS |
| La Media Road |  |  |  |  |  |
| Otay Mesa Rd to SR 905 WB Ramps/St. Andrews Ave | 6L Collector(c) | 45,000 | 36,177 | 0.804 | D |
| SR 905 WB Ramps/St. Andrews Ave to SR 905 EB Ramps | 6L Collector(c) | 45,000 | 30,429 | 0.676 | C |
| SR 905 EB Ramps to Airway Road | 6L Prime Arterial | 60,000 | 29,025 | 0.484 | B |
| Airway Road to Avenida de la Fuente | 5L Major Arterial (3L SB, 2L NB) | 45,000 | 16,287 | 0.362 | A |
| Avenida de la Fuente to Siempre Viva Road | 4L Major Arterial | 40,000 | 15,442 | 0.386 | B |
| Airway Road |  |  |  |  |  |
| La Media Road to Project Driveway 1 | 3L Collector (2L WB, 1L EB) <br> (d) | 12,000 | 13,339 | 1.112 | F |
| Project Driveway 1 to Avenida Costa Azul | 3L Collector (2L WB, 1L EB) <br> (d) | 12,000 | 11,271 | 0.939 | E |
| Avenida Costa Azul to Piper Ranch Road | 3L Collector (2L WB, 1L EB) <br> (e) | 15,000 | 11,819 | 0.788 | D |
| Piper Ranch Road to Avenida de la Fuente N | 2L Collector (TWLTL) (f) | 15,000 | 11,490 | 0.766 | D |
| Avenida de la Fuente N to Harvest Road | 3L Collector (2L WB, 1L EB) <br> (g) | 15,000 | 11,490 | 0.766 | D |
| Harvest Road to Sanyo Avenue | 3L Collector (2L WB, 1L EB) <br> (h) | 15,000 | 10,455 | 0.697 | D |

\#L = total number of lanes; TWLTL = Two-way left-turn lane; Bold values indicate roadway segment operating at LOS E or F.
Existing roads street classification is based on field observations.
(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.
(b) Collector roadway due to lack of raised median
(c) Collector roadway - no fronting property
(d) Collector roadway - commercial/industrial fronting property
(e) Collector roadway - existing raised median and left-turn pockets
(f) Collector roadway - with continuous two-way left-turn lane or left-turn pockets
(g) Collector roadway - existing painted median
(h) Collector roadway - north half of roadway under construction

- West Half: 2L WB / 1L EB with pained median
- East Half: 1L WB / 1L EB with TWLTL


## 7 OPENING DAY (YEAR 2025) PLUS PROJECT

This section provides a description of the Opening Day (Year 2025) conditions with the addition of the Project.

### 7.1 TRAFFIC VOLUMES

The Project is expected to generate 2,043 Daily trips, with 306 trips ( $215 \mathrm{in}, 91$ out) during the AM Peak, and 327 trips ( 131 in, 196 out) during the PM Peak. Opening Day (Year 2025) Plus Project volumes were determined by adding the Project traffic to the Opening Day (Year 2025) Conditions volumes. These volumes are shown in Figure 7-1.

### 7.2 ROADWAY NETWORK

With the construction of the Project, the Project would widen the northern side of Airway Road between the eastern limits of the CIP improvements to the Project's east property line to provide $1 / 2$ width improvements for the City's 4-Lane Major Arterial standards and to provide one eastbound travel lanes and two westbound travel lanes.

The two (2) access driveways and one (1) emergency access only driveway are proposed along Airway Road. The middle driveway (Project Driveway 1 ) is proposed to be a full-access, signalized driveway (signal warrant analysis discussed in Section 11) approximately 700 -feet east of La Media Road with a southbound shared left/right-turn (outbound) lane and a single inbound lane. A 200-foot eastbound left-turn pocket would be provided. In addition to the traffic volume demand, the signalization of Project Driveway 1 would allow full-access movements into/out of the site due along Airway Road, which has an ultimate classification as a 4-Lane Major Arterial in the Otay Mesa Community Plan. The eastern driveway (Project Driveway 2) would be a right-in/right-out, stop- controlled driveway with a single inbound/outbound lane.

Figure $\mathbf{7 - 2}$ shows the geometrics of the study intersections with the addition of the Project.

### 7.3 INTERSECTION ANALYSIS

Table 7-1 displays the LOS analysis results for the study intersections under the Opening Day (Year 2025) with Project Conditions. As shown in the table, all intersections within the study area would operate at LOS D or better during both peak periods with the addition of he proposed Project.

Appendix C5 contains the Opening Day (Year 2025) Plus Project intersection LOS calculation worksheets.

## FIGURE 7-1




Opening Day (Year 2025) Plus Project Peak Hour and ADT Volumes

FIGURE 7-2


Opening Day (Year 2025) Plus Project Intersection and Roadway Segment Geometrics

Table 7-1 Opening Day (Year 2025) Plus Project Intersection LOS Summary

| Intersection |  | Traffic Control | Peak Hour | Opening Day (Year 2025) |  | Opening Day (Year 2025) Plus Project |  | $\begin{aligned} & \Delta \\ & \text { (c) } \end{aligned}$ | Significant? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Delay <br> (a) |  | $\begin{aligned} & \text { LOS } \\ & \text { (b) } \\ & \hline \hline \end{aligned}$ | Delay <br> (a) | $\begin{gathered} \text { LOS } \\ \text { (b) } \\ \hline \hline \end{gathered}$ |  |  |
| 1 | La Media Rd \& Otay Mesa Rd |  |  | AM | 46.0 | D | 46.6 | D | 0.6 | NO |
| 1 | La Media Rd \& Otay Mesa Rd | gnal | PM | 48.6 | D | 50.9 | D | 2.3 | NO |
|  | La Media Rd \& St. Andrews |  | AM | 13.2 | B | 13.1 | B | -0.1 | NO |
| 2 | Avenue/SR-905 WB Ramps | Signal | PM | 26.4 | C | 28.2 | C | 1.8 | NO |
|  | La Media Road \& SR-905 EB |  | AM | 9.9 | A | 10.9 | B | 1.0 | NO |
| 3 | Ramps | Signal | PM | 9.7 | A | 10.4 | B | 0.7 | NO |
| 4 | La Media Road \& Airway |  | AM | 18.7 | B | 21.4 | C | 2.7 | NO |
| 4 | Road | Signal | PM | 20.6 | C | 26.5 | C | 5.9 | NO |
| 5 | Airway Road \& Project Driveway 1 | Signal | AM | Future Driveway |  | 9.8 | A | - | - |
|  |  |  | PM |  |  | 11.5 | B | - | - |
| 6 | Airway Road \& Project Driveway 2 | SSSC | AM | Future Driveway |  | 9.6 | A | - | - |
|  |  |  | PM |  |  | 10.7 | B | - | - |
| 7 | Avenida Costa Azul/Private Driveway \& Airway Road | SSSC | AM | 15.5 | C | 16.3 | C | 0.8 | NO |
|  |  |  | PM | 21.8 | C | 24.3 | C | 2.5 | NO |

Notes:
Bold values indicate intersections operating at LOS E or F. Bold and shaded values indicate project significant impact. SSSC = Side Street Stop Control; AWSC = All Way Stop Control
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the HCM 6th Edition and performed using Synchro 11.
(c) Change in delay due to addition of project traffic. Addition of project traffic may cause a decrease in delay at some locations. This counterintuitive result occurs when the volume being added to the intersection is on movements with less delay than the current overall intersection average delay, decreasing the overall intersection average delay.

### 7.4 ROADWAY SEGMENT ANALYSIS

Table 7-2 displays the roadway segments analysis under the Opening Day (Year 2025) Plus Project conditions. As shown in the table, all study roadway segments would be expected to continue to operate at LOS D or better with the addition of the Project, except at the following locations:

- Airway Road, between La Media Road and Project Driveway 1 - LOS F
- Airway Road, between Project Driveway 1 and Avenida Costa Azul - LOS E
Table 7-2 Opening Day (Year 2025) Plus Project Conditions Roadway Segment LOS Summary

| Roadway Segment | Roadway Classification <br> (a) | LOS E Capacity | Opening Day (Year 2025) |  |  | Opening Day (Year 2025) Plus Project |  |  | $\triangle$ ADT | $\Delta \mathrm{V} / \mathrm{C}$ | Significant ? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ADT | V/C <br> Ratio(b) | LOS | ADT | V/C Ratio | LOS |  |  |  |
| La Media Road |  |  |  |  |  |  |  |  |  |  |  |
| Otay Mesa Rd to SR 905 WB Ramps/St. Andrews Ave | 6L Collector(c) | 45,000 | 36,177 | 0.804 | D | 36,586 | 0.813 | D | 409 | 0.009 | NO |
| SR 905 WB Ramps/St. Andrews Ave to SR 905 EB Ramps | 6L Collector(c) | 45,000 | 30,429 | 0.676 | C | 31,399 | 0.698 | C | 970 | 0.022 | NO |
| SR 905 EB Ramps to Airway Road | 6L Prime Arterial | 60,000 | 29,025 | 0.484 | B | 30,557 | 0.509 | B | 1,532 | 0.025 | NO |
| Airway Road to Avenida de la Fuente | $\begin{aligned} & \text { 5L Major Arterial (3L SB, } \\ & 2 \mathrm{~L} \text { NB) } \\ & \hline \end{aligned}$ | 45,000 | 16,287 | 0.362 | A | 16,389 | 0.364 | A | 102 | 0.002 | NO |
| Avenida de la Fuente to Siempre Viva Road | 4L Major Arterial | 40,000 | 15,442 | 0.386 | B | 15,544 | 0.389 | B | 102 | 0.003 | NO |
| Airway Road |  |  |  |  |  |  |  |  |  |  |  |
| La Media Road to Project Driveway 1 | 3L Collector (2L WB, 1L EB) (d) | 12,000 | 13,339 | 1.112 | F | 15,076 | 1.256 | F | 1,737 | 0.144 | YES |
| Project Driveway 1 to Avenida Costa Azul | $\begin{aligned} & 3 \mathrm{~L} \text { Collector (2L WB, 1L } \\ & \text { EB) (d) } \end{aligned}$ | 12,000 | 11,271 | 0.939 | E | 11,578 | 0.965 | E | 307 | 0.026 | YES |
| Avenida Costa Azul to Piper Ranch Road | $\begin{gathered} 3 \mathrm{~L} \text { Collector (2L WB, 1L } \\ \text { EB) (e) } \end{gathered}$ | 15,000 | 11,819 | 0.788 | D | 12,126 | 0.808 | D | 307 | 0.020 | NO |
| Piper Ranch Road to Avenida de la Fuente N | 2L Collector (TWLTL) (f) | 15,000 | 11,490 | 0.766 | D | 11,797 | 0.786 | D | 307 | 0.020 | NO |
| Avenida de la Fuente N to Harvest Road | $\begin{gathered} \hline \text { 3L Collector (2L WB, 1L } \\ \text { EB) (g) } \\ \hline \end{gathered}$ | 15,000 | 11,490 | 0.766 | D | 11,797 | 0.786 | D | 307 | 0.020 | NO |
| Harvest Road to Sanyo Avenue | $\begin{gathered} \text { 3L Collector (2L WB, 1L } \\ \text { EB) (h) } \end{gathered}$ | 15,000 | 10,455 | 0.697 | D | 10,762 | 0.717 | D | 307 | 0.020 | NO |

### 7.5 PROJECT DRIVEWAY QUEUEING ANALYSIS

A queueing analysis was performed during the AM and PM peak hours at Airway Road \& Project Driveway 1 to determine if the proposed 200-foot eastbound left-turn pocket would provide sufficient storage capacity for the Project's inbound traffic. A 16 percent PHV was included for each intersection movement, including the subject left-turn pocket, consistent with the TIS analysis methodology assumptions (Section 2.2). The 16 percent PHV assumption for the eastbound left-turn movement is expected to accurately reflect the passenger vehicle/truck splits based on a review of Institute of Transportation Engineers (ITE) Trip Generation Manual, $11^{\text {th }}$ Edition total vehicle and heavy vehicle trip rates for the equivalent Warehousing Use (Land Use 150).

## ITE Land Use 150 trip rates:

-AM Peak Hour: 0.17 total vehicles/1,000 SF \& 0.02 trucks/1,000 SF (11.7\%)
-PM Peak Hour: 0.18 total vehicles/1,000 SF \& 0.03 trucks/1,000 SF (16.7\%)

Synchro 11 software was utilized to conduct the queueing analysis, and the $95^{\text {th }}$ percentile queue lengths are report in this analysis. The resulting $95^{\text {th }}$ percentile queue is expected to be 97 -feet during the AM peak hour and 86 -feet during the PM peak hour. The queueing analysis indicates that the proposed 200-foot eastbound left-turn pocket would provide sufficient storage capacity for the Project's inbound traffic. Appendix C9 contains queueing calculation worksheets for Project Driveway 1 during the Opening Day (Year 2025) Plus Project scenario.

### 7.6 FINDINGS AND CONCLUSIONS

The results of the analysis indicate that the Project would have significant direct impacts under the Opening Day (Year 2025) Plus Project scenario at the following roadway segments:

- Airway Road, between La Media Road and Project Driveway 1
- Airway Road, between Project Driveway 1 and Avenida Costa Azul

The queueing analysis indicates that the proposed 200 -foot eastbound left-turn pocket would provide sufficient storage capacity for the Project's inbound traffic.

## Roadway Segments:

## Airway Road, between La Media Road \& Project Driveway 1

Prior to issuance of the first building permit, the Project shall assure by permit and bond to widen this roadway segment (east of the CIP S-15018 eastern project limit) from a 3-Lane Collector to a 4-Lane Major Arterial and construct a full width raised median. All improvements shall be constructed and operational prior to first occupancy to the satisfaction of the City Engineer. As shown in Table 7-3, this segment would operate at LOS B with the recommended mitigation measure under Opening Day (Year 2025) with Project Mitigated Conditions.

## Airway Road, between Project Driveway 1 and Avenida Costa Azul

Prior to issuance of the first building permit, the Project shall assure by permit and bond to widen this roadway segment from a 3-Lane Collector to a 4-Lane Major Arterial and construct a full width raised median. All improvements shall be constructed and operational prior to first occupancy to the satisfaction of the City Engineer. As shown in Table 7-3, this segment would operate at LOS A with the recommended mitigation measure under Opening Day (Year 2025) with Project Mitigated Conditions.

Table 7-3 Opening Day (Year 2025) Plus Project Conditions Mitigation Roadway Segment LOS Summary

| Roadway Segment | Opening Day (Year 2025) Plus Project ADT | Before Mitigation |  | After Mitigation |  | Significant Impact Mitigated? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { Classification / } \\ \text { LOS E } \\ \text { Capacity } \\ \hline \hline \end{gathered}$ | $\begin{aligned} & \text { V/C } \\ & \text { LOS } \end{aligned}$ | $\begin{gathered} \text { Classification / } \\ \text { LOS E } \\ \text { Capacity } \\ \hline \hline \end{gathered}$ | $\begin{aligned} & \text { V/C } \\ & \text { LOS } \end{aligned}$ |  |
| Airway Road |  |  |  |  |  |  |
| La Media Road to Project Driveway 1 | 15,076 | $\begin{aligned} & \text { 3L Collector / } \\ & 12,000 \end{aligned}$ | $\begin{gathered} 1.256 \\ \mathbf{F} \end{gathered}$ | 4L Major / 40,000 | $\begin{gathered} 0.377 \\ \text { B } \end{gathered}$ | Yes |
| Project Driveway 1 to Avenida Costa Azul | 11,578 | $\begin{aligned} & \text { 3L Collector / } \\ & 12,000 \end{aligned}$ | $\begin{gathered} 0.956 \\ E \end{gathered}$ | 4L Major / 40,000 | $\begin{gathered} 0.289 \\ \text { A } \end{gathered}$ | Yes |

Notes:
Bold values indicate roadway segment operating at LOS E or F.

Figure 7-3 illustrates the geometrics of the study intersections and roadway segments with the Opening Day (Year 2025) Plus Project mitigation measures. Appendix L contains a conceptual design of the Project's proposed improvements along Airway Road.

FIGURE 7-3

| La Media Road/ Otay Mesa Road | La Media/ SR-905 WB Ramps | La Media Road/ SR-905 EB Ramp | La Media Road/ Airway Road |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Airway Road | Airway Road | Avenida Costa Azul/ Airway Road | LEGEND |
|  |  |  | © Signalized <br> * Unsignalized <br> (a) Stop Controlled Leg <br> ( x ) Storage Length <br> - Mitigation |

* Additional eastbound lane added as part of roadway segment mitigation to be constructed by the Project at Opening Day (Year 2025).


Opening Day (Year 2025) Plus Project Mitigated Intersection and Roadway Segment Geometrics

## 8 HORIZON YEAR (2062) CONDITIONS

This section provides a description of the Horizon Year (2062) Conditions. This scenario establishes a baseline to compare against plus project scenario to determine significant cumulative project impacts. Alternative 3B without La Media Road extension from the OMCPU information, including peak hour and roadway segment volumes, were used in this section. Year 2062 was selected as the build-out year consistent with the Otay Mesa Community Plan. Relevant excerpts from the OMCPU EIR and TIS are provided in Appendix G.

### 8.1 TRAFFIC VOLUMES

Horizon Year (2062) traffic volumes were taken from the OMCPU Alternative 3-B Buildout Scenario without La Media Road for daily and AM/PM Peak Hour traffic. Peak-hour and daily volumes assumed for community plan buildout in 2062 were taken directly from the Transportation Analysis for OMCPU, dated June 14, 2012 (with corrections dated August 30, 2012).

The OMCPU did not include roadway segment volumes for La Media Road, between SR-905 WB Ramps/St. Andrews Avenue and SR-905 EB Ramps. Therefore, 50,750 ADT was assumed based on an average of the segment to the north $(37,500)$ and segment to the south $(64,000)$.

The OMCPU did not include AM/PM Peak Hour Traffic Volumes for the intersection of Avenida Costa Azul and Airway Road. The Horizon Year (2062) traffic volumes for this intersection were developed by increasing the existing intersection turning movement volumes proportionally to the annual increase in ADT from the OMCPU between years existing and buildout conditions. Based on this expected increase of traffic volumes on each of the intersection legs, these volumes were balanced by the upstream traffic at the intersection of La Media Road and Airway Road, with consideration for traffic generated by future development on the south side of Airway Road.

To develop the Horizon Year (2062) baseline volumes, the Project's trips were removed from the network based on the trip distribution assumptions in Section 4.2.

Appendix H contains the OMCPU volumes for 2062, calculations/assumptions for the development of intersection volumes at Avenida Costa Azul and Airway Road, and volume calculations for the development of Horizon Year (2062) baseline conditions. Figure 8-1 illustrates the resulting Horizon Year (2062) Conditions peak-hour and daily traffic volumes in the study area.

### 8.2 ROADWAY NETWORK

No roadway network changes are assumed to occur between the Opening Day (Year 2025) and Horizon Year (2062) scenarios since there are no fully-funded projects in the study area at this time. Therefore, the roadway network assumed in the Opening Day (Year 2025) Conditions (Figure 6-3) are the same conditions assumed for Horizon Year (2062) Conditions.

FIGURE 8-1



Horizon Year (2062) Peak Hour and ADT Volumes

### 8.3 INTERSECTION ANALYSIS

Table 8-1 displays the LOS analysis results for the study intersections under the Horizon Year (2062) conditions. As shown in the table, all intersections within the study area would operate at LOS F during both peak periods. Appendix C6 contains the Horizon Year (2062) Conditions intersection LOS calculation worksheets.

Table 8-1 Horizon Year (2062) Conditions Intersection LOS Summary

| Intersection |  | Traffic Control | Peak Hour | Horizon Year (2062) Conditions |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Delay (a) |  | LOS (b) |
| 1 | La Media Rd \& Otay Mesa Rd |  | Signal | AM | 570.3 | F |
|  |  | PM |  | 495.8 | F |
| 2 | La Media Rd \& St. Andrews Avenue/SR-905 WB Ramps | Signal | AM | 373.2 | F |
|  |  |  | PM | 389.7 | F |
| 3 | La Media Road \& SR-905 EB Ramps | Signal | AM | 529.9 | F |
|  |  |  | PM | 364.7 | F |
| 4 | La Media Road \& Airway Road | Signal | AM | 384.6 | F |
|  |  |  | PM | 349.7 | F |
| 5 | Airway Road \& Project Driveway 1 | SSSC | AM | Future Driveway |  |
|  |  |  | PM |  |  |
| 6 | Airway Road \& Project Driveway 2 | SSSC | AM | Future Driveway |  |
|  |  |  | PM |  |  |
| 7 | Avenida Costa Azul/Private Driveway \& Airway Road | SSSC | AM | >1,000 | F |
|  |  |  | PM | >1,000 | F |

Bold values indicate intersections operating at LOS E or F. SSSC = Side Street Stop Control
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At SSSC intersections, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the HCM 6 ${ }^{\text {th }}$ Edition and performed using Synchro 11.

### 8.4 ROADWAY SEGMENT ANALYSIS

Table 8-2 displays the roadway segments analysis under the Horizon Year (2062) Conditions. As shown in the table, all study roadway segments would operate at LOS D or better, with the exception of the following locations:

- La Media Road between SR-905 WB Ramps and SR-905 EB Ramps - LOS F
- La Media Road, between SR 905 EB Ramps and Airway Road - LOS F
- Airway Road, between La Media Road and Project Driveway 1 - LOS F
- Airway Road, between Project Driveway 1 and Avenida Costa Azul - LOS F
- Airway Road, between Avenida Costa Azul and Piper Ranch Road - LOS F
- Airway Road, between Piper Ranch Road and Avenida de la Fuente N - LOS F
- Airway Road, between Avenida de la Fuente N and Harvest Road - LOS F
- Airway Road, between Harvest Road and Sanyo Avenue - LOS F

Table 8-2 Horizon Year (2062) Conditions Roadway Segment LOS Summary

| Roadway Segment | Roadway Classification (a) | LOS E Capacity | Horizon Year (2062) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ADT | V/C <br> Ratio(b) | LOS |
| La Media Road |  |  |  |  |  |
| Otay Mesa Rd to SR 905 WB Ramps/St. Andrews Ave | 6L Collector(c) | 45,000 | 37,091 | 0.824 | D |
| SR 905 WB Ramps/St. Andrews Ave to SR 905 EB Ramps | 6L Collector(c) | 45,000 | 49,780 | 1.106 | F |
| SR 905 EB Ramps to Airway Road | 6L Prime Arterial | 60,000 | 62,468 | 1.041 | F |
| Airway Road to Avenida de la Fuente | $\begin{gathered} \hline \text { 5L Major Arterial (3L } \\ \text { SB, 2L NB) } \\ \hline \end{gathered}$ | 45,000 | 32,898 | 0.731 | C |
| Avenida de la Fuente to Siempre Viva Road | 4L Major Arterial | 40,000 | 21,398 | 0.535 | C |
| Airway Road |  |  |  |  |  |
| La Media Road to Project Driveway 1 | 3L Collector (2L WB, 1L EB) (d) | 12,000 | 29,263 | 2.439 | F |
| Project Driveway 1 to Avenida Costa Azul | $\begin{aligned} & \text { 3L Collector (2L WB, 1L } \\ & \text { EB) (d) } \end{aligned}$ | 12,000 | 30,693 | 2.558 | F |
| Avenida Costa Azul to Piper Ranch Road | 3L Collector (2L WB, 1L EB) (e) | 15,000 | 33,693 | 2.246 | F |
| Piper Ranch Road to Avenida de la Fuente N | 2L Collector (TWLTL) (f) | 15,000 | 33,693 | 2.246 | F |
| Avenida de la Fuente N to Harvest Road | 3L Collector (2L WB, 1L EB) (g) | 15,000 | 33,693 | 2.246 | F |
| Harvest Road to Sanyo Avenue | 3L Collector (2L WB, 1L EB) (h) | 15,000 | 26,193 | 1.746 | F |

\#L = total number of lanes; TWLTL = Two-way left-turn lane; Bold values indicate roadway segment operating at LOS E or F.
(a) Horizon Year street classification is based on planned and funded improvements to the roadway network.
(b) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.
(c) Collector roadway due to lack of raised median
(d) Collector roadway - commercial/industrial fronting property
(e) Collector roadway - existing raised median and left-turn pockets
(f) Collector roadway - with continuous two-way left-turn lane or left-turn pockets
(g) Collector roadway - existing painted median
(h) Collector roadway - north half of roadway under construction

- West Half: 2 L WB / 1L EB with pained median
- East Half: 1L WB / 1L EB with TWLTL


## 9 HORIZON YEAR (2062) PLUS PROJECT

This section provides a description of the Horizon Year (2062) conditions with the addition of the Project.

### 9.1 TRAFFIC VOLUMES

The Project is expected to generate 2,043 daily trips, with 306 trips ( $215 \mathrm{in}, 91$ out) during the AM Peak, and 327 trips ( 131 in, 196 out) during the PM Peak. Horizon Year (2062) Plus Project volumes were determined by adding the Project traffic to the Horizon Year (2062) Conditions volumes. These volumes are shown in Figure 9-1.

### 9.2 ROADWAY NETWORK

The Project's proposed roadway network changes are consistent with those described in Section 7.2. No roadway network changes are assumed to occur between the Opening Day (Year 2025) and Horizon Year (2062) scenarios since there are no fully-funded projects in the study area at this time; the roadway network assumed in the Opening Day (Year 2025) Plus Project conditions (Figure 7-2) are the same conditions assumed for Horizon Year (2062) Plus Project conditions.

The second eastbound travel lane along Airway Road (between La Media Road and Avenida Costa Azul) that was recommended for the Opening Day (Year 2025) Plus Project mitigations (Section 7.6), was not included in the roadway network assumptions under the Horizon Year (2062) Plus Project conditions. This assumption was made in order to determine whether the improvements recommended for the Opening Day (Year 2025) would also be sufficient to mitigate the Horizon Year (2062) Plus Project impacts. Table 9-4, presented in Section 9.6, shows that four-lane Major Arterial recommended under Opening Day (Year 2025) Plus Project Mitigated Conditions would be sufficient, and there would not be an additional Horizon Year (2062) Plus Project significant impact.

### 9.3 INTERSECTION ANALYSIS

Table 9-1 displays the LOS analysis results for the study intersections under the Horizon Year (2062) Plus Project Conditions. As shown in the table, all intersections within the study area would continue to operate at LOS F during both peak periods with the exception of the Project's access driveways.

Appendix C7 contains the Horizon Year (2062) Plus Project intersection LOS calculation worksheets.

FIGURE 9-1



Horizon Year (2062) Plus Project Peak Hour and ADT Volumes

Table 9-1 Horizon Year (2062) Plus Project Intersection LOS Summary

| Intersection |  | Traffic Control | Peak <br> Hour | Horizon Year (2062) |  | Horizon Year (2062) Plus Project |  | $\Delta$ <br> (c) | Significant? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Delay <br> (a) |  | LOS <br> (b) | Delay <br> (a) | LOS <br> (b) |  |  |
| 1 |  |  |  | AM | 570.3 | F | 579.4 | F | 9.1 | YES |
| 1 |  | gnal | PM | 495.8 | F | 507.6 | F | 11.8 | YES |
| 2 | La Media Rd \& St. Andrews |  | AM | 373.2 | F | 379.8 | F | 6.6 | YES |
| 2 | Avenue/SR-905 WB Ramps | gn | PM | 389.7 | F | 409.8 | F | 20.1 | YES |
| 3 | La Media Road \& SR-905 EB | Signal | AM | 529.9 | F | 565.8 | F | 35.9 | YES |
| 3 | Ramps | Signal | PM | 364.7 | F | 383.3 | F | 18.6 | YES |
| 4 | La Media Road \& Airway |  | AM | 384.6 | F | 414.3 | F | 29.7 | YES |
| 4 | Road | Signal | PM | 349.7 | F | 383.3 | F | 33.6 | YES |
| 5 | Airway Road \& Project Driveway 1 | Signal | AM | Future Driveway |  | 145.1 | F | - | YES |
|  |  |  | PM |  |  | 44.5 | D | - | NO |
| 6 | Airway Road \& Project Driveway 2 | SSSC | AM | Future Driveway |  | 14.6 | B | - | NO |
|  |  |  | PM |  |  | 13.3 | B | - | NO |
| 7 | Avenida Costa Azul/Private Driveway \& Airway Road | SSSC | AM | >1,000 | F | >1,000 | F | - | YES |
|  |  |  | PM | >1,000 | F | >1,000 | F | - | YES |

Notes:
Bold values indicate intersections operating at LOS E or F. Bold and shaded values indicate project significant impact. SSSC = Side Street Stop Control; AWSC = All Way Stop Control
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the HCM 6th Edition and performed using Synchro 11.
(c) Change in delay due to addition of project traffic. Addition of project traffic may cause a decrease in delay at some locations. This counterintuitive result occurs when the volume being added to the intersection is on movements with less delay than the current overall intersection average delay, decreasing the overall intersection average delay.

### 9.4 ROADWAY SEGMENT ANALYSIS

Table 9-2 displays the roadway segments analysis under the Horizon Year (2062) Plus Project Conditions. as shown in the table, all study roadway segments would continue to operate at LOS D or better with the addition of the Project, except at the following locations:

- La Media Road between SR-905 WB Ramps and SR-905 EB Ramps - LOS F
- La Media Road, between SR 905 EB Ramps and Airway Road - LOS F
- Airway Road, between La Media Road and Project Driveway 1 - LOS F
- Airway Road, between Project Driveway 1 and Avenida Costa Azul - LOS F
- Airway Road, between Avenida Costa Azul and Piper Ranch Road - LOS F
- Airway Road, between Piper Ranch Road and Avenida de la Fuente N - LOS F
- Airway Road, between Avenida de la Fuente N and Harvest Road - LOS F
- Airway Road, between Harvest Road and Sanyo Avenue - LOS F
Table 9-2 Horizon Year (2062) Plus Project Roadway Segment LOS Summary

| Roadway Segment | Roadway Classification | LOS E Capacity | Horizon Year (2062) |  |  | Horizon Year (2062) Plus Project |  |  | $\stackrel{\Delta}{\Delta}$ | $\Delta \mathrm{V} / \mathrm{C}$ | Significant ? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ADT | V/C Ratio(b) | LOS | ADT | V/C Ratio | LOS |  |  |  |
| La Media Road |  |  |  |  |  |  |  |  |  |  |  |
| Otay Mesa Rd to SR 905 WB Ramps/St. Andrews Ave | 6L Collector(c) | 45,000 | 37,091 | 0.824 | D | 37,500 | 0.833 | D | 409 | 0.009 | NO |
| SR 905 WB Ramps/St. Andrews Ave to SR 905 EB Ramps | 6L Collector(c) | 45,000 | 49,780 | 1.106 | F | 50,750 | 1.128 | F | 970 | 0.022 | YES |
| SR 905 EB Ramps to Airway Road | 6 L Prime Arterial | 60,000 | 62,468 | 1.041 | F | 64,000 | 1.067 | F | 1,532 | 0.026 | YES |
| Airway Road to Avenida de la Fuente | 5L Major Arterial (3L SB, $2 \mathrm{~L} ~ N B)$ | 45,000 | 32,898 | 0.731 | C | 33,000 | 0.733 | C | 102 | 0.002 | NO |
| Avenida de la Fuente to Siempre Viva Road | 4L Major Arterial | 40,000 | 21,398 | 0.535 | c | 21,500 | 0.538 | c | 102 | 0.003 | NO |
| Airway Road |  |  |  |  |  |  |  |  |  |  |  |
| La Media Road to Project Driveway 1 | $\begin{gathered} \text { 3L Collector (2L WB, 1L } \\ \text { EB) (d) } \end{gathered}$ | 12,000 | 29,263 | 2.439 | F | 31,000 | 2.583 | F | 1,737 | 0.144 | YES |
| Project Driveway 1 to Avenida Costa Azul | $\begin{aligned} & \text { 3L Collector (2L WB, 1L } \\ & \text { EB) (d) } \end{aligned}$ | 12,000 | 30,693 | 2.558 | F | 31,000 | 2.583 | F | 307 | 0.025 | YES |
| Avenida Costa Azul to Piper Ranch Road | $\begin{gathered} \text { 3L Collector (2L WB, 1L } \\ \text { EB) (e) } \end{gathered}$ | 15,000 | 33,693 | 2.246 | F | 34,000 | 2.267 | F | 307 | 0.021 | YES |
| Piper Ranch Road to Avenida de la Fuente N | 2L Collector (TWLTL) (f) | 15,000 | 33,693 | 2.246 | F | 34,000 | 2.267 | F | 307 | 0.021 | YES |
| Avenida de la Fuente N to Harvest Road | $\begin{gathered} \text { 3L Collector (2L WB, 1L } \\ E B)(\mathrm{g}) \\ \hline \end{gathered}$ | 15,000 | 33,693 | 2.246 | F | 34,000 | 2.267 | F | 307 | 0.021 | YES |
| Harvest Road to Sanyo Avenue | $\begin{gathered} \text { 3L Collector (2L WB, 1L } \\ E B)(h) \end{gathered}$ | 15,000 | 26,193 | 1.746 | F | 26,500 | 1.767 | F | 307 | 0.021 | YES |

(a) Existing roads seap capacity
(b) Collector roadway due to lack of raised median
(d) Collector roadway - commercial/industrial fronting property
(e) Collector roadway - existing raised median and left-turn pockets
(g) Collector roadway - existing painted median

- West Half: 2L WB / 1L EB with pained median


### 9.5 PROJECT DRIVEWAY QUEUEING ANALYSIS

A queueing analysis was performed during the AM and PM peak hours at Airway Road \& Project Driveway 1 to determine if the proposed 200 -foot eastbound left-turn pocket would provide sufficient storage capacity for the Project's inbound traffic. A 16 percent PHV was included for each intersection movement, including the subject left-turn pocket, consistent with the TIS analysis methodology assumptions (Section 2.2). The 16 percent PHV assumption for the eastbound left-turn movement is expected to accurately reflect the passenger vehicle/truck splits based on a review of Institute of Transportation Engineers (ITE) Trip Generation Manual, $11^{\text {th }}$ Edition total vehicle and heavy vehicle trip rates for the equivalent Warehousing Use (Land Use 150).

ITE Land Use 150 trip rates:
-AM Peak Hour: 0.17 total vehicles/1,000 SF \& 0.02 trucks/1,000 SF (11.7\%)
-PM Peak Hour: 0.18 total vehicles/1,000 SF \& 0.03 trucks/1,000 SF (16.7\%)
Synchro 11 software was utilized to conduct the queueing analysis, and the 95th percentile queue lengths are reported in this analysis. The resulting 95th percentile queue is expected to be 191 -feet during the AM peak hour and 129 -feet during the PM peak hour. The queueing analysis indicates that the proposed 200foot eastbound left-turn pocket would provide sufficient storage capacity for the Project's inbound traffic. Appendix C10 contains queueing calculation worksheets for Project Driveway 1 during the Horizon Year (2062) Plus Project scenario.

### 9.6 FINDINGS AND CONCLUSIONS

The results of the analysis indicate that the Project would have significant cumulative project impacts under the Horizon Year (2062) Plus Project scenario at the following intersections:

- La Media Road \& Otay Mesa Road
- La Media Road \& St. Andrews Avenue/ SR-905 WB Ramps
- La Media Road \& SR-905 EB Ramps
- La Media Road \& Airway Road
- Airway Road \& Project Driveway 1
- Avenida Costa Azul/Private Driveway \& Airway Road

The intersections of Airway Road \& Project Driveway 1, and Avenida Costa Azul/Private Driveway \& Airway Road were not evaluated in the OMCPU EIR. The intersection of Airway Road and Project Driveway 1 is required to provide access to the proposed project; and therefore, was not analyzed as part of the OMCPU EIR. The intersection of Avenida Costa Azul/Private Driveway and Airway Road was also not analyzed as part of the OM CPU EIR, however, this intersection is included in the OM PFFP as a planned signalized intersection (Project OM T-35).

The results of the analysis indicate that the Project would have significant cumulative project impacts under the Horizon Year (2062) Plus Project scenario at the following roadway segments:

- La Media Road between SR-905 WB Ramps and SR-905 EB Ramps
- La Media Road, between SR 905 EB Ramps and Airway Road
- Airway Road, between La Media Road and Project Driveway 1
- Airway Road, between Project Driveway 1 and Avenida Costa Azul
- Airway Road, between Avenida Costa Azul and Piper Ranch Road
- Airway Road, between Piper Ranch Road and Avenida de la Fuente N
- Airway Road, between Avenida de la Fuente N and Harvest Road
- Airway Road, between Harvest Road and Sanyo Avenue

The queueing analysis indicates that the proposed 200 -foot eastbound left-turn pocket would provide sufficient storage capacity for the Project's inbound traffic.

## Intersections:

## La Media Road \& Otay Mesa Road

The OMCPU recommends the widening of all approaches along Otay Mesa Road and La Media Road to accommodate dual left-turn lanes and dual right-turn lanes on each intersection approach, two southbound thru lanes, and three through lanes on the northbound, eastbound, and westbound approaches. As shown in Table 9-3, this intersection would continue to operate at LOS F during both the AM and PM peak hours with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigated conditions, which is consistent with findings of the OMCPU EIR. Appendix C8 contains the Horizon Year (2062) Plus Project Mitigated intersection LOS calculation worksheets. Prior to issuance of any building permit, the Owner/Permittee shall pay an $0.77 \%$ fair share towards these intersection improvements, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations.

## La Media Road \& St. Andrews Avenue/SR-905 WB Ramps

The OMCPU recommends restriping the west leg to restrict the EBT movement providing an eastbound left-turn lane and right-turn lane. It also includes restriping the south leg to provide dual left-turn lanes, three thru lanes, and right-turn pocket. As shown in Table 9-3, this intersection would continue to operate at LOS F during both the AM and PM peak hours with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigated conditions, which is consistent with findings of the OMCPU EIR. Appendix C8 contains the Horizon Year (2062) Plus Project Mitigated intersection LOS calculation worksheets. Prior to issuance of any building permit, the Owner/Permittee shall pay a $2.63 \%$ fair share towards these intersection improvements, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations.

