APPENDIX E
TRAFFIC REPORT

FOCUSED TRAFFIC ANALYSIS FOR GENERAL PLAN LEVEL OF SERVICE CONFORMANCE AND VEHICLE MILES TRAVELED (VMT) ANALYSIS

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PROPOSED CACTUS NORTH WAREHOUSE

VICTORVILLE, CALIFORNIA

Prepared by:

DAVID EVANS AND ASSOCIATES INC.

DRAFT REPORT
April 10, 2024

DAVID EVANS
AND ASSOCIATES INC.

April 10, 2024 Job No. PIXI5AMG-0003

Simon Bouzaglou
55555 Amargosa LLC
5901 South Eastern Avenue
Commerce, CA 90040

RE: DRAFT FOCUSED TRAFFIC ANALYSIS FOR GENERAL PLAN LEVEL OF SERVICE CONFORMANCE AND VEHICLE MILES TRAVELED (VMT) ANALYSIS FOR PROPOSED CACTUS NORTH WAREHOUSE AT NWC OF CACTUS ROAD AND MESA LINDA ROAD, VICTORVILLE, CA 92308, A.P.N. # 3128-571-07, 08

Dear Mr. Bouzaglou,

David Evans and Associates, Inc. is pleased to submit this focused traffic study for your proposed project located at the northwest corner of Cactus Road and Mesa Linda Avenue in the City of Victorville, California. This study includes an evaluation of the project's conformance with the city's General Plan level of service policies as well as a Vehicle Miles Traveled (VMT) screening assessment to determine and document whether a VMT analysis is required under the California Environmental Quality Act (CEQA).

This study was prepared in accordance with the City of Victorville's Vehicle Miles Traveled (VMT) Analysis Guidelines as defined in Resolution 20-031 adopted by the City Council in May 2020, Victorville's General Guidelines for Conducting Traffic Studies and Determination of Intersection Level of Service and Improvement Needs (January 2005 as amended over time), and San Bernardino County's Transportation Impact Study Guidelines (July 2019). The technical scope of this study has been prepared in coordination with the City of Victorville Engineering Department requirements and scope of work approved prior to this report.

We are pleased to have been of assistance to you in processing and obtaining approval for the project. If you have any questions or comments, please feel free to contact me at 909-912-7304.

Respectfully submitted,

DAVID EVANS AND ASSOCIATES, INC.

James M. Daisa, P.E.
Senior Project Manager



DAVID EVANS AND ASSOCIATES INC.

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1 EXECUTIVE SUMMARY

This executive summary presents the findings and recommendations of this study.

1.1 Project Description

The project site is located on the northwest corner of the future intersection of Cactus Road and Mesa Linda Avenue in the City of Victorville, California. The proposed project is to construct two buildings with 86,995 square feet of warehousing for each (a total of 173,990 square feet). Each warehouse building is comprised of 80,085 square feet of warehouse, and 6,910 square feet of offices (3,973 square feet on the lower level and 2,937 square feet on the upper level). Each warehouse includes 14 truck loading docks, and 72 automobile parking spaces.

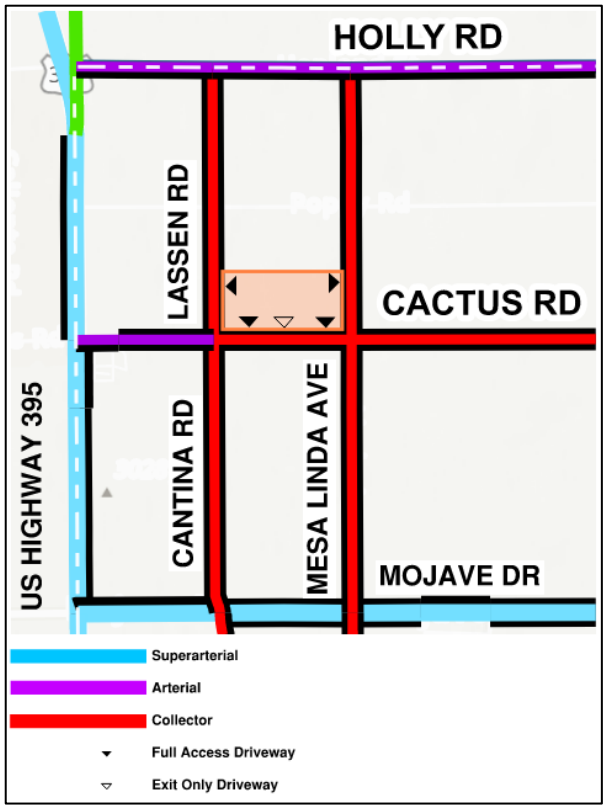
The proposed project is bounded to the north by vacant/undeveloped properties, to the south by Cactus Road, to the east by unimproved Mesa Linda Avenue, and to the west by undeveloped/future Lassen Road.

Access to the site is proposed from a full access driveway on Lassen Road, a full access driveway on Mesa Linda Road, two full access driveways on Cactus Road for passenger vehicles to access parking, and a third exit only driveway on Cactus Road for trucks. Trucks ingress to the secure loading dock area from the Lassen Road and Mesa Linda Avenue driveways. All trucks egress from the center "exit only" gated driveway onto Cactus Road.

1.2 City of Victorville Level of Service Standards

The city's peak hour level of service standard is LOS D. An intersection found to operate with a volume to capacity (V/C) ratio greater than 0.99 or with a control delay greater than 35 seconds per vehicle (i.e., LOS E or F) is considered deficient.

If a development project would worsen the peak hour level of service from a LOS D or better to a LOS E or LOS F, it is considered an impact that requires improvement to return the level of service to pre-project conditions. If a development project increases the peak hour control delay at an already deficient intersection by two percent or more, it is considered a significant impact that requires improvement to return the level of service to pre-project conditions.



1.3 General Plan Circulation System

Mojave Drive is classified as a superarterial street in the city's general plan circulation element. This classification affects the spacing and allowable traffic control at intersections. Designated truck routes serving the area include US 395 and Mojave Drive.

The proposed project relies on driveway access from city streets that surround the project site and the connections these streets make to the city's overall circulation system. Access to the site will be from driveways proposed on Lassen Road (currently a dirt road), Mesa Linda Ave (currently a dirt road), and Cactus Road (currently a dirt road).

The project's proposed circulation and access plan includes extending and constructing the northern half of Cactus Road from Mesa Linda Avenue to the current terminus east of Highway 395; constructing the eastern half of Lassen Road from its northern

property line to Cactus Road; and constructing the western half of Mesa Linda Avenue from the northern property line to Cactus Road. The project will be conditioned to construct the required half width of each fronting street plus one additional travel to allow for two-way circulation. The segment of Mesa Linda Avenue from Cactus Road to Mojave Drive is proposed to be constructed by other development but the city may condition the project to contribute to its construction so that it has access to Mojave Drive's truck route.

1.4 Level of Service Comparison With and Without the Proposed Project

1.4.1 Near-Term Opening Day (2026) Impacts

A comparison of intersection level of service between Background Conditions and Background Plus Project Conditions (opening day scenario) is used to identify near-term level of service deficiencies that are cumulative in nature. Background ambient growth is comprised of traffic from regional development[1], and traffic from development within the *Highway 395 and Mojave Industrial Complex* comprised of approved development projects in the immediate vicinity of the proposed project required by the city to be included in this study. Background Plus Project growth simply adds project generated traffic to background growth. A cumulative deficiency is typically mitigated by new development that adds traffic to the deficiency—each development contributing their fair-share of the cost of improving the deficit.

Table 1-1 compares the Background and Background Plus Project weekday peak hour level of service at the study intersections. Background conditions represent the project's opening year of 2026, and the traffic projections include the components of growth described in the previous paragraph.

Table 1-1: Comparison of Background and Background + Project Intersection Levels of Service

Intersection	Control Type	Background Conditions				Background + Project Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Highway 395 / Cactus Rd	TS	27.7	C	29.7	C	27.8	C	30.2	C
2. Highway 395 / Mojave Dr	TS	53.9	D	102.4	F	54.9	D	103.9	F
3. Mojave Dr / Mesa Linda Ave	TS	34.6	C	30.6	C	35.1	D	30.7	C
4. Mesa Linda Avenue / Cactus Road	SSSC	Not Applicable (Future Intersection)				19.1	C	18.0	C
5. Cactus Road / Project Driveway	SSSC					10.4	B	10.2	B

Notes:
Shaded cells in the table represent intersection peak hours with LOS deficiencies (LOS E or F).
Capacity analysis is based on trucks converted to passenger car equivalents (PCE's)
Abbreviations:
Intersection control types: TS = traffic signal, SSSC= side-street stop-control

As shown in **Table 1-1**, under Background Plus Project conditions, the addition of the project does not result in deficient intersections according to the City of Victorville impact analysis guidelines.

Although the intersection of Highway 395 at Mojave Drive is anticipated to operate at an LOS F during the PM peak hour, the project does not contribute to a level of service deficiency because it does not increase the intersection's delay by two percent or more.

1.4.2 Mid-Term (2036) Cumulative Impacts

Table 1-2, on the following page, compares the Future Background (year 2036) and Future Background (year 2036) + Project weekday peak hour levels of service. The year 2036 Future Background conditions represent ten years beyond the project's opening year.

[1] Refer to Chapters 4 and 6 for more information on development of background traffic projections.

Table 1-2: Comparison of Future Background (Year 2036) and Future Background + Project Levels of Service

Intersection	Control Type	Future Background Condition				Future Background + Project Condition			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Highway 395 / Cactus Rd	TS	34.0	C	35.9	D	33.3	C	36.3	D
2. Highway 395 / Mojave Dr	TS	61.4	E	114.6	F	72.0	E	115.9	F
3. Mojave Dr / Mesa Linda Ave	TS	34.0	C	31.7	C	36.9	D	29.5	C
4. Mesa Linda Avenue / Cactus Road	SSSC	Not Applicable (Future Intersection)				23.0	C	19.9	C
5. Cactus Road / Project Driveway	SSSC					10.9	B	10.5	B

Notes:
Shaded cells in the table represent intersection peak hours with LOS deficiencies (LOS E or F).
Capacity analysis is based on trucks converted to passenger car equivalents (PCE's)
Abbreviations:
Intersection control types: TS = traffic signal, SSSC= side-street stop-control

Under Future Background + Project conditions with ten years of cumulative growth, the addition of the project does not result in deficient intersections according to the city's impact analysis guidelines.

Although the intersection of Highway 395 at Mojave Drive is anticipated to operate at an LOS E during the PM peak hour, the project does not contribute to a level of service deficiency because it does not increase the intersection's delay by two percent or more.

Although the intersection of Highway 395 at Mojave Drive is anticipated to operate at an LOS E during the AM peak hour and LOS F during the PM peak hour, the project does not contribute to the level of service deficiency because it does not increase the intersection's delay by two percent or more.

1.5 Summary of Recommended Measures to Improve Level of Service Deficiencies

Since the project does not cause, or contribute to, a level of service deficiency in either background (2026) or future background (2036) conditions, there are no recommended measures to improve intersection level of service.

1.6 Long-Term (2046) Cumulative Impacts – Informational Purposes Only

The Future (Year 2046) conditions scenario represents a 20-year forecast planning horizon with and without traffic generated by the project which Caltrans requests to be included in traffic impact studies. It is for informational purposes only because the City of Victorville does not use this long-range analysis scenario for conditioning project improvements. Forecasts for the year 2046 analysis scenario are derived from the San Bernardino Transportation Analysis Model (SBTAM).

Table 1-3, on the following page, compares the future year 2046 and future year 2046 + project weekday peak hour levels of service. Under Future Year 2046 Conditions, the signalized intersections of Highway 395 at Cactus Road and Highway at Mojave Drive are deficient.

When project traffic is added to the year 2046, the signalized intersection of Highway 395 at Cactus Road still operates at LOS E during the AM peak hour and LOS F during the PM peak hour and the signalized intersection of Highway 395 at Mojave Drive still operates at LOS F during the AM peak hour and PM peak hour.

1.7 Summary of Vehicle Miles Travelled (VMT) Screening Assessment

The VMT analysis screening assessment included in the approved January 23, 2024, scoping agreement concluded that proposed project satisfies the city's two screening criteria and therefore is considered to have a less than significant impact on the environment.

Table 1-3: Comparison of Future Year 2046 and Future Year 2046 + Project Intersection Level of Service

Intersection	Control Type	Future Condition				Future + Project Condition			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Highway 395 / Cactus Rd	TS	73.2	E	76.9	E	74.1	E	78.0	E
2. Highway 395 / Mojave Dr	TS	145.4	F	304.2	F	147.1	F	305.3	F
3. Mojave Dr / Mesa Linda Ave	TS	33.3	C	33.7	C	35.4	D	33.3	C
4. Mesa Linda Avenue / Cactus Road	SSSC	Not Applicable (Future Intersection)				22.2	C	22.4	C
5. Cactus Road / Project Driveway	SSSC					10.7	B	11.0	B

Notes:
Shaded cells in the table represent intersection peak hours with LOS deficiencies (LOS E or F).
Capacity analysis is based on trucks converted to passenger car equivalents (PCE's)
Abbreviations:
Intersection control types: TS = traffic signal, SSSC= side-street stop-control

1.7.1 Vehicle Miles Traveled (VMT) Screening Criteria

The screening assessment of the project is based on criteria in the City of Victorville's Resolution No. P-20-010 *Vehicle Miles Traveled (VMT) Analysis Guidelines* adopted by the city in May of 2020. If a project satisfies one of the criteria described below it is considered to have a less than significant impact on the environment and does not require a VMT analysis.

1. Net Increase in Daily Vehicle Trips

As shown in **Table 5-2**, the project's net increase in daily trips is about 411 which is under the threshold of 1,285 daily trips established in the city's guidelines. Based on this criterion, the project is screened from requiring a VMT analysis.

2. Land Use Type

The proposed project is comprised of warehousing with a total floor area of 173,990 square feet which is less than the city's threshold of 829,000 square feet for warehousing. Based on this criterion, the project is screened from being required to conduct a VMT analysis.

2 INTRODUCTION

This study evaluates the proposed project for conformance with the City of Victorville's General Plan level of service policies. This is done in accordance with the City of Victorville's traffic impact study guidelines and under the following analysis scenarios as outlined in the traffic scope approved by the City's Department of Public Works:

- Existing Conditions - Chapter 3
- Background Conditions (Year 2026) - Chapter 4
- Background Plus Project Conditions (Year 2026) - Chapter 5
- Future Background (Year 2036) Conditions – Chapter 6
- Future Background (Year 2036) Plus Project Conditions - Chapter 7
- Future (Year 2046) Conditions – Chapter 8
- Future (Year 2046) Plus Project Conditions – Chapter 9

Figure 1 provides a vicinity map, and **Figure 2** illustrates the proposed project site plan.

Existing Conditions. This scenario represents existing transportation conditions at the time this report was prepared. Data includes traffic counts collected in January 2024. This scenario is used as a baseline condition to identify existing deficiencies and establish context.

Background Conditions (Year 2026). This scenario represents conditions at the time the project is anticipated to be fully constructed and occupied (known as buildout year 2026) but without traffic generated by the project. This scenario is comprised of ambient growth, a general rate of growth in traffic from overall regional growth but not specific to any nearby development (assumed to be 3.5% annually for this study). This scenario also includes traffic generated by the Highway 395 and Mojave Industrial Complex Map of approved development projects in the immediate vicinity of the proposed project traffic.

Background + Project Conditions (Year 2026). This scenario adds the project's estimated traffic generation at buildout (2026) to the Background Conditions Scenario described above.

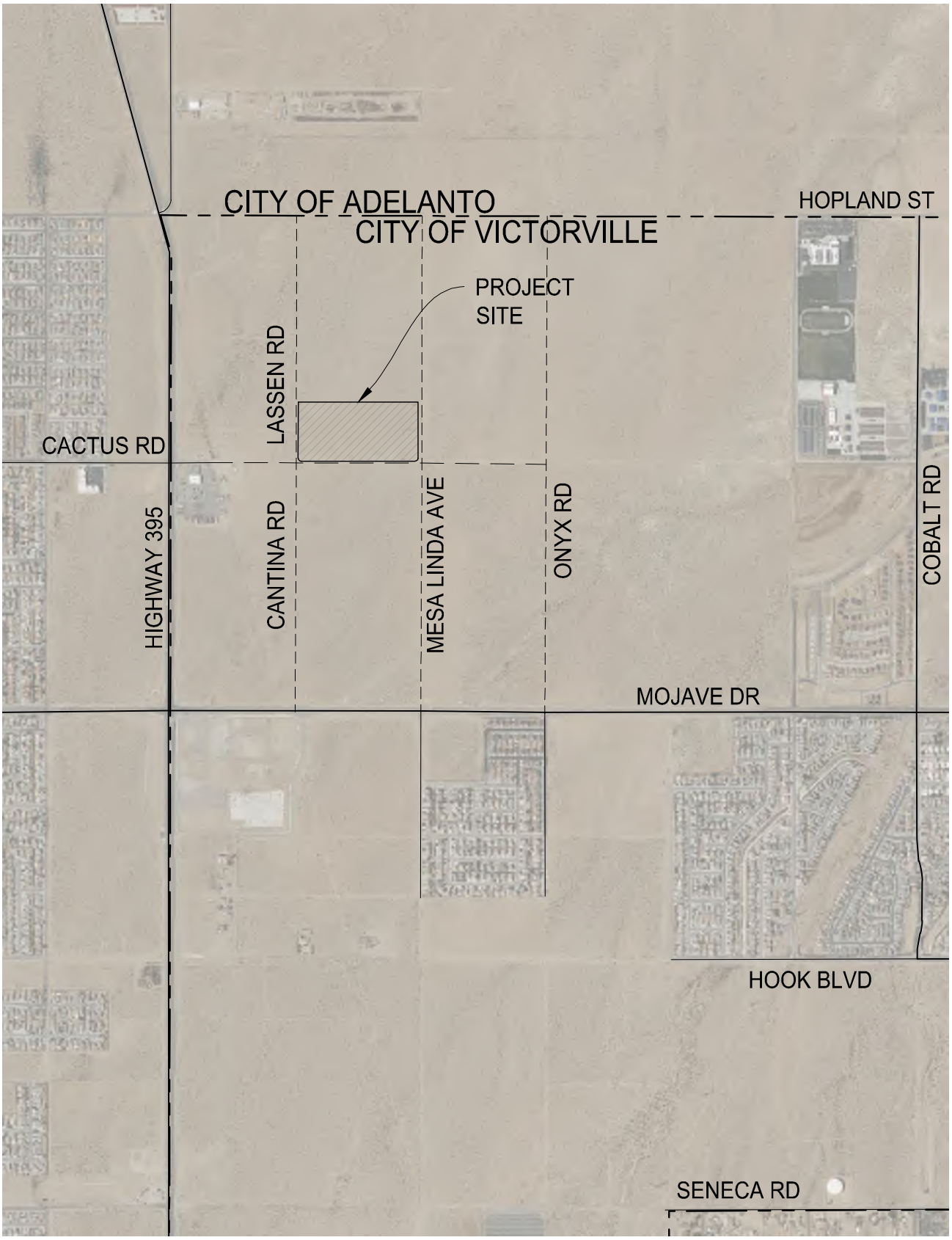
Future Background Conditions (Year 2036). The future background (year 2036) scenario represents a 10-year forecast of conditions in the planning horizon year of 2036 without traffic generated by the project. This scenario is comprised of ambient growth over a 10-year period, at a general rate of growth in traffic (assumed to be 3.5% annually for this study). This scenario also includes traffic generated by the Highway 395 and Mojave Industrial Complex Map of approved development projects in the immediate vicinity of the proposed project traffic.

Future Background Plus Project Conditions (Year 2036). This scenario adds the project's estimated traffic generation to the Future Background Condition's scenario described above.

Future Year 2046 Conditions. This scenario represents Caltrans' long-range 20-year planning horizon. Conditions identified in this scenario inform Caltrans of potential congestion problems in the future, but deficiencies and improvements identified in this analysis scenario are not used by the City of Victorville and are not integrated to any development conditions of approval. This scenario also includes traffic generated by the Highway 395 and Mojave Industrial Complex Map of approved development projects in the immediate vicinity of the proposed project traffic. The approved improvements from Mojave 68 project were used for this scenario, and these improvements differ from the ones used in the 2026 and 2036 conditions.

Future Year 2046 + Project Conditions. This scenario adds the project's estimated traffic generation at buildout (2026) to the Future 2046 Conditions described above.

Deficiencies identified in the near-term (2026) and mid-term (2036) scenarios are "cumulative" impacts—impacts that the project contributes to, but does not solely cause, but may be responsible for a fair-share of the cost to implement any improvement measures.