## La Media Road \& SR-905 EB Ramps

The OMCPU recommends widening the southbound La Media Road approach to accommodate three thru lanes and a right-turn lane. As shown in Table 9-3, this intersection would continue to operate at LOS F during both the AM and PM peak hours with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigated conditions, which is consistent with findings of the OMCPU EIR. Appendix C8 contains the Horizon Year (2062) Plus Project Mitigated intersection LOS calculation worksheets. Prior to issuance of any building permit, the Owner/Permittee shall pay a $3.46 \%$ fair share towards this intersection improvement, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations.

## La Media Road \& Airway Road

This intersection would operate at LOS F during both the AM and PM peak hours, which is consistent with findings of the OMCPU EIR. Since the City's CIP \#S-15018 would construct the intersection to its ultimate intersection geometrics, as identified in the currently adopted Otay Mesa Community Plan, no project mitigation measures are required.

## Airway Road \& Project Driveway 1

As shown in Table 9-3, this intersection would improve from LOS F to LOS B by constructing a signalized driveway with a shared left/right-turn southbound lane as part of the site improvements, and by the implementation of the recommended mitigation measures under Opening Day (Year 2025) Plus Project Mitigated conditions, which includes widening Airway Road between La Media Road and Avenida de la Fuente from a 3-Lane Collector to a 4-Lane Major Arterial and constructing a full width raised median. These improvements would provide the following intersection conditions:

- SB: Shared left/right-turn lane;
- EB: Left-turn lane (200-foot pocket) and two thru lanes; and
- WB: Future left-turn lane ( 200 -foot pocket), one thru lane, and a thru/right-turn lane.

These intersection improvements would accommodate a future driveway on the south leg of intersection (northbound approach), which would provide a full-access driveway for the property on south side of Airway. Appendix C8 contains the Horizon Year (2062) Plus Project Mitigated intersection LOS calculation worksheets. This intersection is not explicitly covered by OMCPU EIR Statement of Overriding Considerations.

## Avenida Costa Azul/Private Driveway \& Airway Road

Prior to issuance of any building permit, the Owner/Permittee shall pay a $3.57 \%$ fair share towards signalizing Avenida Costa Azul/Private Driveway \& Airway Road, as stated by PFFP OM T-35, and restriping to provide a northbound left-turn/thru lane and right-turn pocket, satisfactory to the City Engineer. As shown in Table 9-3, this intersection would improve from LOS F to LOS D with the implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project conditions. Appendix C8 contains the Horizon Year (2062) Plus Project Mitigated intersection LOS calculation worksheets. See Appendix I for fair share calculations. This intersection is not explicitly covered by OMCPU EIR Statement of Overriding Considerations.

Table 9-3 Horizon Year (2062) Plus Project Mitigation Intersection LOS Summary

| Intersection |  | Peak Hour | Horizon Year (2062) Plus Project - Before Mitigation |  | Horizon Year (2062) Plus Project - After Mitigation |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Delay <br> (a) | $\begin{gathered} \text { LOS } \\ \text { (b) } \\ \hline \hline \end{gathered}$ | Delay (a) | $\begin{gathered} \text { LOS } \\ \text { (b) } \\ \hline \hline \end{gathered}$ |
| 1 | La Media Rd \& Otay Mesa Rd |  | AM | 579.4 | F | 235.5 | F |
|  |  | PM | 507.6 | F | 219.0 | F |
| 2 | La Media Rd \& St. Andrews Ave/SR-905 WB Ramps | AM | 379.8 | F | 247.9 | F |
|  |  | PM | 409.8 | F | 176.7 | F |
| 3 | La Media Rd \& SR-905 EB Ramps | AM | 565.8 | F | 415.9 | F |
|  |  | PM | 383.3 | F | 341.3 | F |
| 5 | Airway Rd \& Project Driveway 1 | AM | 145.1 | F | 10.4 | B |
|  |  | PM | 44.5 | D | 10.4 | B |
| 7 | Avenida Costa Azul/Private Driveway \& Airway Road | AM | >1,000 | F | 49.3 | D |
|  |  | PM | >1,000 | F | 30.6 | C |

Notes: Bold values indicate intersections operating at LOS E or F.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the HCM $6^{\text {th }}$ Edition and performed using Synchro 11.0

## Roadway Segments:

## La Media Road, between St. Andrews Avenue/ SR-905 WB Ramps and SR-905 EB Ramps

The OMCPU recommends constructing a raised median to provide a 6-Lane Primary Arterial. As shown in Table 9-4, this roadway segment would continue to operate at LOS F with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigation conditions, which is consistent with findings of the OMCPU EIR. Prior to issuance of any building permit, the Owner/Permittee shall pay a $2.62 \%$ fair share towards this roadway improvement, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations.

## La Media Road, between SR-905 EB Ramps \& Airway Road

Since the City's CIP \#S-15018 would construct the roadway to its ultimate classification as a 6-lane Primary Arterial, as identified in the currently adopted Otay Mesa Community Plan, no project mitigation measures are required. This roadway segment would continue to operate at LOS F, which is consistent with the findings of the OMCPU EIR.

## Airway Road, between La Media Road \& Project Driveway 1

In the Opening Day (Year 2025) Plus Project Mitigations scenario, the project would widen this roadway segment from a 3-Lane Collector to a 4-Lane Major Arterial and construct a full width raised median. As shown in Table 9-4, this roadway segment would operate at LOS D with implementation of the recommended mitigation measures under Opening Day (Year 2025) Plus Project Mitigated conditions. Therefore, no further mitigation is required. Appendix L contains a conceptual design of the Project's proposed improvements along Airway Road.

## Airway Road, between Project Driveway 1 \& Avenida Costa Azul

In the Opening Day (Year 2025) Plus Project Mitigations scenario, the project would widen this roadway segment from a 3-Lane Collector to a 4-Lane Major Arterial and construct a full width raised median. As shown in Table 9-4, this roadway segment would operate at LOS D with implementation of the recommended mitigation measures under Opening Day (Year 2025) Plus Project Mitigated conditions. Therefore, no further mitigation is required. Appendix L contains a conceptual design of the Project's proposed improvements along Airway Road.

## Airway Road, between Avenida Costa Azul \& Piper Ranch Road

The OMCPU recommends widening to provide a 4-Lane Major Arterial. As shown in Table 9-4, this segment was previously constructed to 4 -Lane Major Arterial standards, including 78 -foot curb-to-curb width and a raised median. Therefore, only restriping of the segment is required to improve to a 4-Lane Major Arterial. This roadway segment would operate at LOS D with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigation conditions. Prior to issuance of any building permit, the Owner/Permittee shall pay a $1.21 \%$ fair share towards this roadway improvement, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations.

## Airway Road, between Piper Ranch Road \& Avenida de la Fuente N

The OMCPU recommends widening the roadway and constructing a raised median to provide a 4-Lane Major Arterial. As shown in Table 9-4, this roadway segment would operate at LOS D with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigation conditions. Prior to issuance of any building permit, the Owner/Permittee shall pay a $1.21 \%$ fair share towards these
roadway improvements, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations.

## Airway Road, between Avenida de la Fuente N \& Harvest Road

The OMCPU recommends widening the roadway and constructing a raised median to provide a 4-Lane Major Arterial. As shown in Table 9-4, this roadway segment would operate at LOS D with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigated conditions. Prior to issuance of any building permit, the Owner/Permittee shall pay a $1.21 \%$ fair share towards these roadway improvements, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations.

## Airway Road, between Harvest Road \& Sanyo Avenue

The OMCPU recommends widening the roadway and constructing a raised median to provide a 4-Lane Major Arterial. As shown in Table 9-4, this roadway segment would operate at LOS C with implementation of the recommended mitigation measures under Horizon Year (2062) Plus Project Mitigation conditions. Prior to issuance of any building permit, the Owner/Permittee shall pay a $1.70 \%$ fair share towards this roadway improvement, satisfactory to the City Engineer. See Appendix I for OMCPU EIR recommendations and fair share calculations. PRJ-1042571, the Sanyo Logistics project, is currently under construction and includes widening the north side of Airway Road for a 4-Lane Major Arterial, constructing raised median along the project site's frontage, and restriping the segment with four travel lanes. Therefore, fair-share contributions will be based on the cost of constructing the remaining portion of raised median between Harvest Road and this PRJ-1042571 project's limits (approximately 450-feet), and any other improvements required to provide a 4-Lane Major Arterial, satisfactory to City Engineer.

Figure 9-2 illustrates the geometrics of the study intersections and roadway segments with the Horizon Year (2062) Plus Project mitigation measures.

Table 9-4 Horizon Year (2062) Plus Project Mitigation Roadway Segment LOS Summary

| Roadway Segment | Horizon Year (2062) Plus Project ADT | Before Mitigation |  | After Mitigation |  | Significant Impact Mitigated? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Classification / LOS E Capacity | $\begin{aligned} & \text { V/C } \\ & \text { LOS } \end{aligned}$ | Classification / Capacity | $\begin{aligned} & \text { V/C } \\ & \text { LOS } \end{aligned}$ |  |
| La Media Road |  |  |  |  |  |  |
| SR 905 WB Ramps/St. Andrews Ave to SR 905 EB Ramps | 50,750 | $\begin{aligned} & \text { 6L Collectora } / \\ & 45,000 \end{aligned}$ | $\begin{gathered} 1.128 \\ F \end{gathered}$ | 6L Prime / 60,000 | $\begin{gathered} 0.846 \\ \mathrm{C} \end{gathered}$ | Yes |
| SR 905 EB Ramps to Airway Road | 64,000 | 6L Prime / 60,000 | $\begin{gathered} 1.067 \\ \text { F } \end{gathered}$ | 6L Prime / 60,000 | $\begin{gathered} 1.067 \\ \text { F } \end{gathered}$ | No |
| Airway Road |  |  |  |  |  |  |
| La Media Road to Project Driveway 1 | 34,000 | $\begin{gathered} 3 \mathrm{~L} \text { Collector }{ }^{\text {b }} \text { / } \\ 12,000 \end{gathered}$ | $\begin{gathered} 2.833 \\ F \end{gathered}$ | 4L Major / 40,000 | $\begin{gathered} 0.850 \\ \mathrm{D} \end{gathered}$ | Yes |
| Project Driveway 1 to Avenida Costa Azul | 34,000 | $\begin{gathered} \text { 3L Collector }{ }^{\text {b }} \text { / } \\ 12,000 \end{gathered}$ | $\begin{gathered} 2.833 \\ \mathbf{F} \end{gathered}$ | 4L Major / 40,000 | $\begin{gathered} 0.850 \\ \mathrm{D} \end{gathered}$ | Yes |
| Avenida Costa Azul to Piper Ranch Road | 34,000 | $\begin{aligned} & 3 \mathrm{~L} \text { Collector }{ }^{\mathrm{c}} \text { / } 15,000 \end{aligned}$ | $\underset{\mathrm{F}}{2.267}$ | 4L Major / 40,000 | $\begin{gathered} 0.850 \\ \mathrm{D} \end{gathered}$ | Yes |
| Piper Ranch Road to Avenida de la Fuente N | 34,000 | $\begin{aligned} & 2 \mathrm{~L} \text { Collector }{ }^{\mathrm{d}} / \\ & 15,000 \end{aligned}$ | $\underset{F}{2.267}$ | 4L Major / 40,000 | $\begin{gathered} 0.850 \\ \mathrm{D} \end{gathered}$ | Yes |
| Avenida de la Fuente N to Harvest Road | 34,000 | $\begin{gathered} 3 \mathrm{~L} \text { Collectore / } \\ 15,000 \end{gathered}$ | $\begin{gathered} 2.267 \\ \mathbf{F} \end{gathered}$ | 4L Major / 40,000 | $\begin{gathered} 0.850 \\ \mathrm{D} \end{gathered}$ | Yes |
| Harvest Road to Sanyo Avenue | 26,500 | $\begin{aligned} & \text { 3L Collectorf / } \\ & 15,000 \end{aligned}$ | $\begin{gathered} 1.746 \\ \mathbf{F} \end{gathered}$ | 4L Major / 40,000 | $\begin{gathered} 0.663 \\ \text { C } \end{gathered}$ | Yes |

Notes: Bold values indicate roadway segment operating at LOS E or F.
a) Collector roadway due to lack of raised median
b) Collector Roadway - commercial/industrial fronting property
c) Collector Roadway - existing raised median and left-turn pockets
d) Collector Roadway - with continuous two-way left-turn lane or left-turn pockets
e) Collector Roadway - existing painted median
f) Collector Roadway - north half of roadway under construction (West Half: 2L WB / 1L EB with pained median | East Half: 1L WB / 1L EB with TWLTL)

FIGURE 9-2

| La Media Road/ Otay Mesa Road | La Media/ SR-905 WB Ramps | La Media Road/ SR-905 EB Ramp | La Media Road/ Airway Road |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Project Driveway $1 /$ Airway Road | Airway Road | Avenida Costa Azul/ Airway Road | LEGEN |
|  |  |  | (®) Signalized <br> * Unsigalized <br> (50) Stop Controlled Leg <br> (xx) Storage Length <br> - Mitigation |

* Additional eastbound lane added as part of roadway segment mitigation to be constructed by the Project at Opening Day (Year 2025).


Horizon Year (2062) Plus Project Mitigated Intersection and Roadway Segment Geometrics

## 10 SITE ACCESS AND ON-SITE CIRCULATION

Two access driveways and one emergency access only driveway are proposed along Airway Road. The middle driveway (Project Driveway 1) is proposed to be a full-access, signalized driveway, approximately 700feet east of La Media Road with a southbound shared left/right-turn (outbound) lane and a single inbound lane. A 200 -foot eastbound left-turn pocket is proposed by the Project. Signalization of Project Driveway 1 would allow full-access movements into/out of the site along Airway Road which has an ultimate roadway classification as a 4-Lane Major Arterial per the Otay Mesa Community Plan. The easternmost driveway (Project Driveway 2) would be a right-in/right-out only, stop-controlled driveway with a single inbound/outbound lane.

The on-site circulation and parking aisle configurations are expected to be adequate for the Project's proposed uses. Project Driveway 1 would provide access to all inbound/outbound trucks. Since Project Driveway 2 is narrower and would not have curb returns, truck movements would be restricted at this location. Inbound trucks would enter the site at the signalized Project Driveway 1, travel north through the center of site's drive aisle, and then park at one of the building's loading docks or truck parking stalls running through the center of buildings. Outbound trucks would travel south through the center of the site's drive aisle, exiting the site at the signalized Project Driveway 1. The majority of inbound passenger vehicles would enter the site at the signalized Project Driveway 1 since most of the traffic is expected to access the site from the west, and due to the left-turn restrictions at Project Driveway 2. A small portion of inbound traffic is expected to travel from the east. These vehicles are expected to be split between traveling inbound at Project Driveway 1 and Project Driveway 2. Outbound passenger vehicles would primarily exit at the signalized Project Driveway 1 since this location is central to the buildings and passenger vehicle parking. A portion of outbound traffic heading west would exit at Project Driveway 2. Parking aisles have access on both ends to provide continuous circulation.

The queueing analysis conducted at Airway Road \& Project Driveway 1 indicates $95^{\text {th }}$ percentile queuing for the southbound approach as follows:

- Opening Day (Year 2025) Plus Project AM - 30-feet
- Opening Day (Year 2025) Plus Project PM - 56-feet
- Horizon Year (2062) Plus Project AM - 53-feet
- Horizon Year (2062) Plus Project PM - 85-feet

Therefore, the queueing analysis indicated that minimal on-site queues are expected, and the Project's traffic will generally fit within the 70-foot driveway throat, without blocking the site's circulation.

## 11 TRAFFIC SIGNAL WARRANT ANALYSIS

A traffic signal warrant analysis was conducted for the proposed signalized intersection of Airway Road \& Project Driveway 1 to determine if installation of a traffic signal would be warranted at the intersection. The signal warrant analysis was performed in accordance with the CA MUTCD ${ }^{1}$ for the Existing (2022) Plus Project Conditions and Opening Day (Year 2025) Plus Project scenarios.

Appendix K contains a detailed traffic signal warrant analysis with supporting worksheets, volume development calculations and assumptions.

## Existing (2022) Plus Project Conditions

Based on CA MUTCD Average Traffic Estimate Form (Figure 4C-103), Conditions A, Conditions B and the Combination Warrant (80\%) would not be met for the Existing (2025) Plus Project Conditions.

Opening Day (Year 2025) Plus Project
Based on CA MUTCD Average Traffic Estimate Form (Figure 4C-103), Condition B would be met for Opening Day (Year 2025) Plus Project.

Therefore, a traffic signal is warranted at the future intersection of Airway Road \& Project Driveway 1 for the Opening Day (Year 2025) Plus Project scenario based on CA MUTCD Average Traffic Estimate Form (Figure 4C-103).

[^0]
## 12 ALTERNATE MODES OF TRANSPORTATION

This section discusses pedestrian facilities, bicycle facilities and transit near the Project.

### 12.1 PEDESTRIAN FACILITIES

Currently there are contiguous sidewalks along the north side of Airway Road between Britannia Boulevard and approximately 400 -feet west La Media Road, and intermittently along south side of Airway Road. Between Avenida Costa Azul and Piper Ranch Road, there are contiguous sidewalks along both sides of Airway Road. Additionally, there is a non-contiguous sidewalk along the north side of Airway Road between Avenida la Fuente Norte and Harvest Road, that becomes a contiguous sidewalk just east of Harvest Road. The Project will construct non-contiguous sidewalk within the parkway along its frontage on Airway Road connecting to the City's CIP improvements to the west and to the existing contiguous sidewalk at the site's eastern limits with offsite transitions, per the City of San Diego Street Design Manual.

Along La Media Road, there is contiguous sidewalk between Otay Mesa Road and SR-905 EB Ramps, and contiguous sidewalk along the west side of La Media Road between SR-905 EB Ramps and Airway Road. The City's CIP project will install non-contiguous sidewalk within the parkway along La Media Road, between SR-905 EB Ramps and Siempre Viva Road.

### 12.2 BICYCLE FACILITIES

Per the OMCPU, a buffered Class II bicycle facility is planned along the project frontage on Airway Road. Implementation of a westbound buffered Class II bicycle lane along the Project's frontage is proposed to be included with the site development and would connect to the City's La Media Road CIP improvements to the west. The Project would implement a portion of the Otay Mesa Community Plan's bicycle network along the north side of Airway Road for the westbound direction, which would extend to Avenida Costa Azul, approximately 185 -feet east of the site's eastern limits.

### 12.3 TRANSIT

The Project area is currently served by Metropolitan Transit Service (MTS) Route 905 on weekdays and weekends. Route 905 connects the Iris Avenue Transit Center with the Otay Mesa Transit Center, on weekdays, from approximately 4:15 AM to 8:30 PM with 30-minute headways, on Saturdays, from approximately 5:15 AM to 8:30 PM with 60-minute headways, and on Sundays, Route 905 operates from approximately 5:30 AM to 9:00 PM with 60-minute headways.

There are existing bus stops adjacent to the Project on the north and south side of Airway Road, just east of La Media Road. The Project's study area is also currently served by the MTS Route 909 on weekdays but not on weekends. Route 909 connects the Otay Mesa Transit Center and Southwestern College. This route operates from approximately 5:00 AM to 7:30 PM with 60-minute headways. The nearest stops are located at Southwestern College, approximately a half-mile walking distance west of the Project.

There are four future BRT/Rapid Transit Stops planned along Airway Road, per the Otay Mesa Community Plan Mobility Element. The stops would be located west of La Media Road, at Piper Ranch Road, near the SR-905 interchange, and at Sanyo Avenue. Per SANDAG's 2021 Regional Plan, this bus rapid transit is to be implemented in year 2035.

As part of the City's CIP improvements, a bus pad will be constructed on the south side of Airway Road at the existing stop location just east of La Media Road. The City's CIP project will also construct a bus pad on the north side of Airway Road, approximately 200 -feet west of La Media Road. On La Media Road, a bus pad will be constructed approximately 50-feet north of Airway Road.

Transit Information on this is provided in Appendix J.

## 13 PARKING

Per section 142.0527 of the City of San Diego's Municipal Code, the Project is required to provide 1 parking space per every 1,000 square feet of gross floor area. Therefore, the Project's minimum parking requirement would be 410 spaces. The proposed site plan includes 416 vehicle spaces ( +6 from required), including 16 accessible spaces ( 15 spaces required). The Project is also required to provide 22 bicycle spaces, 9 motorcycle spaces, 51 clean air vehicle spaces, and 46 electric vehicle charging spaces. The Project would provide 34 bicycle spaces ( +12 from required), 9 motorcycle spaces, 52 clean air vehicle spaces ( +1 from required), and 48 electric vehicle charging spaces ( +2 from required). The Project would also provide 85 truck spaces, in addition to the 99 truck dock stalls. Therefore, the Project's proposed parking spaces would meet the minimum requirements.

## APPENDICES

APPENDIX A
TRAFFIC SIGNAL TIMING PLANS
INTERSECTION: LA MEDIA RD \& OTAY MESA RD

INTERSECTION: LA MEDIA RD \& OTAY MESA RD


## Overlap Assignments <E/29+Column+Row>

| Overlap |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 2 | 3 | 4 | 5 | 6 |
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|  | Column Numbers ----> |
| :---: | :---: |
| Row | Overlap Name ----> |
| 0 | Load Switch Number |
| 1 | Veh Set 1 - Phases |
| 2 | Veh Set 2 - Phases |
| 3 | Veh Set 3 - Phases |
| 4 | Neg Veh Phases |
| 5 | Neg Ped Phases |
| 6 | Green Omit Phases |
| 7 | Green Clear Omit Phs. |
| 8 | Overlap Recall |
| 9 | Queue Jump Phase |
| A | Queue Jump Time |
| B | Minimum Green |
| C | Maximum Green |
| D | Green Clear |
| E | Yellow Change |
| F | Red Clear |




INTERSECTION: LA MEDIA RD \& OTAY MESA RD
 <D/0+B+Row> (seconds)

| Column Numbers ----> |  | 0 | 1 | 2 | 3 | 1 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | C1 Pin <br> Number |  |  |  |  | Carryover |
| Row | Detector Name |  | Attributes | Phase(s) | Assign | Delay |  |
| 0 | 2 I 2 U | 39 | 45_7 | 2 | 123 8 |  | 1.8 |
| 1 | 6J2U | 40 | 45_7 | 6 | $123-8$ |  | 1.8 |
| 2 | 416U | 41 | 45_7 | 4 | 123 |  | 1.8 |
| 3 | 8J6U | 42 | 45_7 | 8 | 123 |  | 1.8 |
| 4 | 212L | 43 | 45_7_ | 2 | 123 |  | 1.8 |
| 5 | 6J2L | 44 | 45_7_ | 6 | 123 |  | 1.8 |
| 6 | 4I6L | 45 | 45_7 | 4 | 123 |  |  |
| 7 | 8J6L | 46 | 45_7_ | 8 | 123 |  | 2.0 |
| 8 | 214 | 47 | 45-67_ | _2 | 123 |  |  |
| 9 | 6 J 4 | 48 | 45 -67_ | 6 | $123 \quad 8$ |  |  |
| A | 418 | 49 | 67_ | 4 | 123 |  |  |
| B | 8J8 | 50 | 67 | -8 | 123 |  |  |
| C | 5 J 1 U | 55 | 45_7 | 5 | 123 |  |  |
| D | 111 U | 56 | 45_7_ |  | $123 \quad 8$ |  |  |
| E | 7J5 | 57 | 45_7 | 7_ | $123 \quad 8$ |  |  |
| F | 315 | 58 | __45_7_ | -3 | 123 |  |  |




| Cabinet Type | $\mathbf{0}$ |
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| EE/125+D+0> |  |
| Enable Redirection |  |
| (Enable Redirection $=30$ ) |  |


| Max OFF (minutes) | $\mathbf{2 0} 60<\mathrm{D} / 0+0+1>$ |  |
| :--- | :--- | :--- |
| Max ON (minutes) | $\mathbf{6 0} 7$ | $<\mathrm{D} / 0+0+2>$ |
| Chatter Fail Time | $\mathbf{0}$ | $<\mathrm{D} / 0+0+4>$ |

Detector Failure Monitor

Max OFF (minutes) $\quad 2060<D / 0+0+1>$
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Redirect Phase Outputs <E/127+Column+Row>


|  |  |  |  | $\left\lvert\, \begin{gathered} 0 \\ \frac{0}{2} \\ \frac{\pi}{2} \\ \hline \end{gathered}\right.$ |  | $\frac{\pi}{0}$ | $\begin{aligned} & \infty \\ & \frac{c}{2} \\ & \frac{\pi}{⿺ ⿻} \end{aligned}$ | $\begin{aligned} & 9 \\ & \frac{c}{0} \\ & \text { cid } \end{aligned}$ |  |  | $\left\|\begin{array}{c} 0 \\ \underset{y}{1} \\ \underset{\sim}{u} \end{array}\right\|$ |  | $\stackrel{\text { ¢ }}{\text { ¢ }}$ |
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| Column 8 | Column 9 | Column A | Column B |  |
| :---: | :---: | :---: | :---: | :---: |
| One-Shot Timer | Latch 1 Set | NOT-3 | Max 2 |  |
| AND-5 (a) | Latch 1 Reset | NOT-4 | Reserved |  |
| AND-5 (b) | Latch 2 Set | OR-4 (a) | Reserved |  |
| AND-6 (a) | Latch 2 Reset | OR-4 (b) | Reserved |  |
| AND-6 (b) | NAND-3 (a) | OR-5 (a) | Reserved |  |
| Reserved | NAND-3 (b) | OR-5 (b) | Reserved |  |
| Reserved | NAND-4 (a) | OR-6 (a) | Reserved |  |
| Reserved | NAND-4 (b) | OR-6 (b) | Reserved |  |
| Spec. Funct. 1 | OR-7 (a) | EXTMR | Reserved |  |
| Spec. Funct. 2 | OR-7 (b) | Reserved | Max Inhibit (nema) |  |
| Spec. Funct. 3 | OR-7 (c) | AND-4 (a) | Force A (nema) |  |
| Spec. Funct. 4 | OR-7 (d) | AND-4 (b) | Force B (nema) |  |
| Reserved | OR-8 (a) | NAND-1 (a) | C.N.A. (nema) |  |
| Reserved | OR-8 (b) | NAND-1 (b) | Hold (nema) |  |
| Reserved | OR-8 (c) | NAND-2 (a) | Max Recall |  |
| Reserved | OR-8 (d) | NAND-2 (b) | Min Recall |  |




|  | INTERVAL | PHASE TIMING |  |  |  |  |  |  |  | 9 | $\begin{gathered} \text { PRE-EMPTION } \\ \text { E } \end{gathered}$ |  | E |  |  |  |  |  |  |  |  |  |
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|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  | ELAGS | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |
| 0 | WALK | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | CLK RST | EV SEL | 0 | PERMIT |  | 2 |  | 4 | 5 | 6 |  |  | 0 |
| 1 | DONT WALK | 1 | 1 | 1 | 1 | 1 | 35 | 1 | 1 |  | RR1 CLR | 15 | RED LOCK |  |  |  |  |  |  |  |  | 1 |
| 2 | MIN GREEN | 1 | 5 | 1 | 5 | 5 | 5 | 1 | 1 | $\rightarrow$ | EVA DLY | 0 | YEL LOCK |  |  |  |  |  |  |  |  | 2 |
| 3 | TYPE 3 DET | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | EVA CLR | 5 | $V$ RECALI |  | 2 |  |  |  | 6 |  |  | 3 |
| 4 | ADD/VEH | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  | EVB DLY | 0 | P RECALL |  |  |  |  |  |  |  |  | 4 |
| 5 | PASSAGE | 0.9 | 3.0 | 0.9 | 3.0 | 2.0 | 3.0 | 0.9 | 0.9 |  | EVB CLR | 5 | PED PHASES |  |  |  |  |  | 6 |  |  | 5 |
| 6 | MAX GAP | 0.9 | 3.0 | 0.9 | 3.0 | 2.0 | 3.0 | 0.9 | 0.9 |  | EVC DLY | 0 | RT OLA |  |  |  |  |  |  |  |  | 6 |
| 7 | MIN GAP | 0.9 | 3.0 | 0.9 | 3.0 | 2.0 | 3.0 | 0.9 | 0.9 |  | EVC CLR | 5 | RT OLB |  |  |  |  |  |  |  |  | 7 |
| 8 | MAX EXT | 9 | 30 | 9 | 30 | 15 | 30 | 9 | 9 |  | EVD DLY | 0 | DBL ENTRY |  |  |  |  |  |  |  |  | 8 |
| 9 | MAX 2 |  |  |  |  |  |  |  |  | YR | EVD CLR | 5 | MAX 2 PHASES |  |  |  |  |  |  |  |  | 9 |
| A | MAX 3 |  |  |  |  |  |  |  |  | MO | MAX EV | 255 | LAG PHASES | READ ONLY |  |  |  |  |  |  |  | A |
| B |  |  |  |  |  |  |  |  |  | DAY | RR2 CLR | 15 | RED REST |  |  |  |  |  |  |  |  | B |
| C | REDUCE BY EVERY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | DOW |  |  | REST-IN-WALK |  |  |  |  |  |  |  |  | C |
| D |  | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | HR |  |  | MAX 3 PHASES |  |  |  |  |  |  |  |  | D |
| E | YELLOW | 3.0 | 4.1 | 3.0 | 4.1 | 3.7 | 4.1 | 3.0 | 3.0 | MIN |  |  | YEL START UP |  | 2 |  |  |  | 6 |  |  | E |
| E | RED | 0.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | SEC |  |  | FIRST PHASE |  |  |  | 4 |  |  |  |  | E |
| 3.51 | PED XING FT |  |  |  |  |  | $137{ }^{\prime}$ |  |  |  |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |
|  | BIKE XING FT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


|  |  | CONTROL PLANS |  |  |  |  |  |  |  |  | Y-COORD |  |  | LAG PHASE | FLAGS |  |  |  |  |  |  |  |  |  |
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|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |  | C | D | E | F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |
| 0 | CYCLE LENGTH |  |  |  |  |  |  |  |  |  |  |  |  |  | LAG FZ FREE |  | 2 |  | 4 |  | 6 |  | 8 | 0 |
| 1 | EZ1 GRN ECTR |  |  |  |  |  |  |  |  |  |  |  |  | GAPOUT CPI | LAG FZ CP 1 |  |  |  |  |  |  |  |  | 1 |
| 2 |  |  |  |  |  |  |  |  |  |  |  |  |  | GAPOUT CP2 | LAG EZ CP 2 |  |  |  |  |  |  |  |  | 2 |
| 3 | F'Z3 GRN ECTR |  |  |  |  |  |  |  |  |  |  |  |  | GAPOUT CP3 | LAG FZ CP 3 |  |  |  |  |  |  |  |  | 3 |
| 4 | FZ4 GRN ECTR |  |  |  |  |  |  |  |  |  | PERM TIME |  |  | GAPOUT CP4 | LAG EZ CP 4 |  |  |  |  |  |  |  |  | 4 |
| 5 | F'Z5 GRN ECTR |  |  |  |  |  |  |  |  |  | LAG OFFSET |  |  | GAPOUT CP5 | LAG FZ CP 5 |  |  |  |  |  |  |  |  | 5 |
| 6 |  |  |  |  |  |  |  |  |  |  | EORCE OFF |  |  | GAPOUT CP6 | LAG EZ CP 6 |  |  |  |  |  |  |  |  | 6 |
| 7 | FZ7 GRN ECTR |  |  |  |  |  |  |  |  |  | LONG GRN |  |  | GAPOUT CP7 | LAG FZ CP 7 |  |  |  |  |  |  |  |  | 7 |
| 8 | FZ8 GRN FCTR |  |  |  |  |  |  |  |  |  | NO GREEN |  |  | GAPOUT CP8 | LAG FZ CP 8 |  |  |  |  |  |  |  |  | 8 |
| 9 | MULTI CYCLE |  |  |  |  |  |  |  |  |  |  |  |  | GAPOUT CP9 | LAG FZ CP 9 |  |  |  |  |  |  |  |  | 9 |
| A | OFESET A |  |  |  |  |  |  |  |  |  | OEFSET |  |  |  | LAG C COORD |  |  |  |  |  |  |  |  | A |
| B | OFESET B |  |  |  |  |  |  |  |  |  |  |  |  |  | LAG D COORD |  |  |  |  |  |  |  |  | B |
| C | OFESET $C$ |  |  |  |  |  |  |  |  |  |  |  |  |  | COORD FAZES |  | 2 |  |  |  | 6 |  |  | C |
| D | EZ 3 EXT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D |
| E | EZ 7 EXT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | E |
| E | OFESET INTRPT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | E |
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[^1]LOCATION: 905 EB @ La Media Road CALTRANS C8 Version 3
D PAGE

|  | D | ELAGS |  |  |  |  |  |  |  | E | ELAGS |  |  |  |  |  |  |  |  | E | FLAGS |  |  |  |  |  |  |  |
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|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | MIN | 1 | 2 | 3 | 4 | 5 | 6 | 5 | 8 |  | PED | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 0 | RCL |  |  |  |  |  |  |  |  | RCL |  |  |  |  |  |  |  |  |  | RCL |  |  |  |  |  |  |  |  |
| 1 | CP 1 |  |  |  |  |  |  |  |  | CP 1 |  |  |  |  |  |  |  |  |  | CF 1 |  |  |  |  |  |  |  |  |
| 2 | CP 2 |  |  |  |  |  |  |  |  | CP 2 |  |  |  |  |  |  |  |  |  | CP 2 |  |  |  |  |  |  |  |  |
| 3 | CP 3 |  |  |  |  |  |  |  |  | CP 3 |  |  |  |  |  |  |  |  |  | CP 3 |  |  |  |  |  |  |  |  |
| 4 | CP 4 |  |  |  |  |  |  |  |  | CP 4 |  |  |  |  |  |  |  |  |  | CP 4 |  |  |  |  |  |  |  |  |
| 5 | CP 5 |  |  |  |  |  |  |  |  | CP 5 |  |  |  |  |  |  |  |  |  | CP 5 |  |  |  |  |  |  |  |  |
| 6 | CP 6 |  |  |  |  |  |  |  |  | CP 6 |  |  |  |  |  |  |  |  |  | CP 6 |  |  |  |  |  |  |  |  |
| 7 | CP 7 |  |  |  |  |  |  |  |  | CP 7 |  |  |  |  |  |  |  |  |  | CP 7 |  |  |  |  |  |  |  |  |
| 8 | CP 8 |  |  |  |  |  |  |  |  | CP 8 |  |  |  |  |  |  |  |  |  | CP 8 |  |  |  |  |  |  |  |  |
| 9 | CP 9 |  |  |  |  |  |  |  |  | CP 9 |  |  |  |  |  |  |  |  |  | CP 9 |  |  |  |  |  |  |  |  |
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| B |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | RCL 2 |  |  |  |  |  |  |  |  |
| C |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  | 1 | 2 | 3 | 4 | 5 | 6 | 67 |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

LAST POWER FAILURE REGISTER
LAST FLASH TIME REGISTER

|  | E | ELAGS |  |  |  |  |  |  |  |  |  |  | E |  |  |  |  | L | AC |  |  |  |  |  |
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|  |  | 1 | 2 | 23 | 3 | 4 | 5 | 6 | 6 | 7 | 8 |  |  | 1 |  | 2 | 3 | 4 | 5 | 6 | 67 | 8 |  |  |

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\begin{aligned}
\text { RCL } 1= & \text { TIME OF DAY MAX RECALL (1ST SELECT) PHASES } \\
& \text { (CALL ACTIVE LIGHTS) } \\
\text { RCL } 2= & \text { TIME OF DAY MAX RECALL (2ND SELECT) PHASES } \\
& \text { (CALL ACTIVE LIGHTS) } \\
D-E-E= & C 8 \text { VERSION NUMBER } \\
D-E-F= & L I T H I U M \text { BATTERY CONDITION } \\
& 84=B A D \\
& 85=G O O D
\end{aligned}
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PAGE 3

|  |  |  | （1） | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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\begin{aligned}
& 8 \text { ENERGIZE AUX OUTPUT-YELLOW } \\
& 9 \text { TIME OF DAY MAX RECALI (1ST SELECT) } \\
& \text { A TRAEFIC ACT. MAX } 2 \text { OPERATION } \\
& \text { B TIME OF DAY MAX RECALL (2ND SELECT) } \\
& \text { C YELLOW YIELD COORDINATION } \\
& \text { D YELLOW YIELD COORDINATION } \\
& \text { E TIME OF DAY EREE OPERATION } \\
& \text { E ELASHING OPERATION }
\end{aligned}
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| TIME OF DAY ACTIVITY TABLE |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7＋EVENT＋HR＋MIN＋ACT＋＂E＂＋ON／OFF＋DOW LTS |  |  |  |  |  |  |  |  |  |  |  |
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|  | HR | MIN | ACT | OFE | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
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\text { ersion } 3
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LOCATION: 905 EB @ La Media Road CALTRANS C8 Vexsion 3



F-C-F MUST EQUAL ZERO WHEN FINISHED
LOWER CASE NUMBERS ARE DEFAULT VALUES
BLANK SPACES CONTAIN DEFAULTS (DO NOT ZERO OUT)




LOCATION

fEATURE
CAA LOCAL OFFSET
CBA MASTER OFFSET


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PHASES
PHASES
$D-E-E=C 8$ VERSION NUMBER
$D-E-F=$ LITHIUM BATTERY CONDITION
$84=B A D$
$85=G O O D$

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85=G O O D
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LOCATION： 905 WB＠La Media Road CALTRANS C8 Version 3
7 PAGE

| TIME OF DAY ACTIVITY TABLE |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 7＋EVENT＋HR＋MIN＋ACT＋＂E＂＋ON／OFE＋DOW LTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | ON／ | S |  | M | T | W |  | T | F | S |
|  | HR | MIN | ACT | OFF | 1 |  | 2 | 3 | 4 |  | 5 | 6 | 7 |
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4 COND SERV（1ST SELECT）
5 COND SERV（2ND SELECT）
6 ENERGIZE AUX OUTPUT－RED
7 ENERGIZE AUX OUTPUT－GREEN

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\begin{aligned}
& 8 \text { ENERGIZE AUX OUTPUT-YELLOW } \\
& 9 \text { TIME OF DAY MAX RECALL (1ST SELECT) } \\
& \text { A TRAFFIC ACT. MAX } 2 \text { OPERATION } \\
& \text { B TIME OE DAY MAX RECALL (2ND SELECT) } \\
& \text { C YELLOW YIELD COORDINATION } \\
& \text { D YELLOW YIELD COORDINATION } \\
& \text { E TIME OF DAY FREE OPERATION } \\
& \text { F FLASHING OPERATION }
\end{aligned}
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BLANK SPACES CONTAIN DEFAULTS (DO NOT ZERO OUT)