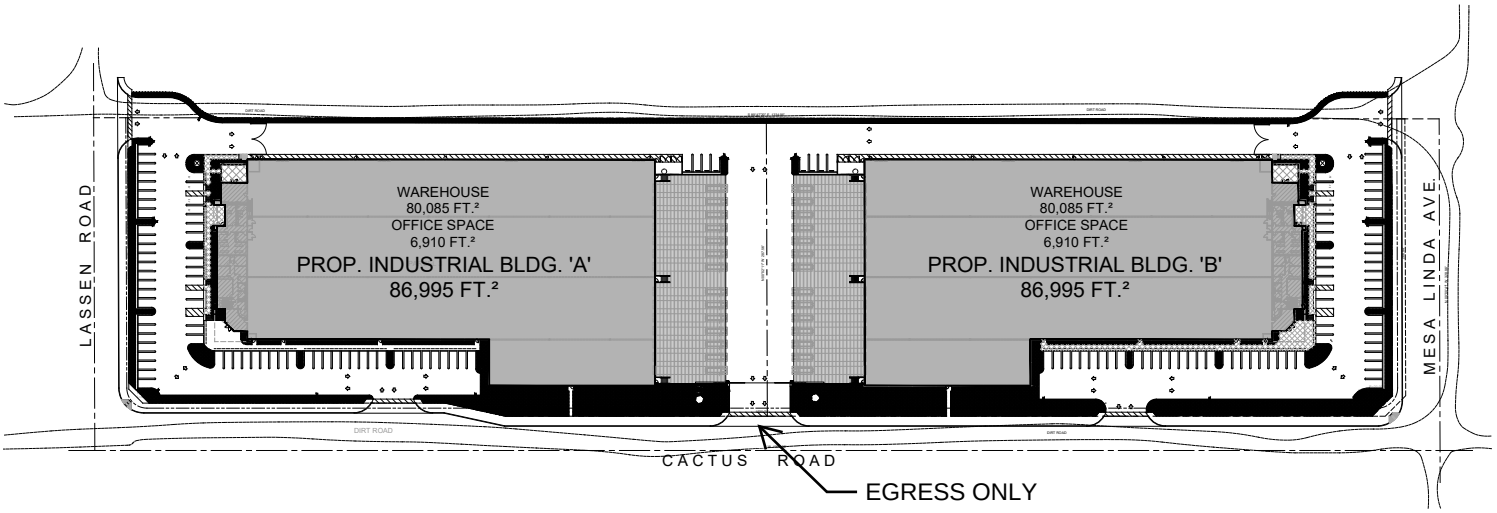
DAVID EVANS AND ASSOCIATES INC.

FIGURE 1: VICINITY MAP
CACTUS NORTH WAREHOUSE
VICTORVILLE, CALIFORNIA

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FIGURE 2: PROJECT SITE PLAN
CACTUS NORTH WAREHOUSE
VICTORVILLE, CALIFORNIA

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3 EXISTING CONDITIONS

3.1 Existing Street System

The following roadways provide local and regional access to the project within the study area:

Highway 395 is a major north-south primarily four-lane road (two lanes in each direction with a with turn pockets at key intersections). Highway 395 is identified as a super arterial on the City of Victorville Circulation Plan. The posted speed limit within the project area is 55 mph.

Mojave Drive is a major east-west primarily four-lane road (two lanes in each direction with a raised curbed median, and with turn pockets at key intersections) within the project vicinity. Mojave Drive is identified as a super arterial on the City of Victorville Circulation Plan. The posted speed limit is 60 mph.

Cactus Road is a local east-west primarily two-lane road (one lane in each direction with a turn pocket at key intersections). A segment of Cactus Road starting at Highway 395 to approximately 1,300 feet east is identified as an arterial on the City of Victorville Circulation Plan. Cactus Road 395 is identified as a collector on the City of Victorville Circulation Plan.

Mesa Linda Avenue is a local north-south primarily two-lane road (one lane in each direction), in the project area. Mesa Linda Avenue is identified as a collector on the City of Victorville Circulation Plan. Currently Mesa Linda Avenue is a dirt road north of Mojave Avenue. It will provide direct access to the project site.

3.2 Study Intersections

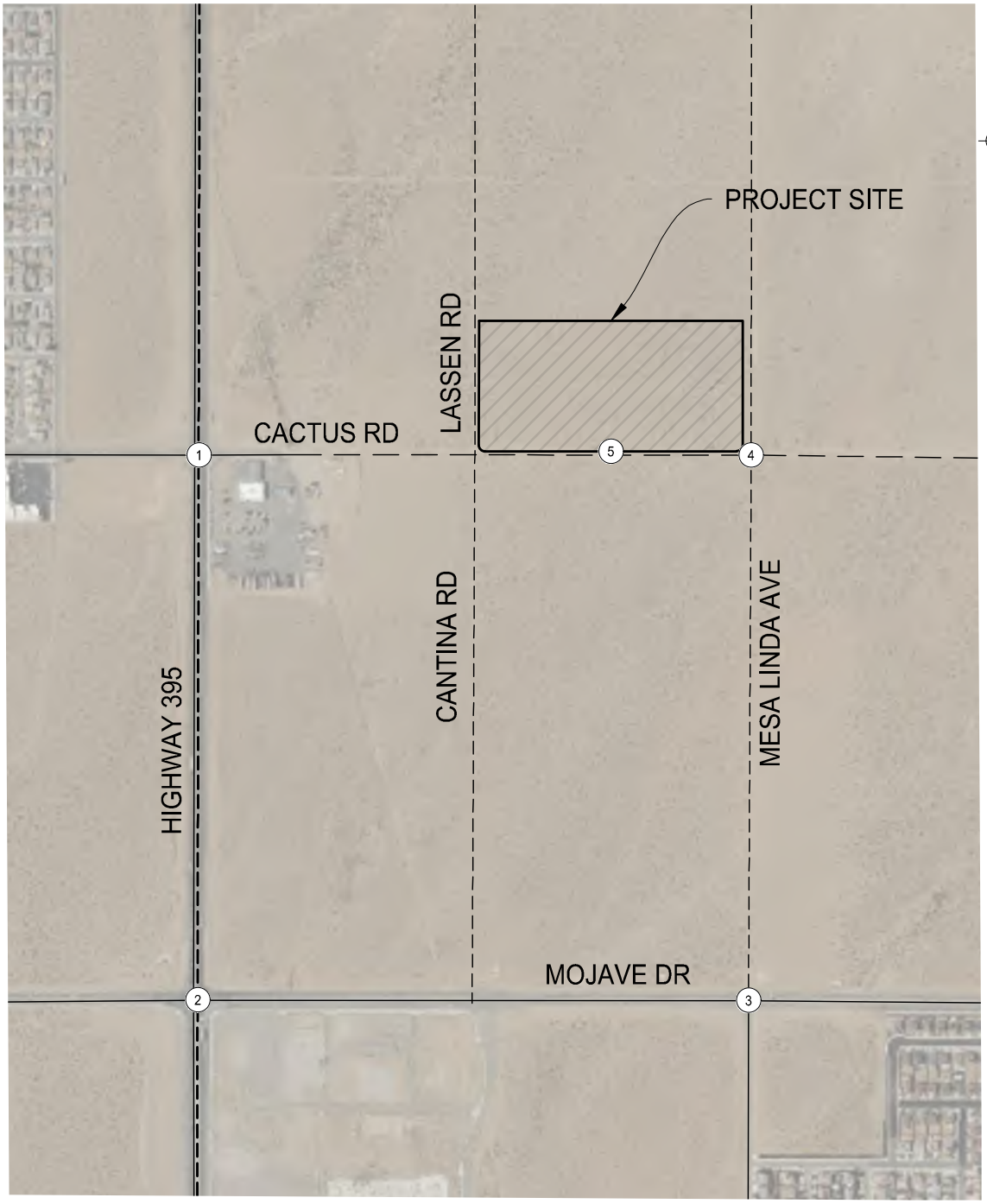
The study area for determining level of service deficiencies includes three existing intersections and two future intersections:

1. Highway 395 / Cactus Road
2. Highway 395 / Mojave Drive
3. Mojave Drive / Mesa Linda Avenue
4. Mesa Linda Avenue / Cactus Road (future intersection)

The intersections of Highway 395 at Mojave Drive and Highway 395 at Cactus Road are currently traffic signal controlled. The intersection of Mojave Drive at Mesa Linda Avenue is currently side-street stop-controlled with conditions to be signalized. The study intersections are shown in **Figure 3**.

3.3 Existing Traffic Volumes

Turn movement counts were conducted in January 2024 by Newport Traffic Studies, an independent traffic data collection company. The counts were collected during the AM (7:00-9:00 AM) and PM (4:00-6:00 PM) peak periods. The raw turning movement counts are included in **Appendix B** of this study.



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FIGURE 3: STUDY INTERSECTIONS
CACTUS NORTH WAREHOUSE
VICTORVILLE, CALIFORNIA

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3.4 Capacity Analysis Methodology

Intersection capacity analyses are conducted using Synchro software[2], which implements the methods of the Highway Capacity Manual, 6th Edition (HCM 6)[3] used in this report. The traffic analysis methodology concepts presented in Chapter 19 and Chapter 20 of the Highway Capacity Manual, 6th Edition (HCM 6) are used to calculate intersection Level of Service (LOS) based on the average control delay (in seconds per vehicle) of vehicles utilizing the intersection. The LOS for a signalized intersection is calculated for the intersection as a whole in Synchro. **Table 3-1** provides LOS thresholds for signalized intersections as provided in the HCM 6 Chapter 19. The level of service for a two-way stop controlled (TWSC) intersection is determined by the computed or measured control delay. The LOS for the intersection is determined by the minor-street movement (or shared movement) with the worst level of service using the criteria provided in **Table 3-2** referenced from HCM 6 Chapter 20.

Table 3-1: Level of Service Criteria for Signalized Intersections

Control Delay (seconds/vehicle)	LOS by Volume-to-Capacity Ratio [a]	
	Volume / Capacity Ratio ≤ 0.99	Volume / Capacity Ratio < 1.0
≤ 10	A	F
> 10 -15	B	F
> 15 - 25	C	F
> 25 - 35	D	F
> 35 - 50	E	F
> 50	F	F
[a] For approach-based and intersection-wide assessments, LOS is defined solely by control delay. Source: Highway Capacity Manual 6th Edition, Exhibit 19-8.		

Table 3-2: Level of Service Criteria for Two-Way (TWSC) Stop-Controlled Intersections

Control Delay (s/veh)	**LOS by Volume-to-Capacity Ratio**	
	v/c ≤1.0	**v/c >1.0**
0 - 10	A	F
> 10 -15	B	F
> 15 - 25	C	F
> 25 - 35	D	F
> 35 - 50	E	F
> 50	F	F
Note: The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for the uncontrolled major-Street approaches or for the intersection as a whole. Source: Highway Capacity Manual 6th Edition, Exhibit 20-2.		

3.1 City of Victorville Level of Service Standard

The City's peak hour level of service standard is LOS D. An intersection found to operate with a volume to capacity (V/C) ratio greater than 0.99 or with a control delay greater than 35 seconds per vehicle (i.e., LOS E or F) is considered deficient.

If a development project would worsen the peak hour level of service from a LOS D or better to a LOS E or LOS F, it is considered an impact that requires improvement to return the level of service to pre-project conditions. If a development project increases the peak hour control delay at an already deficient intersection by two percent or more, it is considered a significant impact that requires improvement to return the level of service to pre-project conditions.

2 Trafficware Ltd, Version 10.
3 Transportation Research Board, Washington D.C., 2010.

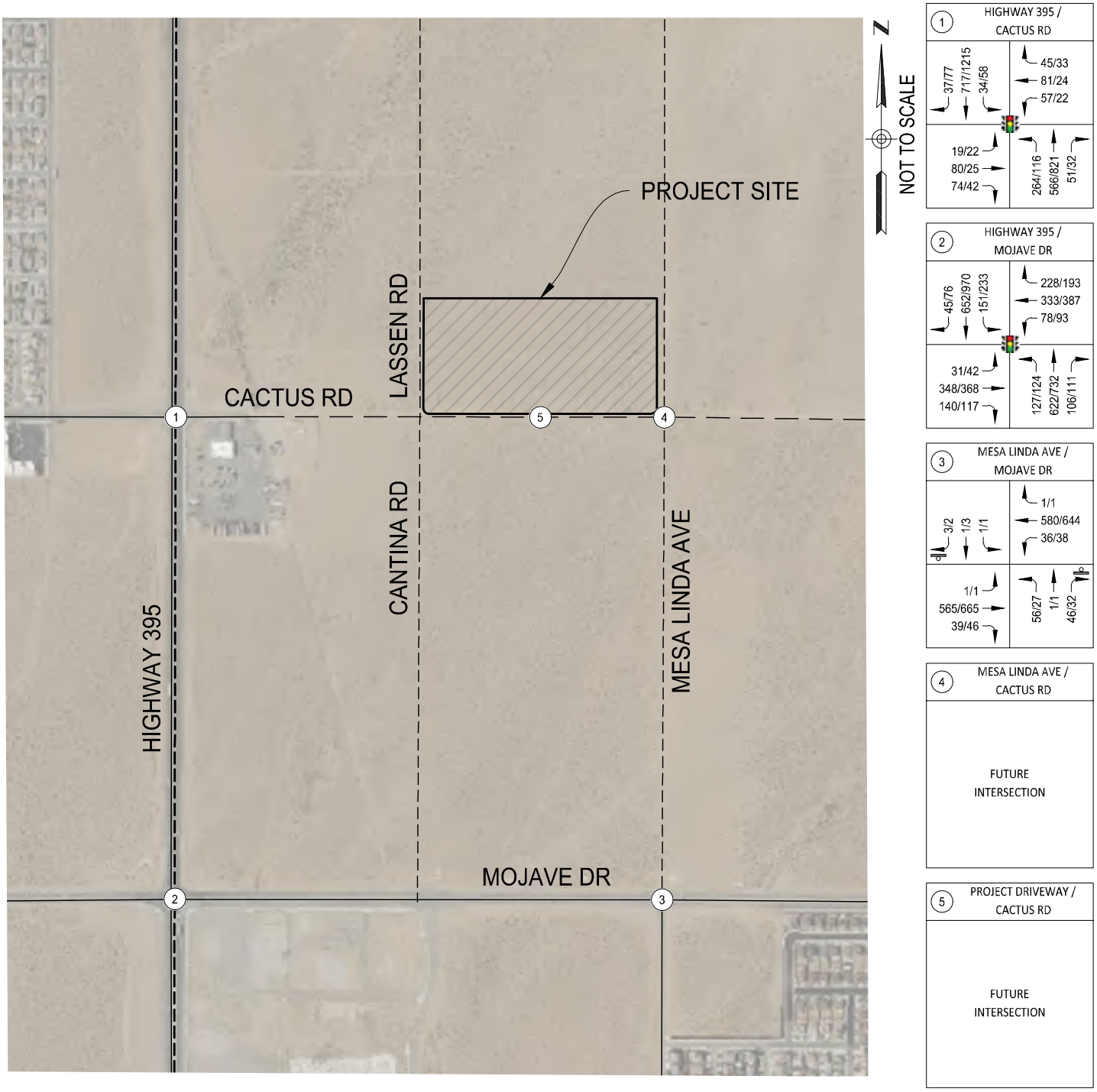
3.2 Existing Traffic Analysis

Existing intersection capacity and level of service analyses are based on the existing intersection geometrics and the AM and PM peak hour traffic volumes counts. The results of the analysis are shown in **Table 3-3** and provided in **Appendix C**. As shown in **Table 3-3**, there are currently no deficient intersections. **Figure 4** illustrates the existing peak hour traffic volumes used in the analysis, and **Figure 5** illustrates the existing intersection geometrics.

Table 3-3: Intersection Capacity Analysis – Existing Conditions

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1. Highway 395 / Cactus Rd	TS	24.8	C	22.9	C
2. Highway 395 / Mojave Dr	TS	44.2	D	39.5	D
3. Mojave Dr / Mesa Linda Ave	SSSC	31.2	D	33.5	D
4. Mesa Linda Avenue / Cactus Road	SSSC	N/A			
5. Cactus Road / Project Driveway	SSSC	N/A			

Notes:
Shaded cells in the table represent intersection peak hours with LOS deficiencies (LOS E or F).
Capacity analysis is based on trucks converted to passenger car equivalents (PCE's)
Abbreviations:
Intersection control types: TS = traffic signal, SSSC= side-street stop-control, N/A = Not Applicable - Future Intersection



LEGEND

XX/XX - AM/PM TRAFFIC VOLUME

(#) - STUDY INTERSECTIONS

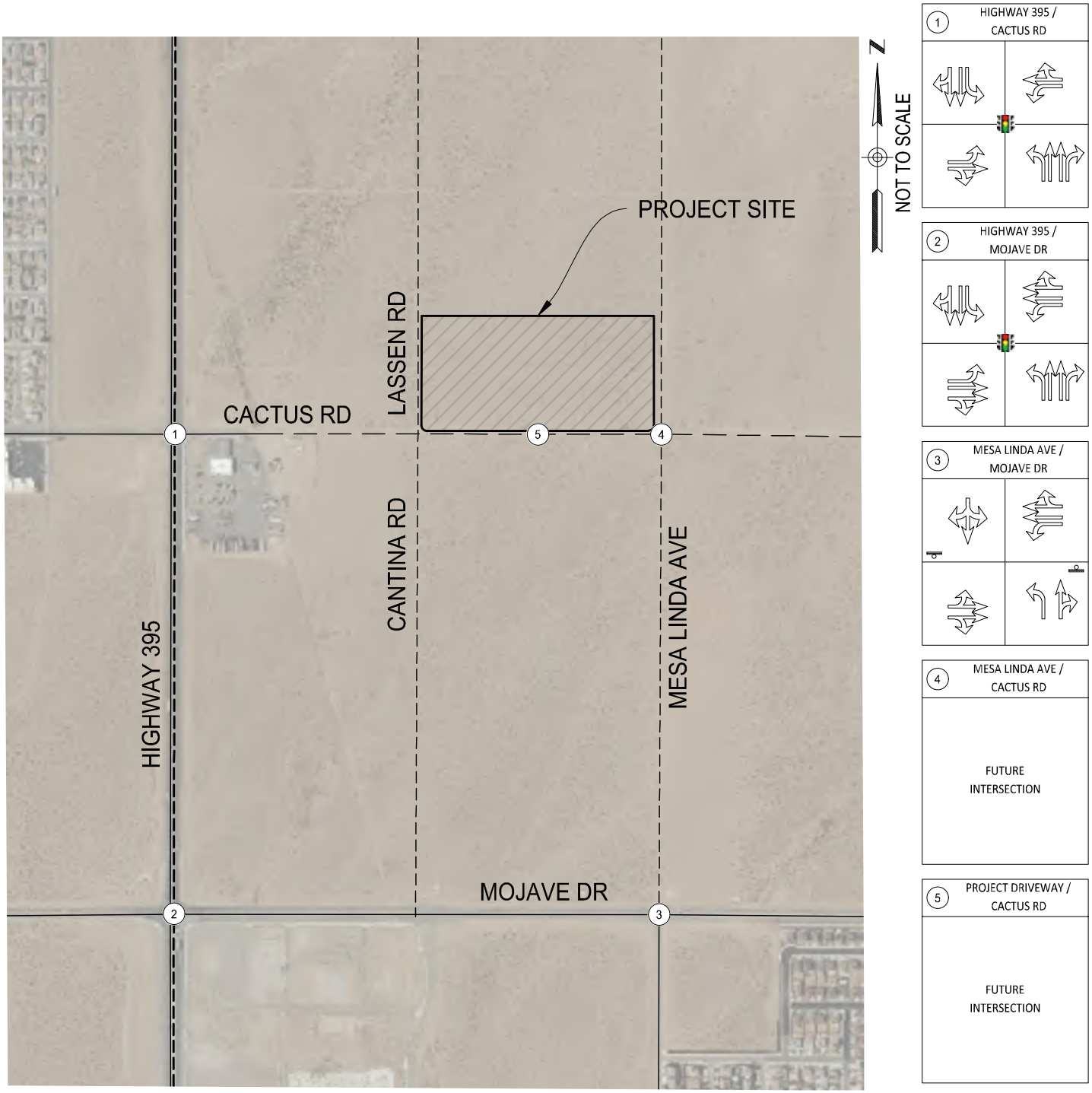
- SIGNALIZED INTERSECTION

- STOP CONTROLLED APPROACH

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FIGURE 4: EXISTING TRAFFIC VOLUMES
CACTUS NORTH WAREHOUSE
VICTORVILLE, CALIFORNIA

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LEGEND

- EXISTING GEOMETRICS
- (#) - STUDY INTERSECTIONS
- SIGNALIZED INTERSECTION
- STOP CONTROLLED APPROACH

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FIGURE 5: EXISTING GEOMETRICS
CACTUS NORTH WAREHOUSE
VICTORVILLE, CALIFORNIA

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4 BACKGROUND CONDITIONS (YEAR 2026)

This scenario represents conditions at the time the project is anticipated to be fully constructed and occupied (known as buildout year 2026) but without traffic generated by the project. This scenario is comprised of ambient growth over a two-year period, at a general rate of growth in traffic from overall regional growth but not specific to any nearby development (assumed to be 3.5% annually for this study). This scenario also includes traffic generated by the Highway 395 and Mojave Industrial Complex Map of approved development projects in the immediate vicinity of the proposed project traffic provided by the City. The approved improvements from Mojave 68 project were used for this scenario.

4.1 Ambient Growth Projections

The proposed project is anticipated to be constructed and occupied in the Year 2026. As stated earlier in this report, near-term growth in traffic is comprised of regional ambient growth and traffic generated by other area projects specifically requested by the city during the scoping process. Ambient growth is estimated as a 3.5% annual increase. The other area project excerpts are provided in **Appendix E**.

4.2 Area Projects

The city provided a map of the Highway 395 and Mojave Industrial Complex of approved development projects in the immediate vicinity of the proposed project. The list includes approved or nearing approved industrial development whose traffic is included in the background forecasts. In addition, the residential development (Tentative Tract 20422) was included in the list of other area projects. The Other Area Projects Trip Generation is provided in **Table 4-1.**

Table 4-1: Other Area Projects Trip Generation

Land Use	Project Description	Daily	AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
			In	Out	Total	In	Out	Total
1.Cactus Industrial Project	Warehouse	1,346	106	33	139	40	100	140
2. Mojave 68 Project	Warehouse	2,223	96	30	126	41	112	153
3. Covington Project	Warehouse	9,964	781	233	1014	282	732	1014
4. Tentative Tract 20422	64-unit residential Tentative Tract	566	11	31	42	36	21	57
5. Mojave 51 Project	Warehouse	3183	251	76	327	92	236	328
Total		17,282	1,245	403	1,648	491	1,201	1,692

4.3 Background Conditions (Year 2026) Traffic Analysis

The Background Conditions traffic volumes are illustrated in **Figure 6**. Intersection capacity analysis for this scenario uses existing lanes geometries and it incorporates the approved mitigations from Mojave 68 Project. The results of the analysis are shown in **Table 4-2** and provided in **Appendix C.**

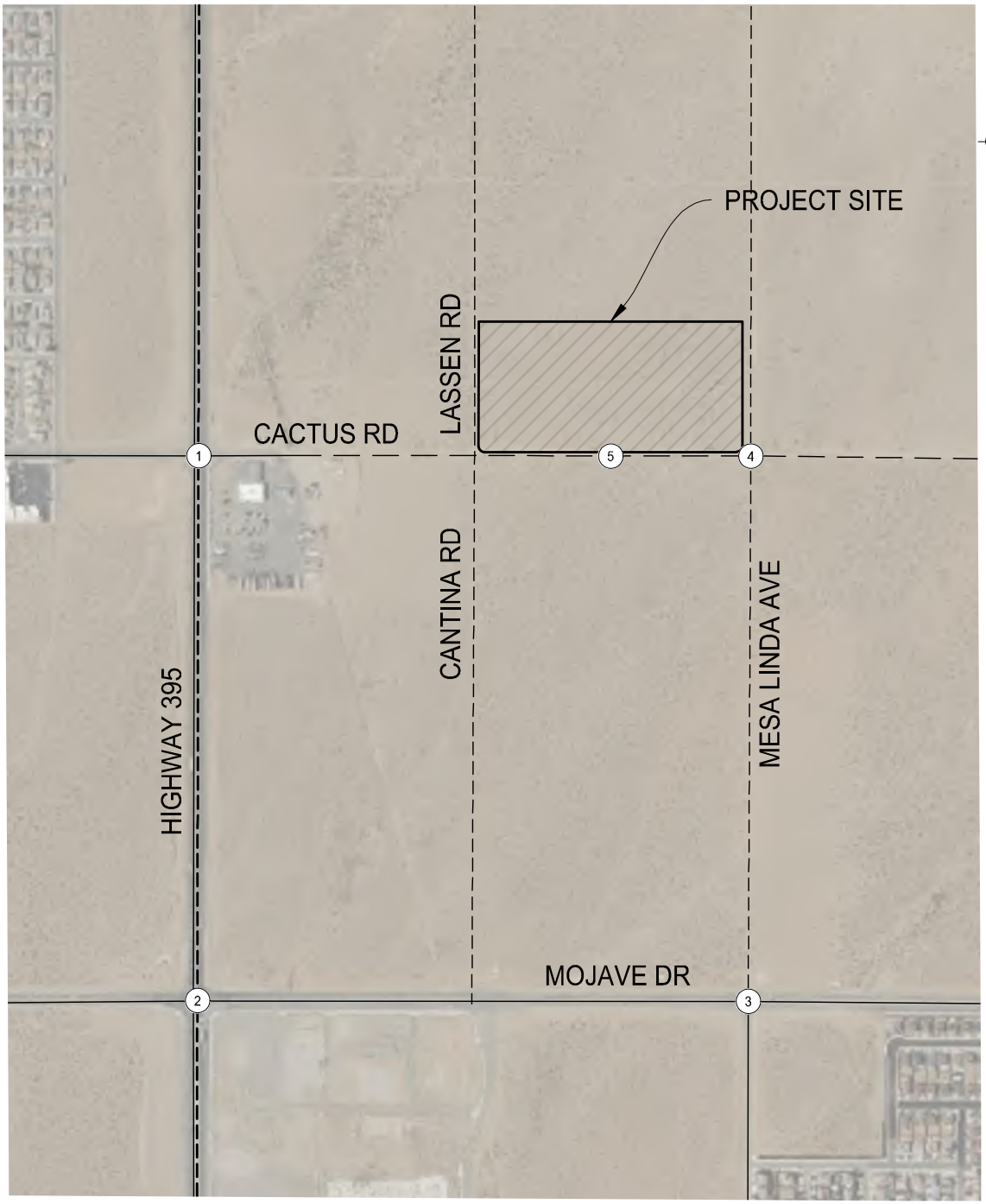
Table 4-2: Intersection Capacity Analysis – Background Conditions

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1. Highway 395 / Cactus Rd	TS	27.7	C	29.7	C
2. Highway 395 / Mojave Dr	TS	53.9	D	102.4	F
3. Mojave Dr / Mesa Linda Ave	TS	34.6	C	30.6	C

Notes:
Shaded cells in the table represent intersection peak hours with LOS deficiencies (LOS E or F).
Capacity analysis is based on trucks converted to passenger car equivalents (PCE's)
Abbreviations:
Intersection control types: TS = traffic signal, SSSC= side-street stop-control

As presented in **Table 4-2**, under Background Conditions, the study intersections are anticipated to operate at an acceptable level of service except for the intersection of Highway 395 at Mojave Drive.

The intersection of Highway 395 at Mojave Dr is anticipated to operate at an LOS F during the PM peak hour. This is considered below the city's peak hour level of service standard. As a result, this intersection is identified as cumulative deficiencies occurring prior to the addition of project traffic.



N

NOT TO SCALE

1 HIGHWAY 395 / CACTUS RD

40/82	812/1325	182/117
20/24	89/29	79/45
94/174	88/29	93/121
282/124	628/925	157/74

2 HIGHWAY 395 / MOJAVE DR

49/84	729/1132	207/274
36/47	465/429	150/125
266/254	385/502	186/398
136/133	765/823	424/241

3 MESA LINDA AVE / MOJAVE DR

49/147	1/3	26/87
184/72	864/808	48/64
57/23	714/968	44/56
74/38	1/1	51/36

4 MESA LINDA AVE / CACTUS RD

FUTURE INTERSECTION

5 PROJECT DRIVEWAY / CACTUS RD

FUTURE INTERSECTION

LEGEND

XX/XX - AM/PM TRAFFIC VOLUME

(#) - STUDY INTERSECTIONS

- SIGNALIZED INTERSECTION

- STOP CONTROLLED APPROACH

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FIGURE 6: BACKGROUND TRAFFIC VOLUMES
CACTUS NORTH WAREHOUSE
VICTORVILLE, CALIFORNIA

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5 BACKGROUND PLUS PROJECT CONDITIONS

The Background Plus Project Conditions Scenario adds the project's estimated traffic generation at buildout (2026) to the Background Conditions Scenario evaluated in the previous chapter. Level of service deficiencies identified in this scenario are considered "cumulative" impacts—impacts that the project contributes to, but does not solely cause, and may be responsible for a fair-share of the cost to implement any mitigation measures.

5.1 Project Trip Generation

The proposed project is a speculative warehouse where the tenant(s) and function as a potential short term storage facility, distribution center, fulfillment center, etc. is unknown. While the impact analysis needs to reflect a reasonable spectrum of tenant types, there is a risk when estimating trip generation of over or under-estimating traffic. The 11th Edition of the Institute of Transportation Engineers' Trip Generation manual contains data for the most common types of warehouse operations with a wide range of rates. **Table 5-1** summarizes the trip generation rates for warehouse facilities in the current edition of ITE's Trip Generation.

Table 5-1: Trip Generation Rates for ITE Land Use Categories of Warehousing

Warehouse Type	ITE Land Use Code	Average Trip Generation Rates for Warehouse Types (Trips Per KSF) (Source: ITE Trip Generation 11th Edition)		
		Average Daily Traffic	AM Peak Hour of Adjacent Street Traffic	PM Peak Hour of Adjacent Street Traffic
		Total (In + Out)	Total (In + Out)	Total (In + Out)
High-Cube Transload and Short-Term Storage Warehouse	154	1.54	0.08	0.10
High-Cube Cold Storage Warehouse	157	2.12	0.11	0.12
High-Cube Fulfillment Center Warehouse - Non-Sort	155	1.81	0.15	0.16
General Warehouse	150	1.71	0.17	0.18
High-Cube Parcel Hub Warehouse	156	4.63	0.70	0.64
High-Cube Fulfillment Center Warehouse - Sort	155	6.44	0.87	1.20
Average of All Warehouse Types		3.04	0.35	0.40
Average Without High-Cube Sort Fulfillment Center		2.36	0.24	0.24

To help select a trip generation rate for the proposed project representative of the range of potential owners/tenants, **Table 5-1** includes the average of the rates for all warehouse types in the ITE Trip Generation manual and the average of the rates for all warehouse types except High-Cube Fulfillment Sort Facility—the most intensive type of warehouse which is not expected for the proposed project. The secondary average rate (excluding High-Cube Fulfillment Sort Facility) represents two thirds the ITE warehouse types and covers a broad range of tenant types and operations.

Table 5-2 summarizes the estimated trip generation of the proposed project for an average weekday, and weekday AM (7-9 AM) and PM (4-6 PM) peak hours, based on the secondary average rates identified in **Table 5-1**. The proposed warehouse complex would generate about 411 vehicle trips per day and 42 vehicle trips in the AM peak hour and PM peak hour.

It is standard practice to convert vehicle trips to passenger car equivalents (PCEs) for intersection capacity analysis. This conversion reflects the effects of large vehicles on intersection operations not just from the physical space a truck occupies but also from their effect on the intersection's saturation flow rate due to the slower acceleration of trucks.

When converted to PCEs, the Cactus North Warehouse generates about 580 daily PCEs, 59 PCEs in the AM peak hour, and 60 PCEs in the PM peak hour.

Table 5-2: Project Trip Generation

Land Use	Gross Floor Area (KSF)	Daily	AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
			In	Out	Total	In	Out	Total
Warehouse (ITE Land Use Category 150)	173.99	Vehicle Trip Generation Rates (Trips Per 1,000 Square Feet of Gross Floor Area)						
		2.36	0.18	0.06	0.24	0.07	0.17	0.24
		Total Vehicle Trip Generation						
		411	32	10	42	12	30	42
	Mode Share	Project Trip Generation by Vehicle Type						
Passenger Cars (Percent of Total)	74.21%	305	24	7	31	9	22	31
2-Axle Trucks (Percent of Total)	4.55%	19	2	0	2	1	1	2
3-Axle Trucks (Percent of Total)	4.18%	18	2	0	2	1	1	2
4-Axle Trucks (Percent of Total)	17.04%	70	5	2	7	2	5	7
	PCE Factor	Project Trip Generation in Passenger Car Equivalents (PCE)						
Passenger Cars)	1.0	305	24	7	31	9	22	31
2-Axle Trucks	1.5	29	3	0	3	2	2	4
3-Axle Trucks	2.0	36	4	0	4	2	2	4
4 + Axle Trucks	3.0	210	15	6	21	6	15	21
Total Passenger Car Equivalents (PCE)		**580**	**46**	**13**	**59**	**19**	**41**	**60**

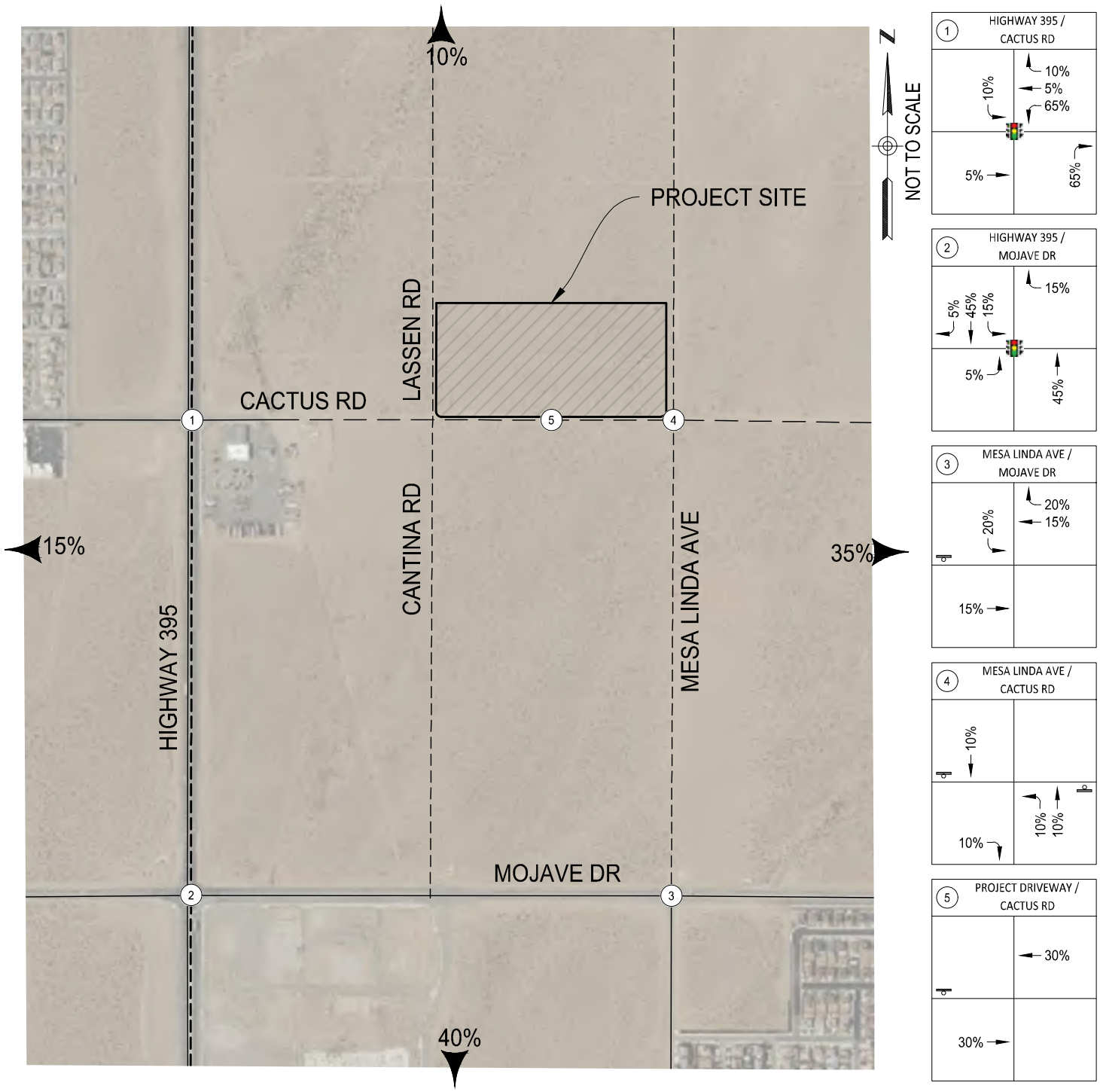
Notes:
KSF = Thousands of Square Feet.
AM / PM Peak Hour of Adjacent Street Traffic = Trip generation coinciding with the highest hourly volumes of traffic on the adjacent streets during the AM (7:00 AM and 9:00 AM) and PM (4:00 PM and 6:00 PM) commuter peak periods.
Source of trip generation rates: Institute of Transportation Engineers (ITE) Trip Generation (11th Edition). Average rates for land use category 150 (Warehouse).
Source of passenger car / truck mode share (percentage of total): South Coast Air Quality Management District High Cube Warehouse Trip Generation Study (2016). Based on data from eight high cube warehouses in the Inland Empire over 1,000,000 square feet in size. The average warehouse building size is 1,364,496 square feet.
Passenger Car Equivalents (PCE) factors: Industry standard values utilized in neighboring jurisdictions

5.2 Project Trip Distribution and Assignment

The distribution of the automobile trips (employees/visitors) is illustrated in **Figure 7**. The distribution of truck trips is illustrated in **Figure 8**. Truck trips are distributed to truck routes designated in Victorville's General Plan, the nearest of which includes Mojave Drive from I-15 to Highway 395. Highway 395, as a state highway, is also a designated truck route by the State of California. The assignment of total project trips (automobile plus trucks in passenger car equivalent) to proposed study intersections is illustrated in **Figure 9.**

5.3 Background Plus Project Traffic Analysis

Project trip generation, traffic distribution and assignment patterns are used in the intersection capacity analyses to assess potential project impacts to level of service. Project trips are added to background traffic volumes to derive Background Plus Project Conditions. The traffic volumes used in this scenario are illustrated in **Figure 10**. The intersection capacity analysis in this section uses background lane geometries, including the mitigations from Mojave 68 Project. Those geometrics are illustrated in **Figure 11** The results of the analysis are shown in **Table 5-3** and provided in **Appendix C**.



LEGEND

XX% - GENERAL PROJECT TRIP DISTRIBUTION

XX% - SPECIFIC PROJECT TRIP PERCENTAGE

(#) - STUDY INTERSECTIONS

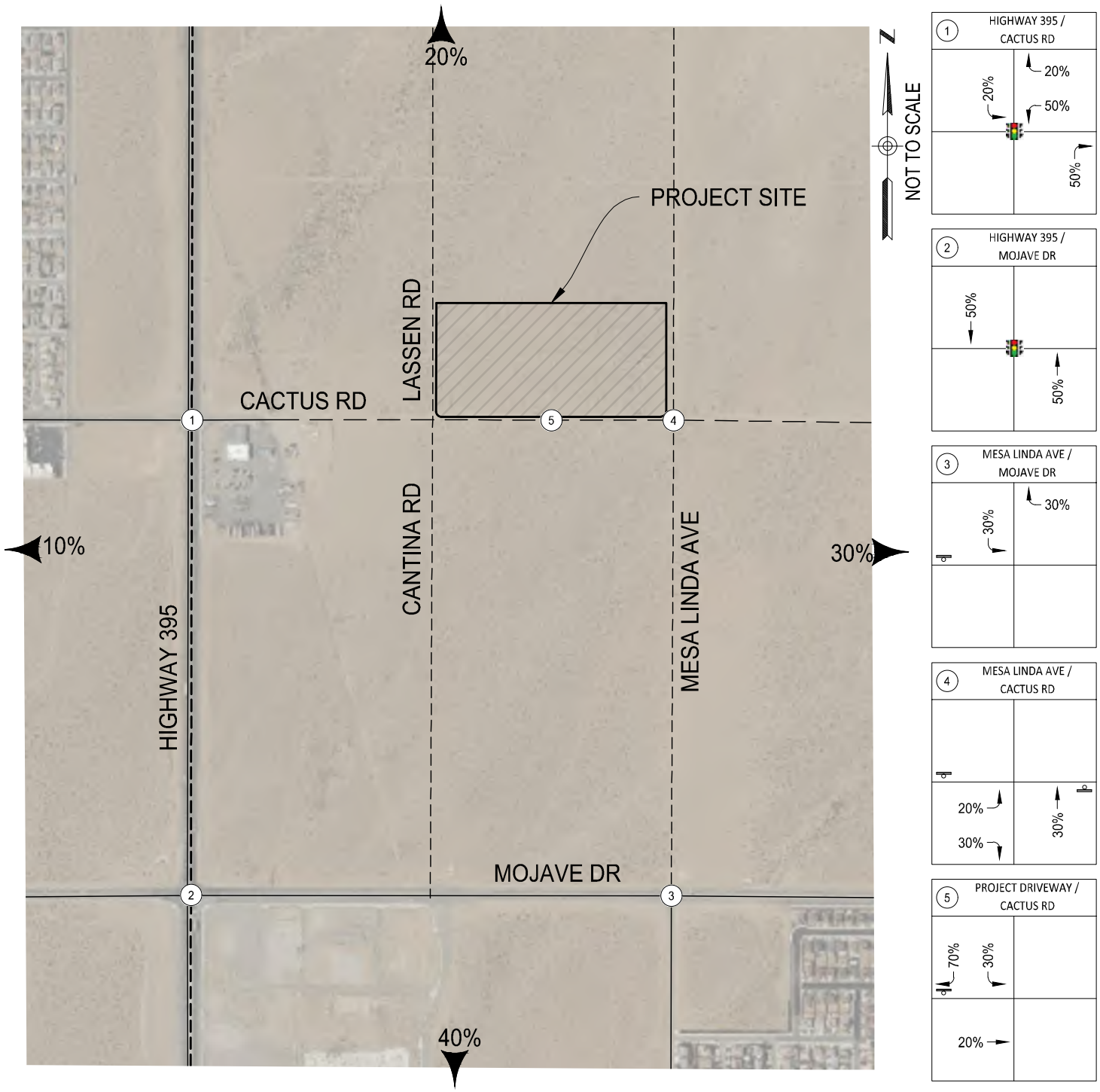
- SIGNALIZED INTERSECTION

- STOP CONTROLLED APPROACH

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FIGURE 7: PROJECT AUTOMOBILE TRIP DISTRIBUTION
CACTUS NORTH WAREHOUSE
VICTORVILLE, CALIFORNIA