## APPENDIX B

EXISTING TRAFFIC COUNTS \& VOLUME DEVELOPMENT

# National Data \& Surveying ServicesIntersection Turning Movement Count 



| PM | NORTHBOUND |  |  |  | SOUTHBOUND |  |  |  | EASTBOUND |  |  |  | WESTBOUND |  |  |  | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 0.5 | 1.5 | 0 | 2 | 0.5 | 0.5 | 0 | 2 | 2 | 1 | 0 | 1 | 2.5 | 0.5 | 0 |  |
|  | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU |  |
| 4:00 PM | 15 | 23 | 32 | 0 | 6 | 31 | 7 | 0 | 4 | 49 | 27 | 1 | 83 | 56 | 5 | 0 | 339 |
| 4:15 PM | 18 | 11 | 26 | 0 | 3 | 13 | 7 | 0 | 6 | 39 | 46 | 1 | 62 | 41 | 6 | 0 | 279 |
| 4:30 PM | 8 | 12 | 26 | 0 | 8 | 30 | 9 | 0 | 8 | 39 | 37 | 4 | 65 | 36 | 9 | 0 | 291 |
| 4:45 PM | 13 | 7 | 17 | 0 | 13 | 20 | 5 | 0 | 6 | 41 | 33 | 2 | 66 | 52 | 8 | 0 | 283 |
| 5:00 PM | 9 | 8 | 29 | 0 | 7 | 40 | 5 | 0 | 7 | 41 | 28 | 3 | 103 | 52 | 5 | 1 | 338 |
| 5:15 PM | 13 | 17 | 40 | 1 | 5 | 28 | 3 | 0 | 6 | 57 | 31 | 1 | 66 | 32 | 7 | 0 | 307 |
| 5:30 PM | 9 | 9 | 38 | 0 | 5 | 25 | 3 | 0 | 1 | 36 | 20 | 5 | 74 | 60 | 4 | 0 | 289 |
| 5:45 PM | 11 | 7 | 31 | 0 | 8 | 13 | 4 | 0 | 3 | 42 | 24 | 2 | 57 | 36 | 3 | 0 | 241 |
| TOTAL VOLUMES : APPROACH \%'s : | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
|  | 96 | 94 | 239 | 1 | 55 | 200 | 43 | 0 | 41 | 344 | 246 | 19 | 576 | 365 | 47 | 1 | 2367 |
|  | 22.33\% | 21.86\% | 55.58\% | 0.23\% | 18.46\% | 67.11\% | 14.43\% | 0.00\% | 6.31\% | 52.92\% | 37.85\% | 2.92\% | 58.24\% | 36.91\% | 4.75\% | 0.10\% |  |
| PEAK HR : | 04:30 PM - 05:30 PM |  |  |  | $\begin{gathered} 33 \\ 0.635 \end{gathered}$ | $\begin{gathered} 118 \\ 0.738 \\ \\ 0 . \end{gathered}$ | $0_{2}^{22} 0.611$ | $\begin{gathered} 0 \\ 0.000 \end{gathered}$ | $\begin{gathered} 27 \\ 0.844 \end{gathered}$ | $\begin{gathered} 178 \\ 0.781 \\ 0 \end{gathered}$ | $\begin{gathered} 129 \\ 0.872 \\ 05 \end{gathered}$ | $\begin{gathered} 10 \\ 0.625 \end{gathered}$ | $\begin{gathered} 300 \\ 0.728 \end{gathered}$ | 1720.8270. | ${ }_{0}^{29} 0$ | $\begin{gathered} 1 \\ 0.250 \end{gathered}$ | TOTAL <br> 1219 <br> 0.902 |
| PEAK HR VOL : | 43 | 44 | 112 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PEAK HR FACTOR : | 0.827 | 0.647 | 0.700 | 0.250 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 0.704 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Prepared by National Data \& Surveying Services

## La Media Rd \& Otay Mesa Rd

Peak Hour Turning Movement Count

ID: 22-040128-001 City: San Diego

| La Media Rd |
| :---: |
| SOUTHBOUND |

Day: Thursday
Date: 8/4/2022


Totals (NOON)


Totals (PM)


| PM | 548 | 1 | 43 | 44 | 112 | PM |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 0 | 0 | 0 | 0 | NOoN |
|  | 392 | 0 | 45 | 65 | 241 | AM |
| La Media Rd |  |  |  |  |  |  |
| NORTHBOUND |  |  |  |  |  |  |



Totals (NOON)


Totals (PM)


# National Data \& Surveying ServicesIntersection Turning Movement Count 

| Location: La Media Rd \& SR-905 WB Ramps/St Andrews Ave <br> City: San Diego <br> Control: Signalized |  |  |  |  |  |  |  |  |  |  |  |  |  | ject ID: Date: | $\begin{aligned} & 2-040128- \\ & 4 / 2022 \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Data - Totals |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NS/ EW Streets: | La Media Rd |  |  |  | La Media Rd |  |  |  | SR-905 WB Ramps/St Andrews Ave |  |  |  | SR-905 WB Ramps/St Andrews Ave |  |  |  |  |
| AM | NORTHBOUND |  |  |  | SOUTHBOUND |  |  |  | EASTBOUND |  |  |  | WESTBOUND |  |  |  |  |
|  | $\stackrel{2}{\mathrm{NL}}$ | $\stackrel{2}{\text { NT }}$ | 1 | , | 0 | 4 | 0 | 0 | 1 | 0.5 | 0.5 | 0 | 1.5 | 0.5 | 1 | 0 |  |
|  |  |  | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | wU | TOTAL |
| 7:00 AM | 10 | 66 | 22 | 0 | 0 | 76 | 2 | 0 | 0 | 0 | 6 | 0 | 0 | 15 | 19 | 0 | 216 |
| 7:15 AM | 14 | 79 | 28 | 1 | 0 | 93 | 5 | 0 | 0 | 0 | 9 | 0 | 3 | 11 | 9 | 0 | 252 |
| 7:30 AM | 21 | 62 | 26 | 0 | 0 | 93 | 7 | 0 | 0 | 0 | 10 | 0 | 5 | 9 | 17 | 0 | 250 |
| 7:45 AM | 26 | 98 | 24 | 2 | 0 | 104 | 7 | 0 | 2 | 0 | 11 | 0 | 5 | 17 | 11 | 0 | 307 |
| 8:00 AM | 18 | 84 | 30 | 0 | 0 | 114 | 10 | 0 | 1 | 1 | 14 | 0 | 9 | 10 | 15 | 0 | 306 |
| 8:15 AM | 17 | 72 | 33 | 0 | 0 | 95 | 10 | 0 | 0 | 0 | 19 | 0 | 5 | 16 | 19 | 0 | 286 |
| 8:30 AM | 29 | 71 | 33 | 0 | 0 | 8697 | 9 | 0 | 1 | 0 | 22 | 0 | 9 | 7 | 15 | 0 | 282 |
| 8:45 AM | 24 | 68 | 41 | 0 | 0 |  | 9 | 0 | 1 | 1 | 18 | 0 | 8 | 16 | 14 | 0 | 297 |
| TOTAL VOLUMES : APPROACH \% 's : | NL | NT | NR | NU | $\begin{aligned} & \text { SL } \\ & 0 \\ & 0.00 \% \end{aligned}$ | $\begin{aligned} & \hline \text { ST } \\ & 758 \\ & 92.78 \% \end{aligned}$ | $\begin{aligned} & \hline \text { SR } \\ & 59 \\ & 7.22 \% \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { SU } \\ & 0 \\ & 0.00 \% \end{aligned}$ | $\begin{aligned} & \hline \text { EL } \\ & 5 \\ & 4.31 \% \end{aligned}$ | $\begin{aligned} & \hline \text { ET } \\ & 2 \\ & 1.72 \% \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \text { ER } \\ 109 \\ 93.97 \% \\ \hline \end{gathered}$ | $\begin{array}{\|l\|} \hline \text { EU } \\ 0 \\ 0.00 \% \\ \hline \end{array}$ | $\begin{gathered} \text { WL } \\ 44 \\ 16.67 \% \end{gathered}$ | $\begin{aligned} & \hline \text { WT } \\ & 101 \\ & 38.26 \% \end{aligned}$ | $\begin{gathered} \hline \text { WR } \\ 119 \\ 45.08 \% \\ \hline \end{gathered}$ | $\begin{array}{l\|} \hline \text { WU } \\ 0 \\ 0.00 \% \\ \hline \end{array}$ | $\begin{gathered} \hline \text { TOTAL } \\ 2196 \end{gathered}$ |
|  | 159 | 600 | 237 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 15.92\% | 60.06\% | 23.72\% | 0.30\% |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PEAK HR : | 07:45 AM - 08:45 AM |  |  |  | $\begin{gathered} 0 \\ 0.000 \end{gathered}$ | $\begin{aligned} & 399 \\ & 0.875 \end{aligned}$ | $\begin{gathered} 36 \\ 0.900 \end{gathered}$ | $\begin{gathered} 0 \\ 0.000 \end{gathered}$ | $\begin{gathered} 4 \\ 0.500 \end{gathered}$ | $\begin{gathered} 1 \\ 0.250 \end{gathered}$ | $\begin{gathered} 66 \\ 0.750 \end{gathered}$ | $\begin{gathered} 0 \\ 0.000 \end{gathered}$ | $\begin{gathered} 28 \\ 0.778 \end{gathered}$ | $\begin{gathered} 50 \\ 0.735 \\ 0 \end{gathered}$ | $\begin{gathered} 60 \\ 0.789 \end{gathered}$ | $\begin{gathered} 0 \\ 0.000 \end{gathered}$ | TOTAL |
| PEAK HR VOL: | 90 | 325 | 120 | 2 |  |  |  |  |  |  |  |  |  |  |  |  | 1181 |
| PEAK HR FACTOR : | 0.776 | 0.829 | 0.909 | 0.250 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 0.895 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.962 |


| PM | NORTHBOUND |  |  |  | SOUTHBOUND |  |  |  | EASTBOUND |  |  |  | WESTBOUND |  |  |  | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2 | 2 | 1 | 0 | 0 | 4 | 0 | 0 | 1 | 0.5 | 0.5 | 0 | 1.5 | 0.5 | 1 | 0 |  |
|  | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU |  |
| 4:00 PM | 20 | 60 | 61 | 0 | 0 | 143 | 6 | 0 | 1 | 0 | 45 | 0 | 10 | 11 | 17 | 0 | 374 |
| 4:15 PM | 20 | 50 | 76 | 0 | 0 | 120 | 7 | 0 | 2 | 1 | 30 | 0 | 14 | 14 | 11 | 0 | 345 |
| 4:30 PM | 20 | 43 | 68 | 1 | 0 | 137 | 4 | 0 | 0 | 0 | 39 | 1 | 8 | 7 | 12 | 0 | 340 |
| 4:45 PM | 11 | 27 | 61 | 3 | 0 | 111 | 2 | 0 | 3 | 2 | 42 | 0 | 11 | 8 | 4 | 0 | 285 |
| 5:00 PM | 22 | 41 | 93 | 2 | 0 | 173 | 2 | 0 | 2 | 0 | 36 | 0 | 15 | 4 | 12 | 0 | 402 |
| 5:15 PM | 18 | 66 | 63 | 3 | 0 | 138 | 1 | 0 | 1 | 0 | 30 | 0 | 20 | 6 | 12 | 0 | 358 |
| 5:30 PM | 14 | 43 | 51 | 3 | 0 | 128 | 4 | 0 | 2 | 0 | 38 | 0 | 11 | 5 | 15 | 0 | 314 |
| 5:45 PM | 15 | 40 | 42 | 0 | 0 | 102 | 3 | 0 | 1 | 0 | 26 | 0 | 11 | 4 | 16 | 0 | 260 |
|  | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 140 | 370 | 515 | 12 | 0 | 1052 | 29 | 0 | 12 | 3 | 286 | 1 | 100 | 59 | 99 | 0 | 2678 |
| APPROACH \% 's : | 13.50\% | 35.68\% | 49.66\% | 1.16\% | 0.00\% | 97.32\% | 2.68\% | 0.00\% | 3.97\% | 0.99\% | 94.70\% | 0.33\% | 38.76\% | 22.87\% | 38.37\% | 0.00\% |  |
| PEAK HR : | 04:30 PM - 05:30 PM |  |  |  | $\begin{gathered} 0 \\ 0.000 \end{gathered}$ | $\begin{gathered} 559 \\ 0.808 \end{gathered}$ | $\begin{gathered} 9 \\ 0.563 \end{gathered}$ | $\begin{gathered} 0 \\ 0.000 \end{gathered}$ | $\begin{gathered} 6 \\ 0.500 \end{gathered}$ | 2 | $\begin{gathered} 147 \\ 0.875 \end{gathered}$ | $\begin{gathered} 1 \\ 0.250 \end{gathered}$ | $\begin{gathered} 54 \\ 0.675 \end{gathered}$ | $\begin{gathered} 25 \\ 0.781 \end{gathered}$ | $3^{0.833}$ | $\begin{gathered} 0 \\ 0.000 \end{gathered}$ | $\begin{aligned} & \hline \text { TOTAL } \\ & 1385 \\ & 0.861 \end{aligned}$ |
| PEAK HR VOL : | 71 | 177 | 285 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PEAK HR FACTOR : | 0.807 | 0.670 | 0.766 | 0.750 |  |  |  |  |  | 0.250 |  |  |  |  |  |  |  |
|  |  | 0.858 |  |  |  |  |  |  |  | 0.830 |  |  |  |  |  |  |  |

Prepared by National Data \& Surveying Services
La Media Rd \& SR-905 WB Ramps/St Andrews Ave
Peak Hour Turning Movement Count
ID: 22-040128-002
City: San Diego


Totals (NOON)


Totals (PM)


# National Data \& Surveying ServicesIntersection Turning Movement Count 



| PM | NORTHBOUND |  |  |  | SOUTHBOUND |  |  |  | EASTBOUND |  |  |  | WESTBOUND |  |  |  | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2 | 3 | 0 | 0 | 0 | 2 | 1 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |  |
|  | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU |  |
| 4:00 PM | 6 | 104 | 0 | 0 | 0 | 50 | 42 | 0 | 45 | 0 | 91 | 0 | 0 | 0 | 0 | 0 | 338 |
| 4:15 PM | 3 | 112 | 0 | 0 | 0 | 57 | 28 | 0 | 31 | 0 | 79 | 0 | 0 | 0 | 0 | 0 | 310 |
| 4:30 PM | 4 | 106 | 0 | 0 | 0 | 60 | 46 | 0 | 34 | 0 | 75 | 0 | 0 | 0 | 0 | 0 | 325 |
| 4:45 PM | 5 | 78 | 0 | 0 | 0 | 62 | 31 | 0 | 20 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 262 |
| 5:00 PM | 17 | 131 | 0 | 0 | 0 | 51 | 52 | 0 | 34 | 0 | 48 | 0 | 0 | 0 | 0 | 0 | 333 |
| 5:15 PM | 14 | 93 | 0 | 0 | 0 | 45 | 49 | 0 | 52 | 0 | 57 | 0 | 0 | 0 | 0 | 0 | 310 |
| 5:30 PM | 11 | 77 | 0 | 0 | 0 | 37 | 35 | 0 | 38 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 270 |
| 5:45 PM | 11 | 67 | 0 | 0 | 0 | 31 | 33 | 0 | 35 | 0 | 54 | 0 | 0 | 0 | 0 | 0 | 231 |
|  | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 71 | 768 | 0 | 0 | 0 | 393 | 316 | 0 | 289 | 0 | 542 | 0 | 0 | 0 | 0 | 0 | 2379 |
| APPROACH \% 's : | 8.46\% | 91.54\% | 0.00\% | 0.00\% | 0.00\% | 55.43\% | 44.57\% | 0.00\% | 34.78\% | 0.00\% | 65.22\% | 0.00\% |  |  |  |  |  |
| PEAK HR : | 04:00 PM - 05:00 PM |  |  |  | 0 | 229 | 147 | $\begin{gathered} 0 \\ 0.000 \end{gathered}$ | $\begin{gathered} 130 \\ 0.722 \end{gathered}$ | $\begin{gathered} 0 \\ 0.000 \end{gathered}$ | $\begin{gathered} 311 \\ 0.854 \end{gathered}$ | $\begin{gathered} 0 \\ 0.000 \end{gathered}$ | $\begin{gathered} 0 \\ 0.000 \end{gathered}$ | $\begin{gathered} 0 \\ 0.000 \end{gathered}$ | $\begin{gathered} 0 \\ 0.000 \end{gathered}$ | $\begin{gathered} 0 \\ 0.000 \end{gathered}$ | $\begin{aligned} & \text { TOTAL } \\ & 1235 \\ & 0.913 \\ & \hline \end{aligned}$ |
| PEAK HR VOL : | 18 | 400 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PEAK HR FACTOR : | 0.750 | 0.893 | 0.000 | 0.000 | 0.000 | 0.923 | 0.799 |  |  |  |  |  |  |  |  |  |  |
|  | 0.909 |  |  |  |  | 0.887 |  |  |  |  |  |  |  |  |  |  |  |

Prepared by National Data \& Surveying Services
La Media Rd \& SR-905 EB Ramps
Peak Hour Turning Movement Count

ID: 22-040128-003
City: San Diego

| La Media Rd |
| :---: |
| SOUTHBOUND |

Day: Thursday
Date: 8/4/2022


Totals (NOON)


Totals (PM)


# National Data \& Surveying ServicesIntersection Turning Movement Count 



| PM | NORTHBOUND |  |  |  | SOUTHBOUND |  |  |  | EASTBOUND |  |  |  | WESTBOUND |  |  |  | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 0 | 0 | 0.5 | 1 | 0.5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |  |
|  | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU |  |
| 4:00 PM | 0 | 0 | 0 | 0 | 64 | 82 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 112 | 0 | 259 |
| 4:15 PM | 0 | 0 | 0 | 0 | 52 | 81 | 0 | 0 | 1 | 2 | 0 | 0 | 3 | 0 | 111 | 0 | 250 |
| 4:30 PM | 0 | 0 | 0 | 0 | 69 | 66 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 115 | 0 | 252 |
| 4:45 PM | 0 | 0 | 0 | 0 | 64 | 66 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 80 | 0 | 212 |
| 5:00 PM | 0 | 0 | 0 | 0 | 38 | 59 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 149 | 0 | 251 |
| 5:15 PM | 0 | 0 | 0 | 0 | 37 | 67 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 106 | 0 | 210 |
| 5:30 PM | 0 | 0 | 0 | 0 | 40 | 67 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 90 | 0 | 202 |
| 5:45 PM | 0 | 0 | 0 | 0 | 29 | 59 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 75 | 0 | 168 |
|  | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 0 | 0 | 0 | 0 | 393 | 547 | 0 | 0 | 3 | 6 | 0 | 0 | 17 | 0 | 838 | 0 | 1804 |
| APPROACH \% 's : |  |  |  |  | 41.81\% | 58.19\% | 0.00\% | 0.00\% | 33.33\% | 66.67\% | 0.00\% | 0.00\% | 1.99\% | 0.00\% | 98.01\% | 0.00\% |  |
| PEAK HR : |  | 4:00 P | 05:00 P |  |  |  |  |  |  |  |  |  |  |  |  |  | TOTAL |
| PEAK HR VOL: | 0 | 0 | 0 | 0 | 249 | 295 | 0 | 0 | 1 | 3 | 0 | 0 | 7 | 0 | 418 |  | 973 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.902 | 0.899 | 0.000 | 0.000 | 0.250 | 0.375 | 0.000 | 0.000 | 0.583 | 0.000 | 0.909 | 0.000 | 0.939 |
|  |  |  |  |  |  | 0.932 |  |  |  | 0.333 |  |  |  | 0.908 |  |  | 0.939 |

Prepared by National Data \& Surveying Services

## La Media Rd \& Airway Rd

## Peak Hour Turning Movement Count

ID: 22-040128-004
City: San Diego

| La Media Rd |
| :---: |
| SOUTHBOUND |

SOUTHBOUND

| 5 AM | AM | 1 | 258 | 297 | 0 | 235 | AM |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | NOON | 0 | 0 | 0 | 0 | 0 | NOON |
| 0 PM | PM | 0 | 295 | 249 | 0 | 419 | PM |

Day: Thursday
Date: 8/4/2022


Totals (NOON)


Totals (PM)


# National Data \& Surveying ServicesIntersection Turning Movement Count 



| PM | NORTHBOUND |  |  |  | SOUTHBOUND |  |  |  | EASTBOUND |  |  |  | WESTBOUND |  |  |  | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 |  |
|  | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU |  |
| 4:00 PM | 43 | 0 | 9 | 0 | 1 | 1 | 2 | 0 | 0 | 45 | 13 | 0 | 9 | 47 | 0 | 5 | 175 |
| 4:15 PM | 31 | 0 | 14 | 0 | 0 | 1 | 3 | 0 | 0 | 37 | 9 | 0 | 5 | 55 | 0 | 4 | 159 |
| 4:30 PM | 36 | 0 | 3 | 0 | 0 | 1 | 5 | 0 | 0 | 39 | 14 | 0 | 12 | 50 | 0 | 1 | 161 |
| 4:45 PM | 29 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 41 | 14 | 0 | 7 | 37 | 1 | 1 | 137 |
| 5:00 PM | 57 | 0 | 13 | 0 | 2 | 0 | 5 | 0 | 0 | 26 | 8 | 0 | 9 | 62 | 0 | 2 | 184 |
| 5:15 PM | 36 | 0 | 6 | 0 | 1 | 0 | 1 | 0 | 0 | 26 | 6 | 0 | 13 | 67 | 0 | 5 | 161 |
| 5:30 PM | 28 | 0 | 4 | 0 | 1 | 2 | 0 | 0 | 0 | 25 | 10 | 0 | 4 | 57 | 0 | 1 | 132 |
| 5:45 PM | 19 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 20 | 5 | 0 | 8 | 38 | 0 | 3 | 97 |
|  | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| TOTAL VOLUMES : | 279 | 0 | 54 | 0 | 5 | 5 | 22 | 0 | 0 | 259 | 79 | 0 | 67 | 413 | 1 | 22 | 1206 |
| APPROACH \% 's : | 83.78\% | 0.00\% | 16.22\% | 0.00\% | 15.63\% | 15.63\% | 68.75\% | 0.00\% | 0.00\% | 76.63\% | 23.37\% | 0.00\% | 13.32\% | 82.11\% | 0.20\% | 4.37\% |  |
| PEAK HR : |  | 4:30 PM | 5:30 PM |  |  |  |  |  |  |  |  |  |  |  |  |  | TOTAL |
| PEAK HR VOL: | 158 | 0 | 24 | 0 | 3 | 1 | 16 | 0 | 0 | 132 | 42 | 0 | 41 | 216 | 1 | 9 | 643 |
| PEAK HR FACTOR : | 0.693 | 0.000 | 0.462 | 0.000 | 0.375 | 0.250 | 0.800 | 0.000 | 0.000 | 0.805 | 0.750 | 0.000 | 0.788 | 0.806 | 0.250 | 0.450 |  |
|  |  |  |  |  |  | 0.7 |  |  |  |  |  |  |  |  |  |  | 0.874 |

Prepared by National Data \& Surveying Services

## Avenida Costa Azul \& Airway Rd

Peak Hour Turning Movement Count

ID: 22-040128-005 City: San Diego


Totals (NOON)


Totals (PM)


| Avenida Costa Azul |
| :---: |
| SOUTHBOUND |

Day: Thursday
Date: 8/4/2022


Totals (NOON)


Totals (PM)


## Prepared by NDS/ATD

VOLUME
La Media Rd Bet. Otay Mesa Rd \& SR 905 WB Ramps

Day: Thursday
Date: 8/4/2022

City: San Diego
Project \#: CA22_040129_001


## Prepared by NDS/ATD

VOLUME
La Media Rd Bet. SR 905 WB Ramps \& SR 905 EB Ramps

Day: Thursday
Date: 8/4/2022

City: San Diego
Project \#: CA22_040129_002


CLASSIFICATION
La Media Rd Bet. SR 905 EB Ramps \& Airway Rd


## CLASSIFICATION

La Media Rd Bet. SR 905 EB Ramps \& Airway Rd

| Time | \# 1 | \# 2 | \# 3 | \# 4 | \# 5 | \# 6 | \# 7 | \# 8 | \# 9 | \# 10 | \# 11 | \# 12 | \# 13 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0:00 AM | 0 | 99 | 43 | 1 | 3 | 15 | 0 | 1 | 39 | 0 | 1 | 0 | 0 | 202 |
| 1:00 | 0 | 90 | 25 | 5 | 5 | 12 | 0 | 1 | 36 | 0 | 1 | 0 | 0 | 175 |
| 2:00 | 0 | 63 | 19 | 0 | 2 | 20 | 0 | 3 | 38 | 0 | 0 | 0 | 0 | 145 |
| 3:00 | 0 | 59 | 13 | 8 | 2 | 19 | 0 | 3 | 41 | 0 | 1 | 0 | 0 | 146 |
| 4:00 | 0 | 84 | 12 | 4 | 4 | 14 | 0 | 6 | 52 | 0 | 2 | 0 | 0 | 178 |
| 5:00 | 1 | 142 | 55 | 11 | 6 | 21 | 0 | 2 | 39 | 0 | 3 | 0 | 0 | 280 |
| 6:00 | 0 | 212 | 80 | 15 | 43 | 18 | 1 | 8 | 68 | 1 | 1 | 0 | 0 | 447 |
| 7:00 | 2 | 294 | 124 | 19 | 45 | 32 | 1 | 8 | 80 | 0 | 4 | 0 | 0 | 609 |
| 8:00 | 5 | 305 | 118 | 40 | 43 | 35 | 5 | 16 | 131 | 4 | 6 | 0 | 0 | 708 |
| 9:00 | 3 | 245 | 127 | 49 | 61 | 60 | 6 | 22 | 144 | 2 | 5 | 0 | 0 | 724 |
| 10:00 | 4 | 262 | 138 | 55 | 67 | 67 | 17 | 20 | 148 | 5 | 6 | 0 | 0 | 789 |
| 11:00 | 5 | 274 | 153 | 40 | 61 | 65 | 12 | 18 | 140 | 6 | 1 | 0 | 0 | 775 |
| 12:00 PM | 4 | 307 | 142 | 34 | 56 | 73 | 8 | 30 | 151 | 5 | 10 | 0 | 0 | 820 |
| 13:00 | 2 | 316 | 126 | 47 | 59 | 84 | 9 | 31 | 129 | 5 | 3 | 0 | 0 | 811 |
| 14:00 | 6 | 374 | 188 | 50 | 76 | 79 | 11 | 29 | 130 | 9 | 7 | 0 | 0 | 959 |
| 15:00 | 3 | 380 | 144 | 41 | 58 | 84 | 12 | 27 | 118 | 5 | 4 | 0 | 0 | 876 |
| 16:00 | 8 | 356 | 131 | 56 | 52 | 80 | 13 | 20 | 147 | 5 | 12 | 0 | 0 | 880 |
| 17:00 | 7 | 374 | 104 | 37 | 35 | 73 | 12 | 11 | 126 | 1 | 5 | 0 | 0 | 785 |
| 18:00 | 4 | 272 | 89 | 24 | 21 | 84 | 6 | 9 | 144 | 6 | 1 | 0 | 0 | 660 |
| 19:00 | 3 | 126 | 54 | 13 | 23 | 41 | 0 | 7 | 133 | 1 | 0 | 0 | 0 | 401 |
| 20:00 | 1 | 111 | 22 | 8 | 6 | 31 | 1 | 5 | 75 | 0 | 4 | 0 | 0 | 264 |
| 21:00 | 1 | 59 | 25 | 3 | 5 | 17 | 1 | 3 | 64 | 0 | 0 | 0 | 0 | 178 |
| 22:00 | 0 | 53 | 15 | 3 | 8 | 13 | 0 | 0 | 38 | 0 | 0 | 0 | 0 | 130 |
| 23:00 | 0 | 44 | 21 | 0 | 4 | 15 | 1 | 1 | 14 | 0 | 0 | 0 | 0 | 100 |
| Totals | 59 | 4901 | 1968 | 563 | 745 | 1052 | 116 | 281 | 2225 | 55 | 77 |  |  | 12042 |
| \% of Totals | 0\% | 41\% | 16\% | 5\% | 6\% | 9\% | 1\% | 2\% | 18\% | 0\% | 1\% |  |  | 100\% |




## VOLUME

La Media Rd Bet. SR 905 EB Ramps \& Airway Rd
Day: Thursday
Date: 8/4/2022
City: San Diego
Project \#: CA22_040129_003


VOLUME
La Media Rd Bet. Airway Rd \& Siempre Viva Rd

Day: Thursday
Date: 8/4/2022

City: San Diego
Project \#: CA22_040129_004


Airway Rd Bet. La Media Rd \& Truck Net LLC Dwy

Day: Thursday
Date: 8/4/2022

City: San Diego
Project \#: CA22_040129_005


Prepared by NDS/ATD

## VOLUME

Airway Rd Bet. Truck Net LLC Dwy \& Avenida Costa Azul
Day: Thursday

Date: 8/4/2022 | DAILY TOTALS | NB | SB |
| :---: | :---: | :---: |
|  | 0 | 0 |

| AM Period | NB | SB | EB | WB |  |  | TOTAL |  | PM Period | $\frac{N B}{0}$ | $\frac{\text { SB }}{0}$ | EB |  | WB |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0:00 | 0 | 0 | 8 |  | 40 |  | 48 |  | 12:00 |  |  | 40 |  | 71 |  | 111 |  |
| 0:15 | 0 | 0 | 12 |  | 16 |  | 28 |  | 12:15 | 0 | 0 | 49 |  | 76 |  | 125 |  |
| 0:30 | 0 | 0 | 16 |  | 16 |  | 32 |  | 12:30 | 0 | 0 | 53 |  | 72 |  | 125 |  |
| 0:45 | 0 | 0 | 9 | 45 | 20 | 92 | 29 | 137 | 12:45 | 0 | 0 | 66 | 208 | 68 | 287 | 134 | 495 |
| 1:00 | 0 | 0 | 10 |  | 10 |  | 20 |  | 13:00 | 0 | 0 | 54 |  | 68 |  | 122 |  |
| 1:15 | 0 | 0 | 16 |  | 8 |  | 24 |  | 13:15 | 0 | 0 | 67 |  | 69 |  | 136 |  |
| 1:30 | 0 | 0 | 15 |  | 7 |  | 22 |  | 13:30 | 0 | 0 | 62 |  | 79 |  | 141 |  |
| 1:45 | 0 | 0 | 23 | 64 | 15 | 40 | 38 | 104 | 13:45 | 0 | 0 | 46 | 229 | 97 | 313 | 143 | 542 |
| 2:00 | 0 | 0 | 14 |  | 6 |  | 20 |  | 14:00 | 0 | 0 | 53 |  | 76 |  | 129 |  |
| 2:15 | 0 | 0 | 10 |  | 3 |  | 13 |  | 14:15 | 0 | 0 | 50 |  | 103 |  | 153 |  |
| 2:30 | 0 | 0 | 8 |  | 3 |  | 11 |  | 14:30 | 0 | 0 | 54 |  | 103 |  | 157 |  |
| 2:45 | 0 | 0 | 14 | 46 | 11 | 23 | 25 | 69 | 14:45 | 0 | 0 | 64 | 221 | 78 | 360 | 142 | 581 |
| 3:00 | 0 | 0 | 7 |  | 13 |  | 20 |  | 15:00 | 0 | 0 | 51 |  | 102 |  | 153 |  |
| 3:15 | 0 | 0 | 13 |  | 9 |  | 22 |  | 15:15 | 0 | 0 | 43 |  | 64 |  | 107 |  |
| 3:30 | 0 | 0 | 7 |  | 7 |  | 14 |  | 15:30 | 0 | 0 | 51 |  | 123 |  | 174 |  |
| 3:45 | 0 | 0 | 9 | 36 | 9 | 38 | 18 | 74 | 15:45 | 0 | 0 | 56 | 201 | 93 | 382 | 149 | 583 |
| 4:00 | 0 | 0 | 5 |  | 9 |  | 14 |  | 16:00 | 0 | 0 | 55 |  | 89 |  | 144 |  |
| 4:15 | 0 | 0 | 7 |  | 12 |  | 19 |  | 16:15 | 0 | 0 | 48 |  | 101 |  | 149 |  |
| 4:30 | 0 | 0 | 19 |  | 8 |  | 27 |  | 16:30 | 0 | 0 | 50 |  | 92 |  | 142 |  |
| 4:45 | 0 | 0 | 13 | 44 | 10 | 39 | 23 | 83 | 16:45 | 0 | 0 | 54 | 207 | 85 | 367 | 139 | 574 |
| 5:00 | 0 | 0 | 9 |  | 9 |  | 18 |  | 17:00 | 0 | 0 | 32 |  | 93 |  | 125 |  |
| 5:15 | 0 | 0 | 17 |  | 2 |  | 19 |  | 17:15 | 0 | 0 | 32 |  | 89 |  | 121 |  |
| 5:30 | 0 | 0 | 29 |  | 14 |  | 43 |  | 17:30 | 0 | 0 | 36 |  | 88 |  | 124 |  |
| 5:45 | 0 | 0 | 31 | 86 | 13 | 38 | 44 | 124 | 17:45 | 0 | 0 | 25 | 125 | 72 | 342 | 97 | 467 |
| 6:00 | 0 | 0 | 29 |  | 18 |  | 47 |  | 18:00 | 0 | 0 | 38 |  | 96 |  | 134 |  |
| 6:15 | 0 | 0 | 32 |  | 28 |  | 60 |  | 18:15 | 0 | 0 | 36 |  | 55 |  | 91 |  |
| 6:30 | 0 | 0 | 31 |  | 32 |  | 63 |  | 18:30 | 0 | 0 | 34 |  | 50 |  | 84 |  |
| 6:45 | 0 | 0 | 54 | 146 | 20 | 98 | 74 | 244 | 18:45 | 0 | 0 | 26 | 134 | 53 | 254 | 79 | 388 |
| 7:00 | 0 | 0 | 36 |  | 28 |  | 64 |  | 19:00 | 0 | 0 | 19 |  | 49 |  | 68 |  |
| 7:15 | 0 | 0 | 43 |  | 21 |  | 64 |  | 19:15 | 0 | 0 | 24 |  | 44 |  | 68 |  |
| 7:30 | 0 | 0 | 47 |  | 24 |  | 71 |  | 19:30 | 0 | 0 | 17 |  | 42 |  | 59 |  |
| 7:45 | 0 | 0 | 93 | 219 | 48 | 121 | 141 | 340 | 19:45 | 0 | 0 | 22 | 82 | 33 | 168 | 55 | 250 |
| 8:00 | 0 | 0 | 75 |  | 38 |  | 113 |  | 20:00 | 0 | 0 | 11 |  | 24 |  | 35 |  |
| 8:15 | 0 | 0 | 59 |  | 36 |  | 95 |  | 20:15 | 0 | 0 | 14 |  | 14 |  | 28 |  |
| 8:30 | 0 | 0 | 54 |  | 55 |  | 109 |  | 20:30 | 0 | 0 | 8 |  | 12 |  | 20 |  |
| 8:45 | 0 | 0 | 65 | 253 | 58 | 187 | 123 | 440 | 20:45 | 0 | 0 | 19 | 52 | 13 | 63 | 32 | 115 |
| 9:00 | 0 | 0 | 55 |  | 51 |  | 106 |  | 21:00 | 0 | 0 | 8 |  | 13 |  | 21 |  |
| 9:15 | 0 | 0 | 43 |  | 48 |  | 91 |  | 21:15 | 0 | 0 | 17 |  | 15 |  | 32 |  |
| 9:30 | 0 | 0 | 48 |  | 62 |  | 110 |  | 21:30 | 0 | 0 | 6 |  | 14 |  | 20 |  |
| 9:45 | 0 | 0 | 65 | 211 | 64 | 225 | 129 | 436 | 21:45 | 0 | 0 | 11 | 42 | 8 | 50 | 19 | 92 |
| 10:00 | 0 | 0 | 41 |  | 66 |  | 107 |  | 22:00 | 0 | 0 | 8 |  | 4 |  | 12 |  |
| 10:15 | 0 | 0 | 60 |  | 55 |  | 115 |  | 22:15 | 0 | 0 | 11 |  | 3 |  | 14 |  |
| 10:30 | 0 | 0 | 58 |  | 63 |  | 121 |  | 22:30 | 0 | 0 | 19 |  | 4 |  | 23 |  |
| 10:45 | 0 | 0 | 81 | 240 | 71 | 255 | 152 | 495 | 22:45 | 0 | 0 | 3 | 41 | 4 | 15 | 7 | 56 |
| 11:00 | 0 | 0 | 64 |  | 68 |  | 132 |  | 23:00 | 0 | 0 | 4 |  | 8 |  | 12 |  |
| 11:15 | 0 | 0 | 57 |  | 73 |  | 130 |  | 23:15 | 0 | 0 | 8 |  | 7 |  | 15 |  |
| 11:30 | 0 | 0 | 53 |  | 84 |  | 137 |  | 23:30 | 0 | 0 | 4 |  | 4 |  | 8 |  |
| 11:45 | 0 | 0 | 52 | 226 | 63 | 288 | 115 | 514 | 23:45 | 0 | 0 | 3 | 19 | 3 | 22 | 6 | 41 |
| TOTALS |  |  |  | 1616 |  | 1444 |  | 3060 | TOTALS |  |  |  | 1561 |  | 2623 |  | 4184 |
| SPLIT \% |  |  |  | 52.8\% |  | 47.2\% |  | 42.2\% | SPLIT \% |  |  |  | 37.3\% |  | 62.7\% |  | 57.8\% |


| DAILY TOTALS | NB |  | SB |  |  | EB | WB |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 0 |  | 0 |  | 3,177 | 4,067 |  |  | 7,244 |
| AM Peak Hour | 7:45 |  | 10:45 |  | 10:45 | PM Peak Hour |  | 12:45 | 15:30 | 15:30 |
| AM Pk Volume | 281 |  | 296 |  | 551 | PM Pk Volume |  | 249 | 406 | 616 |
| Pk Hr Factor | 0.755 |  | 0.881 |  | 0.906 | Pk Hr Factor |  | 0.929 | 0.825 | 0.885 |
| 7-9Volume | 472 |  | 308 |  | 780 | 4-6 Volume |  | 332 | 709 | 1041 |
| 7-9 Peak Hour | 7:45 |  | 8:00 |  | 7:45 | 4-6 Peak Hour |  | 16:00 | 16:15 | 16:00 |
| 7-9 Pk Volume | 281 |  | 187 |  | 458 | 4-6 Pk Volume |  | 207 | 371 | 574 |
| Pk Hr Factor | 0.755 |  | 0.806 |  | 0.812 | Pk Hr Factor |  | 0.941 | 0.918 | 0.963 |