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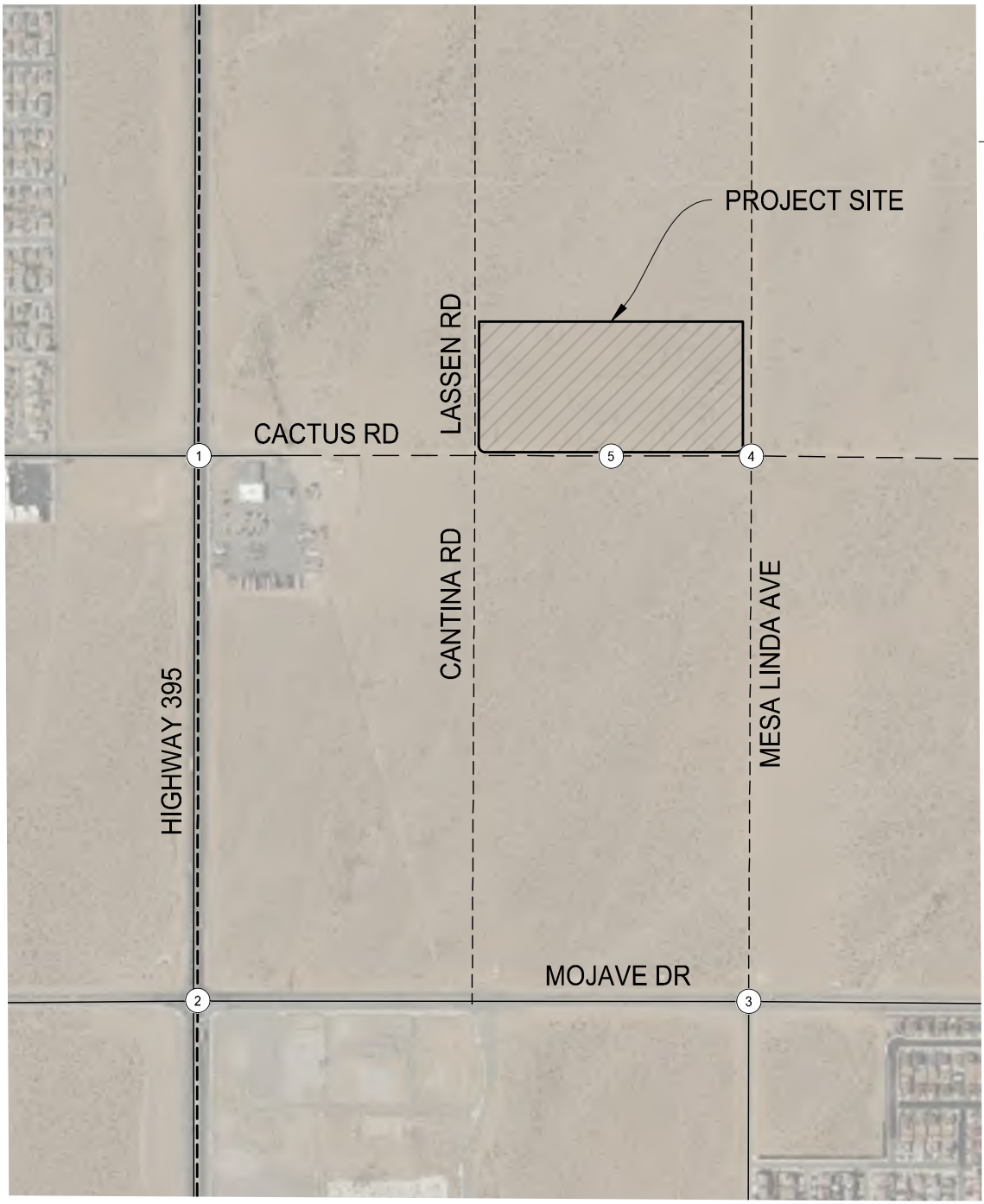
LEGEND

- XX% - GENERAL PROJECT TRIP DISTRIBUTION
- XX% - SPECIFIC PROJECT TRIP PERCENTAGE
- (#) - STUDY INTERSECTIONS
- SIGNALIZED INTERSECTION
- STOP CONTROLLED APPROACH

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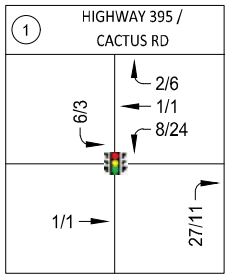
FIGURE 8: PROJECT TRUCK TRIP DISTRIBUTION
CACTUS NORTH WAREHOUSE
VICTORVILLE, CALIFORNIA

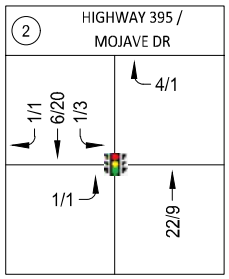
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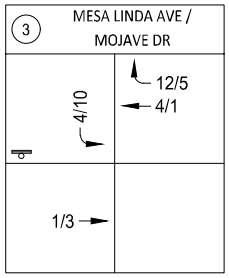


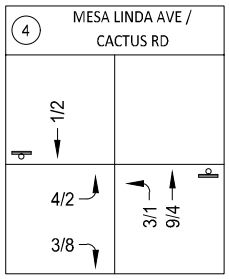
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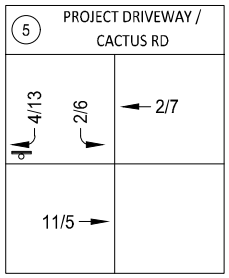
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TOTAL PROJECT PCE TRIPS

AM PEAK HOUR - 46 IN / 13 OUT
PM PEAK HOUR - 19 IN / 41 OUT

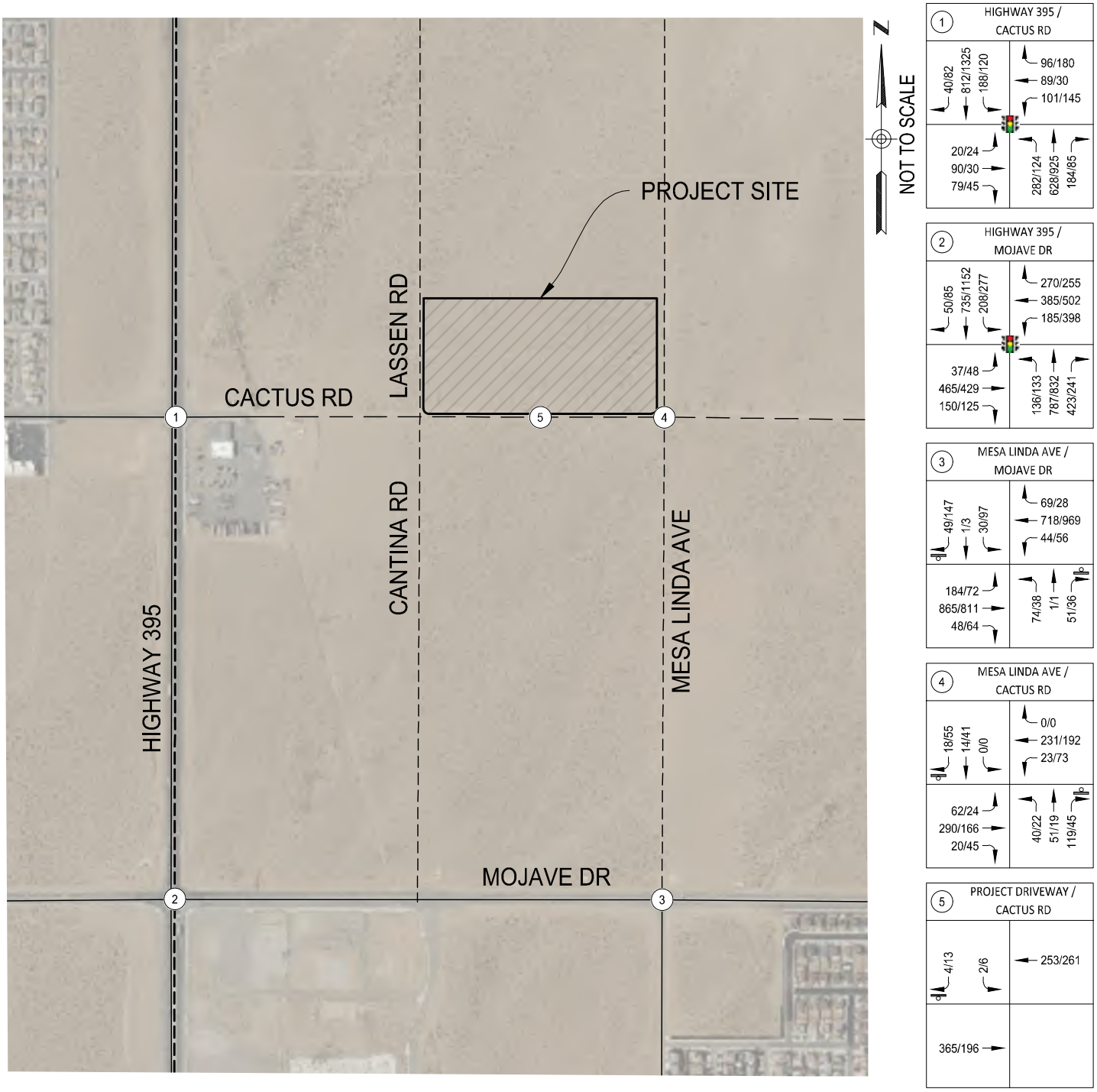
LEGEND

XX/XX - AM/PM PROJECT TRIP
(#) - STUDY INTERSECTIONS
- SIGNALIZED INTERSECTION
- STOP CONTROLLED APPROACH

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FIGURE 9: TOTAL PROJECT PCE TRIPS
CACTUS NORTH WAREHOUSE
VICTORVILLE, CALIFORNIA

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LEGEND

XX/XX - AM/PM TRAFFIC VOLUME

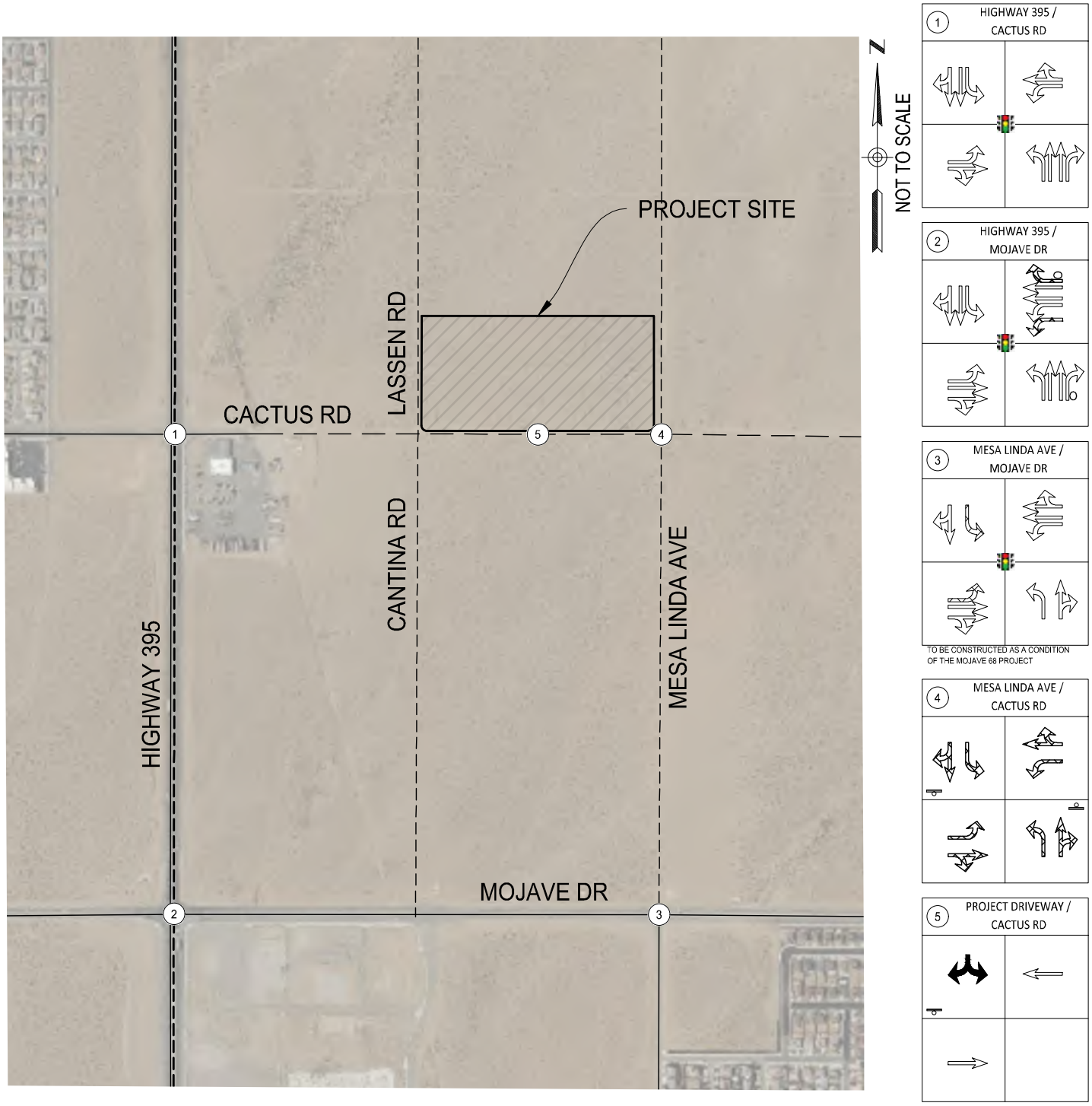
(#) - STUDY INTERSECTIONS

- SIGNALIZED INTERSECTION

- STOP CONTROLLED APPROACH

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FIGURE 10: BACKGROUND PLUS PROJECT TRAFFIC VOLUMES
CACTUS NORTH WAREHOUSE
VICTORVILLE, CALIFORNIA



LEGEND

- PROJECT GEOMETRICS
- CUMULATIVE GEOMETRICS
- EXISTING GEOMETRICS
- (#) - STUDY INTERSECTIONS
- SIGNALIZED INTERSECTION
- STOP CONTROLLED APPROACH
- o - RIGHT TURN OVERLAP TIMING

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FIGURE 11: BACKGROUND PLUS PROJECT MITIGATED GEOMETRICS
CACTUS NORTH WAREHOUSE
VICTORVILLE, CALIFORNIA

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Table 5-3: Intersection Capacity Analysis – Background Plus Project Conditions

Intersection	Control Type	Background Condition				Background + Project Condition			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Highway 395 / Cactus Rd	TS	27.7	C	29.7	C	27.8	C	30.2	C
2. Highway 395 / Mojave Dr	TS	53.9	D	102.4	F	54.9	D	103.9	F
3. Mojave Dr / Mesa Linda Ave	TS	34.6	C	30.6	C	35.1	D	30.7	C
4. Mesa Linda Avenue / Cactus Road	SSSC	N/A				19.1	C	18.0	C
5. Cactus Road / Project Driveway	SSSC	N/A				10.4	B	10.2	B

Notes:
Shaded cells in the table represent intersection peak hours with LOS deficiencies (LOS E or F).
Capacity analysis is based on trucks converted to passenger car equivalents (PCE's)
Abbreviations:
Intersection control types: TS = traffic signal, SSSC= side-street stop-control, N/A = Not Applicable - Future Intersection

As presented in **Table 5-3**, under Background Plus Project conditions, the LOS for all the study intersections during both the AM and PM peak hours operate at a LOS D or better except the intersection of Highway 395 and Mojave Drive which operates at a deficient LOS F in the PM peak hour both with and without the project. The addition of project traffic, however, does not contribute to the deficient intersection according to the City of Victorville impact analysis guidelines because it does not contribute two seconds of more to the intersection delay.

6 FUTURE BACKGROUND (YEAR 2036) CONDITIONS

The future background (year 2036) scenario represents a 10-year forecast of conditions in the planning horizon year of 2036 without traffic generated by the project. This scenario is comprised of ambient growth over a 10-year period, at a general rate of growth in traffic (assumed to be 3.5% annually for this study). This scenario also includes traffic generated by the Highway 395 and Mojave Industrial Complex Map of approved development projects in the immediate vicinity of the proposed project traffic provided by the City. The approved improvements from Mojave 68 project were used for this scenario.

6.1 Future Background (Year 2036) Traffic Analysis

The future background (year 2036) forecasted traffic volumes are illustrated in **Figure 12**. Intersection capacity analysis for the study intersections is based on the background lanes geometries, including the mitigations that are approved for Mojave 68 Project. The results of the analysis are shown in **Table 6-1** and provided in **Appendix C**.

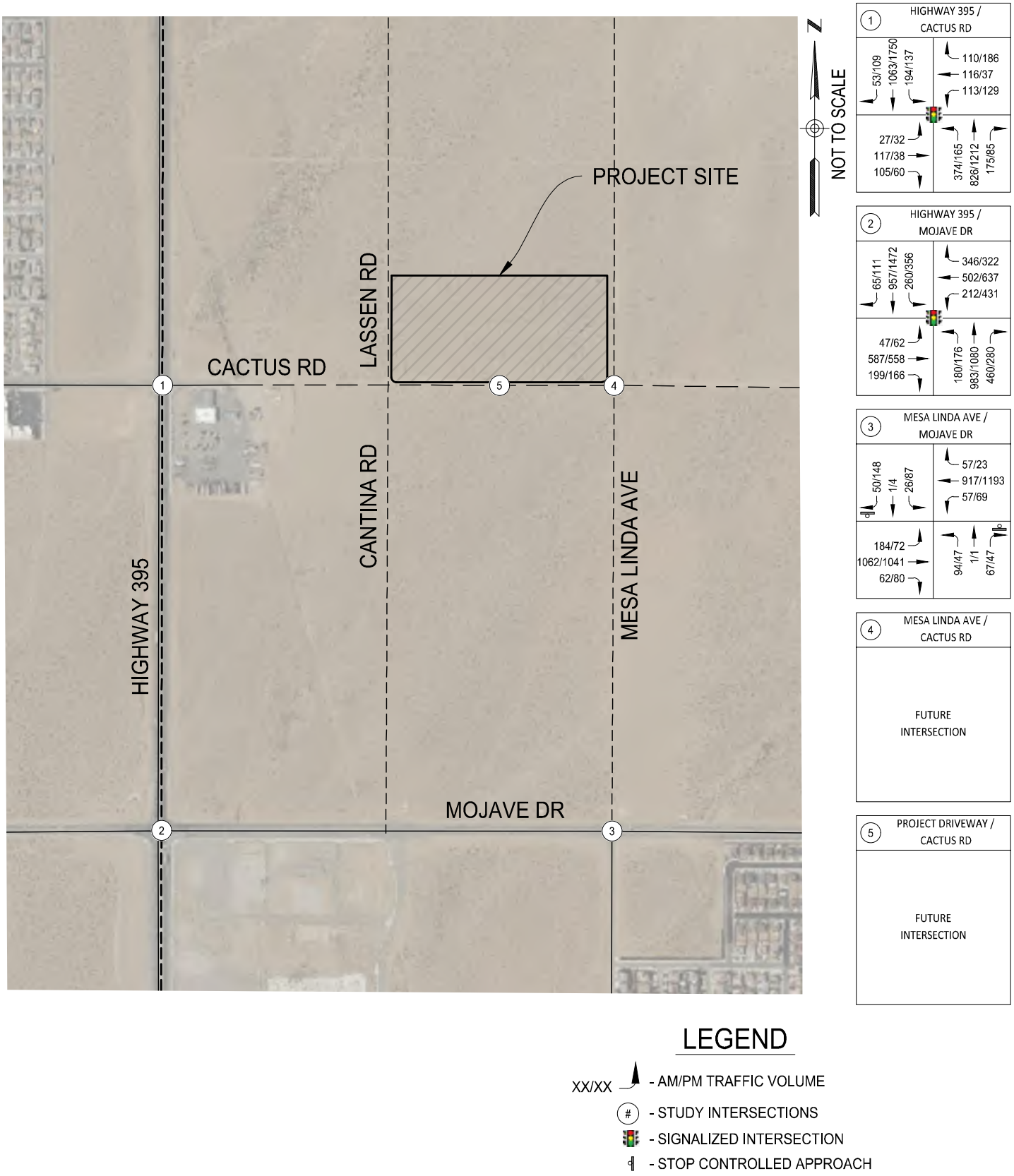
Table 6-1: Intersection Capacity Analysis – Future Background (Year 2036) Conditions

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1. Highway 395 / Cactus Rd	TS	34.0	C	35.9	D
2. Highway 395 / Mojave Dr	TS	61.4	E	114.6	F
3. Mojave Dr / Mesa Linda Ave	TS	34.0	C	31.7	C

Notes:
Shaded cells in the table represent intersection peak hours with LOS deficiencies (LOS E or F).
Capacity analysis is based on trucks converted to passenger car equivalents (PCE's)
Abbreviations:
Intersection control types: TS = traffic signal, SSSC= side-street stop-control

As presented in under the **Table 6-1**, under Future Background (Year 2036) Conditions, the study intersections are anticipated to operate at an acceptable level of service except for the intersection of Highway 395 at Mojave Drive.

The intersection of Highway 395 at Mojave Dr is anticipated to operate at an LOS E during the AM peak hour and LOS F during the PM peak hour. This is considered below the city's peak hour level of service standard.



LEGEND

XX/XX - AM/PM TRAFFIC VOLUME

(#) - STUDY INTERSECTIONS

- SIGNALIZED INTERSECTION

- STOP CONTROLLED APPROACH

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FIGURE 12: FUTURE HORIZON (YEAR 2036) TRAFFIC VOLUMES CACTUS NORTH WAREHOUSE VICTORVILLE, CALIFORNIA

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7 FUTURE BACKGROUND (YEAR 2036) PLUS PROJECT CONDITIONS

The Future Background (Year 2036) Plus Project Scenario adds the project's estimated traffic generation to the Future Background (Year 2036) Scenario described in the previous chapter. Level of service impacts identified in this scenario are considered "cumulative" impacts—impacts that the project contributes to, but does not solely cause, and may be responsible for a fair-share of the cost to implement any mitigation measures.

7.1 Future Background (Year 2036) Plus Project Traffic Analysis

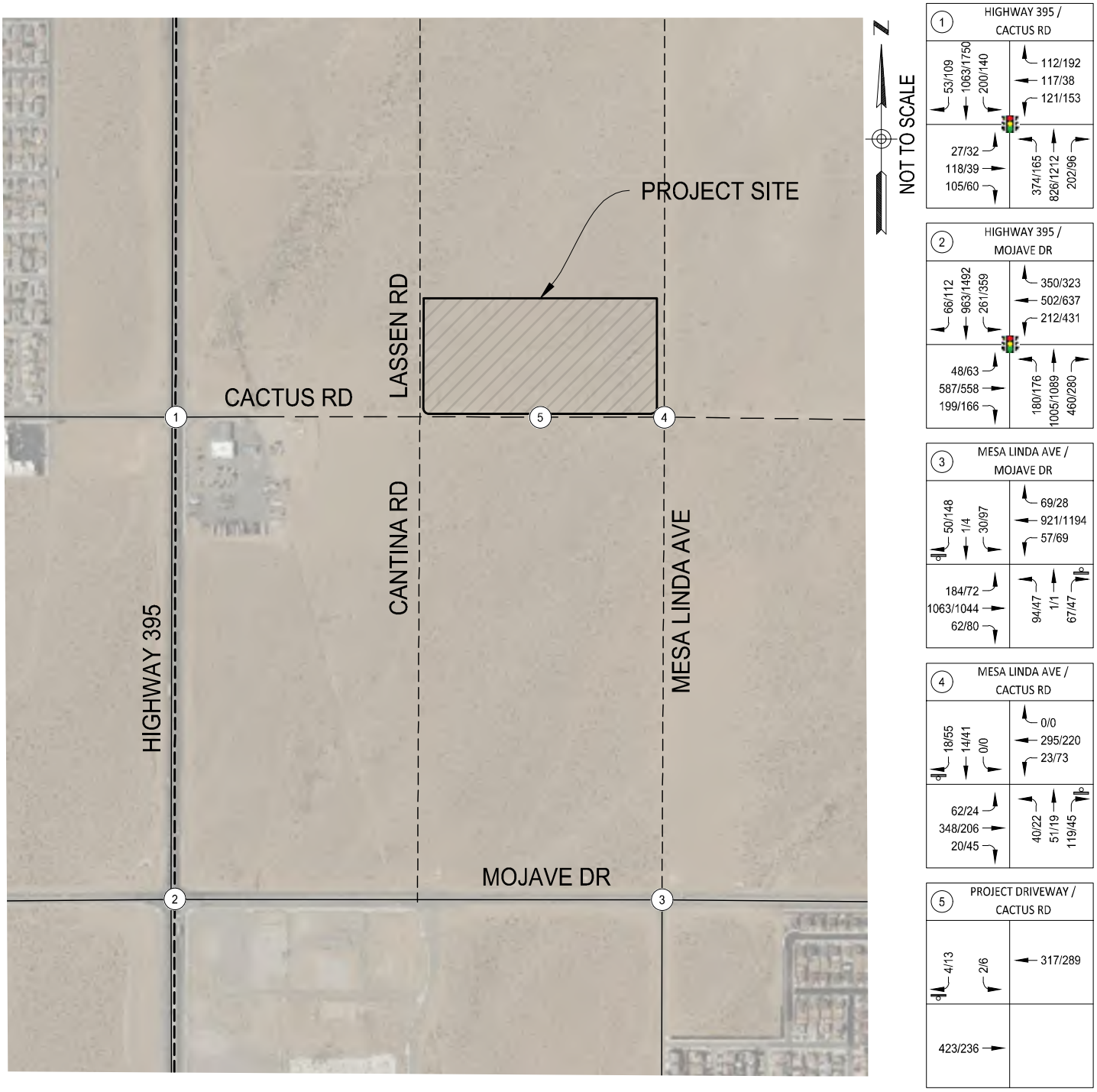
The traffic volumes under this scenario are illustrated in **Figure 13**. The intersection capacity analysis for this scenario is based on the future lane geometries, including the mitigations that were approved for Mojave 68 Project. The results of the analysis are shown in **Table 7-1** and provided in **Appendix C.**

Table 7-1: Comparison of Future Background (Year 2036) and Future Background + Project Levels of Service

Intersection	Control Type	Future Background Condition				Future Background + Project Condition			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Highway 395 / Cactus Rd	TS	34.0	C	35.9	D	33.3	C	36.3	D
2. Highway 395 / Mojave Dr	TS	61.4	E	114.6	F	72.0	E	115.9	F
3. Mojave Dr / Mesa Linda Ave	TS	34.0	C	31.7	C	36.9	D	29.5	C
4. Mesa Linda Avenue / Cactus Road	SSSC	N/A				23.0	C	19.9	C
5. Cactus Road / Project Driveway	SSSC	N/A				10.9	B	10.5	B

Notes:
Shaded cells in the table represent intersection peak hours with LOS deficiencies (LOS E or F).
Capacity analysis is based on trucks converted to passenger car equivalents (PCE's)
Abbreviations:
Intersection control types: TS = traffic signal, SSSC= side-street stop-control, N/A = Not Applicable - Future Intersection

As presented in **Table 7-1,** under Future Background (Year 2036) Plus Project conditions, the intersection of Highway 395 and Mojave Drive will continue to operate at LOS E during the AM peak hour and LOS F during the PM peak hour after adding the project traffic, with a slight increase in the delay that is below the two percent delay increase threshold the city uses to identify contributions to a level of service deficit.



LEGEND

XX/XX - AM/PM TRAFFIC VOLUME

(#) - STUDY INTERSECTIONS

- SIGNALIZED INTERSECTION

- STOP CONTROLLED APPROACH

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FIGURE 13: FUTURE HORIZON (YEAR 2036) PLUS PROJECT TRAFFIC VOLUMES CACTUS NORTH WAREHOUSE VICTORVILLE, CALIFORNIA

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8 FUTURE (YEAR 2046) CONDITIONS (FOR INFORMATIONAL PURPOSES)

This scenario represents conditions at a 20-year forecast planning horizon without traffic generated by the project. It is for informational purposes only because the City of Victorville does not use this long-range analysis scenario for conditioning project improvements.

Growth in traffic is from extrapolation of the 2040 San Bernardino County Transportation Analysis Model (SBTAM) model projections. Intersection turn movements were derived from post processing forecasted link approach volumes and balancing the turn movement volumes for each study intersection.

This scenario also includes traffic generated by the Highway 395 and Mojave Industrial Complex Map of approved development projects in the immediate vicinity of the proposed project traffic provided by the City. The approved improvements from Mojave 68 project were used for this scenario.

8.1 Future (Year 2046) Traffic Analysis

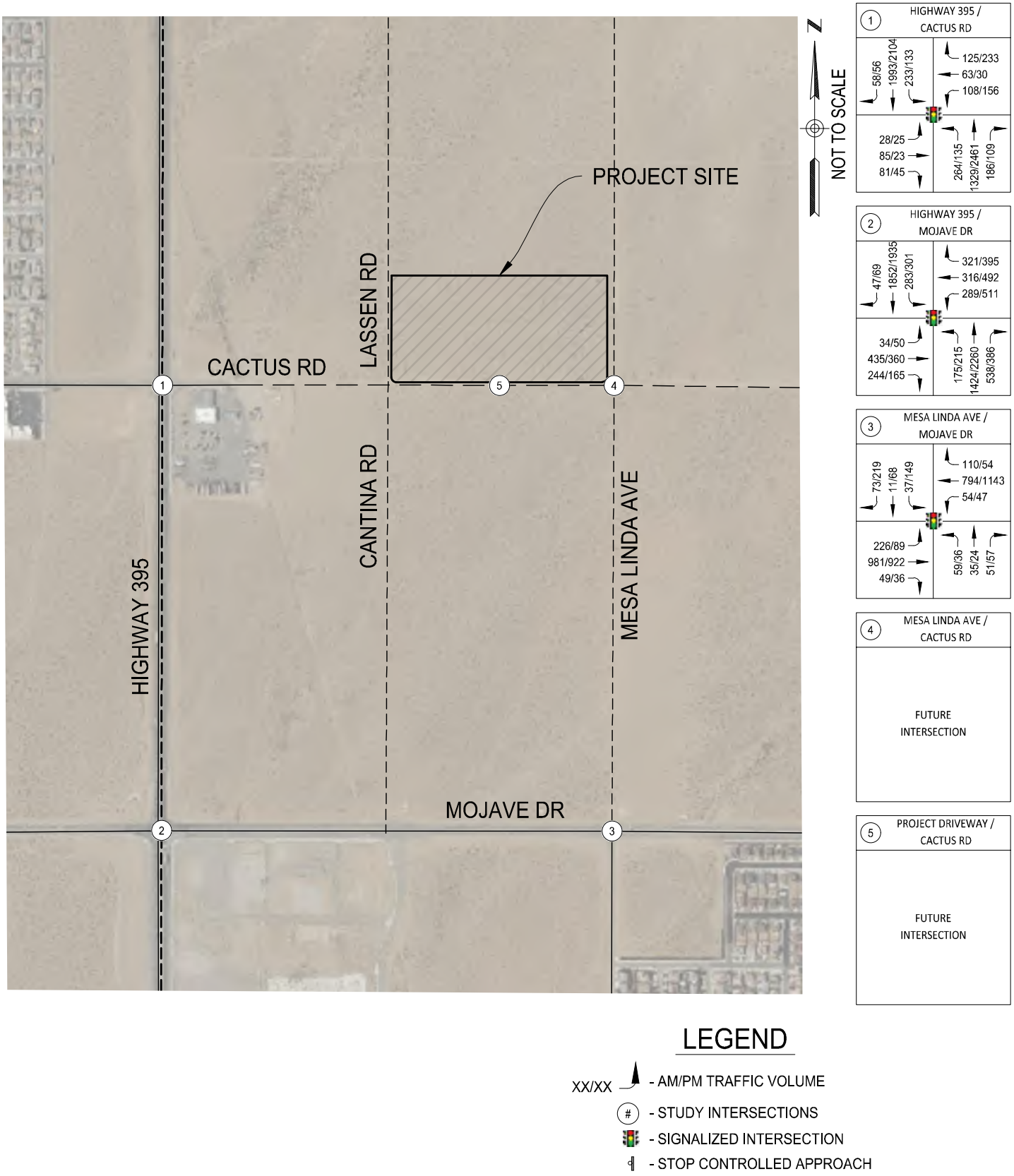
The Future (Year 2046) Scenario forecasted traffic volumes are illustrated in **Figure 14.** Intersection capacity analysis uses these traffic projections and the future lane geometries, including the approved mitigations for Mojave 68 Project. The results of the analysis are shown in **Table 8-1** and provided in **Appendix C**.

Table 8-1: Intersection Capacity Analysis – Future (Year 2046) Conditions

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1. Highway 395 / Cactus Rd	TS	73.2	E	76.9	E
2. Highway 395 / Mojave Dr	TS	145.4	F	304.2	F
3. Mojave Dr / Mesa Linda Ave	TS	33.3	C	33.7	C

Notes:
Shaded cells in the table represent intersection peak hours with LOS deficiencies (LOS E or F).
Capacity analysis is based on trucks converted to passenger car equivalents (PCE's)
Abbreviations:
Intersection control types: TS = traffic signal, SSSC= side-street stop-control

As presented in **Table 8-1**, under Future (Year 2046) Conditions, the intersections of Highway 395 at Cactus Rd and Highway 395 at Mojave Drive will operate at LOS F during the AM peak hour and PM peak hour. This is considered below the city's peak hour level of service standard. As a result, this intersection is identified as cumulative deficiencies occurring prior to the addition of project traffic.



DAVID EVANS AND ASSOCIATES INC.

FIGURE 14: FUTURE (YEAR 2046) TRAFFIC VOLUMES
CACTUS NORTH WAREHOUSE
VICTORVILLE, CALIFORNIA

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9 FUTURE (YEAR 2046) PLUS PROJECT CONDITIONS (FOR INFORMATIONAL PURPOSES)

The Future Plus Project Scenario adds the project's estimated traffic generation to the Future (Year 2046) Scenario described in the previous chapter. Year 2046 conditions represent a 20-year long range planning scenario which Caltrans requests be included in traffic impact studies. Forecasts for the year 2046 analysis scenario are derived from the San Bernardino Transportation Analysis Model (SBTAM).
Level of service impacts identified in this scenario are considered "cumulative" impacts—impacts that the project contributes to, but does not solely cause, and may be responsible for a fair-share of the cost to implement any mitigation measures.

9.1 Future Background (Year 2046) Plus Project Traffic Analysis

The traffic volumes forecasted for this scenario are illustrated in **Figure 15**. The intersection capacity analysis for this scenario is based on the future lane geometries, including the mitigations that were approved for Mojave 68 Project. The results of the analysis are shown in **Table 9-1** and provided in **Appendix C.**

Table 9-1: Comparison of Future Year 2046 and Future Year 2046 + Project Intersection Level of Service

Intersection	Control Type	Future Condition				Future + Project Condition			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Highway 395 / Cactus Rd	TS	104.1	F	136.5	F	108.9	F	138.0	F
2. Highway 395 / Mojave Dr	TS	180.2	F	426.3	F	183.4	F	429.5	F
3. Mojave Dr / Mesa Linda Ave	TS	49.2	D	40.5	D	51.0	D	41.0	D
4. Mesa Linda Avenue / Cactus Road	SSSC	21.5	C	21.8	C	22.3	C	22.5	C
5. Cactus Road / project Driveway	SSSC	N/A				10.7	B	11.0	B

Notes:
Shaded cells in the table represent intersection peak hours with LOS deficiencies (LOS E or F).
Capacity analysis is based on trucks converted to passenger car equivalents (PCE's)
Abbreviations:
Intersection control types: TS = traffic signal, SSSC= side-street stop-control, N/A = Not Applicable - Future Intersection

As presented in **Table 9-1,** under Future (Year 2046) Plus Project Conditions, all of the study intersections remain at their LOS with slight increases in delay, except for the intersections of Highway 395 at Mojave Dr and Highway 395 at Cactus Rd.

The intersection of Highway 395 at Mojave Dr is anticipated to operate at an LOS F during the AM peak hour and PM peak hour. This is considered below the city's peak hour level of service standard. As a result, this intersection is identified as cumulative deficiencies occurring prior to the addition of project traffic.

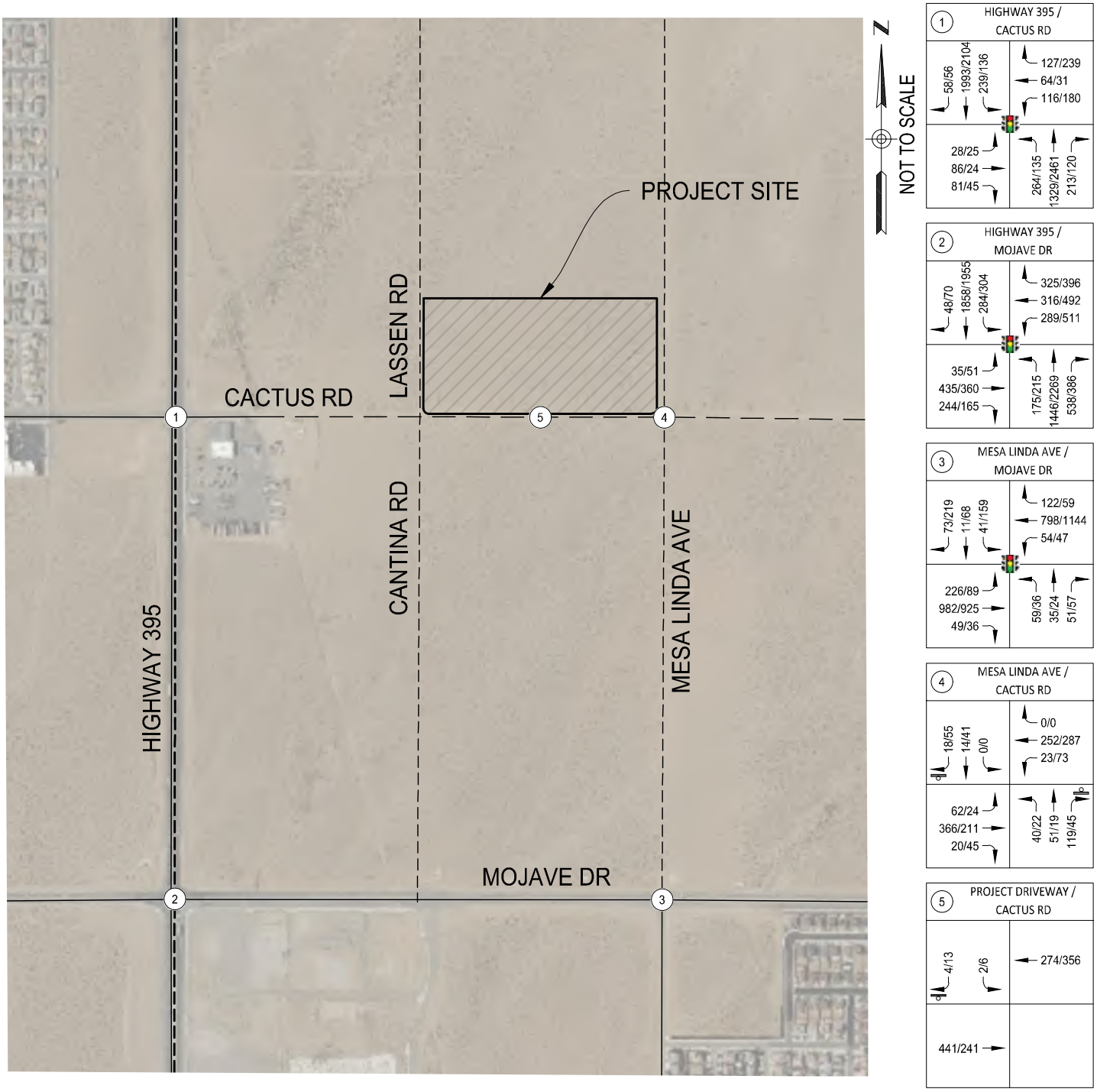
The intersection of Highway 395 at Cactus Rd is anticipated to operate at an LOS E during the AM peak hour and PM peak hour. This is considered below the city's peak hour level of service standard. As a result, this intersection is identified as cumulative deficiencies occurring prior to the addition of project traffic.

9.2 Long-Term (Year 2046) Improvements – For Informational Purposes Only

Table 9-2 describes the improvements required to mitigate the deficient levels of service in the year 2046 plus the project. Since the city will not condition the project to improve long-range conditions, the improvements discussed in this section are for information purposes only.

Table 9-2: Future Year 2046 + Project Conditions - Recommended Improvements

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
2. Highway 395 / Mojave Dr	TS	147.1	F	†	F
w/Cumulative Improvements: add second WBL, add exclusive WBR, NBR overlap, WBR overlap, and optimize signal timing	TS	55.8	E	149.2	F



LEGEND

XX/XX - AM/PM TRAFFIC VOLUME

(#) - STUDY INTERSECTIONS

- SIGNALIZED INTERSECTION

- STOP CONTROLLED APPROACH

DAVID EVANS AND ASSOCIATES INC.

FIGURE 15: FUTURE (YEAR 2046) PLUS PROJECT TRAFFIC VOLUMES
CACTUS NORTH WAREHOUSE
VICTORVILLE, CALIFORNIA

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10 APPENDICES

Appendix A: Approved City Scope Agreement
Appendix B: Turn Movement Count Volumes
Appendix C: Forecast Model Volume Development
Appendix D: Intersection Capacity Analysis Calculations
Appendix E: Highway 395 and Mojave Industrial Complex Map Other Area Projects

Appendix A: Approved City Scope Agreement

DAVID EVANS
AND ASSOCIATES INC.