VOLUME
Airway Rd Bet. Avenida Costa Azul \& Harvest Rd
Day: Thursday
Date: 8/4/2022


|  | DAILY TOTALS |  | NB | SB |  |  | EB | WB |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 0 |  | 0 |  | 3,694 | 4,868 |  |  |  | 8,562 |
| AM Peak Hour |  | 10:45 |  | 10:45 |  | 10:45 | PM Peak Hour |  |  | 12:45 | 13:30 | 13:30 |
| AM Pk Volume |  | 309 |  | 379 |  | 688 | PM Pk Volume |  |  | 322 | 446 | 719 |
| Pk Hr Factor |  | 0.878 |  | 0.929 |  | 0.905 | Pk Hr Factor |  |  | 0.813 | 0.864 | 0.899 |
| 7-9 Volume | 0 | 417 |  | 408 |  | 825 | 4-6 Volume | O |  | 445 | 698 | 1143 |
| 7-9 Peak Hour |  | 7:30 |  | 8:00 |  | 8:00 | 4-6 Peak Hour |  |  | 16:00 | 17:00 | 16:00 |
| 7-9 Pk Volume | 0 | 235 |  | 260 |  | 480 | 4-6 Pk Volume | 0 | 0 | 268 | 360 | 606 |
| Pk Hr Factor | 100000000 | 0.783 |  | 0.774 |  | 0.822 | Pk Hr Factor | 0000 | 0.000 | 0.807 | 0.891 | 0.886 |

VOLUME
Airway Rd Bet. Harvest Rd \& Sanyo Ave
Day: Thursday
Date: 8/4/2022
-

| DAILY TOTALS | NB | SB | EB | WB | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 0 | 2,958 | 5,485 | 8,443 |


| AM Period | NB | SB | EB | WB |  |  | TOTAL |  | PM Period | NB | SB | EB |  | WB |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0:00 |  |  | 6 |  | 16 |  | 22 |  | 12:00 |  |  | 54 |  | 99 |  | 153 |  |
| 0:15 |  |  | 10 |  | 5 |  | 15 |  | 12:15 |  |  | 80 |  | 81 |  | 161 |  |
| 0:30 |  |  | 6 |  | 7 |  | 13 |  | 12:30 |  |  | 56 |  | 100 |  | 156 |  |
| 0:45 |  |  | 3 | 25 | 16 | 44 | 19 | 69 | 12:45 |  |  | 73 | 263 | 116 | 396 | 189 | 659 |
| 1:00 |  |  | 6 |  | 3 |  | 9 |  | 13:00 |  |  | 65 |  | 127 |  | 192 |  |
| 1:15 |  |  | 11 |  | 4 |  | 15 |  | 13:15 |  |  | 27 |  | 157 |  | 184 |  |
| 1:30 |  |  | 6 |  | 0 |  | 6 |  | 13:30 |  |  | 62 |  | 100 |  | 162 |  |
| 1:45 |  |  | 6 | 29 | 8 | 15 | 14 | 44 | 13:45 |  |  | 36 | 190 | 158 | 542 | 194 | 732 |
| 2:00 |  |  | 7 |  | 2 |  | 9 |  | 14:00 |  |  | 58 |  | 115 |  | 173 |  |
| 2:15 |  |  | 1 |  | 2 |  | 3 |  | 14:15 |  |  | 68 |  | 125 |  | 193 |  |
| 2:30 |  |  | 2 |  | 1 |  | 3 |  | 14:30 |  |  | 44 |  | 93 |  | 137 |  |
| 2:45 |  |  | 11 | 21 | 5 | 10 | 16 | 31 | 14:45 |  |  | 59 | 229 | 131 | 464 | 190 | 693 |
| 3:00 |  |  | 0 |  | 2 |  | 2 |  | 15:00 |  |  | 46 |  | 117 |  | 163 |  |
| 3:15 |  |  | 5 |  | 0 |  | 5 |  | 15:15 |  |  | 49 |  | 119 |  | 168 |  |
| 3:30 |  |  | 10 |  | 13 |  | 23 |  | 15:30 |  |  | 51 |  | 139 |  | 190 |  |
| 3:45 |  |  | 11 | 26 | 12 | 27 | 23 | 53 | 15:45 |  |  | 37 | 183 | 117 | 492 | 154 | 675 |
| 4:00 |  |  | 7 |  | 2 |  | 9 |  | 16:00 |  |  | 60 |  | 100 |  | 160 |  |
| 4:15 |  |  | 3 |  | 3 |  | 6 |  | 16:15 |  |  | 56 |  | 128 |  | 184 |  |
| 4:30 |  |  | 10 |  | 4 |  | 14 |  | 16:30 |  |  | 40 |  | 128 |  | 168 |  |
| 4:45 |  |  | 8 | 28 | 3 | 12 | 11 | 40 | 16:45 |  |  | 68 | 224 | 105 | 461 | 173 | 685 |
| 5:00 |  |  | 12 |  | 15 |  | 27 |  | 17:00 |  |  | 64 |  | 94 |  | 158 |  |
| 5:15 |  |  | 11 |  | 1 |  | 12 |  | 17:15 |  |  | 40 |  | 110 |  | 150 |  |
| 5:30 |  |  | 18 |  | 5 |  | 23 |  | 17:30 |  |  | 40 |  | 108 |  | 148 |  |
| 5:45 |  |  | 13 | 54 | 8 | 29 | 21 | 83 | 17:45 |  |  | 24 | 168 | 75 | 387 | 99 | 555 |
| 6:00 |  |  | 25 |  | 5 |  | 30 |  | 18:00 |  |  | 60 |  | 138 |  | 198 |  |
| 6:15 |  |  | 15 |  | 26 |  | 41 |  | 18:15 |  |  | 27 |  | 115 |  | 142 |  |
| 6:30 |  |  | 16 |  | 63 |  | 79 |  | 18:30 |  |  | 23 |  | 131 |  | 154 |  |
| 6:45 |  |  | 19 | 75 | 8 | 102 | 27 | 177 | 18:45 |  |  | 21 | 131 | 135 | 519 | 156 | 650 |
| 7:00 |  |  | 28 |  | 20 |  | 48 |  | 19:00 |  |  | 21 |  | 85 |  | 106 |  |
| 7:15 |  |  | 30 |  | 38 |  | 68 |  | 19:15 |  |  | 17 |  | 73 |  | 90 |  |
| 7:30 |  |  | 41 |  | 37 |  | 78 |  | 19:30 |  |  | 7 |  | 45 |  | 52 |  |
| 7:45 |  |  | 56 | 155 | 58 | 153 | 114 | 308 | 19:45 |  |  | 15 | 60 | 72 | 275 | 87 | 335 |
| 8:00 |  |  | 63 |  | 36 |  | 99 |  | 20:00 |  |  | 8 |  | 48 |  | 56 |  |
| 8:15 |  |  | 38 |  | 47 |  | 85 |  | 20:15 |  |  | 15 |  | 19 |  | 34 |  |
| 8:30 |  |  | 44 |  | 80 |  | 124 |  | 20:30 |  |  | 1 |  | 15 |  | 16 |  |
| 8:45 |  |  | 69 | 214 | 74 | 237 | 143 | 451 | 20:45 |  |  | 15 | 39 | 15 | 97 | 30 | 136 |
| 9:00 |  |  | 49 |  | 76 |  | 125 |  | 21:00 |  |  | 9 |  | 20 |  | 29 |  |
| 9:15 |  |  | 38 |  | 76 |  | 114 |  | 21:15 |  |  | 8 |  | 14 |  | 22 |  |
| 9:30 |  |  | 66 |  | 74 |  | 140 |  | 21:30 |  |  | 3 |  | 5 |  | 8 |  |
| 9:45 |  |  | 59 | 212 | 116 | 342 | 175 | 554 | 21:45 |  |  | 5 | 25 | 5 | 44 | 10 | 69 |
| 10:00 |  |  | 76 |  | 110 |  | 186 |  | 22:00 |  |  | 4 |  | 18 |  | 22 |  |
| 10:15 |  |  | 65 |  | 88 |  | 153 |  | 22:15 |  |  | 6 |  | 5 |  | 11 |  |
| 10:30 |  |  | 68 |  | 82 |  | 150 |  | 22:30 |  |  | 9 |  | 4 |  | 13 |  |
| 10:45 |  |  | 71 | 280 | 101 | 381 | 172 | 661 | 22:45 |  |  | 12 | 31 | 2 | 29 | 14 | 60 |
| 11:00 |  |  | 47 |  | 114 |  | 161 |  | 23:00 |  |  | 4 |  | 3 |  | 7 |  |
| 11:15 |  |  | 77 |  | 122 |  | 199 |  | 23:15 |  |  | 8 |  | 2 |  | 10 |  |
| 11:30 |  |  | 78 |  | 112 |  | 190 |  | 23:30 |  |  | 4 |  | 3 |  | 7 |  |
| 11:45 |  |  | 72 | 274 | 69 | 417 | 141 | 691 | 23:45 |  |  | 6 | 22 | 2 | 10 | 8 | 32 |
| TOTALS |  |  |  | 1393 |  | 1769 |  | 3162 | TOTALS |  |  |  | 1565 |  | 3716 |  | 5281 |
| SPLIT \% |  |  |  | 44.1\% |  | 55.9\% |  | 37.5\% | SPLIT \% |  |  |  | 29.6\% |  | 70.4\% |  | 62.5\% |


|  | DAILY TOTALS |  | NB | SB |  |  | EB | WB |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 0 |  | 0 |  | 2,958 | 5,485 |  |  |  | 8,443 |
| AM Peak Hour |  | 11:30 |  | 10:45 |  | 10:45 | PM Peak Hour |  |  | 12:15 | 13:00 | 13:00 |
| AM Pk Volume |  | 284 |  | 449 |  | 722 | PM Pk Volume |  |  | 274 | 542 | 732 |
| Pk Hr Factor |  | 0.888 |  | 0.920 |  | 0.907 | Pk Hr Factor |  |  | 0.856 | 0.858 | 0.943 |
| 7-9 Volume | 0 | 369 |  | 390 |  | 759 | 4-6 Volume | , |  | 392 | 848 | 1240 |
| 7-9 Peak Hour |  | 8:00 |  | 8:00 |  | 8:00 | 4-6 Peak Hour |  |  | 16:15 | 16:00 | 16:00 |
| 7-9 Pk Volume | 0 | 214 |  | 237 |  | 451 | 4-6 Pk Volume | 0 | 0 | 228 | 461 | 685 |
| Pk Hr Factor | 0000 | 0.775 |  | 0.741 |  | 0.788 | Pk Hr Factor | 0000 | 0.000 | 0.838 | 0.900 | 0.931 |

Zipagan, Matthew

## From:

Sent:
To:
Cc:
Subject:
Attachments:

Shultz, Joe
Wednesday, July 20, 2022 10:58 AM
Santos, Mary Rose Ann
Gonsalves, Ann; Lee, Erin (Moore); Ascencio, Yari
RE: Mary Rose sent you PTS 632813 - Majestic Airways Scoping Letter_062422v2 with
Staff Comments 7.15.2022.pdf via WeTransfer
Pages from Airway Logistics_access_analysis.pdf

Great, thanks for confirming. We will get counts scheduled for next week.
The statement of normalizing traffic counts for the future year scenarios will be necessary to develop the volumes highlighted below from the recently approved Airway Logistics study. Because of the current closure of the west leg of Airway Road, no turning movement data will be available for these movements. Therefore, we will need to develop and document assumptions in the traffic study to account for these movements.


Joe

From: Santos, Mary Rose Ann [MCSantos@sandiego.gov](mailto:MCSantos@sandiego.gov)
Sent: Wednesday, July 20, 2022 10:40 AM
To: Shultz, Joe [Joe.Shultz@kimley-horn.com](mailto:Joe.Shultz@kimley-horn.com)
Cc: Gonsalves, Ann [AGonsalves@sandiego.gov](mailto:AGonsalves@sandiego.gov); Lee, Erin (Moore) [Erin.Lee@kimley-horn.com](mailto:Erin.Lee@kimley-horn.com); Ascencio, Yari [Yari.Ascencio@kimley-horn.com](mailto:Yari.Ascencio@kimley-horn.com)

## Intersection Volume Development for La Media and Airway Road

Subject: RE: Mary Rose sent you PTS 632813 - Majestic Airways Scoping Letter_062422v2 with Staff Comments 7.15.2022.pdf via WeTransfer

Joe,
Yes, but can you clarify what you mean about using available 2015 historic turning movements at Airway Rd/La Media Rd to develop assumptions of future turning movements?

Thanks,

## Mary Rose Santos

Associate Engineer - Traffic
City of San Diego
Development Services Department
©: 619-446-5367
SanDiego.gov/DSD
Supervisor Name and Title: Ann Gonsalves, Senior Traffic Engineer
Phone: 619-446-5294
E-mail: AGonsalves@sandiego.gov
What's the latest? Visit sandiego.gov/dsd-email to sign up to get the latest news and updates.
What are the current processing times? You can now check on permit processing timelines for intake and issuing a permit.

## CONFIDENTIAL COMMUNICATION

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From: Shultz, Joe [Joe.Shultz@kimley-horn.com](mailto:Joe.Shultz@kimley-horn.com)
Sent: Tuesday, July 19, 2022 4:02 PM
To: Santos, Mary Rose Ann [MCSantos@sandiego.gov](mailto:MCSantos@sandiego.gov)
Cc: Gonsalves, Ann [AGonsalves@sandiego.gov](mailto:AGonsalves@sandiego.gov); Lee, Erin (Moore) [Erin.Lee@kimley-horn.com](mailto:Erin.Lee@kimley-horn.com); Ascencio, Yari [Yari.Ascencio@kimley-horn.com](mailto:Yari.Ascencio@kimley-horn.com)
Subject: [EXTERNAL] RE: Mary Rose sent you PTS 632813 - Majestic Airways Scoping Letter_062422v2 with Staff Comments 7.15.2022.pdf via WeTransfer
**This email came from an external source. Be cautious about clicking on any links in this email or opening attachments.**

Good afternoon Mary Rose,
Attached is the revised scoping letter and responses to all your comments. We've added some additional colors on the Trip Distribution figure to aid your review of the project trip assignment. I have triple checked these figures for accuracy. I think we are there.

Please provide a response to my email below. I have a subcontractor available to collect data next week and I'd like to move forward with scheduling.

## Intersection Volume Development for La Media and Airway Road

Thanks,
Joe

From: Shultz, Joe
Sent: Monday, July 18, 2022 11:23 AM
To: mcsantos@sandiego.gov
Cc: agonsalves@sandiego.gov; Lee, Erin (Moore) [Erin.Lee@kimley-horn.com](mailto:Erin.Lee@kimley-horn.com)
Subject: RE: Mary Rose sent you PTS 632813 - Majestic Airways Scoping Letter_062422v2 with Staff Comments 7.15.2022.pdf via WeTransfer

Mary Rose,

We received your comments. Everything here looks straightforward. I plan to provide an updated letter by the end of week, incorporating your feedback.

Can you confirm your approval of this statement regarding data collection? I would like to place our order for data collection and get scheduled for next week so we can kick off the analysis.

## TRAFFIC VOLUMES

Existing traffic counts will be collected following the approval of this Scoping Letter, which is anticipated during summer 2022. Because the study area roadways and intersections are not located near residential uses or schools, an insignificant seasonal variation of traffic is expected. Southwestern College is located along Airway, just west of the study area. However, this location is not currently accessible from La Media Road because of the long-term closure of Airway Road, just west of La Media Road. Available 2015 historic turning movement volumes at the intersection of La Media Road and Airway Road will be utilized to develop assumptions of future turning movements. Vehicular classifications will be obtained along La Media Road and Airway for development of heavy vehicle percentage assumptions to be used in analysis.

Thanks,

## Kimley»Horn

Joe Shultz, P.E.
Kimley-Horn | 401 B Street, Suite 600, San Diego CA 92101
Direct: 619-272-7194
Celebrating 15 years as one of FORTUNE's 100 Best Companies to Work For

From: WeTransfer [noreply@wetransfer.com](mailto:noreply@wetransfer.com)
Sent: Friday, July 15, 2022 1:50 PM
To: Shultz, Joe < Joe.Shultz@kimley-horn.com>
Subject: Mary Rose sent you PTS 632813 - Majestic Airways Scoping Letter_062422v2 with Staff Comments
7.15.2022.pdf via WeTransfer

|  | Year 2015 Volumes |  | La Media Road and Airway Road |  |  |  | EBL | EBT | EBR | WBL | WBT | WBR |
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|  | NBL | NBT | NBR | SBL | SBT | SBR |  |  |  |  |  |  |
| AM | 24 | 111 | 7 | 284 | 244 | 48 | 9 | 41 | 23 | 11 | 46 | 70 |
| PM | 27 | 241 | 3 | 173 | 147 | 37 | 38 | 71 | 35 | 21 | 59 | 222 |
| Sum of Volumes entering Intersection in 2015 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1,992 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Year 2022 Volumes |  | La Media Road and Airway Road |  |  |  |  |  |  |  |  |  |
|  | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
| AM | 0 | 0 | 0 | 297 | 258 | 1 | 1 | 1 | 0 | 5 | 2 | 234 |
| PM | 0 | 0 | 0 | 249 | 295 | 0 | 1 | 3 | 0 | 7 | 0 | 418 |

Sum of Volumes entering Intersection in 2022
1,772
Growth Rate $=\quad 1.023682$

## Volume Development for La Media and Airway Road (Count Year 2015)

La Media Retail


ITM Peak Hour Summary
Prepared by:
$\mathrm{N} D \mathrm{~S}$
National Data \& Surveying Services


Total Ins \& Outs


Total Volume Per Leg


Historical Count for La Media and Airway Road (Year 2015)

## Intersection Turning Movement <br> Prepared by: <br> National Data \& Surveying Services



CONTROL : 3-Way Stop (NB/SB/WB)

Historical Count for La Media and Airway Road (Year 2015)

## Intersection Turning Movement <br> Prepared by: <br> National Data \& Surveying Services



CONTROL : 3-Way Stop (NB/SB/WB)

Volume Development for La Media between SR 905 EB Ramps to Airway Rd


OVERALL INTERSECTION GROWTH
$(14,664+9,364+5,730) /(12,042+9,312+3,765)=18.47 \%$
21.78\% SELECTED FOR ADJUSTMENT FACTOR FOR CONSERVATIVE APPROACH.

ADJ. FACTOR 5,730 / 3,765 = 52.19\%
La Media Retail Volume Development for La Media Rd between SR 905 EB Ramps to Airway


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Otay Mesa Rd E／O La Media Rd


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APPENDIX C
INTERSECTION LOS AND QUEUEING WORKSHEETS

## APPENDIX C1

EXISTING (2022) CONDITIONS INTERSECTION LOS WORKSHEETS

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5: Airway Road \& Project Driveway 1


## Notes

User approved volume balancing among the lanes for turning movement.



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| $r$ ne $n$ A rac |  |  |
| A jSatFl we In |  |  |
| AjFlw ate e |  |  |
| ea rFact r |  |  |
| ercent eay e |  |  |
| a e |  |  |
| Arri e n reen |  |  |
| Sat Fl w e |  |  |
| $r$ l e e |  |  |
| $r$ Sat Fl ws e In |  |  |
| Sere s s |  |  |
| ycle lear c s |  |  |
| $r$ In ane |  |  |
| ane $r$ a $c$ e |  |  |
| ati |  |  |
| A ail a ca e |  |  |
| M lat n ati |  |  |
| strea Filter I |  |  |
| ni r elay s e |  |  |
| Incr elay s e |  |  |
| Initial elay ste |  |  |
| ile ac e ln |  |  |
| nsi M e ent elay s e |  |  |
| $n \mathrm{r}$ elay s e |  |  |
| n r S A |  | A |
| A rac 1 e |  |  |
| A rac elay s e |  |  |
| A rac S | A |  |
| Ti er Assi ne $s$ |  |  |
| $s$ ratio $n$ c s |  |  |
| an e eri c s |  |  |
| Ma reen Settin a s |  |  |
| Ma lear Ti e c l |  |  |
| reen t Ti e c s |  |  |

## Intersecti nS ary

M t trl elay
M t S A
tes
M t c tati nalen inere irese alclearance ti es rte asescr ssin te arrier
i ley man Ass ciates
$M$ t Si nali e Intersecti ns ary

```
Intersecti \(n\)
Intersecti \(n\) elay s e
Intersecti n S F
```



Ser ice Ti e


| i ley man Ass ciates |
| :--- |
| M t A S |$\quad$ Syncr e rt





| i ley rn an Ass ciates | Sync r e rt |
| :--- | :--- |
| $M \mathrm{~T}$ S | a e |



| Maj r Min r | Maj r | Maj r | Min r | Min r |
| :---: | :---: | :---: | :---: | :---: |
| $n$ lictin |  |  |  |  |
| Sta e |  |  |  |  |
| Sta |  |  |  |  |
| ritical W |  |  |  |  |
| ritical wy |  |  |  |  |
| ritical Wy |  |  |  |  |
| F II w |  |  |  |  |
| $t$ a |  |  |  |  |
| Sta e |  |  |  |  |
| Sta e |  |  |  |  |
| lat n \| |  |  |  |  |
| M a |  |  |  |  |
| M a |  |  |  |  |
| Sta e |  |  |  |  |



| i ley rn an Ass ciates | Sync r e rt |
| :--- | :--- |
| $M$ t $T$ S | a e |

## APPENDIX C3

EXISTING (2022) PLUS PROJECT MITIGATION INTERSECTION LOS WORKSHEETS
$\rightarrow \rightarrow \psi+\downarrow \rightarrow \downarrow$

| M e ent | T | T | T | S | S T | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ane ni rati ns | $\uparrow$ | * |  |  | $4{ }^{*}$ |  |

## Fra l e e


e i eAjA T
ar in $\quad$ SAj

A jFlw ate e
ea r Fact r
ercent ea y e
Arrien reen

| Sat FI w | $e$ |  |  |
| :---: | :---: | :---: | :---: |
| $r$ | l | e | $e$ |

$r$ Sat Fl ws e In
Ser e s s
ycle lear c s

| $r$ | ln ane |  |  |
| :--- | :--- | :--- | :--- |
| ane | $r$ |  |  |
|  | ati |  |  |
|  | $e$ |  |  |

A ail a ca a
$M$ lat $n$ ati
strea Filter l
ni $r$ elay $s e$
Incr elay s e
Initial elay se
ile ac e In
nsi $M$ e ent elay $s$ e
$n \mathrm{r}$ elay s e

|  | n | $r$ | S |  | A | A | A | A | A |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A |  |  |  |  |  |  |  |  |

A $r$ ac elay $s e$
A $r$ ac $S$


## Intersecti nS ary

M t trl elay
M t S


| M e ent | T | T |  | 1 | S | S T | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ane ni rati ns | * | $\uparrow$ | 「 |  |  | $\hat{*}^{\text {t }}$ |  |


| Tra ic | e e |  |
| :---: | :--- | :--- | :--- |
| Ftre | e | e |

Initial e
e ieAjA T
ar in $\quad \mathrm{SAj}$

$\mathrm{A} \mathrm{jFI} w$ ate e
ea rFact r
ercent ea y e
$\begin{array}{cc}\text { ari e } & \\ n & \\ \text { reen }\end{array}$
Arrif e n reen
Sat Fl $w$ e
$\begin{array}{cccc}\text { r l e e } & \\ \text { r } & \\ \text { Sat Fl ws } & \text { e } & \text { In }\end{array}$
Ser e s s
ycle lear c s

| $r$ | ln ane |  |  |
| :--- | :--- | :--- | :--- |
| ane | $r$ |  |  |
|  | ati |  |  |

A ail a ca a e
$M$ lat $n$ ati
strea Filter l
ni $r$ elay $s e$
Incr elay se
Initial elay s e

| ile ac en ln |
| :---: |
| nsi $M$ |
| e ent elay $s$ e |

$\mathrm{n} r$ elay se



## Intersection ary

M t trl elay
M t S

APPENDIX C4
OPENING DAY (YEAR 2025) CONDITIONS INTERSECTION LOS WORKSHEETS


Tra ic 1 e e
Ftre l e e
Initial
$e \quad$ i eAjA T
ar in $S A j$

A jFlw ate e
ea rFact r
ercent ea y e
Arrie $n$ reen

| Sat FI w | $e$ |  |  |
| :---: | :---: | :---: | :---: |
| $r$ | l | e | $e$ |

$r$ Sat Fl ws e In
Ser e s s
ycle lear c s
$r$ In ane
ane $r$ a ce
ati
A ail a cace
$M$ lat $n$ ati
strea Filter I
ni $r$ elay $s e$
Incr elay s e
Initial elay se
ile ac e In
nsi $M$ e ent elay $s$ e
$n r$ elay $s e$

| n r S | A | A |
| :--- | :--- | :--- |
| A r ac l e |  |  |
| A r ac elay s e |  |  |
| A r ac S |  |  |



## Intersecti nS ary

M t trl elay
M t S





A jFlw ate e
ea r Fact r
ercent ea y e
Arrien reen

| Sat Fl w | e |  |  |
| :---: | :---: | :---: | :---: |
| $r$ | l | e | $e$ |

$r$ Sat FI ws e In
Ser e S S
ycle lear c s
$r$ In ane
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ati
A ail a cac
$M$ lat $n$ ati
strea Filter I
ni $r$ elay $s e$
Incr elay $s$ e
Initial elay se
ile ac e In
nsi $M$ e ent elay $s$ e
$n$ elay $s e$

| n r S | A | $\mathrm{A} \quad \mathrm{A}$ | A |
| :--- | :--- | :--- | :--- |
| A r ac l e |  |  |  |
| A r ac elay s e |  |  |  |
| A r ac S |  |  |  |



## Intersecti n S ary

M t trl elay
M t S



## Intersecti nS ary

M t trl elay
M t S A

## tes

M t c tati nal en ine re irese al clearance ti es rte asescr ssin te arrier

| i ley m an Ass ciates |
| :--- |
| $M$ t Si nali e Intersecti $n S$ ary | Syncr | e rt |
| :--- |
| a e |




| Tra ic | $e$ | $e$ |
| :--- | :--- | :--- |
| F tre | e | $e$ |


| Initial | e |  |
| :---: | :---: | :---: |
| e | i e A jA | T |
| ar in | ¢ Aj |  |
| r | ne nA | r ac |
| A j | at Fl w e |  |

A jFl w ate e
ea r Fact r
ercent ea y e
$\begin{array}{cc}\text { arri e } n & \\ n & \text { reen }\end{array}$

| Sat Fl w | e |  |  |
| :---: | :---: | :---: | :---: |
| $r$ | l | e | e |
|  |  |  |  |
| $r$ | Sat Fl ws | e | In |

Ser e s s
ycle lear c s

| $r$ | ln ane |  |  |
| :--- | :--- | :--- | :--- |
| ane | $r$ |  |  |
|  | ati |  |  |
|  | $e$ |  |  |

A ail a c a e
$M$ lat $n$ ati
strea Filter l
ni $r$ elay $s$ e
Incr elay se
Initial elay se

$n \mathrm{r}$ elay $\mathrm{s} e$

| n r S | A |
| :--- | :--- | :--- |
| A r ac l e |  |
| A r ac elay s e |  |
| A r ac S |  |



## Intersecti n S ary

M t trl elay
M t S

Sync r e rt a e

| Intersecti n |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int elay Se |  |  |  |  |  |  |  |  |  |  |  |  |  |
| M e ent |  | T |  | T |  |  |  | T |  | S | S T | S |  |
| ane ni rati ns |  | $\uparrow$ |  | \% | 蚛 |  |  | $\uparrow$ |  |  | $\uparrow$ |  |  |
| Tra ic l e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ftre l e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $n$ lictin es r |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Si n ntr I | Free | Free | Free | Free | Free | Free | St | St | St | St | St | St |  |
| T anneli e |  |  | ne |  |  | ne |  |  | ne |  |  | ne |  |
| St ra e en t |  |  |  |  |  |  |  |  |  |  |  |  |  |
| e in Me ian St ra e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ra e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ea rFact $r$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ea y e icles |  |  |  |  |  |  |  |  |  |  |  |  |  |
| M tFl w |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Maj r Min r | Maj r | Maj r | Min r | Min r |
| :---: | :---: | :---: | :---: | :---: |
| $n$ lictin |  |  |  |  |
| Sta |  |  |  |  |
| Sta |  |  |  |  |
| ritical w |  |  |  |  |
| ritical |  |  |  |  |
| ritical wy |  |  |  |  |
| F II w |  |  |  |  |
| $t$ a |  |  |  |  |
| Sta |  |  |  |  |
| Sta |  |  |  |  |
| lat n I |  |  |  |  |
| M a |  |  |  |  |
| M a |  |  |  |  |
| Sta |  |  |  |  |



| i ley man Ass ciates |
| :--- |
| $M \mathrm{~T}$ T S |



Tra ic l e e


AjFlw ate e
ea rFact r
ercent ea y e
$\begin{array}{cc}\text { a } & \text { e } \\ \text { Ari } & \\ n & \\ \text { reen }\end{array}$

| Sat FI $w$ | $e$ |  |  |
| :--- | :--- | :--- | :--- |
| $r$ | l | $e$ | $e$ |

r Sat Fl ws e In
Ser e s s
ycle lear c s
$r$ In ane
ane $r$ a $c$ e
ati
A ail a ca e
M lat n ati
strea Filter I
ni $r$ elay $s e$
Incr elay se
Initial elay s e
ile ac e In
nsi M e ent elay s e
$n \mathrm{r}$ elay se



## Intersecti nS ary

M t trl elay
M t S





A jFlw ate e
ea rFact r
ercent ea y e
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| Sat Fl w | e |  |  |
| :---: | :---: | :---: | :---: |
| $r$ | l | e | $e$ |

$r$ Sat FI ws e In
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A ail a cac
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ni $r$ elay $s e$
Incr elay $s$ e
Initial elay se
ile ac e In
nsi $M$ e ent elay $s$ e
$n$ elay $s e$



## Intersecti n S ary

M t trl elay
M t S



## Intersecti nS ary

M t trl elay
M t S A

```
tes
\(\mathrm{M} t \mathrm{c}\) tati nal en ine re irese al clearance ti es rte ases cr ssin \(t \mathrm{e}\) arrier
```

| i ley rn an Ass ciates | Sync $r$ ert |
| :---: | :---: | :---: |
| $M$ t Si nali e Intersecti nS ary | a e |




| Tra ic | $e$ | $e$ |
| :--- | :--- | :--- |
| F tre | e | $e$ |


| Initial | e |  |
| :---: | :---: | :---: |
|  | ieA jA | T |
| ar in | ) $s A j$ |  |
| $r$ | ne nA | r ac |
| A j | at FI w e | In |

A jFl w ate e
ea r Fact r
ercent ea y e
$\begin{array}{cc}\text { arri e } n & \\ n & \text { reen }\end{array}$

| Sat Fl w | e |  |  |
| :---: | :---: | :---: | :---: |
| $r$ | l | e | e |
|  |  |  |  |
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Ser e s s
ycle lear c s

| $r$ | ln ane |  |  |
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| ane | $r$ |  |  |
|  | ati |  |  |
|  | $e$ |  |  |

A ail a ca a
$M$ lat $n$ ati
strea Filter l
ni $r$ elay $s$ e
Incr elay $s ~ e$
Initial elay se
ile ac
nsi $M$ e ln
$n$
$n r$ elay $s e$

| n r S | A |
| :--- | :--- | :--- |
| A r ac l e |  |
| A r ac elay s e |  |
| A r ac S |  |



## Intersecti n S ary

M t trl elay
M t S

Sync r e rt a e

| Intersecti n |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int elay Se |  |  |  |  |  |  |  |  |  |  |  |  |  |
| M e ent |  | T |  | T |  |  |  | T |  | S | S T | S |  |
| ane ni rati ns |  | $\uparrow$ |  | \% | 蚛 |  |  | $\uparrow$ |  |  | $\uparrow$ |  |  |
| Tra ic l e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ftre l e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $n$ lictin es r |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Si n ntr I | Free | Free | Free | Free | Free | Free | St | St | St | St | St | St |  |
| T anneli e |  |  | ne |  |  | ne |  |  | ne |  |  | ne |  |
| St ra e en t |  |  |  |  |  |  |  |  |  |  |  |  |  |
| e in Me ian St ra e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ra e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ea rFact $r$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ea y e icles |  |  |  |  |  |  |  |  |  |  |  |  |  |
| M tFl w |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Maj r Min | Maj r | Maj r | Min r | Min r |
| :---: | :---: | :---: | :---: | :---: |
| $n$ lictin |  |  |  |  |
| Sta |  |  |  |  |
| Sta |  |  |  |  |
| ritical |  |  |  |  |
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| ritical |  |  |  |  |
| F II w |  |  |  |  |
| $t$ a |  |  |  |  |
| Sta |  |  |  |  |
| Sta |  |  |  |  |
| lat n I |  |  |  |  |
| M a |  |  |  |  |
| M a |  |  |  |  |
| Sta |  |  |  |  |



| i ley man Ass ciates |
| :--- |
| $M \mathrm{~T}$ T S |

## APPENDIX C5

OPENING DAY (YEAR 2025) PLUS PROJECT INTERSECTION LOS WORKSHEETS

$\begin{array}{c:cc}\text { Tra ic } & e & e \\ \text { F tre } & e & e\end{array}$

e i eAjA T
$\operatorname{ar}$ in $S A j$

A jFl w ate e
ea r Fact r
ercent ea y e
arri e $n$ reen

| Sat FI w | $e$ |  |  |
| :---: | :---: | :---: | :---: |
| $r$ | l | $e$ | $e$ |

$r$ Sat Fl ws e In
Ser e s s
ycle lear c s
$r$ In ane
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ati
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$M$ lat $n$ ati
strea Filter I
ni $r$ elay $s e$
Incr elay s e
Initial elay s e
ile ac e In
nsi $M$ e ent elay $s$ e
$n \mathrm{r}$ elay s e

| n r S | A | A |
| :--- | :--- | :--- |
| A r ac A e |  |  |
| A r ac elay s e |  |  |
| A r ac S |  |  |



## Intersecti n S ary

M t trl elay
M t S



| ane | ni rati ns |
| :---: | :---: |
| Tra ic | l e e |
| F t re | l e e |
| Initial | e |
| e i | ieAjA T |
| ar in | in $A^{\prime}$ |
|  | ne $n A \quad r a c$ |
| A j Sat | at Fl w e in |

A jFlw ate e
ea rFact r
ercent ea y e
Arrien reen

| Sat Fl w | e |  |  |
| :---: | :---: | :---: | :---: |
| $r$ | l | e | $e$ |

$r$ Sat Fl ws e In
Ser e s s
ycle lear $C$ s
$r$ In ane
ane $r$ a $c$ e
ati
A ail a cac
$M$ lat $n$ ati
strea Filter I
ni $r$ elay $s e$
Incr elay $s$ e
Initial elay se
ile ac e In
nsi $M$ e ent elay $s$ e
$n \mathrm{r}$ elay $\mathrm{s} e$

| n r S | A | $\mathrm{A} \quad \mathrm{A}$ | A |
| :--- | :--- | :--- | :--- |
| A r ac l e |  |  |  |
| A r ac elay s e |  |  |  |
| A r ac S |  |  |  |



## Intersecti n S ary

M t trl elay
M t S


| $4>+1$ |  |  |  |
| :---: | :---: | :---: | :---: |
| M e ent |  | S T |  |
|  |  |  |  |
| Tra ic 1 e e |  |  |  |
| Ftre l e e |  |  |  |
| Initial e |  |  |  |
| e ieAjA T |  |  |  |
| ar in $s$ Aj |  |  |  |
| $r$ ne nA ¢ rac |  |  |  |
| A jSatFl we in |  |  |  |
| AjFlw ate e |  |  |  |
| ea r Fact r |  |  |  |
| ercent eay e |  |  |  |
| a e |  |  |  |
| Arri e n reen |  |  |  |
| Sat Fl w e |  |  |  |
| $r$ l e e |  |  |  |
| $r$ Sat Fl ws e In |  |  |  |
| Sere s s |  |  |  |
| ycle lear c s |  |  |  |
| $r$ In ane |  |  |  |
| ane $r$ a $c$ e |  |  |  |
| ati |  |  |  |
| A ail a ca e |  |  |  |
| M lat n ati |  |  |  |
| strea Filter I |  |  |  |
| ni $r$ elay se |  |  |  |
| Incr elay s e |  |  |  |
| Initial elay se |  |  |  |
| ile ac e ln |  |  |  |
| nsi M e ent elay s e |  |  |  |
| n r elay se |  |  |  |
| n r S | A |  | A |
| A rac l e |  |  |  |
| A rac elay se |  |  |  |
| A rac S |  |  |  |
| Ti er Assi ne s |  |  |  |
| $s$ rati $n$ c s |  |  |  |
| an e eri c s |  |  |  |
| Ma reen Settin a | s |  |  |
| Ma lear Ti e c I | s |  |  |
| reen t Ti e c s |  |  |  |

## Intersecti nS ary

M t trl elay
M t S
tes
M t c tati nal en ine re irese al clearance ti es rte asescr ssin te arrier
i ley $m$ an Ass ciates
$M$ t Si nali e Intersecti ns ary



## Tra ic I e e



A jFlw ate e
ea r Fact r
ercent ea y e
Arrien reen

| Sat Fl w | e |  |  |
| :---: | :---: | :---: | :---: |
| $r$ | l | e | $e$ |

$r$ Sat Fl ws e In
Ser e s s
ycle lear c s

| $r$ | In ane |  |  |
| :--- | :--- | :--- | :--- |
| ane |  |  |  |
| $r$ | a | $c$ | $e$ |