January 15, 2024 Job No. IPGIM51H-0001

MEMORANDUM



To: Craig J. Wilde
IPG Mojave 51 Holdings LLC
991 Lomas Santa Fe Drive, Suite C PMB 469
Solana Beach, CA 92075

From: James M. Daisa, PE
Senior Transportation Project Manager

RE: REVISED SCOPING AGREEMENT FOR FOCUSED TRAFFIC IMPACT ANALYSIS AND VEHICLE MILES TRAVELED (VMT) SCREENING FOR PROPOSED INDUSTRIAL WAREHOUSE SITE LOCATED AT THE NORTHEAST CORNER OF MOJAVE DRIVE AND TOPAZ ROAD IN VICTORVILLE (APNS: 045505392, 4-5)

David Evans and Associates, Inc. (DEA) is pleased to submit this Revised Traffic Impact Analysis Scope Agreement for the proposed Industrial Warehouse Site located at the northeast corner of Mojave Drive and Topaz Road (the Project) in the City of Victorville. This scope agreement responds to the city's comments on our November 3, 2023, scope agreement.

This memorandum presents key elements of the scope of work for the Focused Traffic Impact Analysis Report (TIA Report) evaluating the above referenced development project. This memorandum, a standard practice for the City of Victorville, presents our traffic study assumptions and methodologies to the City of Victorville for their review and approval. We estimate the proposed project's trip generation and distribute the trips to the project's site access points and proposed study intersections. This is key information the city needs to review and approve before we can proceed with the traffic study.

In addition to establishing the scope of the focused traffic study, this memorandum includes a screening assessment to determine if a VMT analysis for CEQA clearance of the project is required. The screening assessment is based on Victorville's adopted criteria for exempting development projects from having to conduct a VMT analysis. The VMT was prepared and is included in the exhibits with this scope.

A. Project Description

The project site is located on the northeast corner of the intersection of Mojave Drive and Topaz Road in the City of Victorville, as illustrated in **Exhibit A**. The proposed project is to construct three warehouses with a total floor area of 1,025,016 square feet (SF) with internal office space. Building 1 has an area of 162,900 SF, including 5,000 SF of office area. Building 2 has an area of 179,620 SF, including 5,000 SF of office area. Building 3 has an area of 680,640 SF, including 20,000 SF of office area. The proposed project is bounded to the north by Tawney Ridge Lane (dirt road) and by vacant/undeveloped properties, to the south by Mojave Drive and single-family residential development, to the west by Topaz Road (dirt road) and vacant/undeveloped properties, and to the east by Diamond Road and single-family residential development as well.

Exhibit B illustrates the proposed site plan. Access to the site is proposed from driveways on Mojave Drive, Topaz Road (currently a dirt road), Tawney Ridge Lane (currently a dirt road), and Grand Prix Road (a future street).

B. Project Trip Generation

The proposed project is a speculative warehouse where the specific tenant(s) and function are unknown. While the impact analysis needs to reflect a reasonable spectrum of tenant types, there is a risk when estimating trip generation of over or under-estimating traffic. The 11th Edition of the Institute of Transportation Engineers' Trip Generation manual contains data for the most common types of warehouse operations with a wide range of rates. **Table A** summarizes the trip generation rates for warehouse facilities in the current edition of ITE's Trip Generation.

Table A: Trip Generation Rates for ITE Land Use Categories of Warehousing

Warehouse Type	ITE Land Use Code	Average Trip Generation Rates for Warehouse Types (Trips Per KSF) (Source: ITE Trip Generation 11th Edition)		
		Average Daily Traffic	AM Peak Hour of Adjacent Street Traffic	PM Peak Hour of Adjacent Street Traffic
		Total (In + Out)	Total (In + Out)	Total (In + Out)
High-Cube Transload and Short-Term Storage Warehouse	154	1.54	0.08	0.10
High-Cube Cold Storage Warehouse	157	2.12	0.11	0.12
High-Cube Fulfillment Center Warehouse - Non-Sort	155	1.81	0.15	0.16
General Warehouse	150	1.71	0.17	0.18
High-Cube Parcel Hub Warehouse	156	4.63	0.70	0.64
High-Cube Fulfillment Center Warehouse - Sort	155	6.44	0.87	1.20
Average of All Warehouse Types		3.04	0.35	0.40
Average Without High-Cube Sort Fulfillment Center		2.36	0.24	0.24

To help select a trip generation rate for the proposed project representative of the range of potential tenants / warehouse functions, **Table A** includes the average of the rates for all warehouse types in the ITE Trip Generation manual and the average of the rates for all warehouse types except High-Cube Fulfillment Sort Facility—the most intensive type of warehouse. The secondary average rate (excluding High-Cube Fulfillment Sort Facility) represents two thirds of the ITE warehouse types and covers a broad range of tenant types and operations.

Table B summarizes the estimated trip generation of the proposed project for an average weekday, and weekday peak hours within the AM (7-9 AM) and PM (4-6 PM) peak periods, based on the secondary average rates identified in **Table A**. The proposed warehouse would generate about 2,427 vehicle trips per day and 247 vehicle trips in both the AM and PM peak hours.

For truck intensive land uses it is standard practice to convert trips to passenger car equivalents (PCEs) for intersection capacity analysis. This conversion reflects the effects of large vehicles on intersection operations both from the physical space a truck occupies but also from their effect on the intersection's saturation flow rate due to the slower acceleration of trucks. The Passenger Car Equivalent (PCE) factors are industry standard conversion standards used throughout San Bernadino County. Passenger Car Equivalents (PCE) are provided by vehicle type and the conversion of trucks to PCEs is required by the City of Victorville for the calculation of intersection level of service.

When converted to PCEs, the proposed project generates about 3,414 daily PCEs, with 354 PCEs in both the AM and PM peak hours.

Table B: Project Trip Generation

Land Use	Gross Floor Area (KSF)	Daily	AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
			In	Out	Total	In	Out	Total
Warehouse (ITE Land Use Categories 150, 154, 155, 156, 157)	1,028.16	Vehicle Trip Generation Rates (Trips Per 1,000 Square Feet of Gross Floor Area)						
		2.36	0.18	0.06	0.24	0.07	0.17	0.24
		Total Vehicle Trip Generation						
		2,427	190	57	247	69	178	247
	Mode Share	Project Trip Generation by Vehicle Type						
Passenger Cars (Percent of Total)	74.21%	1,801	141	43	184	52	132	184
2-Axle Trucks (Percent of Total)	4.55%	111	9	3	12	3	9	12
3-Axle Trucks (Percent of Total)	4.18%	102	8	3	11	3	8	11
4-Axle Trucks (Percent of Total)	17.04%	414	33	10	43	12	31	43
	PCE Factor	Project Trip Generation in Passenger Car Equivalents (PCE)						
Passenger Cars)	1.0	1,801	141	43	184	52	132	184
2-Axle Trucks	1.5	167	14	5	19	5	14	19
3-Axle Trucks	2.0	204	16	6	22	6	16	22
4 + Axle Trucks	3.0	1,242	99	30	129	36	93	129
Total Passenger Car Equivalents (PCE)		**3,414**	**270**	**84**	**354**	**99**	**255**	**354**

Notes:
KSF = Thousands of Square Feet.
AM / PM Peak Hour of Adjacent Street Traffic = Trip generation coinciding with the highest hourly volumes of traffic on the adjacent streets during the AM (7:00 AM and 9:00 AM) and PM (4:00 PM and 6:00 PM) commuter peak periods.
Source of trip generation rates: Institute of Transportation Engineers (ITE) Trip Generation (11th Edition). Average rates for land use category 150 (Warehouse).
Source of passenger car / truck mode share (percentage of total): South Coast Air Quality Management District High Cube Warehouse Trip Generation Study (2016). Based on data from eight high cube warehouses in the Inland Empire over 1,000,000 square feet in size. The average warehouse building size is 1,364,496 square feet.
Passenger Car Equivalents (PCE) factors: Industry standard values utilized in neighboring jurisdictions

C. Study Intersections

This focused traffic study evaluates project access driveways and key intersections on routes used by project traffic to access the site. **Exhibit C** and the list below identify the intersections proposed for inclusion in the study.

1. Highway 395 / Mojave Drive
2. Highway 395 / Cactus Road
3. Mojave Drive / Mesa Linda Avenue
4. Mojave Drive / Diamond Road
5. Mojave Drive / Topaz Road (future intersection)
6. Mojave Drive / Grand Prix Road (Future Intersection)
7. Tawney Ridge Lane / Diamond Road (Future Intersection)
8. Tawney Ridge Lane / Topaz Road (Future Intersection)

The intersections of Highway 395 at Mojave Drive, Highway 395 at Cactus Road, and Mojave Drive at Diamond Road are currently traffic signal controlled. The intersection of Mojave Drive at Mesa Linda Avenue is currently side-street stop-controlled.

D. Project Trip Distribution and Assignment

To address the impacts of the estimated project traffic, project trips are distributed by direction towards major commute routes, truck routes, freight haul corridors, and concentrations of residential and commercial / employment centers. Truck trips are distributed to truck routes designated in Victorville's General Plan, the nearest of which includes Mojave Drive from I-15 to Highway 395. Highway 395, as a state highway, is also a designated truck route by the State of California. Once the distribution pattern is established, project trips are assigned to the streets that provide the most direct route to destinations.

The distribution of the automobile trips (employees/visitors) is illustrated in **Exhibit D-1**. The distribution of truck trips is illustrated in **Exhibit D-2**. **The distribution of project trips assumes the construction of Topaz Road between Cactus Road/Tawney Ridge Lane to Mojave Drive, and Cactus Road/Tawney Ridge Lane between Highway 395 and Diamond Road through a combination of improvements by the proposed project and other proposed development in the area.**

The assignment of the total project trips (automobile plus trucks in passenger car equivalents) to the proposed study intersections is illustrated in **Exhibit E.**

Site Access

Access to Building 1 is proposed from two right turn in/ right turn out only driveways on Mojave Drive, two full access driveways on Topaz Road, and two full access driveways on Grand Prix Road. Access to Building 2 is proposed from two full access driveways on Camino Valley Way, two full access driveways on Topaz Road, and two full access driveways on Grand Prix Road. Access to Building 3 is proposed from two full access driveways on Topaz Road, one full access driveway on Camino Valley Way, and one full access driveway on Tawney Ridge Lane (currently a dirt road at that location).

E. Level of Service Methodology

Level of service will be calculated using the Highway Capacity Manual (HCM6) methodologies for signalized and non-signalized intersections. All study intersections will be analyzed to identify deficiencies in the city's Level of Service (LOS) policy. The capacity analysis will represent trucks in passenger car equivalents (PCE) in the existing and projected peak hour traffic volumes.

Signal warrant analyses. Signal warrant analyses (CA MUTCD Warrant #3 - Peak Hour) will be conducted at the non-signalized intersections if they are found to operate at LOS E or LOS F in any scenario. The Mojave 68 project has established the need for a signal at Mojave Drive / Mesa Linda Avenue. The Mojave 51 study will confirm the signal warrant at Mesa Linda Avenue. The City has requested that Signal warrant analyses be conducted for the intersections of Tawney Ridge Lane at Diamond Road and Tawney Ridge Lane at Topaz Road (future intersection).

Mitigation measures. If a study intersection is found to operate with a LOS deficiency under any "with project" scenario, improvements will be identified to accomplish the following:

- If the addition of project traffic causes the level of service to change from a LOS D or better in the "without project" condition to a LOS E or F, the improvement should return the level of service to a LOS D or better. In future conditions, the deficiency described above is a "cumulative" impact and the study will include the project's fair-share contribution to the impact (and the cost to mitigate the deficiency).
- If an intersection is operating at a deficient LOS E or F in the "without project" condition and the project adds traffic to the intersection that increases the average delay, the improvement should, at a minimum, offset the project's increase in delay. In near-term and future conditions, the deficiency described above is a "cumulative" impact and the study will include the project's fair-share contribution to the impact (and the cost to mitigate the deficiency).

F. Traffic Study Scenarios

Scenarios analyzed in this study are consistent with City of Victorville, San Bernardino County Congestion Management Program (CMP), and Caltrans requirements for analysis scenarios which include:

1. Existing Conditions (2023)
2. Background Conditions (Year 2025)
    a. Existing + ambient growth (assuming a growth rate of 3.5% per year per city guidelines)
    b. The city has provided the following list of planned and approved projects in the general area:
        i. approved 60-unit residential development on Mojave Drive (TT20422),
        ii. Mojave 68 located at the northeast corner of Mojave Drive and Mesa Linda Avenue
        iii. Covington Project (consisting of 7 buildings) located at the northwest corner of Mojave Drive and Topaz Ave
        iv. Cactus Road Warehouse located at the southwest corner of Cactus Road and Mesa Linda Avenue
        v. Cactus North Warehouse (consisting of 2 building) located at the northwest corner of Cactus Road and Mesa Linda Avenue
3. Background + Project Conditions (Year 2025)
    a. Background conditions as defined above + project traffic.
4. Future Horizon Year 2035 Without Project Conditions
    a. Background + ambient growth (assuming a growth rate of 3.5% per year per city guidelines) over and above 2025 background conditions
    b. Adjacent planned and approved (but not yet built) development.
5. Future Horizon Year 2035 + Project
    a. Future horizon year 2035 conditions + project traffic

Caltrans Only Scenarios

6. Future Year (2045) Without Project Conditions (Caltrans required 20-year projections)
    a. Derived from extrapolation of year 2040 SBTAM model projections.
    b. Only analyze the intersections of Highway 395 at Mojave Drive and Highway 395 at Cactus Road.
7. Future Year (2045) + Project Conditions
    a. Only analyze the intersections of Highway 395 at Mojave Drive and Highway 395 at Cactus Road.

G. Vehicle Miles Traveled (VMT) Screening

The following is a screening assessment to determine if the project is required to conduct a VMT analysis for environmental clearance under CEQA based on criteria in the City of Victorville's Vehicle Miles Traveled (VMT) Analysis Guidelines adopted by the City in June of 2020 in conformance with SB 743.

Project Screening from Conducting VMT Analyses

Victorville uses screening criteria to determine if a development project is required to conduct a VMT analysis. If a project satisfies the criteria described below it is considered to have a less than significant impact on VMT and does not require a VMT analysis.
Victorville has two criteria for screening projects from requiring a VMT analysis.

- The first criterion is based on the project's net daily increase in vehicle trips—if the project's net daily traffic generation is equal to or less than the city's threshold of 1,285 trips per day, it is exempt from a VMT analysis.
- The second criterion (*Project Type*) is comprised of a list of specific land uses types and a maximum size threshold in terms of dwelling units for residential projects and floor area for non-residential projects.

The listed types of land uses are based on the maximum building size that would generate under 3,000 metric tons of Carbon Dioxide Equivalent (CO2e) annually—the most stringent CO_2 emissions standard in California. Proposed projects matching the "project type" and falling within the size thresholds are exempt from a VMT analysis.

1. Screening for Net Increase in Daily Vehicle Trips

As shown in **Table B**, the project's net increase in daily trips is 2,427 daily vehicle trips (non-PCE) which exceeds the threshold of 1,285 daily trips in the city's guidelines. **Based on this criterion, the project is NOT screened from requiring a VMT analysis.**

2. Land Use Type Screening

According to the City of Victorville's VMT guidelines, the following type of land uses or development with the specified maximum size are exempt from having to conduct a VMT analysis:

- Single Family or Multifamily Residential – 136 dwelling units or less
- Office — 227,000 square feet or less
- Retail — 122,000 square feet or less
- **Warehousing — 829,000 square feet or less**
- Light Industrial — 296,000 square feet or less
- K-12 Public School
- Daycare/Childcare/Pre-K
- Affordable Housing
- Student Housing
- Community Institutions, Social Services and Public Buildings

The proposed project is comprised of Warehousing with a total building floor area of 1,028,160 square feet (including internal office space) that exceeds the city's warehousing size threshold of 829,000 square feet of floor area. **Based on this criterion, the project is NOT screened from requiring a VMT analysis.**

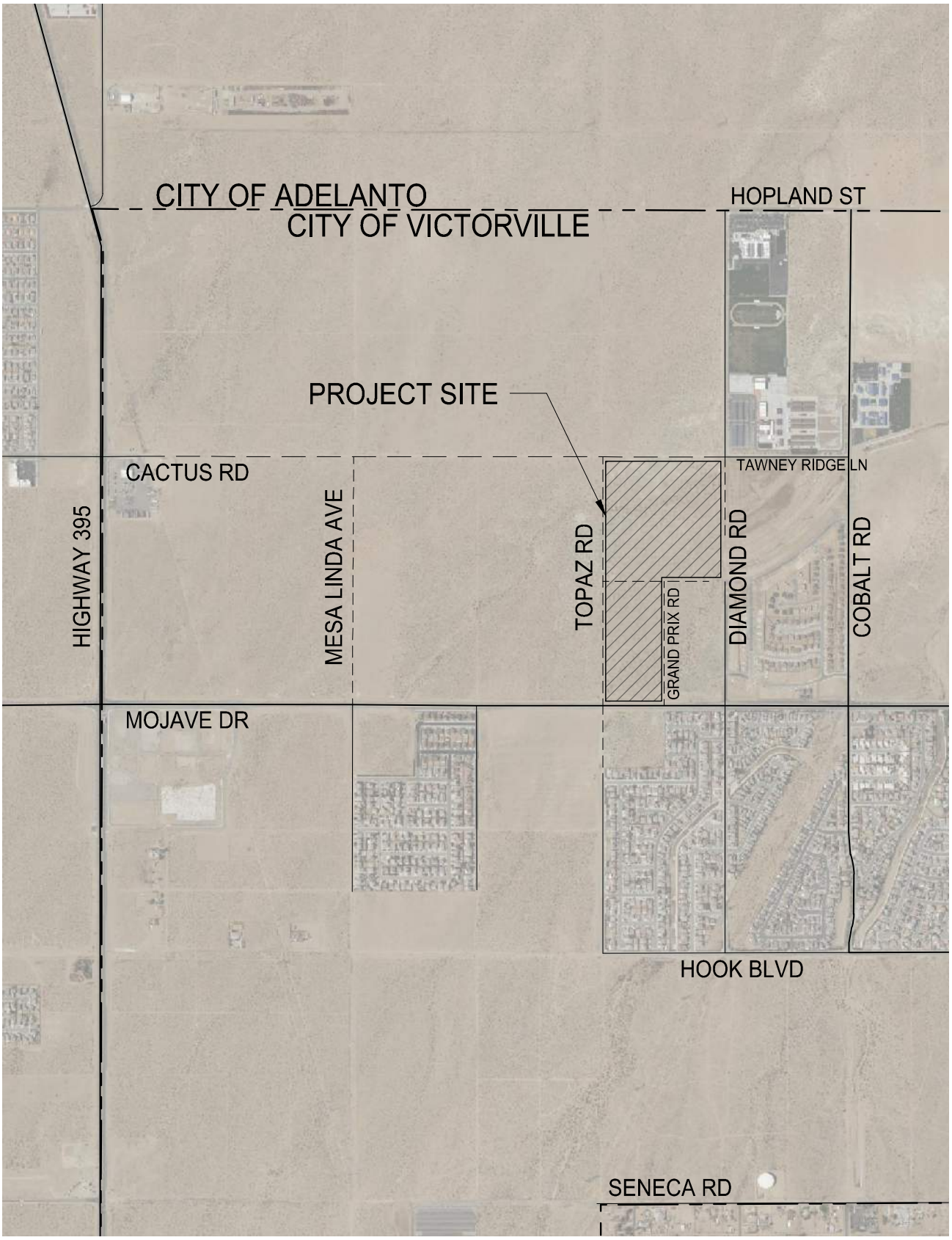
3. VMT Screening Conclusion

The proposed project exceeds the city's two screening criteria and therefore is **NOT screened from requiring a VMT analysis.**

A VMT analysis will be prepared and submitted as an attachment to the traffic study. The traffic study will include a summary of the VMT screening evaluation and the results of the VMT analysis.

Attachments

1. Exhibit A – Vicinity Map
2. Exhibit B – Site Plan
3. Exhibit C – Study Intersections
4. Exhibit D1 – Project Automobile Trip Distribution
5. Exhibit D2 – Project Truck Trip Distribution
6. Exhibit E – Total Project Trips
7. Attachment 1 – City Provided list of Planned and Approved Area Projects



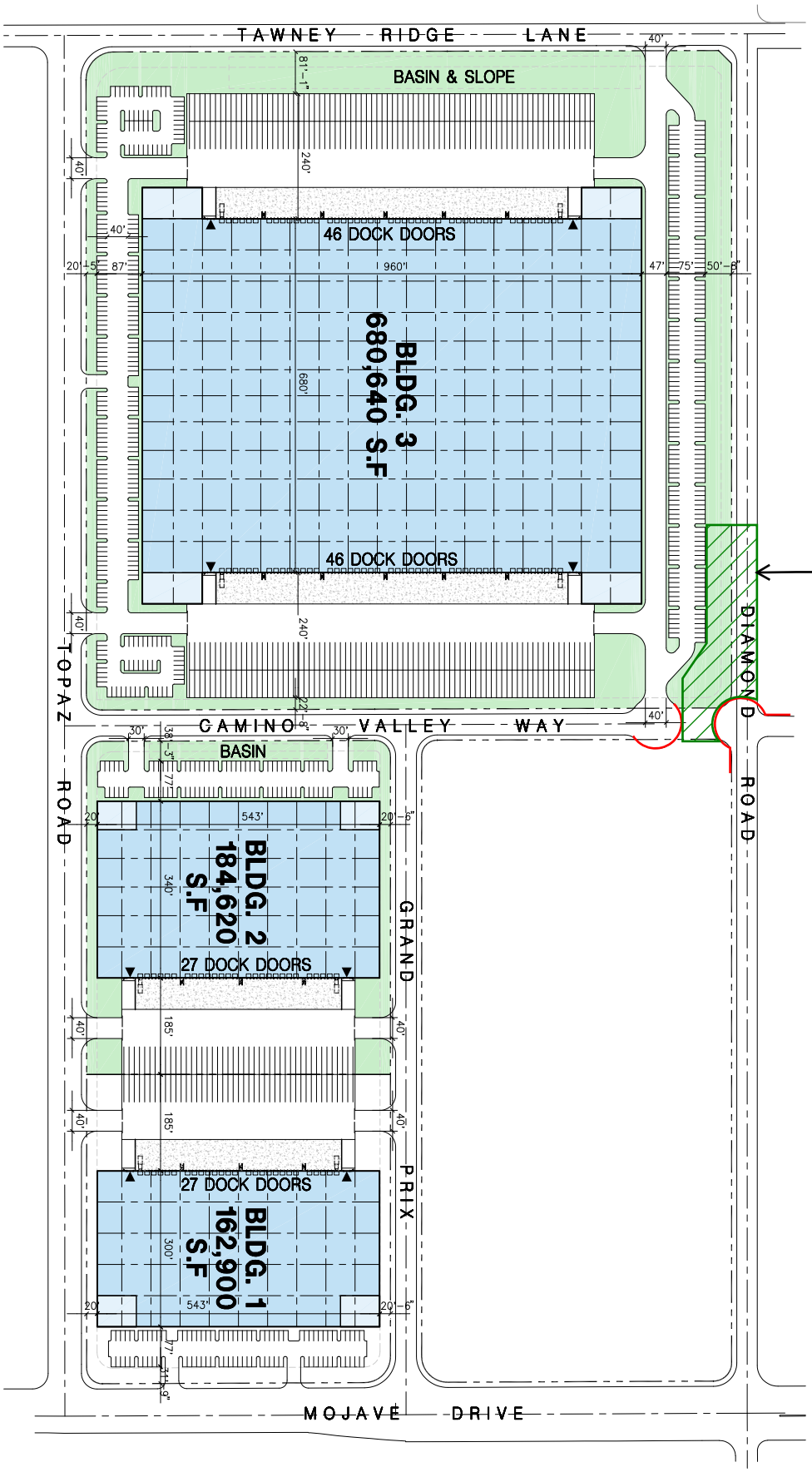
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DAVID EVANS AND ASSOCIATES INC.

EXHIBIT A: VICINITY MAP
MOJAVE DRIVE AND TOPAZ ROAD
VICTORVILLE, CALIFORNIA

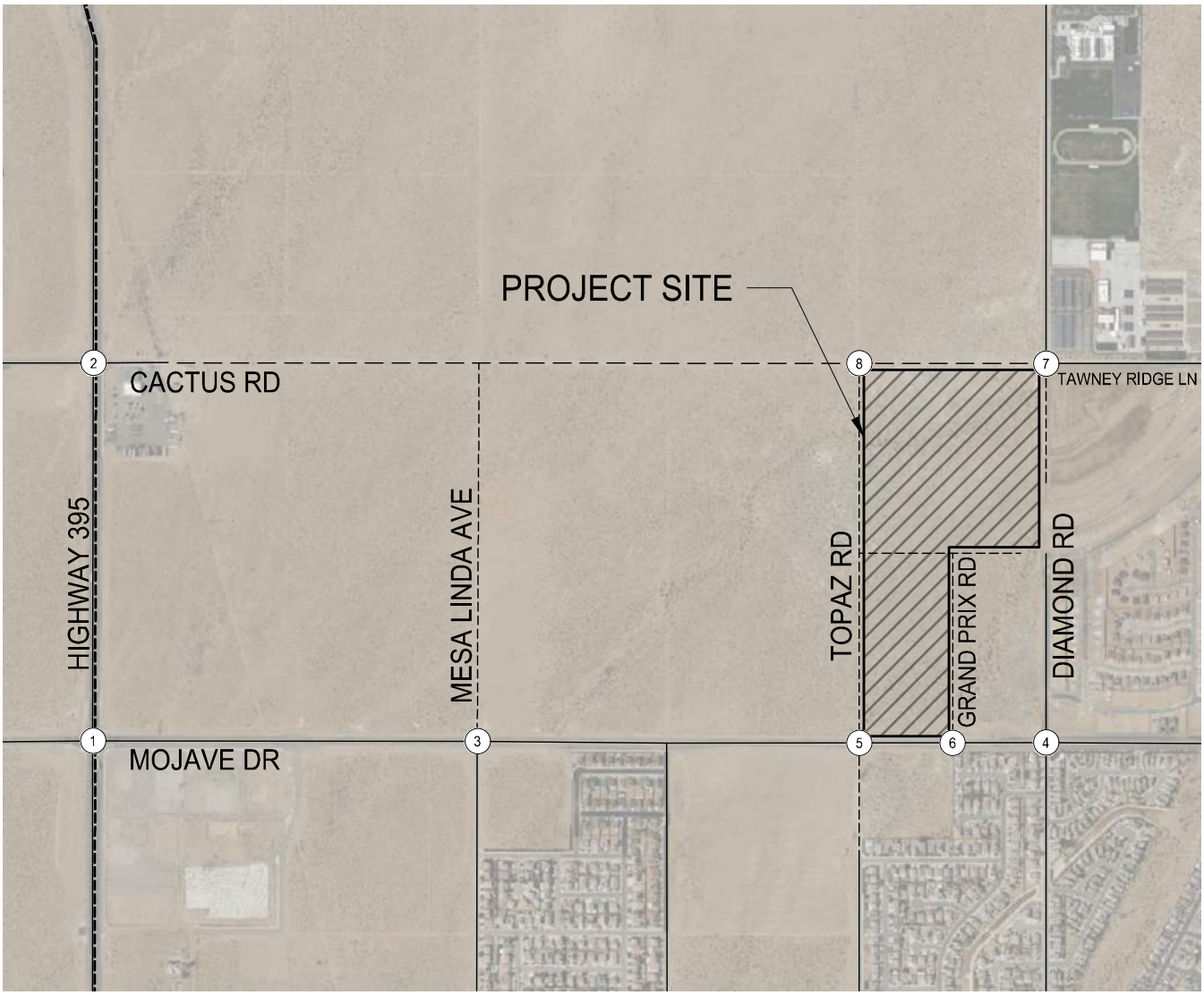
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EXHIBIT B: SITE PLAN
MOJAVE DRIVE AND TOPAZ ROAD
VICTORVILLE, CALIFORNIA

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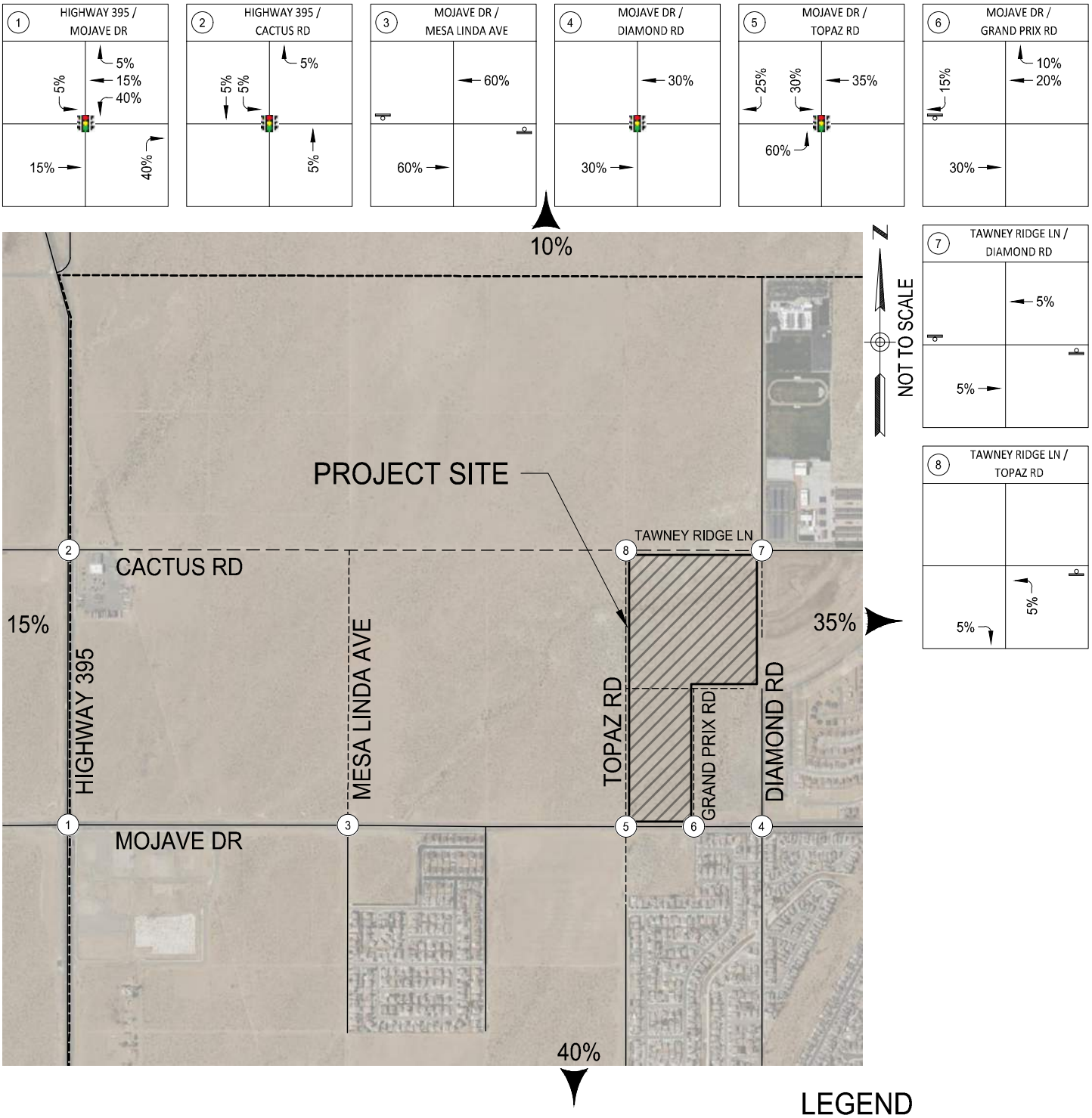
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(#) - STUDY INTERSECTION

DAVID EVANS AND ASSOCIATES INC.

EXHIBIT C: STUDY INTERSECTIONS
MOJAVE DRIVE AND TOPAZ ROAD
VICTORVILLE, CALIFORNIA

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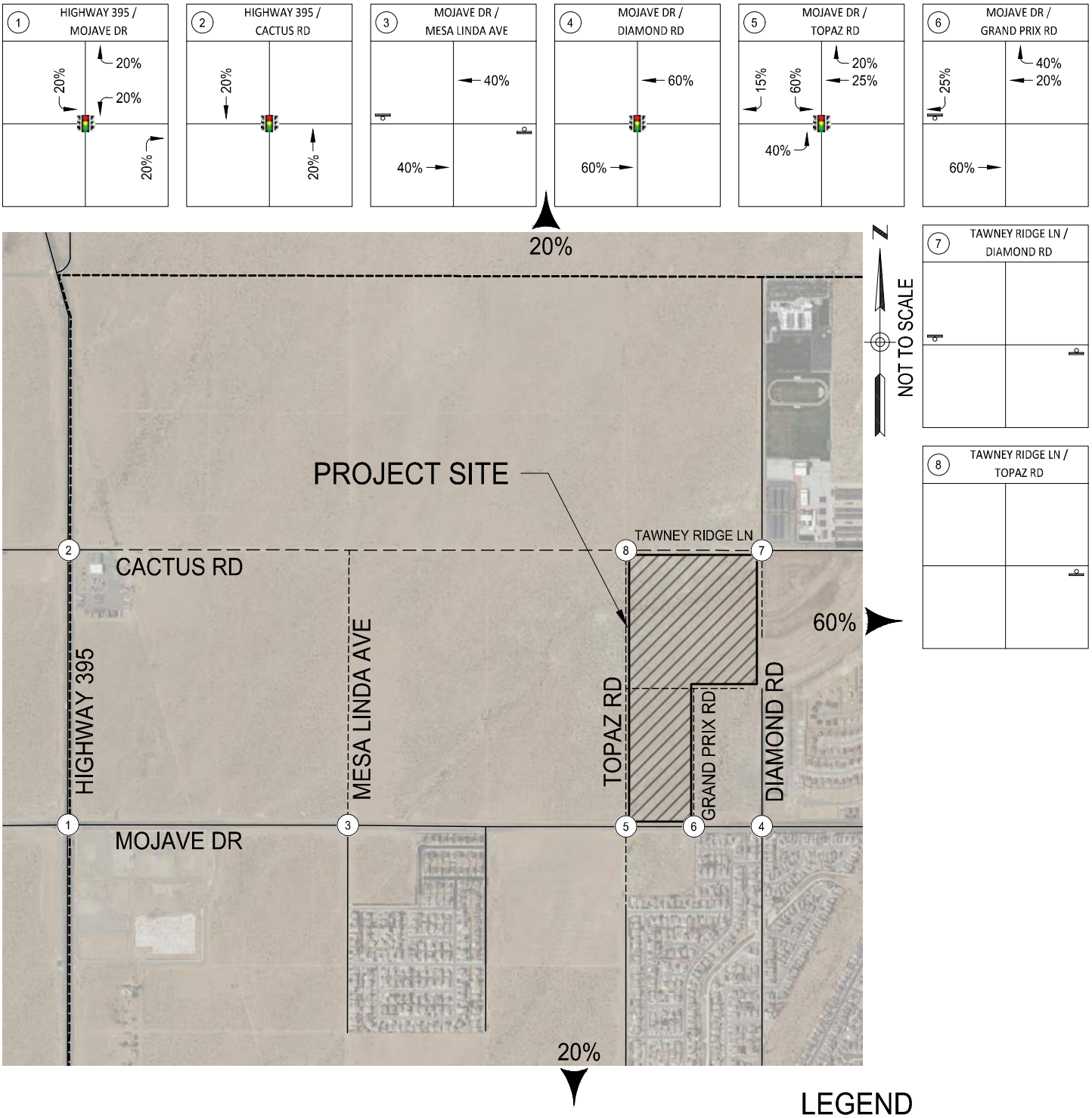
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- XX% - GENERAL PROJECT TRIP DISTRIBUTION
- XX% - SPECIFIC PROJECT TRIP PERCENTAGE
- (#) - STUDY INTERSECTION
- SIGNALIZED INTERSECTION
- STOP CONTROLLED APPROACH

DAVID EVANS AND ASSOCIATES INC.

EXHIBIT D-1: PROJECT AUTOMOBILE TRIP DISTRIBUTION
MOJAVE DRIVE AND TOPAZ ROAD
VICTORVILLE, CALIFORNIA

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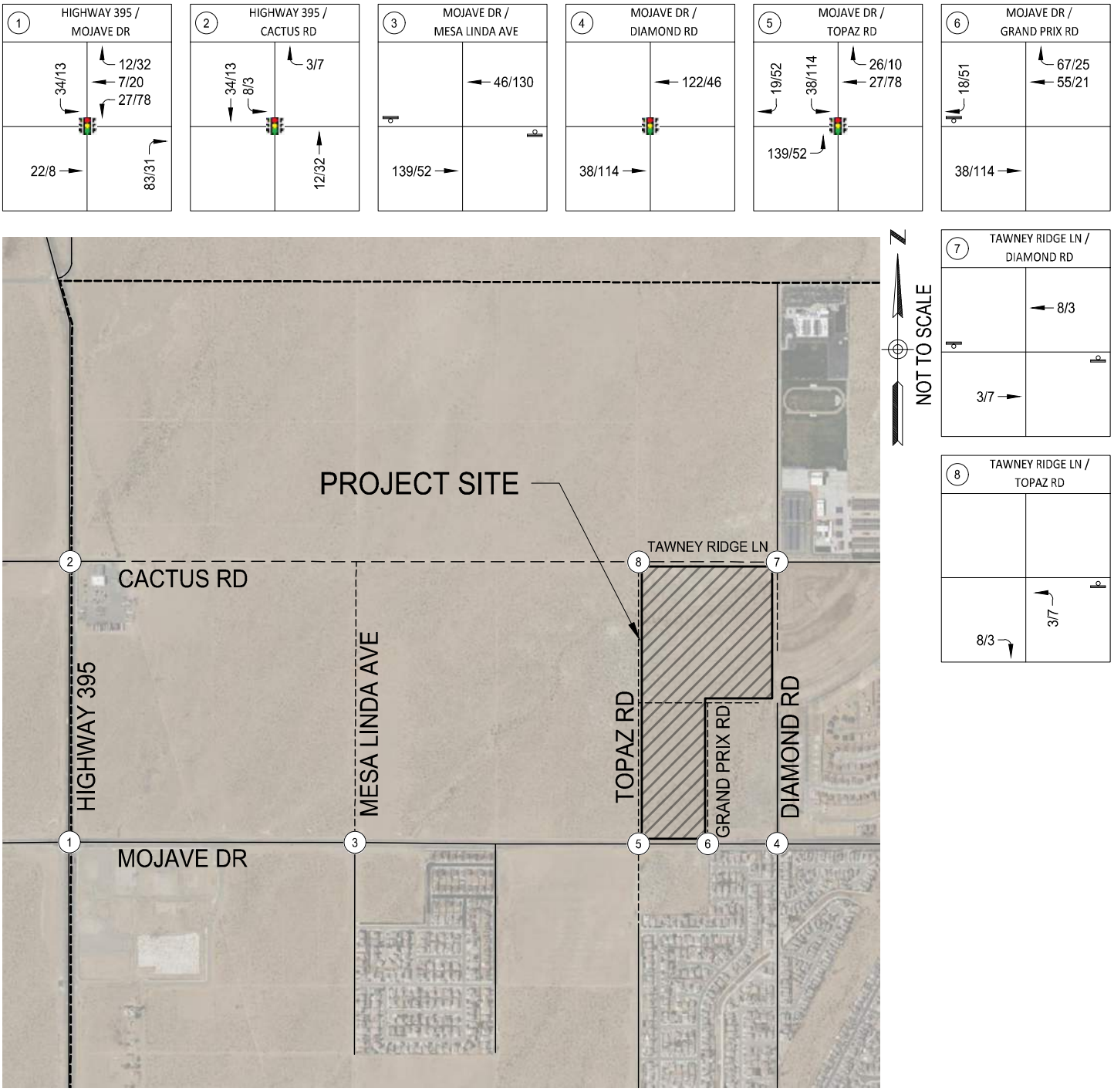
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- XX% - GENERAL PROJECT TRIP DISTRIBUTION
- XX% - SPECIFIC PROJECT TRIP PERCENTAGE
- (#) - STUDY INTERSECTION
- SIGNALIZED INTERSECTION
- STOP CONTROLLED APPROACH

DAVID EVANS AND ASSOCIATES INC.

EXHIBIT D-2: PROJECT TRUCK TRIP DISTRIBUTION
MOJAVE DRIVE AND TOPAZ ROAD
VICTORVILLE, CALIFORNIA

Drawing Name: P:\IIPGIM\51H0001\0400CAD\TT\EXHIBITS\Scope\Exhibit D-2.dwg
Last Opened: Jan 09, 2024 - 5:38pm by: Heay



PROJECT TOTAL PCE TRIPS

AM PEAK HOUR - 270 IN / 84 OUT
PM PEAK HOUR - 99 IN / 255 OUT

LEGEND

XX/XX - AM/PM PROJECT TRIP
(#) - STUDY INTERSECTION
- SIGNALIZED INTERSECTION
- STOP CONTROLLED APPROACH

DAVID EVANS AND ASSOCIATES INC.

EXHIBIT E: TOTAL PROJECT TRIPS
MOJAVE DRIVE AND TOPAZ ROAD
VICTORVILLE, CALIFORNIA

Drawing Name: P:\IIPGIM\51H0001\0400CAD\TT\EXHIBITS\Scope\Exhibit E.dwg
Last Opened: Jan 09, 2024 - 5:38pm by: Heay

ATTACHMENT 1 – CITY PROVIDED LIST OF PLANNED AND APPROVED AREA PROJECTS



MASTER SITE PLAN EXHIBIT
OF
MOJAVE DRIVE AT MESA LINDA AVENUE
FOR
INDUSTRIAL PROPERTY GROUP, INC.
VICTORVILLE, CALIFORNIA

KIER+WRIGHT
143 Technology Drive
Irvine, CA 92618
Phone: (949) 548-0202
www.kierwright.com

NO.	REVISION	BY

DATE	OCT 2023
SCALE	AS SHOWN
DESIGNER	
DRAWN BY	
JOB NO.	A22221
SHEET	1
OF 1	SHEET

Trisha Ocasio

From: Anwar Wagdy <awagdy@victorvilleca.gov>
Sent: Tuesday, January 2, 2024 10:41 AM
To: Trisha Ocasio
Cc: Fredy Bonilla; Jim Daisa; Craig Wilde; Jean Kim
Subject: RE: Scoping Memorandum for Proposed Industrial Warehouse Site (Mojave Drive at Topaz Road)

Follow Up Flag: Follow up
Flag Status: Flagged

Hi everyone, Happy New Year.