A ail ati $\begin{gathered} \\ \\ \text { a }\end{gathered}$
$M$ lat $n$ ati
strea Filter I
ni $r$ elay $s e$
Incr elay s e
Initial elay se
ile ac e In
nsi $M$ e ent elay $s$ e
$n \mathrm{r}$ elay s e

| n r S | A |
| :--- | :--- | :--- |
| A rac l e |  |

A $r$ ac elay $s e$
A $r$ ac $S$


## Intersecti nS ary

M t trl elay
M t S




A jFI w ate e
ea rFact r
ercent ea y e
Arri e $n$ reen

| Sat FI w | $e$ |  |  |
| :---: | :---: | :---: | :---: |
| $r$ | l | $e$ | $e$ |

$r$ Sat Fl ws e In
Ser e s s
ycle lear c s
$r$ In ane
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ati
A ail a cace
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ni $r$ elay $s e$
Incr elay s e
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ile ac e In
nsi $M$ e ent elay $s$ e
$n \mathrm{r}$ elay $\mathrm{s} e$

| n r S | A | A | A |
| :--- | :--- | :--- | :--- |
| A rac le |  |  |  |

A $r$ ac elay $s e$
$A r$ ac $S$ A


## Intersecti n S ary

M t trl elay
M t S A


| i ley rn an Ass ciates | Sync r e rt |
| :---: | :---: | :---: |
| $M$ t Si nali e Intersecti nS ary | a e |



| Maj r Min $r$ Maj $r \quad$ Maj $r \quad$ Min $r$ |
| :--- |
| n lictin Fl w All |
| Sta e |
| Sta e |
| ritical wy |
| ritical wy St |
| ritical wy St |
| F II w wy |
| t a Mane er |
| Sta e |
| Sta e |
| latn c e <br> M a Mane er <br> M a Mane er <br> Sta e <br> Sta e |



| i ley rnan Ass ciates | Sync r e rt |
| :---: | :---: |
| M t T S | a e |

```
Intersecti n
Int elay s e
```



```
St ra e en t
    e in Me ianSt ra e
    ra e
    ea r Fact r
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M tFI w
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| Maj r Min r | Maj r | Maj r | Min r | Min r |
| :---: | :---: | :---: | :---: | :---: |
| $n$ lictin |  |  |  |  |
| Sta |  |  |  |  |
| Sta |  |  |  |  |
| ritical wy |  |  |  |  |
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| F II w |  |  |  |  |
| t a |  |  |  |  |
| Sta e |  |  |  |  |
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| lat n I |  |  |  |  |
| M a |  |  |  |  |
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| i ley man Ass ciates |
| :--- |
| $M \mathrm{M} T \mathrm{~S}$ |



Tra ic 1 e e
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ar in $S A j$

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| Sat FI $w$ | $e$ |  |  |
| :---: | :---: | :---: | :---: |
| $r$ | l | $e$ | $e$ |

$r$ Sat Fl ws e In
Ser e s s
ycle lear $C$ s
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ni $r$ elay $s e$
Incr elay s e
Initial elay se
ile ac e In
nsi $M$ e ent elay $s$ e


A $r$ ac elay $s$ e
A $r$ ac $S$


## Intersecti n S ary

M t trl elay
M t S



| Intersecti $\mathrm{n} S$ ary |
| :--- |
| M t trl elay |
| $M$ t $S$ |




M t c tati nal en inere irese al clearance ti es rte asescr ssin te arrier

| i ley m an Ass ciates |
| :--- |
| $M$ t Si nali e Intersecti $n S$ ary | Syncr | e rt |
| :--- |
| a e |




## Tra ic I e e



A jFlw ate e
ea r Fact r
ercent ea y e
Arri e $n$ reen

| Sat Fl w | e |  |  |
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| $r$ | l | e | $e$ |

r Sat FI ws e In
Ser e S S
ycle lear $C$ s

| $r$ | ln ane |  |  |
| :--- | :--- | :--- | :--- |
| ane | $r$ |  |  |
|  | a | $c$ | $e$ |

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$M$ lat $n$ ati
strea Filter I
ni $r$ elay $s e$
Incr elay s e
Initial elay se
ile ac e ln
nsi $M$ e ent elay $s$ e
$n \mathrm{r}$ elay s e

| n r S | A |
| :--- | :--- | :--- |
| A r ac I e |  |

A $r$ ac elay $s$ e
A $r$ ac $S$


## Intersecti nS ary

M t trl elay
M t S




AjFlw ate e
ea rFact r
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| Sat Fl w | e |
| :---: | :---: | :---: | :---: |
| r l |  |

r SatFl ws e In
Ser e s s
ycle lear c s


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strea Filter l
ni $r$ elay $s e$
Incr elay $s$ e
Initial elay s e
ile ac e In
nsi M e ent elay s e
$n \mathrm{r}$ elay se



## Intersecti nS ary

M t trl elay
M t S


| i ley m an Ass ciates |
| :--- |
| $M \mathrm{t}$ Si nali e Intersecti ns ary |




| i ley rn an Ass ciates | Sync $r$ e rt |
| :--- | :--- |
| $M$ t $S$ | a e |



| Maj r Min r | Maj r | Maj r | Min r | Min r |
| :---: | :---: | :---: | :---: | :---: |
| $n$ lictin |  |  |  |  |
| Sta e |  |  |  |  |
| Sta |  |  |  |  |
| ritical wy |  |  |  |  |
| ritical wy |  |  |  |  |
| ritical wy |  |  |  |  |
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| $t$ a |  |  |  |  |
| Sta e |  |  |  |  |
| Sta e |  |  |  |  |
| lat n I |  |  |  |  |
| M a |  |  |  |  |
| M a |  |  |  |  |
| Sta e |  |  |  |  |



| i ley rn an Ass ciates | Sync $r$ e rt |
| :--- | :--- |
| $M$ t $T$ S | a e |

## APPENDIX C6

HORIZON YEAR (2062) CONDITIONS INTERSECTION LOS WORKSHEETS


Tra ic l e e
Ftre l e e
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$e \quad$ i eAjA T
ar in $S A j$

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ercent ea y e
Arri e $n$ reen

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| $r$ | l | $e$ | $e$ |

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ycle lear c s
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ni $r$ elay $s e$
Incr elay s e
Initial elay se
ile ac e In
nsi $M$ e ent elay $s$ e

|  | n |  | S |  | F |  | F | F | F | F | F | F | F | F | A | F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A |  | c | 1 | e |  |  |  |  |  |  |  |  |  |  |  |  |
| A |  | c | ela | s |  |  |  |  |  |  |  |  |  |  |  |  |
| A | A |  |  |  |  | F |  |  | F |  |  | F |  |  | F |  |



## Intersecti nS ary

M t trl elay
M t S F



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ercent ea y e
$\begin{array}{cc}\text { arri e } & \\ n & \\ \text { reen }\end{array}$

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| :--- | :--- | :--- | :--- |
| r l | l |  |

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ycle lear c s
$r$ In ane
ane $r$ a c e
ati
A ail a ca e
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ni $r$ elay $s e$
Incr elay $s$ e
Initial elay s e
ile ac e In
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$n \mathrm{r}$ elay se

|  |  | n r |  | S |  |  | F | A | F | F | A | F | F | F | A | F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A |  | ac |  | I | e |  |  |  |  |  |  |  |  |  |  |
|  | A |  | ac |  | elay | s |  |  |  |  |  |  |  |  |  |  |
|  | A |  | ac |  | S |  |  | F |  |  | F |  | F |  |  |  |



## Intersecti nS ary

M t trl elay
M t S F



## Intersecti nS ary

M t trl elay
M t S F
tes
M t c tati nalen inere irese alclearance ti es rte asescr ssin te arrier



## Tra ic I e e



A jFlw ate e
ea r Fact r
ercent ea y e
Arri e $n$ reen

| Sat FI w | e |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $r$ | l | e | e |  |
| $r$ | Sat Fl | ws | e | In |

Ser e s s
ycle lear $C$ s

| $r$ | ln ane |  |  |
| :--- | :--- | :--- | :--- |
| ane | $r$ |  |  |
|  | a | $c$ | $e$ |

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$M$ lat $n$ ati
strea Filter 1
ni $r$ elay $s e$
Incr elay s e
Initial elay se
$\begin{array}{ccc}\text { ile } & \text { ac } & \text { ln } \\ \text { nsi } & M & e \\ n\end{array}$
$n \mathrm{r}$ elay $\mathrm{s} e$

| n | r | S | F |  | F | F | F | F | F | F | F | F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $r \mathrm{ac}$ | 1 e |  |  |  |  |  |  |  |  |  |  |
|  | $r$ ac | elay s |  |  |  |  |  |  |  |  |  |  |
| A | $r$ ac | S |  | F |  |  | F |  | F |  | F |  |



| Intersecti $n$ S ary |  |
| :--- | :--- | :--- |
| M t $\operatorname{trl}$ elay |  |
| $M$ t $\quad \mathrm{S}$ | F |


| Intersecti n |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int elay Se |  |  |  |  |  |  |  |  |  |  |  |  |  |
| M e ent |  | T |  | T |  |  |  | T |  | S | S T | S |  |
| ane ni rati ns |  | $\uparrow$ |  | \% | 蚛 |  |  | $\uparrow$ |  |  | $\uparrow$ |  |  |
| Tra ic l e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ftre l e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $n$ lictin es r |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Si n ntr I | Free | Free | Free | Free | Free | Free | St | St | St | St | St | St |  |
| T anneli e |  |  | ne |  |  | ne |  |  | ne |  |  | ne |  |
| St ra e en t |  |  |  |  |  |  |  |  |  |  |  |  |  |
| e in Me ian St ra e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ra e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ea rFact $r$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ea y e icles |  |  |  |  |  |  |  |  |  |  |  |  |  |
| M tFl w |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Maj r Min r | Maj r | Maj r | Min r | Min r |
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| Sta |  |  |  |  |
| ritical w |  |  |  |  |
| ritical |  |  |  |  |
| ritical wy |  |  |  |  |
| F II w |  |  |  |  |
| $t$ a |  |  |  |  |
| Sta |  |  |  |  |
| Sta |  |  |  |  |
| lat n I |  |  |  |  |
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| i ley man Ass ciates |
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| $M \mathrm{~T}$ T S |



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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ane ni rati ns | ＊ 1 个种 | 「 | \％蚛 | \％ | 1 | 「 | ${ }^{7+1}$ | $\hat{\dagger}$ |  |
| Tra ic l e e |  |  |  |  |  |  |  |  |  |
| Ftre l e e |  |  |  |  |  |  |  |  |  |
| Initial e |  |  |  |  |  |  |  |  |  |
| e ieAjA T |  |  |  |  |  |  |  |  |  |
| ar in $s$ Aj |  |  |  |  |  |  |  |  |  |
| $r$ ne $n$ A rac |  |  |  |  |  |  |  |  |  |
| A jSat Fl w e In |  |  |  |  |  |  |  |  |  |
| A jFlw ate e |  |  |  |  |  |  |  |  |  |
| ea r Fact r |  |  |  |  |  |  |  |  |  |
| ercent ea y e |  |  |  |  |  |  |  |  |  |
| a e |  |  |  |  |  |  |  |  |  |

Arri e n reen

| Sat Fl w | e |
| :---: | :---: | :---: | :---: |
| r l |  |

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## Intersecti nS ary

M t trl elay
M t S F



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ea rFact r
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$\begin{array}{cc}\text { arri e } & \\ n & \\ \text { reen }\end{array}$

| Sat Fl w | e |  |
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| r l | l |  |

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ni $r$ elay $s e$
Incr elay $s$ e
Initial elay s e
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$n \mathrm{r}$ elay se



## Intersecti nS ary

M t trl elay
M t S F



## Intersecti nS ary

M t trl elay
M t S F

## tes

M t c tati nalen inere irese alclearance ti es rte asescr ssin te arrier

| i ley m an Ass ciates |
| :--- |
| $M$ t Si nali e Intersecti ns ary |




## Tra ic I e e



A jFlw ate e
ea r Fact r
ercent ea y e
Arri e $n$ reen

| Sat Fl w | e |  |  |
| :---: | :---: | :---: | :---: |
| r | l | e | e |
|  |  |  |  |
| r | Sat Fl wis | e | In |

Ser e s s
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| ane | $r$ |  |  |
|  | a | $c$ | $e$ |

ati
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ni $r$ elay $s e$
Incr elay s e
Initial elay se
$\begin{array}{cc}\text { ile } & \text { ac } \quad \text { ln } \\ \text { nsi } & \text { M e ent elay } s \text { e }\end{array}$
$n \mathrm{r}$ elay s e

| n | r | S | F |  | F | F |  | F | F | F | F |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $r$ ac | I e |  |  |  |  |  |  |  |  |  |  |
|  | $r a c$ | elay s e |  |  |  |  |  |  |  |  |  |  |
| A | $r$ ac | S |  | F |  |  | F |  |  | F |  | F |



| Intersecti $n$ S ary |  |  |
| :--- | :--- | :--- |
| M t | $\operatorname{trl}$ elay |  |
| M t S | F |  |


| Intersecti n |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int elay Se |  |  |  |  |  |  |  |  |  |  |  |  |  |
| M e ent |  | T |  | T |  |  |  | T |  | S | S T | S |  |
| ane ni rati ns |  | $\uparrow$ |  | \% | 蚛 |  |  | $\uparrow$ |  |  | $\uparrow$ |  |  |
| Tra ic l e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ftre l e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $n$ lictin es r |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Si n ntr I | Free | Free | Free | Free | Free | Free | St | St | St | St | St | St |  |
| T anneli e |  |  | ne |  |  | ne |  |  | ne |  |  | ne |  |
| St ra e en t |  |  |  |  |  |  |  |  |  |  |  |  |  |
| e in Me ian St ra e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ra e |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ea rFact $r$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ea y e icles |  |  |  |  |  |  |  |  |  |  |  |  |  |
| M tFl w |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Maj r Min r | Maj r | Maj r | Min r | Min r |
| :---: | :---: | :---: | :---: | :---: |
| $n$ lictin |  |  |  |  |
| Sta |  |  |  |  |
| Sta |  |  |  |  |
| ritical w |  |  |  |  |
| ritical |  |  |  |  |
| ritical wy |  |  |  |  |
| F II w |  |  |  |  |
| $t$ a |  |  |  |  |
| Sta |  |  |  |  |
| Sta |  |  |  |  |
| lat n I |  |  |  |  |
| M a |  |  |  |  |
| M a |  |  |  |  |
| Sta |  |  |  |  |



| i ley man Ass ciates |
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| $M \mathrm{~T}$ T S |

APPENDIX C7
HORIZON YEAR (2022) PLUS PROJECT INTERSECTION LOS WORKSHEETS


| M e ent | T | T |  | T |  | S |  | S T | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ane ni rati ns | * 种个 | F' |  | * | $\hat{\dagger}$ | F' | ** |  |  |
| Tra ic I e e |  |  |  |  |  |  |  |  |  |
| Ftre l e e |  |  |  |  |  |  |  |  |  |
| Initial |  |  |  |  |  |  |  |  |  |
| e ieAjA T |  |  |  |  |  |  |  |  |  |
| ar in SAj |  |  |  |  |  |  |  |  |  |
| $r$ ne $n$ A rac |  |  |  |  |  |  |  |  |  |
| A jSatFlw e In |  |  |  |  |  |  |  |  |  |
| AjFlw ate e |  |  |  |  |  |  |  |  |  |
| ea r Fact r |  |  |  |  |  |  |  |  |  |
| ercent ea y e |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

Arri e n reen

| Sat Fl $w$ | $e$ |  |  |
| :--- | :--- | :--- | :--- | :--- |
| $r$ | l | $e$ | $e$ |

$r$ SatFlws e in
Ser e s s
ycle lear c s
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ati
A ail a ca e
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|  | n |  |  |  | F |  | F | F | F | F | F | F | F | F | A | F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ac | 1 | e |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | ac | ela | s |  |  |  |  |  |  |  |  |  |  |  |  |
| A | A |  | S |  |  | F |  |  | F |  |  | F |  |  | F |  |



## Intersecti nS ary

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M t S F




| Tra ic | e |  |
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| ar in | s Aj |  |
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| A j Sat | at Fl w e |  |

A jFlw ate e
ea r Fact r
ercent ea y e
Arri e $n$ reen

| Sat FI w | $e$ |  |  |
| :---: | :---: | :---: | :---: |
| $r$ | l | e | $e$ |

r Sat FI ws e In
Ser e s s
ycle lear $C$ s
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ati
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Incr elay $s$ e
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ile ac e In
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$n \mathrm{r}$ elay $\mathrm{s} e$


| Ti er | Assi ne | S |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | rati $n$ | C S |  |  |
| an | e eri | c S |  |  |
| Ma | reen Settin |  | a | S |
| Ma | lear Ti e |  | c | S |
| reen | t Ti e |  | S |  |


|  |  |
| :--- | :--- | :--- |
| Intersecti $n S$ ary |  |
| M t trl elay | $F$ |




## Intersecti n S ary

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| Intersecti $n$ S ary |  |
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5: Airway Road \& Project Driveway 1



## Tra ic l e e


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## Intersecti nS ary

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## Intersecti nS ary

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## Intersecti nS ary

M t trl elay
M t S F



## Intersecti nS ary

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## APPENDIX C8

HORIZON YEAR (2062) PLUS PROJECT MITIGATION INTERSECTION LOS WORKSHEETS



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Intersecti nS ary
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## Intersecti n S ary

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## Tra ic l e e


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## Intersecti n S ary

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## Intersecti nS ary

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Intersecti nS ary
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## Intersecti nS ary

M t trl elay
M t S F



## Intersecti in S ary

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## Intersecti $n \mathrm{~S}$ ary

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## Intersecti nS ary

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M t S

APPENDIX C9
PROJECT DRIVEWAY QUEUEING WORKSHEET - OPENING DAY (YEAR 2025) PLUS PROJECT


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| Tal elay |
| e e en t t t |
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| Internal in ist t |
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| ase a acity |
| Star ati n a e ctn |
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| Intersecti $n \mathrm{~S}$ ary |



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## APPENDIX C10

PROJECT DRIVEWAY QUEUEING WORKSHEET - HORIZON YEAR (2062) PLUS PROJECT



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APPENDIX D
OPENING DAY (YEAR 2025) GROWTH RATE CALCULATION

Intersection of La Media Road and Airway Road: The Opening Day (Year 2025) scenario includes the completion of CIP improvements and addition of northbound travel lanes and traffic volumes. Traffic volumes at this location were developed based on traffic data collected in 2015 for the Plaza La Media North Traffic Impact Study (dated January 2021). The turning movement counts are included in Attachment 5. These intersection volumes were increased by $21 \%$ total, or $3 \%$ annually over 7 years ( 2015 to 2022, when existing traffic data was collected for the proposed Project). This growth rate was calculated using roadway segment volumes included in the SANDAG Model Series 14 (ABM 2+) for 2016 baseline model year and 2025. Attachment 6 contains a screen capture of the model plots utilized. Table 3 outlines the 9 -year growth rates and annual growth rates calculated for each leg of the intersection, and the intersection as a whole.

Based on the model volume projections, the intersection volumes are expected to increase $2.9 \%$ annually, or $17.4 \%$ between 2016 and $2022.3 \%$ annually / $21 \%$ total growth rate was selected for conservative and rounding purposes. Figure 1 shows these baseline turning movement volumes (without cumulative project traffic). Finally, cumulative project traffic volumes would be added to these developed intersection volumes to capture the traffic growth between Existing (2022) and Opening Day (2025) conditions.

Table 3 La Media Road / Airway Calculated Growth Rate

| Segment | 2016 | 2025 | 9 Year Growth Rate | Annual Growth Rate |
| :---: | :---: | :---: | :---: | :---: |
|  | ABM2+ Series 14 Model | ABM2+ Series 14 Model |  |  |
| La Media Road |  |  |  |  |
| between SR 905 EB Ramps and Airway Rd | 12,700 | 16,200 | 27.6\% | 3.1\% |
| between Airway Road and Siempre Viva Rd | 7,000 | 11,400 | 62.9\% | 7.0\% |
| Airway Road |  |  |  |  |
| between Centurion Street and La Media Road | 2,700 | 2,800 | 3.7\% | 0.4\% |
| between La Media Road and Project Main Driveway | 5,300 | 4,500 | -15.1\% | -1.7\% |
| Total Intersection Average | 27,700 | 34,900 | 26.0\% | 2.9\% |

Figure 1 - Opening Day (Year 2025) Baseline Volumes - Without Cum Volumes


Legend
$X / Y=A M / P M$ PEAK HOUR TURNING VOLUMES

## ATTACHMENT 5

2015 INTERSECTION VOLUMES AT LA MEDIA ROAD / AIRWAY ROAD

National Data \& Surveying Services


Total Ins \& Outs


Total Volume Per Leg


# Intersection Turning Movement <br> Prepared by: <br> National Data \& Surveying Services 



CONTROL : 3-Way Stop (NB/SB/WB)

# Intersection Turning Movement <br> Prepared by: <br> National Data \& Surveying Services 



CONTROL : 3-Way Stop (NB/SB/WB)

## ATTACHMENT 6

SANDAG SERIES 14 (ABM2+) MODEL PLOTS
SANDAG ABM 2+ - Forecast Year 2025 (Scenario ID 462)

SANDAG ABM 2+ - Base Year 2016 (Scenario ID 458)


## APPENDIX E

CUMULATIVE PROJECT INFORMATION

TOTAL CUMULATIVE PROJECTS




## CP01 - Plaza La Media North




|  |  |  |  |  |  |  |  |  |  |  |  |
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| R-125 NB Rmmp to St-125 SE Remme | 5.Lene Coduemr | 17,560 | 12,419 | (13) | $\wedge$ | 13, 150 | 0351 | B | 761 | 01320 | No |
| SR-125 SH Rene to Pior Rect Roml | 5 Lame Colleciar | 31,500 | 46,170 | Q 4315 | B |  |  |  | 361 | - ) 149 | NO |
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CP13 - Airway Logistics


CP15-Sanyo Logistics


Project Traffic Volumes

1. Plaza La Media Trip Generation \& Trip Assignment

## Majestic Airway - Cumulative Trips



Table 5-1
Trip Generation Rates

Table 5-2
Trip Generation Summary

| Land Use | Amount |  | ADT | AM PEAK HOUR |  |  | PM PEAK HOUR |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | In | Out | Total | In | Out | Total |
| Community Retail | 106.7 | ksf |  | 7,469 | 134 | 90 | 224 | 374 | 373 | 747 |
| Drugstore | 13.5 | ksf | 1.215 | 29 | 20 | 49 | 61 | 61 | 122 |
| Fast Food w/Drive Thru | 6 | ksf | 4,200 | 101 | 67 | 168 | 168 | 168 | 336 |
| Gas Station w/Food Mart \& Carwash | 12 | vfs | 1,860 | 75 | 74 | 149 | 84 | 83 | 167 |
| Project Driveway Trips Total |  |  | 14,744 | 339 | 251 | 590 | 687 | 685 | 1,372 |
| Project Cumulative Trips Total ${ }^{(\mathrm{a})}$ |  |  | 8,660 | 183 | 127 | 310 | 407 | 405 | 812 |

Notes:
ksf: 1,000 square feet, vfs: vehicle fueling space
The trip rates for the proposed uses are based on the City of San Diego's Trip Generation Manual, May 2003.
(a) Cumulative trips are based on the cumulative trip rates and do not include pass-by trips.


La Media Retail

La Media Retail


# 3. Candlelight Trip Generation \& Trip Assignment 

Project not expected to generate trips within proposed study area.

### 4.0 PROJECT TRAFFIC

The following section describes the trip generation, distribution and assignment related to the proposed Candlelight project.

## Trip Generation

In order to estimate the traffic generation for the site, standard City of San Diego traffic generation rates taken from the City of San Diego Trip Generation Manual (May 2003) were applied to the proposed project. "Multiple Dwelling Units - Over 20 dwelling units per acre" rates were used to estimate the daily trip rate and morning and afternoon peak-hour traffic generation for this use. Table 4-1 summarizes the trip generation for the site. As shown in the table, the site would generate a total of 2,850 new daily trips, including 228 ( 46 in, 182 out) a.m. peak-hour trips, and 257 ( 180 in, 77 out) p.m. peak-hour trips.

## Trip Distribution

The project distribution for the Existing and Near Term roadway network scenarios were estimated based on traffic distributions patterns used in the final Traffic Impact Study prepared for the Southview project, dated November 15, 2011. The distributions for both studies should be the same since both projects have the same land uses and the roadway segment networks are the same.

For the Horizon Year scenarios, a Series 11 Select Zone model run was obtained for the project and provided by the City of San Diego. The distribution for the Horizon Year scenario is different from the Near Term scenario because of land use and roadway network changes expected for the Horizon Year conditions based on the City's Adopted Community Plan and Public Facilities Financing Plan for the Otay Mesa community.

Existing and Near Term Conditions:

- $87 \%$ of the project traffic would originate from the north along Caliente Avenue.
- $32 \%$ would originate from the north
- $6 \%$ north along Ocean View Hills Parkway
- $26 \%$ east along Otay Mesa Road
- $42 \%$ would originate from the west along SR-905
- $13 \%$ would originate from the east along SR-905
- $13 \%$ of the project traffic would originate from the west along Airway Road.

Horizon Year Conditions:

- $2 \%$ of the project traffic would originate from the south along Caliente Avenue.
- $88 \%$ of the project traffic would originate from the north along Caliente Avenue.
- $41 \%$ would originate from the north
- $8 \%$ north along Ocean View Hills Parkway
- $28 \%$ east along Otay Mesa Road
- $5 \%$ west along Otay Mesa Road)
- $14 \%$ would originate from the west along SR-905
- $33 \%$ would originate from the east along SR-905
- $10 \%$ of the project traffic would originate from the west along Airway Road.

Figure 4-1 shows the project traffic distribution for the Existing and Near Term conditions. Figure 4-2 shows the project traffic distributions for the Horizon Year Conditions.
APPROVED UNDER PTS\#40329

PROPOSED UNDER PTS\#691625


## Candlelight



| 5 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 』 (90\%) <br> Public Street A |
| (10\%) |  |  |  |  |



| 1 |  |  | 2 |  |  |  | 3 |  |  |  | 4 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \quad 28 \% \\ & \text { Otay Mesa Rd } \end{aligned}$ |  | $\underset{\sim}{\stackrel{\rightharpoonup}{7}}$ |  | $33 \%$ <br> SR-905 WB Ramps |  | $\underset{\substack{\text { ¿2 }}}{2}$ |  | SR-905 EB Ramps |  |  |  | - $22 \%$ <br> Airway Rd |
|  |  |  |  |  |  |  |  | $14 \%$ ® |  |  |  | $10 \%$ ® |  |  |




## Legend

$X \% /(Y \%)=I N /$ OUT PERCENT DISTRIBUTION


FIGURE 4-2

## Trip Assignment

Based on the project trip distributions, daily and a.m. and p.m. peak-hour project trips were assigned to the local roadway network and through the study intersections. Figure 4-3 shows the project traffic assignment for the Existing and Near Term conditions and Figure 4-4 shows the project traffic assignment for Horizon Year conditions.





## Legend

$X / Y=A M / P M$ PEAK HOUR

# 5. BDM Mixed Use Trip Generation \& Trip Assignment 

Project not expected to generate trips within proposed study area.

## Project Trip Generation

Project trip generation estimates were derived utilizing the trip generation rates outlined in the City of San Diego Land Development Code - Trip Generation Manual, May 2003. Table 1 displays the Proposed Project's trip generation.

Table 1 BDM Mixed Use - Trip Generation

|  |  |  |  | AM Peak Hour |  |  |  |  | PM Peak Hour |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Land Use | Units | Trip Rate | ADT | \% | Trips | Split | In | Out | \% | Trips | Split | In | Out |
| Commercial | 6,000 SF | 40 / KSF | 240 | 3\% | 8 | 6:4 | 5 | 3 | 9\% | 22 | 5:5 | 11 | 11 |
| Multi-family | 430 DU | 6 / DU | 2,580 | 8\% | 207 | 2:8 | 41 | 166 | 9\% | 233 | 7:3 | 163 | 70 |
| Total |  |  | 2,820 |  | 215 |  | 46 | 169 |  | 255 |  | 174 | 81 |

Source: City of San Diego Land Development Code - Trip Generation Manual, May 2003
Notes:
SF = Square Feet
KSF = 1,000 Square Feet
DU = Dwelling unit
As shown in Table 1, the Proposed Project would be expected to generate approximately 2,820 daily trips, including 215 ( 46 -in / 169-out) AM peak hour trips and 255 (174-in / 81-out) PM peak hour trips.

## Project Distribution

Since the Proposed Project trip generation is greater than 2,400 average daily trips, a SANDAG Series 13 Year 2020 select zone analysis (SZA) was conducted to determine the project's trip distribution patterns. However, the SZA analysis assumes a fully built out network including an improvement of Heritage Road north of Otay Mesa Road from a two-lane Collector with a continuous left-turn lane to a six-lane Primary Arterial (per Otay Mesa Community Plan). Due to the uncertainty of timing of implementation of the Heritage Road improvements, the project trip distribution patterns were modified to reflect the current transportation network. Additionally, since the Proposed Project utilizes two separate driveways, the project site was divided into three separate zones, each with different driveway utilization assumptions. The results of the select zone analysis are provided in Attachment 2 and driveway utilization assumptions are provided in Attachment 3 . Figure 3 displays the project trip distribution patterns associated with the Proposed Project under all study scenarios.

## Project Assignment

Based upon the project trip distribution pattern and driveway utilization assumptions, the daily and AM/PM peak hour project trips were assigned to the study area roadway network. Figure 4 displays the assignment of project trips to the study area roadways and intersections under all study scenarios.



# 6. Marijuana Production Facility Trip Assignment 

Project trips captured in existing count - project operational at the time data collection took place


## 7. PA 61 Trip Generation \& Trip Assignment

Project not expected to generate trips within proposed study area.

### 4.0 Project Description

The proposed California Terraces PA 61 is a mixed-use project with 171 to 267 multi-family units, up to $45,000 \mathrm{sf}$ of commercial/retail space, and a 0.19 acre private park. The site of approximately 14 acres is currently vacant. The project is anticipated to open in 2020. The City of San Diego Otay Mesa Community Plan identifies the site as Community Commercial (Appendix E). The project requires a CPA to redesignate the site from Community Commercial - Residential Prohibited to Community Commercial - Residential Permitted and to rezone the eastern portion of the property from CC-1-3 to RM-2-5. The following discretionary approvals are required as part of the project:

1) Vesting Tentative Map
2) Site Development Permit
3) Master Planned Development Permit
4) Neighborhood Development Permit
5) Community Plan Amendment Land Use and Roadway Classification
6) Street Vacation and Rezone

### 4.1 Project Site Access

Two new public cul-de-sac streets are proposed as part of the project (Street A and Street B). Project access will be from driveways on these cul-de-sac streets. A right-in/right-out only point of access is proposed on Otay Mesa Road approximately 500 feet east of Caliente Avenue (centerline to centerline, Street A) and a full signalized shared access at Otay Mesa Road/Emerald Crest Court/ Street B. The intersection of Otay Mesa Road /Emerald Crest Court will be signalized by the first applicant to obtain building permits between this project and the adjacent Handler commercial project, unless it is completed beforehand as outlined in the Deferred Improvement Agreement between Garden Communities and City of San Diego dated 4/24/2007. Additionally, Pardee and Handler have letters of permission for offsite grading/improvements from each other (included in Appendix $\mathbf{J}$ ) to allow the first in line to proceed with the full construction of Street B (southerly extension of Emerald Crest Ct ); however, Pardee agrees to the conditions of approval that requires the construction of Street B if Pardee precedes the adjacent Handler commercial project. Each of the two access points will have a dedicated right turn deceleration lane along Otay Mesa Road.

Street B will also serve the adjacent and easterly parcel currently being processed as the Handler Commercial improvement plans. Coordination is on-going with the Handler Commercial applicant. The California MUTCD Figure 4C-103 (Average Traffic Estimate Form) signal warrant analysis is satisfied with the addition of project traffic for a traffic signal at the intersection of Otay Mesa Road/Street B/Emerald Crest Court. The traffic signal warrant is also included in Appendix J.

### 4.2 Project Trip Generation

The trip generation for the project was calculated using trip rates from the City of San Diego Trip Generation Manual, May 2003 (excerpt included in Appendix K). Two trip generation rates were applied: a driveway rate for project access points and intersection of Otay Mesa Road/ Caliente Avenue/Ocean View Hills Parkway and a cumulative rate that was applied for all other analyzed roadways.

A Series 13, year 2050 SANDAG Select Zone Assignment for the project land uses documented an internal capture rate of $2.8 \%$ that was applied to the trip generation. The SANDAG internal capture rate is included in Appendix L. The residential density is greater than 20 units per acres (267 $\mathrm{du} / 9.2 \mathrm{acres}=29.0 \mathrm{du} / \mathrm{acre})$.

The project driveway volumes were calculated at 6,816 ADT with 336 AM peak hour trips (152 inbound and 184 outbound) and 717 PM peak hour trips ( 387 inbound and 330 outbound). The cumulative traffic volumes were calculated at 4,716 ADT with 252 AM peak hour trips (101 inbound and 151 outbound) and 486 PM peak hour trips ( 271 inbound and 215 outbound) as shown in Table 9.

TABLE 9: PROJECT TRIP GENERATION AS ANALYZED IN THIS TIA [HIGHEST DENSITY RESIDENTIAL WITH 267 UNITS]

| Land Use | Daily Rate |  | Size \& Units |  | ADT | \% | Split |  | AM |  | \% | Split |  | PM |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | IN | OUT |  |  |  |  | IN | OUT |  |  |  |
| Driveway Trips |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Neighborhood Shopping Center | 120 | /KSF |  |  | 45,000 | SF | 5,400 | 4\% | 0.6 | 0.4 | 130 | 86 | 11\% | 0.5 | 0.5 | 297 | 297 |
| Multi Family (over $20 \mathrm{du} / \mathrm{ac}$ ) | 6 | /DU | 267 | DU | 1,602 | 8\% | 0.2 |  | 26 | 103 | 9\% | 0.7 | 0.3 | 101 | 43 |
| Developed Park | 50 | /Acre | 0.19 | Acres | 10 | 4\% | 0.5 |  | 0 | 0 | 8\% | 0.5 | 0.5 | 0 | 0 |
| SANDAG Traffic Model Internal Capture 2.8\% |  |  |  |  | -196 |  |  |  | -4 | $\underline{-5}$ |  |  |  | -11 | -10 |
|  |  |  |  |  | 6,816 |  |  |  | 152 | 184 |  |  |  | 387 | 330 |
| Cumulative Trips |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Neighborhood Shopping Center | 72 | /KSF | 45,000 | SF | 3,240 | 4\% | 0.6 | 0.4 | 78 | 52 | 11\% | 0.5 | 0.5 | 178 | 178 |
| Multi Family (over $20 \mathrm{du} / \mathrm{ac}$ ) | 6 | /DU | 267 | DU | 1,602 | 8\% | 0.2 |  | 26 | 103 | 9\% | 0.7 | 0.3 | 101 | 43 |
| Developed Park | 50 | /Acre | 0.19 | Acres | 10 | 4\% | 0.5 | 0.5 | 0 | 0 | 8\% | 0.5 | 0.5 | 0 | 0 |
| SANDAG Traffic Model Internal Capture 2.8\% |  |  |  |  | -136 |  |  |  | -3 | -4 |  |  |  | -8 | -6 |
|  | Extern | nal Cum | mulative | Trips: | 4,716 |  |  |  | 101 | 151 |  |  |  | 271 | 215 |

Source: City of San Diego Trip Generation Manual , May 2003. SF - Square Feet; ADT-Average Daily Traffic. Totals above $\pm 1$ due to Excel rounding.
SF - Square Feet; ADT-Average Daily Traffic; Split-percent inbound and outbound.
If the final project has fewer units, the trip generation will decrease until reaching 183 units at which time the density decreases to less than 20 du/acre ( $183 \mathrm{du} / 9.2 \mathrm{ac}=19.9 \mathrm{du} / \mathrm{acre}$ ). At 183 units, the applicable trip generation rate of $8 \mathrm{ADT} /$ du results in $1,464 \mathrm{ADT}$ with 117 AM peak hour trips ( 23 inbound and 94 outbound) and 146 PM peak hour trips (102 inbound and 44 outbound). When compared to the 183 units at the higher trip rate, 267 units at $6 \mathrm{ADT} / \mathrm{du}$ is calculated to generate 1,602 ADT (138 more ADT), 128 AM peak hour trips (11 more peak hour trips), and 144 PM peak hour trips.

If the project is completed at a lower density as shown on the site plan with only 171 dwelling units, then the project driveway volumes were calculated at 6,656 ADT with 320 AM peak hour trips ( 149 inbound and 171 outbound) and 718 PM peak hour trips ( 386 inbound and 332 outbound). The cumulative traffic volumes were calculated at 4,535 ADT with 235 AM peak hour trips ( 98 inbound and 137 outbound) and 484 PM peak hour trips ( 269 inbound and 215 outbound) as shown in Table 10.

TABLE 10: PROJECT TRIP GENERATION NOT ANALYZED [LOWEST DENSITY RESIDENTIAL WITH 171 UNITS)

| Land Use | Rate |  | Size \& Units |  | ADT | \% | Split |  | AM |  | \% | Split |  | PM |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | IN | OUT |  |  |  |  | IN | OUT |  |  |  |
| Driveway Trips |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Neighborhood Shopping Center | 120 | /KSF |  |  | 45,000 | SF | 5,400 | 4\% | 0.6 | 0.4 | 130 | 86 | 11\% | 0.5 | 0.5 | 297 | 297 |
| Residential - Multi Family | 8 | /DU | 171 | DU | 1,368 | 8\% | 0.2 |  | 22 | 88 | 10\% | 0.7 | 0.3 | 96 | 41 |
| Developed Park | 50 | /Acre | 0.19 | Acres | 10 | 4\% |  |  | 0 | 0 | 8\% | 0.5 | 0.5 | 0 | 0 |
| SANDAG Internal Capture 1.8\% |  |  |  |  | -122 |  |  |  | -3 | -3 |  |  |  | -7 | -6 |
| External Driveway Trips: |  |  |  |  | 6,656 |  |  |  | 149 | 171 |  |  |  | 386 | 332 |
| Cumulative Trips |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Neighborhood Shopping Center | 72 | /KSF | 45,000 | SF | 3,240 | 4\% | 0.6 |  | 78 | 52 | 11\% | 0.5 | 0.5 | 178 | 178 |
| Residential - Multi Family | 8 | /DU | 171 | DU | 1,368 | 8\% | 0.2 |  | 22 | 88 | 10\% | 0.7 | 0.3 | 96 | 41 |
| Developed Park |  | /Acre | 0.19 | Acres | 10 | 4\% |  |  | 0 | 0 | 8\% | 0.5 | 0.5 | 0 | 0 |
| SANDAG Internal Capture 1.8\% |  |  |  |  | -83 |  |  |  | -2 | -3 |  |  |  | -5 | -4 |
| External Cumulative Trips: |  |  |  |  | 4,535 |  |  |  | 98 | 137 |  |  |  | 269 | 215 |

Source: City of San Diego Trip Generation Manual , May 2003. SF - Square Feet; ADT-Average Daily Traffic. Totals above $\pm 1$ due to Excel rounding
SF - Square Feet; ADT-Average Daily Traffic rounded to nearest 10 for total; Split-percent inbound and outbound.

### 4.3 Project Distribution and Assignment

Project traffic was distributed to the adjacent roadway network based on coordination with City staff, a review of existing traffic patterns, surrounding land uses, existing and future network changes, and a Series 13 Year 2050 SANDAG Select Zone Assignment (Appendix L). The project distribution is shown in Figure 6. The project assignment is shown in Figure 7 to which driveway trips are applied to intersections \#6, \#10 and \#11 to comply with the City of San Diego Traffic Impact Study Manual, July 1998 that states on page 13 "All site access points should be evaluated using the higher driveway rates."

## Figure 6: Project Distribution




## 8. Tijuana Cross Border Trip Generation \& Trip Assignment

## Majestic Airway - Cumulative Trips




LSAASSOGIATES, ING. | TRAFFIGIMPAGT STUDY |
| :--- |
| JUNE 2011 |$\quad$ SAN DIEGO-TIJUANA GROSSBORDERFAGILITY PROJEGT

SAN DIEGO, GALIFORNIA
flows through the CBF. For Phase 1, the CBF building will be an approximately 45,000 sf, two-level facility designed to serve up to approximately 6,838 average daily passengers and 400 peak-hour northbound passengers. For purposes of this analysis, Phase 1 is associated with the Phase 1 condition. There will be no parking structure in Phase 1 ; instead, there will be 889 surface parking spaces. The CBF is scheduled to open in late 2012.

In Phase 2, the CBF will be expanded by approximately 10,000 sf to a 55,000 sf facility designed to serve up to approximately 13,172 average daily passengers (up to 800 peak-hour northbound airline passengers). A parking structure will be constructed that will provide a total of 1,712 parking spaces on site. For purposes of this analysis, Phase 2 is associated with the Phase 2 condition.

The build out is currently projected for 2026, when the CBF building will reach $95,000 \mathrm{sf}$, which is designed to serve 17,225 average daily passengers and 1,200 peak-hour airline passengers from Mexico to the United States. For purposes of this analysis, this Horizon Year 2030 phase of the project will be referred to as Build Out Adopted Community Plan condition.

## PROJECT TRIP GENERATION

The project is proposed ultimately to develop the $95,000 \mathrm{sf} \mathrm{CBF}, 402,000 \mathrm{sf}$ of industrial use, 34,000 sf of specialty retail complex, 340 hotel rooms, a 12 -pump gas station with a 1,200 sf convenience market and car wash, and a 6,000 sf restaurant by project build out.

As noted previously, the property is currently zoned Otay Mesa Development District (OMDD), which permits uses within the Heavy Industrial (IH-2-1) base zone plus research and development and limited commercial development, and is designated as Industrial in the 1981 Otay Mesa Community Plan. A Community Plan Amendment (CPA) is requested to change the designation of the entire site from Industrial to Institutional and to permit the Cross Border Facility and other nonindustrial uses on the site.

The project trip generation for both the commercial and industrial land uses was determined using trip rates from the San Diego Municipal Code Land Development Code, Trip Generation Manual (May 2003). The project trip generation is shown in Table B. It should be noted that a rate of 12 trips per 1,000 sf of industrial use was used since the project is still in the early planning stages and will be developing a mixture of various industrial land uses that have a range of trip generation rates (i.e., Large Industrial Park, Small Industrial Park, Industrial/Business Park with some commercial included, Warehousing). The 12 trips per $1,000 \mathrm{sf}$ is a reasonable average rate that captures the range that could occur on site. As shown in the table, the industrial land use is forecast to generate 4,824 ADT, 531 a.m. peak-hour trips, and 579 p.m. peak-hour trips. The commercial land uses (specialty retail, hotel, and gas station with convenience market) are forecast to generate 7,400 ADT, 456 a.m. peak-hour trips, and 623 p.m. peak-hour trips.

As part of the recent San Diego International Airport (SDIA) Master Plan effort, great detail and time was expended in developing the trip generation rate for air travel passengers in the region. Because both SDIA and the CBF are of similar land use types, the 2030 long-range trip generation rates developed for SDIA were used to forecast trips for the CBF. The SDIA trip rates are provided in Appendix C. Furthermore, based on discussion with City staff, these rates have been reviewed and approved for use in this analysis and have been applied to the future forecast passenger data from the
Table B: Project Trip Generation Summary

| Land Use | Size | Units | ADT | A.M. Peak Hour |  |  | P.M. Peak Hour |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | In | Out | Total | In | Out | Total |
| Hotel (w/ convention facilities/restaurant) |  |  |  |  |  |  |  |  |  |
| Trip Rate ${ }^{1}$ |  | Rooms | 10.00 | 0.36 | 0.24 | 0.60 | 0.48 | 0.32 | 0.80 |
| Trip Generation | 340 | Rooms | 3,400 | 122 | 82 | 204 | 163 | 109 | 272 |
| Sit Down Restaurant |  |  |  |  |  |  |  |  |  |
| Trip Rate ${ }^{2}$ |  | TSF | 130.00 | 5.20 | 5.20 | 10.40 | 6.24 | 4.16 | 10.40 |
| Trip Generation | 6.000 | TSF | 780 | 31 | 31 | 62 | 37 | 25 | 62 |
| Gasoline w/ Food Mart and Car Wash |  |  |  |  |  |  |  |  |  |
| Trip Rate ${ }^{3}$ |  | VFS | 155.00 | 6.20 | 6.20 | 12.40 | 6.98 | 6.98 | 13.95 |
| Trip Generation | 12 | VFS | 1,860 | 74 | 74 | 149 | 84 | 84 | 167 |
| Specialty Retail |  |  |  |  |  |  |  |  |  |
| Trip Rate ${ }^{1}$ |  | TSF | 40.00 | 0.72 | 0.48 | 1.20 | 1.80 | 1.80 | 3.60 |
| Trip Generation | 34.000 | TSF | 1,360 | 24 | 16 | 41 | 61 | 61 | 122 |
| Industrial/Business Park (no comm.) |  |  |  |  |  |  |  |  |  |
| Trip Rate ${ }^{1}$ |  | TSF | 12.00 | 1.19 | 0.13 | 1.32 | 0.29 | 1.15 | 1.44 |
| Trip Generation | 402.000 | TSF | 4,824 | 478 | 53 | 531 | 116 | 463 | 579 |
| Cross Border Facility |  |  |  |  |  |  |  |  |  |
| Trip Rate ${ }^{4}$ |  |  | 2.00 | 0.05 | 0.03 | 0.08 | 0.04 | 0.04 | 0.08 |
| Trip Generation (2030) | 17,225 | Passengers | 34,467 | 775 | 551 | 1,326 | 655 | 689 | 1,344 |
| Total Project Trip Generation |  |  | 46,691 | 1,505 | 808 | 2,313 | 1,116 | 1,431 | 2,547 |

Trip rates referenced from the San Diego Municipal Code Land Development Code, "Trip Generation Manual," May 2003. 'Hotel (With Convention Facilities/Restaurant), Specialty Center/Strip Commercial, Industria/Business Park (No Commercial)
${ }^{2}$ Driveway Vehicle trip rate based on High Turnover (Sit-Down) Restaurant.
${ }^{3}$ Driveway Vehicle trip rate based on Gasoline Station with Food Mart and Car Wash.
${ }^{4}$ Trip Rates based on San Diego International Airport Master Plan EIR, April 2008 (Proposed Airport Land Use Plan, Year 2030). TSF = Thousand Square Feet

SH\&E study. By 2030 the proposed CBF is anticipated to service approximately 17,225 passengers per day. In that horizon, the facility is forecast to generate $34,467 \mathrm{ADT}, 1,326 \mathrm{a} . \mathrm{m}$. peak-hour trips, and 1,344 p.m. peak-hour trips.

The total gross forecast trips generated by the proposed project are approximately 46,691 ADT, 2,313 a.m. peak-hour trips, and 2,547 p.m. peak-hour trips. The City's Traffic Impact Study Manual recommends a 4 percent trip reduction from the industrial land use trips to account for potential trip capture between commercial and industrial uses, which has been factored into the trip generation estimates used in the analysis. While LSA understands that additional trip capture will occur between the commercial land uses and the CBF, internal capture rates for these uses are not available and were not factored into this analysis so that it is a conservative, worst-case scenario for the proposed project. With the reduction in trips from internal trip capture, the project is forecast to generate approximately 46,498 ADT, 2,291 a.m. peak-hour trips, and 2,523 p.m. peak-hour trips externally from the site.

## TRIP DISTRIBUTION AND ASSIGNMENT

The City of San Diego prepared select zone assignment traffic forecasts for the CBF and non-terminal uses. Project trips were distributed separately to the study area roadway network since the project consists of various land uses. LSA made minor adjustments to the City's forecast plots to reduce internal trip capture to account for an increase of trips along I-5. It should be noted that project traffic was distributed assuming the completion of the SR-905 freeway extension. The trip distribution percentages for the CBF are approximately 83 percent toward the north (via I-5, I-805, Caliente Avenue, Heritage Road, La Media Road, and State Route 125 [SR-125]), percent to the west (via SR-905 and Airway Road), 4 percent to the east (via Airway Road and Siempre Viva Road), 4 percent in the vicinity of the project site, and 5 percent to the United States/Mexico border. The trip distribution percentages for non-terminal uses are approximately 53 percent toward the north (via I-5, I-805, Caliente Avenue, Heritage Road, La Media Road, and SR-125), 8 percent to the west (via SR-905 and Airway Road), 7 percent to the east (via Airway Road and Siempre Viva Road), 25 percent in the vicinity of the project site, and 7 percent to the United States/Mexico border. Figure 3 shows the project trip distribution for the CBF use only for Build Out of Community Plan. Figure 4 shows the project trip distribution for the ancillary uses for Build Out of Community Plan. Trip assignment for the proposed project for each development scenario was developed by multiplying the trip generation for each land use by its specific trip distribution, as illustrated in Figures 5, 6, and 7. Figure 5 illustrates the project trip assignment associated with the Phase 1 condition. Figure 6 illustrates the project trip assignment associated with the Phase 2 condition. Figure 7 illustrates the project trip assignment associated with the Build Out Adopted Community Plan condition.

As previously stated in the project description and market study, a fraction of the CBF traffic along the I-805 and I-5 freeways north of the SR-905 are new trips. The traffic to the Tijuana International Airport now and in the future is already utilizing the I-805 and I-5 freeways. The CBF project will divert trips destined to each port of entry to the project. Therefore, manual adjustments were made to the freeway analysis to include 25 percent of the CBF trips and 100 percent of the non-ancillary uses.

## CBF Volumes at La Media Road/Airway Road




FIGURE 6A

Legend
123/456
AM / PM Volume
Otay Cross Border Facility
Project Trip Assignment (Phase 2)
12. Cross order Express


FIGURE 6B

Legend
123 / 456
AM / PM Volume
Otay Cross Border Facility
Project Trip Assignment (Phase 2)
12. Cross order Express


FIGURE 7A

Legend
123 / 456
AM / PM Volume
Otay Cross Border Facility
Project Trip Assignment (Buildout Adopted Community Plan)


FIGURE 7B

Legend
Otay Cross Border Facility
Project Trip Assignment (Buildout Adopted Community Plan)
9. Metro Airpark Trip Generation \& Trip Assignment

## Majestic Airway - Cumulative Trips



REPHASED PROJECT TRIP GENERATION EST 5
ECT TRIP GENERATION ESTIMATES USING DRIVEWAY TRIP RATES
METROPOLITAN AIRPARK, CITY OF SAN DIEGO

| Land Use | Size | Unit | Daily Trips |  | AM Peak Hour Trips |  |  |  |  | PM Peak Hour Trips |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Driveway Rate | ADT | $\begin{gathered} \text { Peak Hour } \\ \% \end{gathered}$ | In/Out Split | Inbound | Outbound | Total | Peak Hour \% | In/Out Split | Inbound | Outbound | Total |
| Phase 1A (2012 thru 2016) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Airport (General Aviation) ${ }^{1,8}$ | 163 | Flights | 2 | 327 | 6\% | 60/40 | 12 | 8 | 20 | 7\% | 50/50 | 11 | 12 | 23 |
| Total Phase 1A Project Trips |  |  |  | 327 |  |  | 12 | 8 | 20 |  |  | 11 | 12 | 23 |
| Phase 1B (2016/2017) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Commercial Office ${ }^{2,8}$ (Jet FBO) | 51.175 | Ksf | (See Footnote 2) | 1,017 | 13\% | 90/10 | 119 | 13 | 132 | 14\% | 20/80 | 28 | 114 | 142 |
| Total (Phases 1A + 1B) Project Trips |  |  |  | 1,344 |  |  | 131 | 21 | 152 |  |  | 39 | 126 | 165 |
| Phase 2 (2017 thru 2021) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Airport (General Aviation) ${ }^{1}$ | 9 | Flights | 2 | 18 | 6\% | 60/40 | 1 | 1 | 2 | 7\% | 50/50 | 1 | 1 | 2 |
| Industrial ${ }^{3}$ (south) | 905 | Ksf | 8 | 7,240 | 11\% | 90/10 | 718 | 79 | 797 | 12\% | 20/80 | 75 | 694 | 769 |
| Total Phase 2 Project Trips |  |  |  | 7,258 |  |  | 719 | 80 | 799 |  |  | 76 | 695 | 771 |
| Total (Phases $1+2$ ) Project Trips |  |  |  | 8,602 |  |  | 850 | 101 | 951 |  |  | 115 | 821 | 936 |
| Phase 3A (2022 thru 2026) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Industrial ${ }^{3}$ (north) | 450 | Ksf | 8 | 3,600 | 11\% | 90/10 | 356 | 40 | 396 | 12\% | 20/80 | 86 | 346 | 432 |
| Total (Phases $1+2+3 \mathrm{~A}$ ) Project Trips |  |  |  | 12,202 |  |  | 1,206 | 141 | 1,347 |  |  | 201 | 1,167 | 1,368 |
| Phase 3B (2022 thru 2026) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Airport Related Commercial ${ }^{5}$ | 152.2 | Ksf | 70 | 10,654 | 3\% | 60/40 | 192 | 128 | 320 | 10\% | 50/50 | 533 | 533 | 1,065 |
| Total (Phase $1+2+3 \mathrm{~A}+3 \mathrm{~B}$ ) Project Trips |  |  |  | 22,856 |  |  | 1,398 | 269 | 1,667 |  |  | 734 | 1,700 | 2,434 |
| Phase 3C (2022 thru 2026) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| High Turnover Restaurant ${ }^{4}$ | 5 | Ksf | 130 | 650 | 8\% | 50/50 | 26 | 26 | 52 | 8\% | 60/40 | 31 | 21 | 52 |
| Airport Related Commercial ${ }^{5}$ | 50.725 | Ksf | 70 | 3,551 | 3\% | 60/40 | 64 | 43 | 107 | 10\% | 50/50 | 178 | 178 | 355 |
| Hotel ${ }^{6}$ | 150 | rooms | 10 | 1,500 | 6\% | 60/40 | 54 | 36 | 90 | 8\% | 60/40 | 72 | 48 | 120 |
| Total Phase 3C Project Trips |  |  |  | 5,701 |  |  | 144 | 105 | 249 |  |  | 281 | 247 | 527 |
| Total (Phase $1+2+3 A+3 B+3 C)$ Project Trips |  |  |  | 28,557 |  |  | 1,542 | 374 | 1,916 |  |  | 1,015 | 1,946 | 2,961 |
| Phase 4 (2027 thru 2031) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Airport (General Aviation) ${ }^{1,9}$ | 146 | Flights | 2 | 292 | 6\% | 60/40 | 11 | 8 | 19 | 7\% | 50/50 | 11 | 11 | 22 |
| Hotel ${ }^{6}$ | 120 | rooms | 10 | 1,200 | 6\% | 60/40 | 43 | 29 | 72 | 8\% | 60/40 | 58 | 38 | 96 |
| Solar Field ${ }^{7}$ | 66.5 | acre | - | 2 | - | - | 1 | 0 | 1 | - | - | 0 | 1 | 1 |
| Total Phase 4 Project Trips |  |  |  | 1,494 |  |  | 55 | 37 | 92 |  |  | 69 | 50 | 119 |
| Total (Phase $1+2+3+4)$ Project Trips |  |  |  | 30,051 |  |  | 1,597 | 411 | 2,008 |  |  | 1,084 | 1,996 | 3,080 |

Trip rates are trips per flight or trips per 1,000 square feet (Ksf) or trips per room; ADT=Average Daily Traffic
${ }^{1}$ Airport: Trip generation rates for "General Aviation" were used per City of San Diego Trip Generation Manual. The number of fights for each phase was determined based on the difference between the project and no project scenarios for the "Average Day of Peak Month" Aircraft and Operational Forecasts. Source: "Brown Field Airport Master Plan Update", "Working Paper No. 2, Summary of Aviation Activity Forecasts" prepared by Mead and Hunt; Peak hour percentages and in/out splits for "Commercial Airport" land use were used to derive the peak hour trips for the proposed Aviation facility
${ }^{2}$ Commercial Office: Trip generation rates for "Commercial Office" were based on the natural logarithmic equation per City of San Diego Trip Generation Manual
${ }^{3}$ Industrial: Trip generation rates for "Large Industrial Park" were used per City of San Diego Trip Generation Manual
${ }^{4}$ High Turnover Restaurant: Trip generation rates for "High Turnover (sit down)" land use were used per City of San Diego Trip Generation Manual ${ }^{7}$ Solar Field: Two daily trips were assumed for maintenance/operation
REPHASED PROJECT TRIP GENERATION ESTIMATES USING CUMULATIVE TRIP RATES METROPOLITAN AIRPARK, CITY OF SAN DIEGO

| Land Use | Size | Unit | Daily Trips |  | AM Peak Hour Trips |  |  |  |  | PM Peak Hour Trips |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Cumulative Rate | ADT | $\begin{gathered} \text { Peak Hour } \\ \% \end{gathered}$ | In/Out Split | Inbound | Outbound | Total | Peak Hour \% | $\begin{aligned} & \hline \text { In/Out } \\ & \text { Split } \\ & \hline \end{aligned}$ | Inbound | Outbound | Total |
| Phase 1A (2012 thru 2016) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Airport (General Aviation) ${ }^{1,8}$ | 163 | Flights | 2 | 327 | 6\% | 60/40 | 12 | 8 | 20 | 7\% | 50/50 | 11 | 12 | 23 |
| Total Phase 1A Project Trips |  |  |  | 327 |  |  | 12 | 8 | 20 |  |  | 11 | 12 | 23 |
| Phase 1B (2016/2017) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Commercial Office ${ }^{2,8}$ (Jet FBO) | 51.175 | Ksf | (See Footnote 2) | 1,017 | 13\% | 90/10 | 119 | 13 | 132 | 14\% | 20/80 | 28 | 114 | 142 |
| Total (Phases 1A + 1B) Project Trips |  |  |  | 1,344 |  |  | 131 | 21 | 152 |  |  | 39 | 126 | 165 |
| Phase 2 (2017 thru 2021) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Airport (General Aviation) ${ }^{1}$ | 9 | Flights | 2 | 18 | 6\% | 60/40 | 1 | 1 | 2 | 7\% | 50/50 | 1 | 1 | 2 |
| Industrial ${ }^{3}$ ( south) | 905 | Ksf | 8 | 7,240 | 11\% | 90/10 | 718 | 79 | 797 | 12\% | 20/80 | 75 | 694 | 769 |
| Total Phase 2 Project Trips |  |  |  | 7,258 |  |  | 719 | 80 | 799 |  |  | 76 | 695 | 771 |
| Total (Phases $1+2$ ) Project Trips |  |  |  | 8,602 |  |  | 850 | 101 | 951 |  |  | 115 | 821 | 936 |
| Phase 3A (2022 thru 2026) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \|ndustrial ${ }^{3}$ (north) | 450 | Ksf | 8 | 3,600 | 11\% | 90/10 | 356 | 40 | 396 | 12\% | 20/80 | 86 | 346 | 432 |
| Total (Phases $1+2+3$ A) Project Trips |  |  |  | 12,202 |  |  | 1,206 | 141 | 1,347 |  |  | 201 | 1,167 | 1,368 |
| Phase 3B (2022 thru 2026) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Airport Related Commercial ${ }^{5}$ | 152.2 | Ksf | 49 | 7,458 | 3\% | 60/40 | 134 | 90 | 224 | 10\% | 50/50 | 373 | 373 | 746 |
| Total (Phase $1+2+3 \mathrm{~A}+3 \mathrm{~B}$ ) Project Trips |  |  |  | 19,660 |  |  | 1,340 | 231 | 1,571 |  |  | 574 | 1,540 | 2,114 |
| Phase 3C (2022 thru 2026) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| High Turnover Restaurant ${ }^{4}$ | 5 | Ksf | 104 | 520 | 8\% | 50/50 | 21 | 21 | 42 | 8\% | 60/40 | 25 | 17 | 42 |
| Airport Related Commercial ${ }^{5}$ | 50.725 | Ksf | 49 | 2,486 | 3\% | 60/40 | 45 | 30 | 75 | 10\% | 50/50 | 125 | 125 | 249 |
| Hotel ${ }^{6}$ | 150 | rooms | 10 | 1,500 | 6\% | 60/40 | 54 | 36 | 90 | 8\% | 60/40 | 72 | 48 | 120 |
| Total Phase 3 Project Trips |  |  |  | 4,506 |  |  | 120 | 87 | 207 |  |  | 222 | 190 | 411 |
| Total (Phase $1+2+3 A+3 B+3 C)$ Project Trips |  |  |  | 24,165 |  |  | 1,460 | 318 | 1,778 |  |  | 795 | 1,730 | 2,525 |
| Phase 4 (2027 thru 2031) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Airport (General Aviation) ${ }^{1,9}$ | 146 | Flights | 2 | 292 | 6\% | 60/40 | 11 | 8 | 19 | 7\% | 50/50 | 11 | 11 | 22 |
| Hotel ${ }^{6}$ | 120 | rooms | 10 | 1,200 | 6\% | 60/40 | 43 | 29 | 72 | 8\% | 60/40 | 58 | 38 | 96 |
| Solar Field ${ }^{7}$ | 66.5 | acre | - | 2 | - | - | 1 | 0 | 1 | - | - | 0 | 1 | 1 |
| Total Phase 4 Project Trips |  |  |  | 1,494 |  |  | 55 | 37 | 92 |  |  | 69 | 50 | 119 |
| Total (Phase $1+2+3+4$ ) Project Trips |  |  |  | 25,659 |  |  | 1,515 | 355 | 1,870 |  |  | 864 | 1,780 | 2,644 |

Trip rates are trips per flight or trips per 1,000 square feet (Ksf) or trips per room; ADT=Average Daily Traffic
${ }^{1}$ Airport: Trip generation rates for "General Aviation" were used per City of San Diego Trip Generation Manual. The number of filights for each phase was determined based on the difference between the project and no project scenarios for the "Average Day of Peak Month" the peak hour trips for the proposeded Aviation facility
${ }^{2}$ Commercial Office: Trip generation rates for "Commercial Office" were based on the natural logarithmic equation per City of San Diego Trip Generation Manual ${ }^{3}$ Industrial: Trip generation rates for "Large Industrial Park" were used per City of San Diego Trip Generation Manual
${ }^{4}$ High Turnover Restaurant: Trip generation rates for "High Turnover (sit down)" land use were used per City of San Diego Trip Generation Manual
${ }^{5}$ Airport Related Commercial: Trip generation rates for "Community Shopping Center" were used per City of San Diego Trip Generation Manual; This will include uses such as grocery and/or drug store, beauty shops, stationery, recreational facilities, custom shops, etc. ${ }^{6}$ Hotel: Trip generation rates for "Hotel" were used per City of San Diego Trip Generation Manual; The proposed hotel will have conventional facilities or restaurants
${ }^{7}$ Solar Field: Two daily trips were assumed for maintenance/operation







## 10. Sunroad Otay Mesa Trip Generation \& Trip Assignment

Majestic Airway - Cumulative Trips



## 4 PROJECT TRAFFIC

The following section describes the trip generation, distribution and assignment related to the proposed Sunroad Otay Mesa project. The proposed project includes the addition of 845,100 square feet of warehousing on undeveloped land in the Otay Mesa area of San Diego.

### 4.1 TRIP GENERATION

The City of San Diego Trip Generation Manual (May 2003) was referenced to calculate the estimated trip generation for the proposed project. The "Warehousing" land use was used to forecast daily and peak-hour trips for the project. Due to the land use type and the location of the site, no pass-by trips, internal capture, nor transit, bicycle, or pedestrian credits were applied. The trip generation was separated into two phases to reflect the proposed phasing of the project.

The proposed Phase 1 would construct two of the four warehousing buildings totaling 369,820 square feet Using the trip generation rate for warehousing of 5 trips per ksf, Phase 1 is expected to generate a total of 1,849 daily trips with 277 morning peak-hour trips (195 in, 82 out) and 296 afternoon peak-hour trips (118 in, 178 out).

The proposed Phase 2 would construct the remaining two warehousing buildings totaling 475,230 square feet Using the trip generation rate for warehousing of 5 trips per ksf, Phase 1 is expected to generate a total of 2,376 daily trips with 356 morning peak-hour trips ( $249 \mathrm{in}, 107$ out) and 380 afternoon peak-hour trips (152 in, 228 out).

Combining Phases $1 \& 2$, the resulting total trip generation for the project is 4,225 daily trips with 633 morning peak-hour trips ( $444 \mathrm{in}, 189$ out) and 676 afternoon peak-hour trips ( $270 \mathrm{in}, 406$ out).

To account for truck traffic, vehicle classification counts were collected to determine the heavy vehicle assumption of $16 \%$ utilized in the analysis for movements in and out of the site.

Table 4-1 summarizes the trip generation for the site.

| Table 4-1 Trip Generation Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Land Use | Units ${ }^{1}$ | Trip Rate ${ }^{2}$ | Daily Trips | AM Peak-Hour |  |  |  |  | PM Peak-Hour |  |  |  |  |
|  |  |  |  |  | $\%$ of $\mathrm{ADT}^{2}$ | In:Out Ratio ${ }^{2}$ | In | Out | Total | $\%$ of ADT ${ }^{2}$ | In:Out Ratio ${ }^{2}$ | In | Out | Total |
| Driveway Trips ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Phase 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Building 3 | Warehousing | 216.3 ksf | $5 / \mathrm{ksf}$ | 1,082 | 15\% | 7.00 : 3.00 | 114 | 48 | 162 | 16\% | 4.00 : 6.00 | 69 | 104 | 173 |
| Building 4 | Warehousing | 153.5 ksf | $5 / \mathrm{ksf}$ | 768 | 15\% | 7.00 : 3.00 | 81 | 34 | 115 | 16\% | $4.00: 6.00$ | 49 | 74 | 123 |
| Phase Total |  | 369.8 |  | 1,849 |  |  | 195 | 82 | 277 |  |  | 118 | 178 | 296 |
| Phase 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Building 1 | Warehousing | 234.7 ksf | $5 / \mathrm{ksf}$ | 1,173 | 15\% | 7.00 : 3.00 | 123 | 53 | 176 | 16\% | 4.00 : 6.00 | 75 | 113 | 188 |
| Building 2 | Warehousing | 240.6 ksf | $5 / \mathrm{ksf}$ | 1,203 | 15\% | 7.00 : 3.00 | 126 | 54 | 180 | 16\% | 4.00 : 6.00 | 77 | 115 | 192 |
| Phase Total |  | 475.2 |  | 2,376 |  |  | 249 | 107 | 356 |  |  | 152 | 228 | 380 |
| Proposed Total |  | 845 |  | 4,225 |  |  | 444 | 189 | 633 |  |  | 270 | 406 | 676 |

1. $\mathrm{ksf}=$ Thousand Square Feet
2. Daily and peak-hour trip generation rates referenced from the City of San Diego Land Development Code - Trip Generation Manual, May 2003.
K:SND_LDEVD95128024-Sunroad Otay TraffichNALYSISEXCELY095128024_TG01 $\times$ km]Summary

### 4.2 TRIP DISTRIBUTION

The project traffic distribution was based on a Select Zone Regional Model prepared by SANDAG using their Series 12 model. The distribution shown in the Select Zone Regional Model was generally followed in establishing the project's trip distribution; however, some modifications were made to reflect network assumptions in this study. Model runs were prepared for Year 2020 to reflect existing and near-term distribution patterns and Year 2050 to reflect community build-out distribution patterns. Appendix D contains a copy of the Select Zone Model Runs.

### 4.2.1 EXISTING AND NEAR TERM

The following modifications were made to estimate trip distribution for the existing plus project and near term plus project scenarios:

- Traffic assumed in the model to travel east on Otay Mesa Road and north on Alta Road was modified to use SR-905 to the west instead. There are no land uses or roadway connections near Alta Road that would be expected to match with the project's trip destinations or origins. While typically trips are reallocated to a similar area, in this case the trips were put on the freeway to head west towards populated areas.
- Traffic assumed in the model to travel on Otay Valley Road and north of Main Street on Heritage Road was modified to use SR-905 to the west instead. The Heritage Road connection from Main Street north is not anticipated to be completed until late 2020, see Appendix H. Using the existing roadway network, the quickest route to get to the Chula Vista area is to take SR 905 west to I 805 , which is where the trips were reassigned to.

The following is the resulting general project traffic distribution assumed for this study for the existing plus project and near term plus project scenarios:

- $2 \%$ to/from the north on Piper Ranch Road;
- $10 \%$ to/from the north along SR-125;
- $6 \%$ to/from the south (Mexico) along SR-905;
- $6 \%$ to/from the east along Otay Mesa Road;
- $17 \%$ to/from the west along Otay Mesa Road;
- $54 \%$ to/from the west along SR 905;
- $2 \%$ to/from nearby Otay Mesa areas to the west; and
- $3 \%$ to/from nearby Otay Mesa areas to the south.

Figure 4-1 shows the general project traffic distribution within the study area for the Existing plus Project and Near Term plus Project scenarios. Figure $4-2 \& 4-3$ shows the Existing and Near Term (2018) scenarios project traffic distribution throughout the study area intersections for Phase 1 of the project. Figure 4-4 \& 4-5 shows the Existing and Near Term (2020) scenarios project traffic distribution throughout the study area intersections for Phases $1 \& 2$ of the project, which includes the second access point to the site.

### 4.2.2 HORIZON YEAR

Year 2050 network assumptions in the model include the freeway and roadway network north of Otay Mesa Road and east of La Media Road as expanded and developed. For purposes of this analysis, we are not assuming network changes in the Horizon Year (2035) scenario. Land use changes assumed in the model are applicable, though, as there is significant potential development in the area that would change traffic patterns. To account for this, the distribution for this scenario was mostly unchanged, with modifications
made at Otay Mesa Road and Cactus Road (shown in Appendix D) where a connection across SR 905 is assumed in the model but not in the analysis. The following is the resulting project traffic distribution assumed for this study in the horizon year:

- $7 \%$ to/from the north on Piper Ranch Road;
- $36 \%$ to/from the north along SR-125;
- $4 \%$ to/from the south and east (Mexico) along SR-905;
- $6 \%$ to/from the east along Otay Mesa Road;
- $17 \%$ to/from the west along Otay Mesa Road;
- $24 \%$ to/from the west along SR 905;
- $2 \%$ to/from nearby Otay Mesa areas to the west; and
- $4 \%$ to/from nearby Otay Mesa areas to the south.

Figure 4-6 shows the general project traffic distribution within the study area for the Horizon Year condition. Figure 4-7 \& 4-8 shows the Horizon Year project traffic distribution throughout the study area intersections for Phases $1 \& 2$ of the project.

### 4.2.3 ALTERNATIVE ACCESS AT AVENIDA COSTA AZUL

The Plaza La Media cumulative project proposes a traffic signal at the project's west driveway. The analysis included in this traffic study does not assume this improvement to be in place. An alternative evaluation has been prepared and included in Appendix $L$ to show volumes and analysis results if that intersection was converted to a traffic signal. The appendix includes Near Term (2020) and Horizon Year (2035) project traffic distribution throughout the study area intersections for the project, which includes the second access point to the site and adjacent Plaza La Media project.

### 4.3 TRIP ASSIGNMENT

Based on the project trip generation and trip distribution, project trips were assigned to the local roadway network and through the study intersections. Two different trip assignments were created to reflect the two phases of the proposed project. As part of Phase 1, the only access to the project site is assumed to be from the intersection of Otay Mesa Road and Piper Ranch Road. As part of Phase 2, the second access further west on Otay Mesa Road is assumed to be operational.

Figure 4-9 \& 4-10 shows the trip assignment for Phase 1 of the project under existing and near term (2018) conditions at the study intersections, roadway segments, and freeway segments within the study area.

Figure 4-11 \& 4-12 shows the trip assignment for the development of both Phase $1 \& 2$ of the project under existing and near term (2020) conditions at the study intersections, roadway segments, and freeway segments within the study area.

Figure 4-13 \& 4-14 shows the trip assignment for the development of both Phase $1 \& 2$ of the project under Horizon Year (2035) conditions at the study intersections, roadway segments, and freeway segments within the study area.
FIGURE 4-1


FIGURE 4-2


Trip Distribution For Phase 1 Existing \& Near Term (2018)


Trip Distribution For Phase 1

FIGURE 4-4


Trip Distribution For Phase 1 \& 2 Existing \& Near Term (2020)


Trip Distribution For Phase 1 \& 2
Existing Conditions \& Near Term (2020) (cont.)


FIGURE 4-7


Trip Distribution For Phase 1 \& 2 Horizon Year (2035) Conditions



Trip Distribution For Phase 1 \& 2


Trip Assignment For Phase 1 Existing \& Near Term (2018)


Trip Assignment For Phase 1


Trip Assignment For Phase 1 \& 2 Existing Condition \& Near Term (2020)


Trip Assignment For Phase 1 \& 2

February 2018



Trip Assignment For Phase 1 \& 2 Horizon Year Conditions


Trip Assignment For Phase 1 \& 2 Horizon Year Conditions (cont.)

## 11. Lumina Trip Generation \& Trip Assignment

Majestic Airway - Cumulative Trips



### 3.2 Street Vacation

The Lumina project site contains a public right-of-way for an unnamed road in the western portion of the site, dedicated by Map 1267 shown on Figure 3-3. The unnamed road was dedicated to provide circulation, access, and public services; however, the unnamed road was never constructed and is undriveable under existing conditions. The Lumina project will implement the Central Village Specific Plan planned roadway circulation system on-site, which will provide the circulation necessary to the public within and through the community. The Lumina project proposes vacation of the unnamed road because it is not needed to provide public circulation.

### 3.3 Project Trip Generation, Distribution, and Assignment

## Project Trip Generation

Project trip generation estimates were derived utilizing the trip generation rates outlined in Table 1 of the City of San Diego Land Development Code - Trip Generation Manual, May 2003. Table 3.1 displays the proposed project's trip generation during both Phase 1 and full development.

TABLE 3.1
OTAY MESA LUMINA - TRIP GENERATION

| Land Use | Units | Trip Rate | ADT | AM Peak Hour |  |  |  |  | PM Peak Hour |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | \% | Trips | Split | In | Out | \% | Trips | Split | In | Out |
| Phase 1 (Year 2023) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Multi-Family (Over 20 DU/acre) | 1,129 DU | 6 | 6,774 | 8\% | 542 | 2:8 | 108 | 434 | 9\% | 610 | 7:3 | 427 | 183 |
| Community Commercial a | 62.53 KSF | 70a | 4,377 | 3\% | 131 | 6:4 | 79 | 52 | 10\% | 438 | 5:5 | 219 | 219 |
| Phase 1 Total |  |  | 11,151 | - | 673 | - | 187 | 486 | - | 1,048 | - | 646 | 402 |
| Phase 2 (Year 2027) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Multi-Family (Over 20 DU/acre) | 526 DU | 6 | 3,156 | 8\% | 252 | 2:8 | 51 | 201 | 9\% | 284 | 7:3 | 199 | 85 |
| Multi-Family <br> (Under 20 DU/acre) | 213 DU | 8 | 1,704 | 8\% | 136 | 2:8 | 27 | 109 | 10\% | 170 | 7:3 | 119 | 51 |
| Park (Developed) | 6.6 Acres | 50 | 330 | 4\% | 13 | 5:5 | 7 | 6 | 8\% | 26 | 5:5 | 13 | 13 |
| Elementary School | 6.3 Acres* | 136 | 857 | 31\% | 266 | 6:4 | 159 | 107 | 19\% | 163 | 4:6 | 65 | 98 |
| Phase 2 Total |  |  | 6,047 | - | 667 | - | 244 | 423 | - | 643 | - | 396 | 247 |
| Full Development Total |  |  | 17,198 |  | 1,340 |  | 431 | 909 |  | 1,691 |  | 1,042 | 649 |
| Internal Trips Capture (9.4\%) ${ }^{\text {b }}$ |  |  | 1,617 |  | 126 |  | 41 | 85 |  | 159 |  | 98 | 61 |
| External Trips |  |  | 15,581 |  | 1,214 |  | 390 | 824 |  | 1,532 |  | 944 | 588 |

Source: Colrich, December 2017; City of San Diego Land Development Code - Trip Generation Manual, May 2003

## Notes:

* 6.3 acres represents the ColRich portion of the elementary school and the entire school site is estimated to be 13.1 acres.
a - Trip generation rate used is consistent with the Otay Mesa CPU \& OMCVSP.
b - Internal capture consistent with Otay Mesa Central Village Specific Plan.






| Legend |  |
| :---: | :---: |
| $\boldsymbol{X}$ | Study Intersection |
| AM /PM | Peak Hour Volumes |
|  | One-Way Roadway |
| *Names of North-South |  |
| Cross-streets always <br> listed first |  |

Otay Mesa Lumina
Figure 3-7
Transportation Impact Study CHEN $\boldsymbol{\text { PRYAN }}$




| Legend |  |
| :---: | :--- |
| $\boldsymbol{x}$ | Study Intersection |
| AM /PM | Peak Hour Volumes |
| $>$ | One-Way Roadway |
| *Names of North-South Movements |  |
| cross-streets always <br> listed first$\quad$ NoRTH |  |
|  |  |

Otay Mesa Lumina






| Legend |  |
| :---: | :--- |
| $\boldsymbol{x}$ | Study Intersection |
| AM /PM | Peak Hour Volumes |
| One-Way Roadway |  |
| *Names of North-South |  |
| cross-streets always <br> listed first$\quad$ NORTH |  |
|  |  |


(1) Study Intersection
$\downarrow \downarrow$ Turn Movements
am/PM Peak Hour Volumes

- One-Way Roadway
*Names of North-South
cross-streets always
listed first


## 13. Airway Logistics Trip Generation \& Trip Assignment

## Majestic Airway - Cumulative Trips




### 7.0 TRIP Generation/Distribution/Assignment

### 7.1 Trip Generation

The Project proposes the construction of 235,480 square feet (sf) of warehousing and distribution use for up to eight (8) tenants, and $12,000 \mathrm{sf}$ of multi-tenant office use. Based on the proposed land use types, the rates for "warehousing" and "commercial office" found in the City of San Diego's Trip Generation Manual, May 2003 were used for the proposed Project.

Table 7-1 tabulates the total Project traffic generation. The total Project is calculated to generate approximately 1,518 ADT with 222 trips ( 165 inbound / 57 outbound) during the AM peak hour and 237 trips ( 86 inbound / 151 outbound) during the PM peak hour.

Table 7-1
Project Trip Generation

| Land Use | Size | Daily Trip Ends (ADTs) |  | AM Peak Hour |  |  |  |  |  | PM P | ak H |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Rate ${ }^{\text {a }}$ | Volume | $\%$ of ADT | $\begin{array}{\|c\|} \hline \text { In:Out } \\ \hline \text { Split } \\ \hline \end{array}$ | Volume |  |  | $\begin{aligned} & \% \text { of } \\ & \text { ADT } \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { In:Out } \\ \hline \text { Split } \\ \hline \end{array}$ | Volume |  |  |
|  |  |  |  |  |  | In | Out | Total |  |  | In | Out | Total |
| Warehousing | 235.48 KSF | $5 / \mathrm{KSF}$ | 1,178 | 15\% | 70:30 | 124 | 53 | 177 | 16\% | 40:60 | 76 | 113 | 189 |
| Commercial Office | 12.00 KSF | Log formula ${ }^{b}$ | 340 | 13\% | 90:10 | 41 | 4 | 45 | 14\% | 20:80 | 10 | 38 | 48 |
| Total |  | - | 1,518 | - | - | 165 | 57 | 222 | - | - | 86 | 151 | 237 |

Footnotes:
a. Rate is based on City of San Diego's Trip Generation Manual.
b. $\operatorname{Ln}(\mathrm{ADT})=0.756 \mathrm{Ln}(\mathrm{KSF})+3.95$

### 7.2 Trip Distribution/Assignment

Access to the Project site is proposed via two (2) driveways on Airway Road. The eastern driveway will be used by trucks accessing the site while the western driveway will be used by light vehicles. Project traffic was distributed and assigned to the street system based on the number of loading docks (66), existing traffic patterns in the area, review of trip distribution of similar land uses from recently approved development projects in the vicinity, anticipated traffic patterns to and from the site, and the Project's proximity to state highways and arterials. Figure 7-1 shows the Project traffic distribution. Figure 7-2 shows the total Project traffic volumes.



## 14. Otay Truck Storage Trip Assignment

Project not expected to generate trips within proposed study area.
Project assignment obtained from Sanyo Logistics traffic study cumulative project information prepared by LLG.



## 15. Sanyo Logistics Trip Generation \& Trip Assignment

Majestic Airway - Cumulative Trips



### 7.0 TRIP Generation/DISTRIBUTION/Assignment

### 7.1 Trip Generation

The Project proposes the construction of 232,969 square feet (sf) of warehousing and distribution use for up to eight (8) tenants, and $10,000 \mathrm{sf}$ of multi-tenant office use. Based on the proposed land use types, the rates for "warehousing" and "commercial office" found in the City of San Diego's Trip Generation Manual, May 2003 were used for the proposed Project.

Table 7-1 tabulates the total Project traffic generation. The total Project is calculated to generate approximately 1,462 ADT with 214 trips ( 158 inbound / 56 outbound) during the AM peak hour and 229 trips ( 83 inbound / 146 outbound) during the PM peak hour.

Table 7-1
Project Trip Generation

| Land Use | Size |  | Daily Trip Ends (ADTs) |  | AM Peak Hour |  |  |  |  | PM Peak Hour |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Rate ${ }^{\text {a }}$ | Volume | $\%$ of ADT | $\begin{array}{\|c\|} \hline \text { In:Out } \\ \hline \text { Split } \end{array}$ | Volume |  |  | $\begin{aligned} & \% \text { of } \\ & \text { ADT } \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { In:Out } \\ \hline \text { Split } \\ \hline \end{array}$ | Volume |  |  |
|  |  |  | In |  |  |  | Out | Total | In |  |  | Out | Total |
| Warehousing | 232.969 | KSF |  | $5 / \mathrm{KSF}$ | 1,165 | 15\% | 70:30 | 123 | 52 | 175 | 16\% | 40:60 | 75 | 112 | 187 |
| Commercial Office | 10.00 | KSF | Log formula ${ }^{b}$ | 297 | 13\% | 90:10 | 35 | 4 | 39 | 14\% | 20:80 | 8 | 34 | 42 |
| Total |  |  | - | 1,462 | - | - | 158 | 56 | 214 | - | - | 83 | 146 | 229 |

Footnotes:
a. Rate is based on City of San Diego's Trip Generation Manual.
b. $\operatorname{Ln}(\mathrm{ADT})=0.756 \mathrm{Ln}(\mathrm{KSF})+3.95$

### 7.2 Trip Distribution/Assignment

Access to the Project site is proposed via two (2) driveways on Airway Road and one (1) driveway on Sanyo Avenue. The westerly driveway on Airway Road will be used by light-vehicles only and will be restricted by a raised median to allow right-in and right-out movements only. The easterly driveway on Airway Road will be used by trucks accessing the site and would allow right-in, rightout and left-in movements while prohibiting left-turn outbound movements. The driveway on Sanyo Avenue will allow full movements and be used by light vehicles only. Project traffic was distributed and assigned to the street system based on the number of loading docks (45), existing traffic patterns in the area, review of trip distribution of similar land uses from recently approved development projects in the vicinity, anticipated traffic patterns to and from the site, and the Project's proximity to state highways and arterials. Figure 7-1 shows the Project traffic distribution. Figure 7-2 shows the total Project traffic volumes.

| \# | Study Intersection |
| :---: | :--- |
| XX \% | Composite Trip Distribution |
| $*$ | To Truck Border Crossing |
| $* *$ | From Truck Border Crossing |



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## APPENDIX F

PLANNED CITY CIP \#S-15018 IMPROVEMENTS

## The City of <br> SAN DIEGO

FOR IMMEDIATE RELEASE

Friday, March 24, 2023

# Traffic Detour Scheduled in Otay Mesa as Major Road Improvement Project Begins closure will impact access to la media road from state ROUTE 905 

SAN DIEGO - Starting on Monday, March 27, the City of San Diego will be closing La Media Road in both directions from State Route 905 to Avenida de la Fuente to improve part of the designated truck route for the Otay Mesa Port of Entry. The City, in coordination with Caltrans, will also initiate a full closure of the eastbound SR-905 off-ramp to La Media Road overnight on Sunday, March 26, to prepare for the work. Following the overnight ramp closure, all access to southbound La Media Road from both SR-905 offramps will remain closed while the La Media Road closure is in effect.

The closures of La Media Road and southbound access from SR-905 will remain in effect through the first phase of the project, which is expected to be completed in the spring of 2024. Work will then shift south on La Media Road from Avenida de la Fuente to Siempre Viva Road. Temporary overnight road closures are expected during the second phase of the project, which is expected to be completed in the fall of 2024.

This $\$ 60.6$ million project will widen La Media Road to a six-lane primary arterial from SR-905 to Airway Road and a five-lane major road between Airway Road and Siempre Viva Road with three southbound lanes and two northbound lanes. Other improvements include raising the road and installing drainage structures to reduce flooding, relocating water and sewer mains and installing new storm drains, traffic signals, bike lanes and sidewalks.

Electronic signage has been posted for the past week notifying travelers of the restricted access and associated detours.

## SAN DIECO

Project Information Details La Media Road Improvements (Design Bid Build Project)

## General Information

Project Identification Number: S15018 (Transportation Asset)

Project Description: This project will widen La Media Road between SR-905 to Siempre Viva Road. La Media Road will be widened to a six-lane primary arterial from SR-905 to Airway Road, a five lane major between Airway Road and Siempre Viv Road with three southbound lanes and two northbound lanes. Improvements from Siempre Viva Road to Otay Truck Route will be constructed under a different project. This project will also improve drainage at the intersection of La Media Road and Airway Road.

| Contact Person: | Ashrafzadeh, Mastaneh |
| :--- | :--- |
| Council District(s): | 8 |
| Community Area(s): | OTAY MESA |

Estimated Project Schedule ${ }^{(1)}$


Estimated Project Dollar Amount ${ }^{(1)}$
A. Total Project Cost: ${ }^{(1)} \quad \$ 60,635,000$

Construction Activity

| A. Estimated Construction Contract Amount: ${ }^{(1)}$ | $\$ 42,884,422$ |
| :--- | :--- |
| B. Funding Status: ${ }^{(3)}$ | Fully Funded |
| C. Contractor: | TC Construction Co., Inc. |
| D. Expected Contract Duration: ${ }^{(1)}$ | 18 Months |

Additional Remarks

| None |  |
| :--- | :--- |
| Form PWD1502 | Updated As Of: 04/01/2023 |

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## APPENDIX G

OTAY MESA COMMUNITY PLAN UPDATE PROJECTED HORIZON YEAR 2062 VOLUMES

APPENDIX D - ATTACHMENT 11

## Buildout AM/PM Peak Hour Traffic - Alternative 3-B

## Without La Media Road



## APPENDIX D - ATTACHMENT 11 <br> Buildout AM/PM Peak Hour Traffic - Alternative 3-B <br> Without La Media Road



TABLE 7-1

## Buildout Scenario 3B Without La Media Rd.

## Average Daily Traffic \& Level of Service

| Street | Segment | \# | $\begin{gathered} (1) \\ \text { Class } \end{gathered}$ | LOS E ADT <br> (2) | $\begin{gathered} \text { Segment } \\ \text { ADT } \\ \hline \end{gathered}$ | V/C | LOS | $\begin{gathered} \text { New } \\ \text { Class } \\ \hline \end{gathered}$ | New V/C | $\begin{aligned} & \text { NEW } \\ & \text { LOS } \\ & \hline \end{aligned}$ | S? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Otay Mesa <br> Road | Street A to Caliente Ave. <br> Caliente Ave. to Corporate Center Dr. <br> Corporate Center Dr. to Innovative Dr. <br> Innovative Dr. to Heritage Rd. <br> Heritage Rd. to Cactus Rd. <br> Cactus Rd. to Britannia Blvd. <br> Britannia Blvd. to Ailsa Ct. <br> Ailsa Ct. to La Media Rd. <br> La Media Rd. to Piper Ranch Rd. <br> Piper Ranch Rd. to SR-125 <br> SR-125 to Harvest Rd. <br> Harvest Rd. to Sanyo Ave. <br> Sanyo Ave. to Enrico Fermi Dr. |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 2 | 6-PA | 60,000 | 72,500 | 1.21 | F | N | - | - | Y |
|  |  | 3 | 6 -PA | 60,000 | 51,500 | 0.86 | D | N | - | - | N |
|  |  | 4 | 6-PA | 60,000 | 46,500 | 0.78 | C | N | - | - | N |
|  |  | 5 | 6 -PA | 60,000 | 76,500 | 1.28 | F | N | - | - | Y |
|  |  | 6 | 6-PA | 60,000 | 44,000 | 0.73 | C | N | - | - | N |
|  |  | 7 | 6-PA | 60,000 | 50,500 | 0.84 | D | N | - | - | N |
|  |  | 8 | 7-M | 55,000 | 42,500 | 0.77 | C | 6 -PA | 0.71 | C | N |
|  |  | 9 | 8-M | 70,000 | 54,000 | 0.77 | C | 6 -PA | 0.90 | D | N |
|  |  | 10 | $4-\mathrm{P}$ | 45,000 | 28,500 | 0.63 | C | 6 -PA | 0.48 | B | N |
|  |  | 11 | 4-M | 40,000 | 36,000 | 0.90 | E | 6 -PA | 0.60 | C | N |
|  |  | 12 | 4-M | 40,000 | 32,000 | 0.80 | D | 6 -PA | 0.53 | B | N |
|  |  | 13 | 4-M | 40,000 | 7,500 | 0.19 | A | 6-PA | 0.13 | A | N |
| Airway Road | Old Otay Mesa Rd. to Caliente Ave. <br> Caliente Ave. to Heritage Rd. <br> Heritage Rd. to Cactus Rd. <br> Cactus Rd. to Britannia Blvd. <br> Britannia Blvd. to La Media Rd. | 14 | 4-CL | 30,000 | 10,500 | 0.35 | A | N | - | - | N |
|  |  | 15 | 4-M | 40,000 | 38,000 | 0.95 | E | N | - | - | Y |
|  |  | 16 | 4-M | 40,000 | 60,500 | 1.52 | F | 6-PA | 1.01 | F | Y |
|  |  | 17 | 4-M | 40,000 | 44,500 | 1.11 | F | 6-M | 0.89 | D | N |
|  |  | 18 | 4-M | 40,000 | 35,000 | 0.88 | D | N | - | - | N |
|  | La Media Rd. to Harvest Rd. Harvest Rd. to Sanyo Ave. | 19 | 4-M | 40,000 | 34,000 | 0.85 | D | N | - | - | N |
|  |  | 20 | 4-M | 40,000 | 26,500 | 0.66 | C | N | - | - | N |
|  | Sanyo Ave. to Paseo de las Americas Paseo de las Americas to Michael Faraday Dr. <br> Michael Faraday Dr. to Enrico Fermi Dr. Enrico Fermi Dr. to Siempre Viva Rd.* | 21 | 4-M | 40,000 | 10,000 | 0.25 | A | N | - | - | N |
|  |  | 22 | 4-M | 40,000 | 9,500 | 0.24 | A | N | - | - | N |
|  |  | 23 | 4-M | 40,000 | 12,000 | 0.30 | A | N | - | - | N |
|  |  | 24 | 4-M | 40,000 | 12,500 | 0.31 | A | N | - | - | N |
| Siempre Viva Road | Caliente Ave. to West Terminus <br> Cactus Rd. to Britannia Blvd. <br> Britannia Blvd. to La Media Rd. <br> La Media Rd. to Harvest Rd. <br> Harvest Rd. to Otay Center Dr. <br> Otay Center Dr. to SR-905 <br> SR-905 to Paseo de las Americas <br> Paseo de las Americas to Michael Faraday Dr. <br> Michael Faraday Dr. to Enrico Fermi Dr. <br> Enrico Fermi Dr. to SR-11* | 25 | 4-M | 40,000 | 10,000 | 0.25 | A | 2-CL | 0.67 | C | N |
|  |  | 27 | 6-PA | 60,000 | 37,000 | 0.62 | C | N | - | - | N |
|  |  | 28 | 6-PA | 60,000 | 42,500 | 0.71 | C | N | - | - | N |
|  |  | 29 | 6-PA | 60,000 | 40,500 | 0.68 | C | N | - | - | N |
|  |  | 30 | 6-PA | 60,000 | 34,000 | 0.57 | B | N | - | - | N |
|  |  | 31 | 6-PA | 60,000 | 60,000 | 1.00 | E | N | - | - | Y |
|  |  | 32 | 6-PA | 60,000 | 63,000 | 1.05 | F | N | - | - | Y |
|  |  | 33 | 4-M | 40,000 | 23,000 | 0.58 | C | N | - | - | N |
|  |  | 34 | 4-M | 40,000 | 21,000 | 0.53 | B | N | - | - | N |
|  |  | 35 | 4-M | 40,000 | 17,500 | 0.44 | B | N | - | - | N |

*Segment in County of San Diego
Note: There is no segment \#26 with this alternative.

## \# = Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.
(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.
(3) = Add to Circulation Plan.
(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).
New LOS = LOS after change in classification.
F = Shading indicates a significant impact.
Legend
8-M $=$ 8-lane Major Arterial
7-PA $=$ 7-lane Primary Arterial
7-M $=$ 7-lane Major Arterial
6-PA $=$ 6-lane Primary Arterial
6-M $=$ 6-lane Major Arterial
5-M $=$ 5-lane Major Arterial (3SB /2NB)
4-P $=$ 4-lane Primary Arterial
4-M $=$ 4-lane Major Arterial
4-CL $=$ 4-lane Collector (with continuous left turn lane)
4-C $=$ 4-lane Collector (without continuous left turn lane)
2-CL $=$ 2-lane Collector (with continuous left turn lane)
2-CN $=$ 2-lane Collector (no fronting property)
2-C $=$ 2-lane Collector (without continuous left turn lane)

TABLE 7-1 (Continued)

## Buildout Scenario 3B Without La Media Rd.

## Average Daily Traffic \& Level of Service

| Street | Segment | \# | $\begin{gathered} (1) \\ \text { Class } \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { LOS E } \\ \text { ADT } \\ \text { (2) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Segment } \\ \text { ADT } \\ \hline \end{gathered}$ | V/C | LOS | $\begin{gathered} \text { New } \\ \text { Class } \end{gathered}$ | $\begin{gathered} \text { New } \\ \text { V/C } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { New } \\ & \text { LOS } \\ & \hline \end{aligned}$ | S? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Palm Ave. | I-805 to Dennery Rd. | 37 | 7-PA | 65,000 | 59,500 | 0.92 | D | N | - | - | N |
| Ocean View Hills Parkway | Dennery Rd. to Del Sol Blvd. Del Sol Blvd. to Street "A" Street "A" to Otay Mesa Rd. | $\begin{aligned} & 38 \\ & 39 \\ & 40 \\ & \hline \end{aligned}$ | $\begin{aligned} & 4-M \\ & 6-M \\ & 6-M \end{aligned}$ | $\begin{aligned} & 40,000 \\ & 50,000 \\ & 50,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & 22,000 \\ & 35,000 \\ & 23,500 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.55 \\ & 0.70 \\ & 0.42 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{C} \\ & \mathrm{C} \\ & \mathrm{~B} \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{N} \\ & \mathrm{~N} \\ & \mathrm{~N} \\ & \hline \end{aligned}$ |  |  | $\begin{aligned} & \mathrm{N} \\ & \mathrm{~N} \\ & \mathrm{~N} \end{aligned}$ |
| Caliente Avenue | Otay Mesa Rd. to SR-905 SR-905 to Airway Rd. Airway Rd. to Beyer Blvd. Beyer Blvd. to Siempre Viva Rd. | $\begin{array}{r} 41 \\ 42 \\ 43 \\ 43 \mathrm{~A} \\ \hline \end{array}$ | $\begin{aligned} & 6-\mathrm{M} \\ & 6-\mathrm{M} \\ & 4-\mathrm{M} \\ & 4-\mathrm{M} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 50,000 \\ & 50,000 \\ & 40,000 \\ & 40,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 38,000 \\ & 32,000 \\ & 46,000 \\ & 41,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.76 \\ & 0.64 \\ & 1.15 \\ & 1.03 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{C} \\ & \mathrm{C} \\ & \mathrm{~F} \\ & \mathrm{~F} \end{aligned}$ | $\begin{gathered} \text { 6-PA } \\ \text { 6-PA } \\ \text { 6-M } \\ \mathrm{N} \\ \hline \end{gathered}$ | $\begin{aligned} & 0.63 \\ & 0.53 \\ & 0.92 \end{aligned}$ | $\begin{aligned} & \text { C } \\ & \text { B } \\ & \text { E } \end{aligned}$ | N N Y Y |
| Beyer Boulevard | Alaquinas Dr. to Old Otay Mesa Rd. Old Otay Mesa Rd. to Caliente Ave. (3) | $\begin{aligned} & 44 \\ & 45 \end{aligned}$ | $\begin{aligned} & 4-\mathrm{M} \\ & 4-\mathrm{M} \\ & \hline \end{aligned}$ | $\begin{aligned} & 40,000 \\ & 40,000 \end{aligned}$ | $\begin{aligned} & 32,500 \\ & 31,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.81 \\ & 0.78 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \mathrm{D} \\ & \mathrm{D} \end{aligned}$ | $\begin{aligned} & \mathrm{N} \\ & \mathrm{~N} \\ & \hline \end{aligned}$ |  |  | $\begin{aligned} & \hline \mathrm{N} \\ & \mathrm{~N} \end{aligned}$ |
| Heritage Road/ Otay Valley Road | Main St. to Avenida De Las Vistas** Avenida De Las Vistas to Datsun St. Datsun St. to Otay Mesa Rd. <br> Otay Mesa Rd. to SR-905 SR-905 to Airway Rd. | $\begin{aligned} & \hline 46 \\ & 47 \\ & 48 \\ & 49 \\ & 50 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 6 \text {-PA } \\ & 6-\mathrm{M} \\ & 6-\mathrm{M} \\ & 6-\mathrm{M} \\ & \text { 6-M } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 60,000 \\ & 50,000 \\ & 50,000 \\ & 50,000 \\ & 50,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 83,000 \\ & 75,500 \\ & 48,000 \\ & 23,500 \\ & 35,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1.38 \\ & 1.51 \\ & 0.96 \\ & 0.47 \\ & 0.70 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~F} \\ & \mathrm{E} \\ & \mathrm{~B} \\ & \mathrm{C} \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \mathrm{N} \\ \text { 6-PA } \\ \text { 6-PA } \\ \text { 6-PA } \\ \text { 6-PA } \\ \hline \end{gathered}$ | $\begin{aligned} & 1.26 \\ & 0.80 \\ & 0.39 \\ & 0.58 \end{aligned}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{C} \\ & \mathrm{~A} \\ & \mathrm{~B} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \mathrm{Y} \\ & \mathrm{Y} \\ & \mathrm{~N} \\ & \mathrm{~N} \\ & \mathrm{~N} \\ & \hline \end{aligned}$ |
| Cactus Road | Otay Mesa Rd. to Airway Rd. Airway Rd. to Siempre Viva Rd. Siempre Viva Rd. to South End | $\begin{aligned} & 52 \\ & 53 \\ & 54 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 4-CL } \\ & \text { 4-CL } \\ & \text { 2-CL } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 30,000 \\ & 30,000 \\ & 15,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & 40,500 \\ & 40,500 \\ & 11,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1.35 \\ & 1.35 \\ & 0.73 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~F} \\ & \mathrm{D} \\ & \hline \end{aligned}$ | $\begin{gathered} 4-\mathrm{M} \\ 4-\mathrm{M} \\ \mathrm{~N} \\ \hline \end{gathered}$ | $\begin{aligned} & 1.01 \\ & 1.01 \end{aligned}$ | F | $\begin{aligned} & \hline \mathrm{Y} \\ & \mathrm{Y} \\ & \mathrm{~N} \end{aligned}$ |
| Britannia <br> Boulevard | Otay Mesa Rd. to SR-905 SR-905 to Airway Rd. Airway Rd. to Siempre Viva Rd. Siempre Viva Rd. to South End | $\begin{aligned} & 55 \\ & 56 \\ & 57 \\ & 58 \end{aligned}$ | $\begin{aligned} & 4-\mathrm{M} \\ & 4-\mathrm{M} \\ & \text { 4-M } \\ & \text { 2-C } \end{aligned}$ | $\begin{aligned} & 40,000 \\ & 40,000 \\ & 40,000 \\ & 8,000 \end{aligned}$ | $\begin{aligned} & 17,500 \\ & 63,000 \\ & 44,500 \\ & 22,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.44 \\ & 1.58 \\ & 1.11 \\ & 2.75 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{~F} \\ & \mathrm{~F} \\ & \mathrm{~F} \end{aligned}$ | $\begin{gathered} 6-\mathrm{PA} \\ \text { 6-PA } \\ \text { 6-M } \\ \text { 4-CL } \\ \hline \end{gathered}$ | $\begin{aligned} & 0.29 \\ & 1.05 \\ & 0.89 \\ & 0.73 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~F} \\ & \mathrm{D} \\ & \mathrm{D} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \mathrm{N} \\ & \mathrm{Y} \\ & \mathrm{~N} \\ & \mathrm{~N} \end{aligned}$ |
| La Media <br> Road | Birch Rd. to Lone Star Rd.** Lone Star Rd. to Aviator Rd. Aviator Rd. to Otay Mesa Rd. | $\begin{aligned} & \hline 59 \\ & 60 \\ & 61 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 6-\mathrm{PA} \\ & \text { 6-PA } \\ & \text { 6-PA } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 60,000 \\ & 60,000 \\ & 60,000 \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \mathrm{N} / \mathrm{A} \\ 19,500 \\ 22,500 \\ \hline \end{gathered}$ | $\begin{aligned} & \hline \text { N/A } \\ & 0.33 \\ & 0.38 \\ & \hline \end{aligned}$ | $\begin{gathered} \mathrm{N} / \mathrm{A} \\ \mathrm{~A} \\ \mathrm{~A} \\ \hline \end{gathered}$ | $\begin{aligned} & \hline \mathrm{N} / \mathrm{A} \\ & 4 \mathrm{M} \\ & 4-\mathrm{M} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { N/A } \\ & 0.49 \\ & 0.56 \\ & \hline \end{aligned}$ | $\begin{gathered} \mathrm{N} / \mathrm{A} \\ \mathrm{~B} \\ \mathrm{C} \\ \hline \end{gathered}$ | $\begin{gathered} \mathrm{N} / \mathrm{A} \\ \mathrm{~N} \\ \mathrm{~N} \end{gathered}$ |
|  | Otay Mesa Rd. to SR-905 SR-905 to Airway Rd. Airway Rd. to Siempre Viva Rd | $\begin{aligned} & 62 \\ & 63 \\ & 64 \\ & \hline \end{aligned}$ | 6-PA 6-PA 4-M | $\begin{aligned} & 60,000 \\ & 60,000 \\ & 40,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & 37,500 \\ & 64,000 \\ & 33,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.63 \\ & 1.06 \\ & 0.83 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \mathrm{C} \\ & \mathrm{~F} \\ & \mathrm{D} \\ & \hline \end{aligned}$ | $\begin{array}{r} \mathrm{N} \\ \mathrm{~N} \\ 5-\mathrm{M} \\ \hline \end{array}$ | $0.73$ | $\mathrm{C}$ | N Y N |
| Harvest Road | South of Otay Mesa Rd. Airway Rd. to Otay Center Dr. Otay Center Dr. to Siempre Viva Rd. | $\begin{aligned} & \hline 65 \\ & 66 \\ & 67 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 4-\mathrm{M} \\ & 4-\mathrm{M} \\ & 4-\mathrm{M} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 40,000 \\ & 40,000 \\ & 40,000 \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 8,500 \\ 16,000 \\ 10,000 \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 0.21 \\ & 0.40 \\ & 0.25 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~B} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { 2-CL } \\ & \text { 4-CL } \\ & \text { 4-CL } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.57 \\ & 0.53 \\ & 0.33 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \mathrm{C} \\ & \mathrm{C} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \mathrm{N} \\ & \mathrm{~N} \\ & \mathrm{~N} \end{aligned}$ |

*Segment in County of San Diego
Note: There is no segment \#51 with this alternative.
**Segment in Chula Vista
Segment \#36 was deleted.
\# = Segment Number
(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.
(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.
(3) = Add to Circulation Plan.
(4) = Functional classification shown, not currently classified.

S ? = Significant impact, Yes ( Y ) or No ( N ).
New LOS = LOS after change in classification.
F = Shading indicates a significant impact.

```
Legend
8-M = 8-lane Major Arterial
7-PA = 7-lane Primary Arterial
7-M = 7-lane Major Arterial
6-PA = 6-lane Primary Arterial
6-M = 6-lane Major Arterial
5-M = 5-lane Major Arterial (3SB /2NB)
4-P = 4-lane Primary Arterial
4-M = 4-lane Major Arterial
4-CL = 4-lane Collector (with continuous left turn lane)
4-C = 4-lane Collector (without continuous left turn lane)
2-CL = 2-lane Collector (with continuous left turn lane)
2-CN = 2-lane Collector (no fronting property)
2-C = 2-lane Collector (without continuous left turn lane)
```



FIGURE 7-1
Scenario 3B Without La Media Road Average Daily Traffic

APPENDIX H
PROJECTED HORIZON YEAR 2062 VOLUMES

## Pages from OMCPU 2062 Peak Hour Volumes

APPENDIX D - ATTACHMENT 11

## Buildout AM/PM Peak Hour Traffic - Alternative 3-B

## Without La Media Road



## Pages from OMCPU 2062 Peak Hour Volumes

## APPENDIX D - ATTACHMENT 11 <br> Buildout AM/PM Peak Hour Traffic - Alternative 3-B <br> Without La Media Road



## TABLE ES III-1

Buildout Scenario 3B Without La Media Rd.
Roadway Segments at LOS "E" or "F"

| Street | Segment | \# | (1) Class | LOS E ADT <br> (2) | $\begin{gathered} \text { Segment } \\ \text { ADT } \\ \hline \end{gathered}$ | LOS | New <br> Class | $\begin{gathered} \text { NEW } \\ \text { LOS } \\ \hline \end{gathered}$ | S? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Otay Mesa Road | Caliente Ave. to Corporate Center Dr. <br> Heritage Rd. to Cactus Rd. SR-125 to Harvest Rd. | $\begin{gathered} 2 \\ 5 \\ 11 \end{gathered}$ | $\begin{gathered} \text { 6-PA } \\ \text { 6-PA } \\ \text { 4-M } \end{gathered}$ | $\begin{aligned} & 60,000 \\ & 60,000 \\ & 40,000 \end{aligned}$ | $\begin{aligned} & 72,500 \\ & 76,500 \\ & 36,000 \end{aligned}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~F} \\ & \mathrm{E} \end{aligned}$ | $\begin{gathered} \mathrm{N} \\ \mathrm{~N} \\ \text { 6-PA } \\ \hline \end{gathered}$ | > C | $\begin{aligned} & \mathrm{Y} \\ & \mathrm{Y} \\ & \mathrm{~N} \end{aligned}$ |
| Airway Road | Caliente Ave. to Heritage Rd. <br> Heritage Rd. to Cactus Rd. <br> Cactus Rd. to Britannia Blvd. | $\begin{aligned} & 15 \\ & 16 \\ & 17 \end{aligned}$ | $\begin{aligned} & \text { 4-M } \\ & \text { 4-M } \\ & \text { 4-M } \end{aligned}$ | $\begin{aligned} & \hline 40,000 \\ & 40,000 \\ & 40,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 38,000 \\ & 60,500 \\ & 44,500 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{E} \\ & \mathrm{~F} \\ & \mathrm{~F} \end{aligned}$ | $\begin{gathered} \mathrm{N} \\ \text { 6-PA } \\ \text { 6-M } \end{gathered}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{D} \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{Y} \\ & \mathrm{Y} \\ & \mathrm{~N} \end{aligned}$ |
| Siempre Viva Road | Otay Center Dr. to SR-905 SR-905 to Paseo de las Americas | $\begin{aligned} & 31 \\ & 32 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 6-PA } \\ & \text { 6-PA } \\ & \hline \end{aligned}$ | $\begin{aligned} & 60,000 \\ & 60,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & 60,000 \\ & 63,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{E} \\ & \mathrm{~F} \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{N} \\ & \mathrm{~N} \\ & \hline \end{aligned}$ |  | Y $Y$ |
| Caliente Avenue | Airway Rd. to Beyer Blvd. <br> Beyer Blvd. to Siempre Viva Rd. | $\begin{array}{r} 43 \\ 43 \mathrm{~A} \\ \hline \end{array}$ | $\begin{aligned} & \text { 4-M } \\ & \text { 4-M } \end{aligned}$ | $\begin{aligned} & 40,000 \\ & 40,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & 46,000 \\ & 41,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~F} \\ & \hline \end{aligned}$ | $\begin{gathered} 6-\mathrm{M} \\ \mathrm{~N} \end{gathered}$ | E | $\begin{aligned} & \mathrm{Y} \\ & \mathrm{Y} \end{aligned}$ |
| Heritage Road/ Otay Valley Road | Main St. to Avenida De Las Vistas Avenida De Las Vistas to Datsun St. Datsun St. to Otay Mesa Rd. | $\begin{aligned} & 46 \\ & 47 \\ & 48 \\ & \hline \end{aligned}$ | $\begin{gathered} \text { 6-PA } \\ \text { 6-M } \\ \text { 6-M } \\ \hline \end{gathered}$ | $\begin{array}{r} 60,000 \\ 50,000 \\ 50,000 \\ \hline \end{array}$ | $\begin{aligned} & \hline 83,000 \\ & 75,500 \\ & 48,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~F} \\ & \mathrm{E} \end{aligned}$ | $\begin{gathered} \mathrm{N} \\ \text { 6-PA } \\ \text { 6-PA } \end{gathered}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{C} \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{Y} \\ & \mathrm{Y} \\ & \mathrm{~N} \end{aligned}$ |
| Cactus Road | Otay Mesa Rd. to Airway Rd. Airway Rd. to Siempre Viva Rd. | $\begin{aligned} & 52 \\ & 53 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 4-CL } \\ & \text { 4-CL } \\ & \hline \end{aligned}$ | $\begin{aligned} & 30,000 \\ & 30,000 \end{aligned}$ | $\begin{aligned} & 40,500 \\ & 40,500 \end{aligned}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~F} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { 4-M } \\ & \text { 4-M } \end{aligned}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~F} \end{aligned}$ | $\begin{aligned} & \hline \mathrm{Y} \\ & \mathrm{Y} \end{aligned}$ |
| Britannia Boulevard | SR-905 to Airway Rd. <br> Airway Rd. to Siempre Viva Rd. <br> Siemnre Viva Rd to South End | $\begin{aligned} & \hline 56 \\ & 57 \\ & 58 \\ & \hline \end{aligned}$ | $\begin{aligned} & 4-\mathrm{M} \\ & \text { 4-M } \\ & 2-\mathrm{C} \\ & \hline \end{aligned}$ | $\begin{aligned} & 40,000 \\ & 40,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 63,000 \\ & 44,500 \\ & 22000 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~F} \\ & \mathrm{~F} \end{aligned}$ | $\begin{gathered} 6-\mathrm{PA} \\ 6-\mathrm{M} \\ 4-\mathrm{CL} \\ \hline \end{gathered}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{D} \\ & \mathrm{D} \end{aligned}$ | $\begin{aligned} & \hline \mathrm{Y} \\ & \mathrm{~N} \\ & \mathrm{~N} \\ & \hline \end{aligned}$ |
| La Media Road | SR-905 to Airway Rd. | 63 | 6-PA | 60,000 | 64,000 | F | N | - | Y |

\# = Segment Number
** $=$ Segment is in Chula Vista.
(1) = Current Community Plan Classification unless footnotes (3) or (4) apply.
(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.
(3) = Add to Circulation Plan.
(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).
$\mathrm{N}=$ New classification is not proposed.
New LOS = LOS after change in classification.
= Shading indicates a significant impact.

| Legend |
| :--- |
| 8-M $=$ 8-lane Major Arterial |
| 7-PA $=7$-lane Primary Arterial |
| 7-M $=7$-lane Major Arterial |
| 6-PA $=$ 6-lane Primary Arterial |
| 6-M $=$ 6-lane Major Arterial |
| 5-M $=$ 5-lane Major Arterial (3SB /2NB) |
| 4-P $=$ 4-lane Primary Arterial |
| 4-M $=$ 4-lane Major Arterial |
| 4-CL $=$ 4-lane Collector (with continuous left turn lane) |
| 4-C $=$ 4-lane Collector (without continuous left turn lane) |
| 2-CL $=$ 2-lane Collector (with continuous left turn lane) |
| 2-CN $=$ 2-lane Collector (no fronting property) |
| 2-C $=$ 2-lane Collector (without continuous left turn lane) |



FIGURE 7-1
Scenario 3B Without La Media Road Average Daily Traffic

## HORIZON YEAR (2062) VOLUME DEVELOPMENT

The Horizon Year (2062) volumes were obtained from the Otay Mesa Community Plan Update (OMCPU) Alternative 3-B Buildout Scenario without La Media Road for daily and AM/PM Peak Hour traffic. Peak-hour and daily volumes assumed for community plan buildout in 2062 were taken directly from the Transportation Analysis for OMCPU, dated June 14, 2012 (with corrections dated August 30, 2012). Attachment 7 contains a copy of these volumes.

The first submittal of the TIS included the proposed Project traffic in addition to the Horizon Year (2062) baseline volumes to develop the Horizon Year (2062) with Project scenario. However, this methodology double counted the project traffic originating from the parcel, leading to new impacts that had not been previously identified in the OMCPU Environmental Impact Report (EIR). To develop the Horizon Year (2062) baseline volumes, the proposed Project's trip generation of ( 2,043 daily trips / 306 AM peak-hour trips / 327 PM peak-hour trips) were removed from the network based on the same trip distribution patterns evaluated by the TIS. Therefore, the Horizon Year (2062) Plus Project volumes will be exactly the same as the Horizon Year (2062) volumes from the OMCPU. Attachment 8 contains the volumes to be removed from the Horizon Year (2062) baseline volumes for the intersections and roadway segments, and the updated Horizon Year (2062) baseline traffic volumes.

Roadway Segment of La Media Road, between SR 905 WB Ramps/St. Andrews Ave and SR 905 EB Ramps: This segment was not evaluated by the OMCPU Environmental Impact Report (EIR) and therefore, traffic volume assumptions have been applied.

Figure 4 shows the OMCPU EIR traffic volumes for the Horizon Year analysis.
Figure 4 - OMCPU EIR ADTs


Recommendation: It is recommended that an average of 37,500 and 64,000, for a traffic volume of 50,750 be assumed for this roadway segment, resulting in a LOS D. This analysis result is consistent with MAP and other approved studies nearby, which indicate this segment is not expected to fail in the Horizon Year buildout of OMCPU.

Majestic Airway




HY Baseline Volumes $=$ HY CPU + Volumes Removed

Majestic Airway


## Legend

HY + P = HY Baseline + Project
Majestic Airway


## Legend

## HY Roadway Segment Volumes

| ROADWAY SEGMENT | HORIZON YEAR (2062) CPU CONDITIONS | HORIZON YEAR (2062) without CPU Parcel | HORIZON YEAR (2062) PLUS PROJECT |
| :---: | :---: | :---: | :---: |
|  | ADT | ADT | ADT |
| La Media Road |  |  |  |
| between Otay Mesa Rd and SR 905 WB Ramps/St. Andrews Ave | 37,500 | 37,091 | 37,500 |
| between SR 905 WB Ramps/St. Andrews Ave and SR 905 EB Ramps | 50,750 | 49,780 | 50,750 |
| between SR 905 EB Ramps and Airway Road | 64,000 | 62,468 | 64,000 |
| between Airway Road and Avenida de la Fuente | 33,000 | 32,898 | 33,000 |
| between Avenida de la Fuente and Siempre Viva Road | 21,500 | 21,398 | 21,500 |
| Airway Road |  |  |  |
| between La Media Road and Project Driveway 1 | 31,000 | 29,263 | 31,000 |
| between Project Driveway 1 and Avenida Costa Azul | 31,000 | 30,693 | 31,000 |
| between Avenida Costa Azul and Piper Ranch Road | 34,000 | 33,693 | 34,000 |
| between Piper Ranch Road and Avenida de la Fuente N | 34,000 | 33,693 | 34,000 |
| between Avenida de la Fuente N and Harvest Rd | 34,000 | 33,693 | 34,000 |
| between Harvest Rd and Sanyo Avenue | 26,500 | 26,193 | 26,500 |

K:\SND_LDEV 195208002 - Majestic Airway \Traffic\ANALYSIS\Excel\[095208002_RS01.xIsm]HY Vol Summary for Appendix

| Roadway Segment | CPU Trips Removed |
| :--- | :---: |
| La Media Road |  |
| between Otay Mesa Rd and SR 905 WB Ramps/St. Andrews Ave | -409 |
| between SR 905 WB Ramps/St. Andrews Ave and SR 905 EB Ramps | -970 |
| between SR 905 EB Ramps and Airway Road | $-1,533$ |
| between Airway Road and Avenida de la Fuente | -102 |
| between Avenida de la Fuente and Siempre Viva Road | -102 |
| Airway Road |  |
| between La Media Road and Project Driveway 1 | $-1,737$ |
| between Project Driveway 1 and Avenida Costa Azul | -307 |
| between Avenida Costa Azul and Piper Ranch Road | -307 |
| between Piper Ranch Road and Avenida de la Fuente N | -307 |
| between Avenida de la Fuente N and Harvest Rd | -307 |
| between Harvest Rd and Sanyo Avenue | -307 |

## Int 7 AM Peak Volumes



Scenario: Horizon Year Conditions
N/S Street: Private Driveway / Avenida Costa Azul E/W Street: Airway Rd


## Int 7 PM Peak Volumes



Scenario: Horizon Year Conditions
N/S Street: Private Driveway / Avenida Costa Azul E/W Street: Airway Rd


## Airway Rd and Avenida Costa Azul HY Volume Development

Majestic Airway


| INT 7 AM Balance Calc |  |  |
| :---: | :---: | :---: |
| Int 6 WBT Vol IN | INT 7 WB Volumes Ba | Balance |
| 1148 | 772 | 376 |
| Int 6 EBT Vol |  |  |
| $1301{ }^{\prime}$ | 1186 | 115 |
| INT 7 PM Balance Calc |  |  |
| Int 6 WBT Volumes | es INT 7 WB Volumes | Balance |
| 960 | 601629 | -669 |
| Int 6 EBT Vol |  |  |
| 880 | " 755 | 125 |



APPENDIX I
OMCPU EIR MITIGATIONS \& FAIR SHARE CALCULATIONS

## HORYZON YEAR FAIR-SHARE



* A, B \& C are the number of vehicles entering the intersection during the higher of AM or PM peak hour.


## FAIR SHARE CALCULATION WORKSHEET

Project: Majestic Airway $\quad$ Project \# : 195208002

Date: 20-Sep-23

## HORIZON YEAR (2062) PLUS PROJECT



Where:

FS\% = The equitable share for the proposed project's traffic impact.
A = The Existing traffic volumes entering the facility
$B=$ The Horizon Year without Project traffic volumes entering the facility
$\mathrm{C}=$ The Horizon Year with Project traffic volumes entering the facility

* Fair Share percentage based off of highest peak (AM or PM)

Int \#1 La Media Road \& Otay Mesa Road

Project: Majestic Airway Project \# : 195208002

Date: 20-Sep-23
HORIZON YEAR (2062) PLUS PROJECT

FAIR SHARE RESPONSIBILITY


Where:

FS\% = The equitable share for the proposed project's traffic impact
$A=$ The Existing traffic volumes entering the facility
B = The Horizon Year without Project traffic volumes entering the facility
$C=$ The Horizon Year with Project traffic volumes entering the facilit)
La Media Road between SR 905 WB Ramps/St. Andrews Ave and SR 905 EB Ramps
ADT


| 50,750 |
| :--- |
| 50,750 | $-\frac{49,780}{13,683}=$ 2.62\%

## Airway Road between Avenida Costa Azul and Piper Ranch Road

ADT


| 34,000 | 33,693 |
| :---: | :---: |
| $34,000-3,562$ |  |

1.21\%

Airway Road between Piper Ranch Road and Avenida de la Fuente N
ADT

$\frac{34,000-33,693}{34,000-3,562}=1.21 \%$

Airway Road between Avenida de la Fuente N and Harvest Rd
ADT

$\frac{34,000-33,693}{34,000-3,562}=1.21 \%$

Airway Road between Harvest Rd and Sanyo Avenue
ADT

$$
\mathrm{FS} \%=\frac{\mathrm{C}-\mathrm{B}}{\mathrm{C}-\mathrm{A}}=
$$

$\frac{26,500}{26,500-26,193}=1.70 \%$

## Buildout Recommended Lane Configurations - Alternative 3-B

 Without La Media Road

## Buildout Recommended Lane Configurations - Alternative 3-B

Without La Media Road


TABLE 6-1

## Buildout Scenario 3B With La Media Road

Average Daily Traffic \& Levels of Service

| Street | Segment | \# | (1) <br> Class | LOS E <br> ADT <br> (2) | $\begin{gathered} \text { Segment } \\ \text { ADT } \\ \hline \end{gathered}$ | V/C | LOS | New Class | $\begin{aligned} & \text { New } \\ & \text { V/C } \end{aligned}$ | $\begin{gathered} \text { NEW } \\ \text { LOS } \end{gathered}$ | S? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Otay Mes a Road | Street A to Caliente Ave. <br> Caliente Ave. to Corporate Center Dr. <br> Corporate Center Dr. to Innovative Dr. <br> Innovative Dr. to Heritage Rd. <br> Heritage Rd. to Cactus Rd. <br> Cactus Rd. to Britannia Blvd. <br> Britannia Blvd. to Ailsa Ct. <br> Ailsa Ct. to La Media Rd. <br> La Media Rd. to Piper Ranch Rd. <br> Piper Ranch Rd. to SR-125 <br> SR-125 to Harvest Rd. <br> Harvest Rd. to Sanyo Ave. <br> Sanyo Ave. to Enrico Fermi Dr. |  | 6-PA 6-PA 6-PA 6-PA 6-PA 6-PA 6-PA 7-M 8-M 4-P 4-M 4-M 4-M | 60,000 60,000 60,000 60,000 60,000 60,000 60,000 55,000 70,000 45,000 40,000 40,000 40,000 | 25,500 <br> 71,000 <br> 48,500 <br> 43,500 <br> 69,500 <br> 41,000 <br> 51,000 <br> 47,000 <br> 51,000 <br> 24,500 <br> 33,500 <br> 29,500 <br> 7,500 | 0.43 1.18 0.81 0.73 1.16 0.68 0.85 0.85 0.73 0.54 0.84 0.74 0.19 |  | $\begin{gathered} \text { 6-M } \\ \mathrm{N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \text { 6-PA } \\ \text { 6-PA } \\ \text { 6-PA } \\ \text { 6-PA } \\ \text { 6-PA } \\ \text { 6-PA } \\ \hline \end{gathered}$ | 0.64 - - - - - - 0.78 0.85 0.41 0.56 0.49 0.13 | C <br> C <br> D <br> A <br> C <br> C <br> A | N <br> Y <br> N <br> N <br> N <br> Y <br> N <br> N <br> N <br> N <br> N <br> N <br> N |
| Airway Road | Old Otay Mesa Rd. to Caliente Ave. Caliente Ave. to Heritage Rd. <br> Heritage Rd. to Cactus Rd. <br> Cactus Rd. to Britannia Blvd. <br> Britannia Blvd. to La Media Rd. <br> La Media Rd. to Harvest Rd. <br> Harvest Rd. to Sanyo Ave. <br> Sanyo Ave. to Paseo de las Americas <br> Paseo de las Americas to Michael Faraday Dr. <br> Michael Faraday Dr. to Enrico Fermi Dr. <br> Enrico Fermi Dr. to Siempre Viva Rd.* | $\begin{aligned} & 14 \\ & 15 \\ & 16 \\ & 17 \\ & 18 \\ & 19 \\ & 20 \\ & 21 \\ & 22 \\ & 23 \\ & 24 \end{aligned}$ | $\begin{aligned} & \text { 4-CL } \\ & \text { 4-M } \\ & \text { 4-M } \\ & \text { 4-M } \\ & \text { 4-M } \\ & \text { 4-M } \\ & \text { 4-M } \\ & \text { 4-M } \\ & \text { 4-M } \\ & \text { 4-M } \\ & \text { 4-M } \end{aligned}$ | 30,000 40,000 40,000 40,000 40,000 40,000 40,000 40,000 40,000 40,000 40,000 | 71,000 36,000 58,000 43,000 34,000 32,000 26,000 9,500 9,000 12,000 12,500 | $\begin{aligned} & 0.25 \\ & 0.90 \\ & 1.45 \\ & 1.07 \\ & 0.85 \\ & 0.80 \\ & 0.65 \\ & 0.24 \\ & 0.23 \\ & 0.30 \\ & 0.31 \\ & \hline \end{aligned}$ | $\begin{gathered} \mathrm{A} \\ \mathrm{E} \\ \mathrm{~F} \\ \mathrm{~F} \\ \mathrm{D} \\ \mathrm{D} \\ \mathrm{C} \\ \mathrm{~A} \\ \mathrm{~A} \\ \mathrm{~A} \\ \mathrm{~A} \end{gathered}$ | $\begin{gathered} \mathrm{N} \\ \mathrm{~N} \\ 6-\mathrm{PA} \\ 6-\mathrm{M} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \hline \end{gathered}$ | $\begin{aligned} & 0.97 \\ & 0.86 \end{aligned}$ | E <br> D | N Y Y N N N N N N N N |
| Siempre Viva Road | Caliente Ave. to West Terminus <br> Cactus Rd. to Britannia Blvd. <br> Britannia Blvd. to La Media Rd. <br> La Media Rd. to Harvest Rd. <br> Harvest Rd. to Otay Center Dr. <br> Otay Center Dr. to SR-905 <br> SR-905 to Paseo de las Americas <br> Paseo de las Americas to Michael Faraday Dr. <br> Michael Faraday Dr. to Enrico Fermi Dr. <br> Enrico Fermi Dr. to SR-11* | $\begin{aligned} & 25 \\ & 27 \\ & 28 \\ & 29 \\ & 30 \\ & 31 \\ & 32 \\ & 33 \\ & 34 \\ & 35 \end{aligned}$ | $\begin{aligned} & \text { 4-M } \\ & \text { 6-PA } \\ & \text { 6-PA } \\ & \text { 6-PA } \\ & \text { 6-PA } \\ & \text { 6-PA } \\ & \text { 6-PA } \\ & \text { 4-M } \\ & \text { 4-M } \\ & \text { 4-M } \end{aligned}$ | $\begin{aligned} & \hline 40,000 \\ & 60,000 \\ & 60,000 \\ & 60,000 \\ & 60,000 \\ & 60,000 \\ & 60,000 \\ & 40,000 \\ & 40,000 \\ & 40,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 10,000 \\ & 36,000 \\ & 41,500 \\ & 39,000 \\ & 32,500 \\ & 58,500 \\ & 62,500 \\ & 23,000 \\ & 21,000 \\ & 17,500 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.25 \\ & 0.60 \\ & 0.69 \\ & 0.65 \\ & 0.54 \\ & 0.98 \\ & 1.04 \\ & 0.58 \\ & 0.53 \\ & 0.44 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { A } \\ & \text { C } \\ & \text { C } \\ & \text { C } \\ & \text { B } \\ & \text { E } \\ & \text { F } \\ & \text { C } \\ & \text { B } \\ & \text { B } \end{aligned}$ | $\begin{gathered} \hline 2-\mathrm{CL} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \hline \end{gathered}$ | $0.67$ | C | N N N N N N Y Y N N N |

*Segment in County of San Diego
Note: There is no segment \#26 with this alternative.
\# = Segment Number
(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.
$(2)=$ Source: City of San Diego Traffic Impact Study Manual, Table 2.
(3) = Add to Circulation Plan.
$(4)=$ Functional classification shown, not currently classified.
S? = Significant impact, Yes (Y) or No (N).
New LOS = LOS after change in classification.
= Shading indicates a significant impact.

```
Legend
8-M = 8-lane Major Arterial
7-PA = 7-lane Primary Arterial
7-M = 7-lane Major Arterial
6-PA = 6-lane Primary Arterial
6-M=6-lane Major Arterial
5-M = 5-lane Major Arterial (3SB/2NB)
4-P = 4-lane Primary Arterial
4-M = 4-lane Major Arterial
4-CL = 4-lane Collector (with continuous left turn lane)
4-C = 4-lane Collector (without continuous left turn lane)
2-CL = 2-lane Collector (with continuous left turn lane)
2-CN = 2-lane Collector (no fronting property)
2-C = 2-lane Collector (without continuous left turn lane)
```

TABLE 6-1 (Continued)

## Buildout Scenario 3B With La Media Road

## Average Daily Traffic \& Levels of Service

| Street | Segment | \# | (1) <br> Class | $\begin{gathered} \hline \text { LOS E } \\ \text { ADT } \\ (2) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Segment } \\ \text { ADT } \\ \hline \end{gathered}$ | V/C | LOS | $\begin{gathered} \text { New } \\ \text { Class } \\ \hline \end{gathered}$ | New <br> V/C | $\begin{aligned} & \text { NEW } \\ & \text { LOS } \end{aligned}$ | S? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Palm Avenue | I-805 to Dennery Rd. | 37 | 7-PA | 65,000 | 58,000 | 0.89 | D | N | - | - | N |
| Ocean View Hills Parkway | Dennery Rd. to Del Sol Blvd. <br> Del Sol Blvd. to Street "A" <br> Street "A" to Otay Mesa Rd. | $\begin{array}{r} 38 \\ 39 \\ 40 \\ \hline \end{array}$ | $\begin{aligned} & \text { 4-M } \\ & \text { 6-M } \\ & \text { 6-M } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 40,000 \\ & 50,000 \\ & 50,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & 21,000 \\ & 33,500 \\ & 22,500 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.53 \\ & 0.67 \\ & 0.45 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{C} \\ & \mathrm{~B} \end{aligned}$ | $\begin{aligned} & \mathrm{N} \\ & \mathrm{~N} \\ & \mathrm{~N} \end{aligned}$ |  |  | $\begin{aligned} & \mathrm{N} \\ & \mathrm{~N} \\ & \mathrm{~N} \end{aligned}$ |
| Caliente Avenue | Otay Mesa Rd. to SR-905 SR-905 to Airway Rd. <br> Airway Rd. to Beyer Blvd. <br> Beyer Blvd. to Siempre Viva Rd. | $\begin{gathered} 41 \\ 42 \\ 43 \\ 43 \mathrm{~A} \\ \hline \end{gathered}$ | $\begin{aligned} & 6-\mathrm{M} \\ & 6-\mathrm{M} \\ & 4-\mathrm{M} \\ & 4-\mathrm{M} \\ & \hline \end{aligned}$ | $\begin{aligned} & 50,000 \\ & 50,000 \\ & 40,000 \\ & 40,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & 38,000 \\ & 31,500 \\ & 45,500 \\ & 41,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.76 \\ & 0.63 \\ & 1.14 \\ & 1.03 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{C} \\ & \mathrm{C} \\ & \mathrm{~F} \\ & \mathrm{~F} \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 6-\mathrm{PA} \\ 6-\mathrm{PA} \\ 6-\mathrm{M} \\ \mathrm{~N} \\ \hline \end{gathered}$ | $\begin{gathered} \hline 0.50 \\ 0.53 \\ 0.91 \\ - \end{gathered}$ | B <br> B <br> E | $\begin{aligned} & \mathrm{N} \\ & \mathrm{~N} \\ & \mathrm{Y} \\ & \mathrm{Y} \\ & \hline \end{aligned}$ |
| Beyer Boulevard | Alaquinas Dr. to Old Otay Mesa Rd. Old Otay Mesa Rd. to Caliente Ave (3) | $\begin{aligned} & 44 \\ & 45 \end{aligned}$ | $\begin{aligned} & 4-\mathrm{M} \\ & 4-\mathrm{M} \end{aligned}$ | $\begin{aligned} & 40,000 \\ & 40,000 \end{aligned}$ | $\begin{aligned} & 32,000 \\ & 30,500 \end{aligned}$ | $\begin{aligned} & \hline 0.80 \\ & 0.76 \end{aligned}$ | $\begin{aligned} & \mathrm{D} \\ & \mathrm{C} \end{aligned}$ | $\begin{aligned} & \mathrm{N} \\ & \mathrm{~N} \end{aligned}$ |  |  | N N |
| Heritage Road/ <br> Otay Valley Road | Main St. to Avenida De Las Vistas** Avenida De Las Vistas to Datsun St. Datsun St. to Otay Mesa Rd. <br> Otay Mesa Rd. to SR-905 SR-905 to Airway Rd. | $\begin{aligned} & 46 \\ & 47 \\ & 48 \\ & 49 \\ & 50 \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 6-\mathrm{PA} \\ 6-\mathrm{M} \\ \text { 6-M } \\ \text { 6-M } \\ \text { 6-M } \\ \hline \end{gathered}$ | $\begin{aligned} & 60,000 \\ & 50,000 \\ & 50,000 \\ & 50,000 \\ & 50,000 \end{aligned}$ | 69,500 <br> 62,500 <br> 44,000 <br> 17,000 <br> 34,500 | $\begin{aligned} & 1.16 \\ & 1.25 \\ & 0.88 \\ & 0.34 \\ & 0.69 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~F} \\ & \mathrm{D} \\ & \mathrm{~B} \\ & \mathrm{C} \end{aligned}$ | $\begin{gathered} \mathrm{N} \\ \text { 6-PA } \\ \text { 6-PA } \\ \text { 6-PA } \\ \text { 6-PA } \end{gathered}$ | $\begin{gathered} - \\ 1.04 \\ 0.73 \\ 0.28 \\ 0.58 \\ \hline \end{gathered}$ | F <br> C <br> A <br> B | $\begin{aligned} & \hline Y \\ & Y \\ & N \\ & N \\ & N \end{aligned}$ |
| Cactus Road | Otay Mesa Rd. to Airway Rd. Airway Rd. to Siempre Viva Rd. Siempre Viva Rd. to South End | $\begin{aligned} & 52 \\ & 53 \\ & 54 \end{aligned}$ | $\begin{aligned} & \text { 4-CL } \\ & \text { 4-CL } \\ & \text { 2-CL } \end{aligned}$ | $\begin{aligned} & 30,000 \\ & 30,000 \\ & 15,000 \end{aligned}$ | $\begin{aligned} & 41,500 \\ & 40,000 \\ & 11,000 \end{aligned}$ | $\begin{aligned} & 1.38 \\ & 1.33 \\ & 0.73 \end{aligned}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~F} \\ & \mathrm{D} \end{aligned}$ | $\begin{gathered} 4-\mathrm{M} \\ 4-\mathrm{M} \\ \mathrm{~N} \end{gathered}$ | $\begin{gathered} 1.04 \\ 1.00 \\ - \end{gathered}$ | F | $\begin{aligned} & \mathrm{Y} \\ & \mathrm{Y} \\ & \mathrm{~N} \end{aligned}$ |
| Britannia <br> Boulevard | Otay Mesa Rd. to SR-905 SR-905 to Airway Rd. <br> Airway Rd. to Siempre Viva Rd. Siempre Viva Rd. to South End | $\begin{aligned} & 55 \\ & 56 \\ & 57 \\ & 58 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 4-\mathrm{M} \\ & 4-\mathrm{M} \\ & 4-\mathrm{M} \\ & 2-\mathrm{C} \end{aligned}$ | $\begin{gathered} 40,000 \\ 40,000 \\ 40,000 \\ 8,000 \end{gathered}$ | $\begin{aligned} & \hline 18,500 \\ & 63,500 \\ & 45,000 \\ & 22,000 \end{aligned}$ | $\begin{aligned} & 0.46 \\ & 1.59 \\ & 1.10 \\ & 2.75 \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{~F} \\ & \mathrm{~F} \\ & \mathrm{~F} \end{aligned}$ | $\begin{gathered} \text { 6-PA } \\ \text { 6-PA } \\ \text { 6-M } \\ 4-\mathrm{CL} \end{gathered}$ | $\begin{aligned} & \hline 0.31 \\ & 1.06 \\ & 0.90 \\ & 0.73 \end{aligned}$ | $\begin{gathered} \mathrm{A} \\ \mathrm{~F} \\ \mathrm{D} \\ \mathrm{D} \\ \hline \end{gathered}$ | N Y N N |
| La Media Road | Birch Rd. to Lone Star Rd.** Lone Star Rd. to Aviator Rd. Aviator Rd. to Otay Mesa Rd. Otay Mesa Rd. to SR-905 SR-905 to Airway Rd. Airway Rd. to Siempre Viva Rd. | $\begin{aligned} & 59 \\ & 60 \\ & 61 \\ & 62 \\ & 63 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6-\mathrm{PA} \\ & 6-\mathrm{PA} \\ & 6-\mathrm{PA} \\ & 6-\mathrm{PA} \\ & 6-\mathrm{PA} \\ & 4-\mathrm{M} \end{aligned}$ | 60,000 60,000 60,000 60,000 60,000 40,000 | $\begin{aligned} & \hline 64,000 \\ & 51,000 \\ & 50,000 \\ & 46,500 \\ & 67,500 \\ & 35,000 \\ & \hline \end{aligned}$ | 1.07 0.85 0.83 0.78 1.13 0.88 | F <br> D <br> C <br> C <br> F <br> D | $\begin{gathered} \hline \mathrm{N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \mathrm{~N} \\ \hline \text { 5-M } \end{gathered}$ | $\begin{gathered} - \\ - \\ - \\ - \\ - \\ 0.78 \\ \hline \end{gathered}$ | D | Y N N N Y N |
| Harvest Road | South of Otay Mesa Rd. <br> Airway Rd. to Otay Center Dr. <br> Otay Center Dr. to Siempre Viva Rd. | $\begin{aligned} & 65 \\ & 66 \\ & 67 \end{aligned}$ | $\begin{aligned} & \text { 4-M } \\ & \text { 4-M } \\ & \text { 4-M } \end{aligned}$ | $\begin{aligned} & 40,000 \\ & 40,000 \\ & 40,000 \end{aligned}$ | $\begin{gathered} \hline 8,500 \\ 15,500 \\ 10,000 \\ \hline \end{gathered}$ | $\begin{aligned} & 0.21 \\ & 0.39 \\ & 0.25 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { A } \\ & \text { B } \\ & \text { A } \end{aligned}$ | $\begin{aligned} & \text { 2-CL } \\ & \text { 4-CL } \\ & \text { 4-CL } \end{aligned}$ | $\begin{aligned} & 0.57 \\ & 0.52 \\ & 0.33 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{A} \\ & \mathrm{C} \\ & \mathrm{~A} \end{aligned}$ | $\begin{aligned} & \mathrm{N} \\ & \mathrm{~N} \\ & \mathrm{~N} \end{aligned}$ |

*Segment in County of San Diego
**Segment in Chula Vista
\# = Segment Number
(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.
(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.
(3) = Add to Circulation Plan.
(4) = Functional classification shown, not currently classified.

S ? = Significant impact, Yes ( Y ) or No ( N ).
New LOS = LOS after change in classification.
= Shading indicates a significant impact.

Note: There is no segment \# 51 with this alternative.
Segment \#36 was deleted.

Legend
8-M = 8-lane Major Arterial
7-PA = 7-lane Primary Arterial
7-M = 7-lane Major Arterial
6-PA $=6$-lane Primary Arterial
6-M = 6-lane Major Arterial
5-M = 5-lane Major Arterial (3SB /2NB)
4-P = 4-lane Primary Arterial
4-M = 4-lane Major Arterial
4-CL = 4-lane Collector (with continuous left turn lane)
4-C = 4-lane Collector (without continuous left turn lane)
2-CL = 2-lane Collector (with continuous left turn lane)
2-CN = 2-lane Collector (no fronting property)
2-C = 2-lane Collector (without continuous left turn lane)

APPENDIX J
TRANSIT INFORMATION

Exact fare, please Favor de pagar la cantidad exacta

| Fares <br> Tarifas | Adult <br> Adulto | Senior/Disabled/ <br> Medicare/Youth* <br> Mersonas Mayores/con <br> Discapaciddades/Medicare/Joveness |
| :---: | :---: | :---: |
| ONE-WAY FARES <br> Tarifas Sencillas | $\$ 2.50$ | $\$ 1.25$ |
| EARNED DAY PASS <br> Pase del Dia Ganado | $\$ 6.00$ | $\$ 3.00$ |
| MONTH PASS <br> 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 Dia
Pases Mensuales. Toca tu tarieta 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 Day Pon pagos en efectivo.
day Passes not sold in advance. Earned with PRONTO. Los pase A month pass can be purchased in oblienen con PRONTO. PRONTO. Good from first day to last day of the month. EI Pase Mensual se puede comprar por adelantado o se obtiene mientras viaja con PRONTO. Válido desde el primer día hasta el último dia del mes.

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

DIRECTORY / Directorio

| DIRECTORY / Directorio | 511 <br> or/ó |
| :--- | ---: |
| MTS Information \& Trip Planning <br> MTS Información y planeo de viaje | (619) 233-3004 |
| TTY/TDD (teletype for hearing impaired) <br> Teletipo para sordos | (619) 234-5005 <br> or/ó |
| InfoExpress <br> (24-hour info via Touch-Tone phone) <br> Información las 24 horas (via teléfono de teclas) | (619) 685-4900 |
| Customer Service / Suggestions <br> Servicio al cliente / Sugerencias | (619) 557-4555 |
| MTS Security <br> MTS Seguridad | (619) 595-4960 |
| Lost \& Found <br> Objetos extraviados | (619) 233-3004 |
| Transit Store | 12th \& Imperial Transit Center |
| M-F 8am-5pm |  |

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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, visita a sdmts.com.
Thank you for riding MTS! iGracias por viajar con MTS!

905

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

## DESTINATION

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

Otay Mesa (909)

## ©

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Route Alerts, Update
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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.

| Otay Mesa $\Rightarrow$ Iris Avenue |  | Iris Avenue $\boldsymbol{\square}$ Otay Mesa |  |
| :---: | :---: | :---: | :---: |
| (E) | (A) | (A) | (E) |
| Otay Mesa | Iris Avenue | Iris Avenue | Otay Mesa |
| Transit Center DEPART | Transit Center ARRIVE | Transit Center DEPART | Transit Center ARRIVE |
| 4:30a | 4:44a | 12:15p | 12:29p |
| 4:45 | 4:59 | 12:44 | 12:59 |
| 5:00 | 5:14 | 1:15 | 1:29 |
| 5:12 | 5:26 | 1:42 | 1:56 |
| 5:24 | 5:38 | 2:02 | 2:16 |
| 5:36 | 5:50 | 2:22 | 2:36 |
| 5:48 | 6:02 | 2:42 | 2:56 |
| 6:00 | 6:14 | 3:02 | 3:16 |
| 6:12 | 6:26 | 3:22 | 3:36 |
| 6:24 | 6:38 | 3:42 | 3:56 |
| 6:36 | 6:50 | 4:02 | 4:16 |
| 6:48 | 7:02 | 4:22 | 4:36 |
| 7:00 | 7:14 | 4:42 | 4:56 |
| 7:12 | 7:26 | 5:02 | 5:16 |
| 7:24 | 7:38 | 5:22 | 5:36 |
| 7:36 | 7:50 | 5:42 | 5:56 |
| 7:48 | 8:02 | 6:02 | 6:16 |
| 8:04 | 8:18 | 6:22 | 6:36 |
| 8:24 | 8:38 | 6:42 | 6:56 |
| 8:44 | 8:58 | 7:02 | 7:16 |
| 9:04 | 9:18 | 7:23 | 7:37 |
| 9:24 | 9:38 | 7:53 | 8:07 |
| 9:44 | 9:58 | 8:23 | 8:37 |
| 10:15 | 10:29 |  |  |
| 10:45 | 10:59 |  |  |
| 11:15 | 11:29 |  |  |
| 11:45 | $11: 59$ |  |  |
| 12:15p | 12:29p |  |  |

Route 950 - Saturday / sábado

| Otay Mesa $\Rightarrow$ Iris Avenue |  |
| :---: | :---: |
| (E) | (A) |
| Otay Mesa | Iris Avenue |
| Transit Center | 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 $\boldsymbol{\rightarrow}$ Otay Mesa |  |
| :---: | :---: |
| (A) | (E) |
| Iris Avenue | Otay Mesa |
| Transit Center DEPART | 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 $\Rightarrow$ Iris Avenue |  | Iris Avenue $\Rightarrow$ Otay Mesa |  |
| :---: | :---: | :---: | :---: |
| (E) | (A) | (A) | (E) |
| Otay Mesa Transit Center DEPART | Iris Avenue Transit Center ARRIVE | Iris Avenue Transit Cen DEPART | Otay Mesa Transit Center ARRIVE |
| 5:15a | 5:29a | 12:23p | 12:37p |
| 5:45 | 5:59 | 1:23 | 1:37 |
| 6:15 | 6:29 | 2:08 | 2:22 |
| 6:45 | 6:59 | 2:38 | 2:52 |
| 7:15 | 7:29 | 3:08 | 3:22 |
| 7:45 | 7:59 | 3:38 | 3:52 |
| 8:15 | 8:29 | 4:08 | 4:22 |
| 8:45 | 8:59 | 4:38 | 4:52 |
| 9:15 | 9:29 | 5:08 | 5:22 |
| 10:00 | 10:14 | 5:38 | 5:52 |
| 11:00 | 11:14 | 6:23 | 6:37 |
| 12:00p | 12:14p | 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

dias festivos y feriados observados $\gg$| New Year's Day, Presidents' Day, |
| :--- |
| Memorial Day, Independence Day, |
| Labor Day, Thanksgiving, Christmas |

| Otay Mesa $\Rightarrow$ Iris Avenue Transit Center |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| (E) | (D) | (C) | (B) | (A) |
| Otay Mesa Transit Center DEPART | Siempre Viva Rd. \& Drucker Lane | Otay Mesa Rd. Britannia BI. | $\begin{gathered} \mathrm{SR}-905 \\ \& \\ \text { Caliente Av. } \end{gathered}$ | 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 |


| Iris Avenue Transit Center $\Rightarrow$ Otay Mesa |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| (A) | (B) | (C) | (D) | (E) |
| Iris Avenue Transit Center DEPART | $\begin{gathered} \mathrm{SR}-905 \\ \& \\ \text { Caliente Av. } \end{gathered}$ | Otay Mesa Rd. \& Britannia BI. | 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 |
| = Trip operates w te viaje opera du 30AM). | sidro High Sch ias escolares | \& classes dro High School y | regular bell schedu las clases comien | AM). horario regular |

Route 905 - Saturday / sábado

| Otay Mesa $\Rightarrow$ Iris Avenue Transit Center |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| (E) | (D) | (C) | (B) | (A) |
| Otay Mesa Transit Center DEPART | Siempre Viva Rd. \& | Otay Mesa Rd. \& |  | 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 $\Rightarrow$ Otay Mesa |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| (A) | (B) | (C) | (D) | (E) |
| Iris Avenue Transit Center DEPART | $\begin{gathered} \text { SR-905 } \\ \& \\ \text { Caliente Av. } \end{gathered}$ | Otay Mesa Rd. <br> Britannia BI. | 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



## APPENDIX K

CA MUTCD SIGNAL WARRANT ANALYSIS

## TRAFFIC SIGNAL WARRANT ANALYSIS

A traffic signal warrant analysis was conducted for the proposed signalized intersection of Airway Road \& Project Driveway 1 to determine if installation of a traffic signal would be justified at the intersection. The signal warrant analysis was performed in accordance with the CA MUTCD ${ }^{1}$ for the Existing (2022) Plus Project Conditions and Opening Day (Year 2025) Plus Project scenarios.

The Existing (2022) Plus Project traffic volumes evaluated are based on the 24 -Hour roadway segment volumes, collected by NDS on Thursday August 4, 2022, and the Project's daily trip generation/assignment at the intersection approaches. The existing traffic volumes collected along Airway Road, east of the existing access driveway on south side of Airway Road. These daily traffic volumes are substantially lower ( 7,244 daily trips) than the volumes collected along Airway Road, between La Media Road and existing access driveway ( 9,312 daily trips). Therefore, a large portion the current traffic generated by existing development to the south (from the west) was not included in the existing traffic volumes.

The Opening Day (Year 2025) Plus Project traffic volumes evaluated are based on the same assumptions as Existing (2022) Plus Project traffic volumes, with the addition of cumulative project ADTs expected to be generated along the segment of Airway Road, east of La Media Road (4,027 daily trips).

## Warrant Analysis - Average Daily Traffic

Since the intersection of Airway Road and Project Driveway 1 is not an existing intersection, Figure 4C-103 (CA) Traffic Signal Warrant Worksheet (Average Traffic Estimate Form) was used to perform the signal warrant analysis. Table A summarizes the findings of traffic signal warrant analysis. Attachment 1 contains the traffic signal warrant worksheets based on daily traffic.

Table A Traffic Signal Warrant Analysis Summary

| Intersection | ADT Warrant (Figure 4C-103) |  |  |
| :---: | :---: | :---: | :---: |
|  | Condition A | Condition B | Condition C |
| Existing (2022) Plus Project Conditions |  |  |  |
|  <br> Project Driveway 1 | Not Satisfied | Not Satisfied | Not Satisfied |
| Opening Day (Year 2025) Plus Project |  |  |  |

[^3]As shown in Table A, Conditions A, Conditions B and the Combination Warrant ( $80 \%$ ) are not met for the Existing (2025) Plus Project Conditions. With the addition traffic generated by the cumulative project, Condition B is met for Opening Day (Year 2025) Plus Project. Therefore, a traffic signal is warranted at the future intersection of Airway Road \& Project Driveway 1 for the Opening Day (Year 2025) Plus Project scenario based on CA MUTCD Average Traffic Estimate Form (Figure 4C-103).

California MUTCD 2014 Edition $\begin{aligned} & E \times 15+1 N G\{(Z O Z 2) \\ & \text { (FHWA's MUTCD } 2009 \text { Edition, including Revisions } 1 \& 2 \text {, as amended for use in California) }\end{aligned} \quad$ Pro
100
153 Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)


Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal. (FHWA's MUTCD 2009 Edition, including Revisions 1 \& 2, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet

| COUNT DATE 8 / $4 / 2022$ |  |
| :---: | :---: |
| CALC | DATE |
| CHK | DATE |
| Critical Approach Speed | $>40$ |
| Critical Approach Speed | $\leq 40$ |

## - Prasect <br> volumes

Speed limit or critical speed on major street traffic > 40 mph

In built up area of isolated community of $<10,000$ population. $\qquad$
(Based on Estimated Average Daily Traffic - See Note)


Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

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

## APPENDIX L

AIRWAY ROAD RECOMMENDED WIDENING CONCEPT


APPENDIX M
OTAY MESA TRUCK ROUTE PHASE 4 ESTIMATED PROJECT SCHEDULE


## Estimated Project Dollar Amount ${ }^{(1)}$

A. Total Project Cost: ${ }^{(1)} \quad \$ 19,823,494$

Construction Activity

| A. Estimated Construction Contract Amount: ${ }^{(1)}$ | $\$ 11,744,228$ |
| :--- | :--- |
| B. Funding Status: ${ }^{(3)}$ | Fully Funded |
| C. Contractor: | Hazard Construction |
| D. Expected Contract Duration: ${ }^{(1)}$ | 40 Months |

Additional Remarks

| None |
| :--- | :--- |
| Form PWD1502 Updated As Of: 08/01/2023 |


[^0]:    ${ }^{1}$ California Manual on Uniform Traffic Control Devices, (FHWA's MUTCD 2009 Edition, including Revisions 1 \& 2 as amended for use in California), 2014 Edition, Revision 6 (March 30, 2021)

[^1]:    CBA MASTER OFFSET

[^2]:    1 TYPE OF MAX TERMINATION 2 MAX 2

    4 COND SERV（1ST SELECT）
    5 COND SERV（2ND SELECT）
    6 ENERGIZE AUX OUTPUT－RED
    7 ENERGIZE AUX OUTPUT－GREEN

[^3]:    ${ }^{1}$ California Manual on Uniform Traffic Control Devices, (FHWA's MUTCD 2009 Edition, including Revisions 1 \& 2 as amended for use in California), 2014 Edition, Revision 6 (March 30, 2021)