The scoping agreement is acceptable, except for one issue that needs to be revised:
We highly recommend consolidating the two driveways of Building 1 along Mojave Dr into one single driveway.

You requested a copy of the Covington's traffic report. Such report has not been received by us.

Thanks,
Anwar

From: Trisha Ocasio <Trisha.Ocasio@deainc.com>
Sent: Tuesday, December 19, 2023 12:32 PM
To: Anwar Wagdy <awagdy@victorvilleca.gov>
Cc: Fredy Bonilla <fbonilla@victorvilleca.gov>; Jim Daisa <Jim.Daisa@deainc.com>; Craig Wilde <craig@industrialpg.com>
Subject: RE: Scoping Memorandum for Proposed Industrial Warehouse Site (Mojave Drive at Topaz Road)

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Anwar,

Hope you are doing well.

Following up on this submittal. Could you please provide an update on the review of the revised scoping agreement memorandum for a proposed Industrial Warehouse development?

We would also like to also request a copy of the Traffic Report for the Covington Project included on the list of planned and approved area projects, as shown on the Attachment #1 provided for reference.

Trisha Ocasio, EIT | Engineering Designer II, Transportation
David Evans and Associates, Inc.
18484 Outer Highway 18 North, Suite 225 | Apple Valley, CA, 92307 | www.deainc.com
d: 760.524.9120 | c: 760.686.1215 | Cisco: 39120 | Trisha.Ocasio@deainc.com

ENERGY | LAND DEVELOPMENT | MARINE SERVICES | SURVEYING AND GEOMATICS | TRANSPORTATION | WATER AND ENVIRONMENT

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From: Trisha Ocasio
Sent: Wednesday, November 29, 2023 4:03 PM
To: Anwar Wagdy <awagdy@victorvilleca.gov>
Cc: Fredy Bonilla <fbonilla@victorvilleca.gov>; Jim Daisa <Jim.Daisa@deainc.com>; Craig Wilde <craig@industrialpg.com>
Subject: RE: Scoping Memorandum for Proposed Industrial Warehouse Site (Mojave Drive at Topaz Road)

Anwar,

Hope you are doing well.

Please find attached a revised scoping agreement memorandum for a proposed Industrial Warehouse development at the northeast corner of Mojave Drive at Topaz Road. The revised scoping memo incorporates the comments provided in your November 14th email.

We look forward to receiving your approval.

Trisha Ocasio, EIT | Engineering Designer II, Transportation
David Evans and Associates, Inc.
18484 Outer Highway 18 North, Suite 225 | Apple Valley, CA, 92307 | www.deainc.com
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From: Anwar Wagdy <awagdy@victorvilleca.gov>
Sent: Tuesday, November 14, 2023 10:10 AM
To: Trisha Ocasio <Trisha.Ocasio@deainc.com>
Cc: Fredy Bonilla <fbonilla@victorvilleca.gov>; Jim Daisa <Jim.Daisa@deainc.com>; Craig Wilde <craig@industrialpg.com>
Subject: RE: Scoping Memorandum for Proposed Industrial Warehouse Site (Mojave Drive at Topaz Road)

Trisha,

Please revise your scoping memo to include the following:

- Your cumulative projects analysis must include all planned and approved projects in the general area, as shown in the attached Master Plan exhibit.
- Study intersections must include the intersection of Tawney Ridge/Topaz and Tawney Ridge/Diamond.
- Prepare traffic signal warrants for the above two intersections.
- Assume completion of entire Cactus Rd in the future forecast and trip distributions.
- As indicated, the project was not screened from requiring VMT analysis. Please indicate what would be the next step?

Thanks,



From: Trisha Ocasio <Trisha.Ocasio@deainc.com>
Sent: Tuesday, November 7, 2023 9:35 AM
To: Anwar Wagdy <awagdy@victorvilleca.gov>
Cc: Fredy Bonilla <fbonilla@victorvilleca.gov>; Jim Daisa <Jim.Daisa@deainc.com>; Craig Wilde <craig@industrialpg.com>
Subject: Scoping Memorandum for Proposed Industrial Warehouse Site (Mojave Drive at Topaz Road)

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Anwar,

Hope you are doing well.

Please find attached a scoping agreement memorandum for a proposed Industrial Warehouse development at the northeast corner of Mojave Drive at Topaz Road. The scoping memo includes a screening assessment, and the project is required to provide a VMT analysis.

We look forward to receiving your comments.

Trisha Ocasio, EIT | Engineering Designer II, Transportation
David Evans and Associates, Inc.
18484 Outer Highway 18 North, Suite 225 | Apple Valley, CA, 92307 | www.deainc.com
d: 760.524.9120 | c: 760.686.1215 | Cisco: 39120 | Trisha.Ocasio@deainc.com

ENERGY | LAND DEVELOPMENT | MARINE SERVICES | SURVEYING AND GEOMATICS | TRANSPORTATION | WATER AND ENVIRONMENT

Appendix B: Turn Movement Count Volumes

INTERSECTION TURN COUNT

PEAK HOUR

NORTH-SOUTH STREET: HIGHWAY 395
EAST-WEST STREET: MOJAVE DR
JURISDICTION: ADELANTO

DATE: 01-30-24

PEAK HOUR: 07:45AM

NORTH LEG

TOTAL: 709

Rt	Thru	Lt	
42	520	147	Total
5	131	37	1st
10	136	41	2nd
11	131	36	3rd
16	122	33	4th

EAST LEG TOTAL: 616

	1st	2nd	3rd	4th	Total
Rt	52	56	61	55	224
Thru	79	88	80	73	320
Lt	19	19	19	15	72

WEST LEG TOTAL: 478

Total	1st	2nd	3rd	4th	
30	6	7	7	10	Lt
309	76	81	79	73	Thru
139	34	33	41	31	Rt

PEAK HOUR FACTORS

NORTH LEG = 0.95
SOUTH LEG = 0.94
EAST LEG = 0.94
WEST LEG = 0.94

ALL LEGS = 0.95

SOUTH LEG

TOTAL: 716

	Lt	Thru	Rt
1st	29	121	25
2nd	31	130	29
3rd	33	126	25
4th	33	111	23
Total	126	488	102

HOUR TOTAL: 2,519

Prepared by NEWPORT TRAFFIC STUDIES

SANBAG CLASSIFICATION SUMMARY

NORTH-SOUTH STREET : HIGHWAY 395 ADELANTO

EAST-WEST STREET : MOJAVE DR 01-30-24

BEGINNING TIME : 07:00AM

AUTOS			LARGE 2 AXLE			3 AXLE			4 (+) AXLE			TOTALS
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	
						NORTH LEG						
0	63	26	0	1	0	0	0	0	0	7	0	97
3	87	37	0	1	1	0	1	1	0	10	0	141
3	105	32	0	2	1	0	1	0	0	11	0	155
3	109	34	1	1	1	1	0	2	0	21	0	173
8	119	41	1	1	0	1	2	0	0	14	0	187
11	113	36	0	1	0	0	2	0	0	15	0	178
16	108	31	0	2	1	0	0	1	0	12	0	171
12	98	29	2	1	0	1	0	1	0	11	0	155
56	802	266	4	10	4	3	6	5	0	101	0	1257
						SOUTH LEG						
15	57	19	0	1	0	1	0	0	0	8	0	101
14	67	27	1	3	0	1	1	0	0	8	0	122
17	90	24	1	1	1	0	2	0	0	11	0	147
24	99	28	0	3	1	1	0	0	0	19	0	175
26	110	31	2	1	0	1	4	0	0	15	0	190
24	107	33	1	2	0	0	2	0	0	15	0	184
23	100	33	0	0	0	0	1	0	0	10	0	167
20	87	27	0	2	2	0	1	0	0	11	0	150
163	717	222	5	13	4	4	11	0	0	97	0	1236
						EAST LEG						
35	63	16	2	0	0	0	0	0	0	0	0	116
43	74	19	2	2	0	0	1	0	0	0	0	141
56	81	12	0	1	2	0	1	2	0	0	0	155
51	79	19	1	0	0	0	0	0	0	0	0	150
55	85	17	0	1	1	1	2	1	0	0	0	163
61	80	18	0	0	0	0	0	1	0	0	0	160
54	71	13	1	1	2	0	1	0	0	0	0	143
50	68	14	0	2	0	0	0	0	0	0	0	134
405	601	128	6	7	5	1	5	4	0	0	0	1162
						WEST LEG						
26	54	1	0	1	0	0	0	0	0	0	0	82
21	74	3	1	1	0	0	2	2	0	0	0	104
27	80	2	1	0	1	1	1	0	0	0	0	113
34	59	5	0	1	0	0	2	1	0	14	0	116
32	80	7	1	0	0	0	0	0	0	1	0	121
41	74	7	0	2	0	0	3	0	0	0	0	127
31	70	10	0	2	0	0	1	0	0	0	0	114
24	72	5	0	0	0	0	0	1	0	0	0	102
236	563	40	3	7	1	1	9	4	0	15	0	879

Prepared by Newport Traffic Studies

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: HIGHWAY 395

EAST-WEST STREET: MOJAVE DR

TIME: 07:00AM-08:00AM DATE: 01-30-24

NORTH LEG

Rt	Thru	Lt	
11	420	135	Total
0	71	26	1st
3	99	39	2nd
3	119	33	3rd
5	131	37	4th

	1st	2nd	3rd	4th	Total
Rt	37	45	56	52	190
Thru	63	77	83	79	302
Lt	16	19	16	19	70

Total	1st	2nd	3rd	4th	
15	1	5	3	6	Lt
289	55	77	81	76	Thru
111	26	22	29	34	Rt

	Lt	Thru	Rt
1st	19	66	16
2nd	27	79	16
3rd	25	104	18
4th	29	121	25
Total	100	370	75

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: HIGHWAY 395

EAST-WEST STREET: MOJAVE DR

TIME: 08:00AM-09:00AM DATE: 01-30-24

NORTH LEG

Rt	Thru	Lt	
52	499	140	Total
10	136	41	1st
11	131	36	2nd
16	122	33	3rd
15	110	30	4th

	1st	2nd	3rd	4th	Total
Rt	56	61	55	50	222
Thru	88	80	73	70	311
Lt	19	19	15	14	67

Total	1st	2nd	3rd	4th	
30	7	7	10	6	Lt
305	81	79	73	72	Thru
129	33	41	31	24	Rt

	Lt	Thru	Rt
1st	31	130	29
2nd	33	126	25
3rd	33	111	23
4th	29	101	20
Total	126	468	97

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURN COUNT

PEAK HOUR

NORTH-SOUTH STREET: HIGHWAY 395
EAST-WEST STREET: MOJAVE DR
JURISDICTION: ADELANTO

DATE: 01-30-24

PEAK HOUR: 04:30PM

NORTH LEG

TOTAL: 1,202

Rt	Thru	Lt	
73	899	230	Total
17	223	55	1st
15	221	53	2nd
21	234	59	3rd
20	221	63	4th

EAST LEG TOTAL: 660

	1st	2nd	3rd	4th	Total
Rt	45	50	44	51	190
Thru	89	93	103	97	382
Lt	27	22	19	20	88

WEST LEG TOTAL: 516

Total	1st	2nd	3rd	4th	
37	8	9	10	10	Lt
365	90	88	96	91	Thru
114	27	29	31	27	Rt

PEAK HOUR FACTORS

NORTH LEG = 0.96
SOUTH LEG = 0.95
EAST LEG = 0.98
WEST LEG = 0.94

ALL LEGS = 0.96

SOUTH LEG

TOTAL: 870

	Lt	Thru	Rt
1st	33	161	28
2nd	30	148	26
3rd	27	173	29
4th	29	161	25
Total	119	643	108

HOUR TOTAL: 3,248

Prepared by NEWPORT TRAFFIC STUDIES

SANBAG CLASSIFICATION SUMMARY

NORTH-SOUTH STREET : HIGHWAY 395 ADELANTO

EAST-WEST STREET : MOJAVE DR 01-30-24

BEGINNING TIME : 04:00PM

AUTOS			LARGE 2 AXLE			3 AXLE			4(+) AXLE			TOTALS
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	
						NORTH LEG						
15	176	55	0	1	0	0	0	0	0	6	0	253
8	200	48	1	3	0	1	2	1	0	9	0	273
16	216	53	0	0	1	1	0	1	0	7	0	295
14	206	53	1	1	0	0	3	0	0	11	0	289
19	225	59	1	3	0	1	1	0	0	5	0	314
20	209	62	0	3	0	0	1	1	0	8	0	304
20	188	53	0	0	1	0	1	1	0	10	0	274
15	176	48	1	2	1	0	2	1	0	9	0	255
127	1596	431	4	13	3	3	10	5	0	65	0	2257
						SOUTH LEG						
15	125	28	0	1	1	1	2	0	0	8	0	181
18	156	24	1	1	0	1	1	1	0	8	0	211
28	152	31	0	0	1	0	1	1	0	8	0	222
25	132	30	1	0	0	0	1	0	0	15	0	204
28	156	25	0	3	0	1	3	2	0	11	0	229
24	153	28	0	1	0	1	1	1	0	6	0	215
27	155	20	1	1	0	0	0	0	0	7	0	211
20	138	23	1	1	0	0	1	0	0	9	0	193
185	1167	209	4	8	2	4	10	5	0	72	0	1666
						EAST LEG						
43	84	19	0	0	0	0	0	0	0	0	0	146
47	89	20	1	1	1	1	1	1	0	0	1	163
43	87	24	1	1	1	1	1	1	0	0	1	161
50	93	21	0	0	1	0	0	0	0	0	0	165
44	99	18	0	2	0	0	2	1	0	0	0	166
50	96	20	1	1	0	0	0	0	0	0	0	168
44	91	19	0	0	0	1	0	0	0	0	0	155
39	89	19	1	1	0	0	0	0	0	0	0	149
360	728	160	4	6	3	3	4	3	0	0	2	1273
						WEST LEG						
15	87	7	1	1	1	1	0	0	0	0	0	113
28	88	8	2	2	1	1	1	2	0	0	0	133
25	89	6	1	0	0	1	1	2	0	0	0	125
29	86	9	0	1	0	0	1	0	0	0	0	126
31	95	8	0	1	1	0	0	1	0	0	0	137
26	91	8	0	0	1	1	0	1	0	0	0	128
21	86	14	1	2	0	0	2	0	0	0	0	126
20	83	8	0	0	0	0	1	0	0	0	0	112
195	705	68	5	7	4	4	6	6	0	0	0	1000

Prepared by Newport Traffic Studies

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: HIGHWAY 395

EAST-WEST STREET: MOJAVE DR

TIME: 04:00PM-05:00PM DATE: 01-30-24

NORTH LEG

Rt	Thru	Lt	
57	841	212	Total
15	183	55	1st
10	214	49	2nd
17	223	55	3rd
15	221	53	4th

	1st	2nd	3rd	4th	Total
Rt	43	49	45	50	187
Thru	84	91	89	93	357
Lt	19	23	27	22	91

Total	1st	2nd	3rd	4th	
36	8	11	8	9	Lt
357	88	91	90	88	Thru
104	17	31	27	29	Rt

	Lt	Thru	Rt
1st	29	136	16
2nd	25	166	20
3rd	33	161	28
4th	30	148	26
Total	117	611	90

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: HIGHWAY 395

EAST-WEST STREET: MOJAVE DR

TIME: 05:00PM-06:00PM DATE: 01-30-24

NORTH LEG

Rt	Thru	Lt	
77	843	227	Total
21	234	59	1st
20	221	63	2nd
20	199	55	3rd
16	189	50	4th

	1st	2nd	3rd	4th	Total
Rt	44	51	45	40	180
Thru	103	97	91	90	381
Lt	19	20	19	19	77

Total	1st	2nd	3rd	4th	
42	10	10	14	8	Lt
361	96	91	90	84	Thru
100	31	27	22	20	Rt

	Lt	Thru	Rt
1st	27	173	29
2nd	29	161	25
3rd	20	163	28
4th	23	149	21
Total	99	646	103

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURN COUNT

PEAK HOUR

NORTH-SOUTH STREET: HIGHWAY 395
EAST-WEST STREET: CACTUS DR
JURISDICTION: ADELANTO

DATE: 01-30-24

PEAK HOUR: 07:45AM

NORTH LEG

TOTAL: 660

Rt	Thru	Lt	
37	598	25	Total
5	149	5	1st
9	155	7	2nd
13	150	8	3rd
10	144	5	4th

EAST LEG TOTAL: 151

	1st	2nd	3rd	4th	Total
Rt	5	6	10	8	29
Thru	17	20	22	20	79
Lt	9	13	11	10	43

WEST LEG TOTAL: 169

Total	1st	2nd	3rd	4th	
16	3	5	5	3	Lt
80	16	20	23	21	Thru
73	17	20	17	19	Rt

PEAK HOUR FACTORS

NORTH LEG = 0.96
SOUTH LEG = 0.96
EAST LEG = 0.88
WEST LEG = 0.94

ALL LEGS = 0.96

SOUTH LEG

TOTAL: 749

	Lt	Thru	Rt
1st	66	111	6
2nd	74	111	10
3rd	61	120	12
4th	62	106	10
Total	263	448	38

HOUR TOTAL: 1,729

Prepared by NEWPORT TRAFFIC STUDIES

SANBAG CLASSIFICATION SUMMARY

NORTH-SOUTH STREET : HIGHWAY 395 ADELANTO

EAST-WEST STREET : CACTUS DR 01-30-24

BEGINNING TIME : 07:00AM

AUTOS RT	AUTOS THRU	AUTOS LT	LARGE 2 AXLE RT	LARGE 2 AXLE THRU	LARGE 2 AXLE LT	3 AXLE RT	3 AXLE THRU	3 AXLE LT	4(+) AXLE RT	4(+) AXLE THRU	4(+) AXLE LT	TOTALS
					NORTH LEG							
4	71	1	0	0	0	0	0	0	0	6	0	82
7	112	0	0	0	1	0	0	0	0	7	2	129
8	112	3	0	2	1	0	0	0	0	9	2	137
5	125	4	0	2	0	0	3	0	0	19	1	159
9	139	4	0	2	1	0	0	0	0	14	2	171
13	138	6	0	0	1	0	0	0	0	12	1	171
10	130	5	0	3	0	0	0	0	0	11	0	159
11	126	3	0	3	0	0	2	0	0	8	2	155
67	953	26	0	12	4	0	5	0	0	86	10	1163
					SOUTH LEG							
3	55	37	0	3	0	0	0	0	1	7	0	106
3	62	49	2	3	0	1	2	0	2	6	0	130
3	88	60	0	1	1	2	0	0	1	10	0	166
4	90	65	2	1	1	0	1	0	0	19	0	183
6	94	74	1	0	0	2	3	0	1	14	0	195
10	103	61	1	1	0	0	2	0	1	14	0	193
7	97	62	0	1	0	1	0	0	2	8	0	178
5	83	56	1	1	0	1	1	0	1	10	0	159
41	672	464	7	11	2	7	9	0	9	88	0	1310
					EAST LEG							
1	10	6	0	0	1	0	1	0	1	0	1	21
3	14	2	0	0	1	1	0	2	0	0	3	26
1	10	8	1	0	0	0	0	1	3	0	1	25
0	17	8	1	0	0	1	0	0	3	0	1	31
4	18	13	0	1	0	2	1	0	0	0	0	39
8	21	5	0	1	1	0	0	2	2	0	3	43
7	20	8	0	0	0	0	0	1	1	0	1	38
7	15	7	0	0	0	0	0	0	0	0	3	32
31	125	57	2	2	3	4	2	6	10	0	13	255
					WEST LEG							
11	5	1	0	1	0	0	2	0	0	0	0	20
15	21	1	1	0	1	0	0	0	0	0	0	39
19	16	1	1	2	0	0	1	1	1	0	0	42
16	16	2	1	0	1	0	0	0	0	0	0	36
20	20	4	0	0	0	0	0	1	0	0	0	45
17	23	4	0	0	0	0	0	1	0	0	0	45
19	21	3	0	0	0	0	0	0	0	0	0	43
15	18	3	0	0	0	0	0	0	0	0	0	36
132	140	19	3	3	2	0	3	3	1	0	0	306

Prepared by Newport Traffic Studies

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: HIGHWAY 395

EAST-WEST STREET: CACTUS DR

TIME: 07:00AM-08:00AM DATE: 01-30-24

NORTH LEG

Rt	Thru	Lt	
24	468	15	Total
4	77	1	1st
7	119	3	2nd
8	123	6	3rd
5	149	5	4th

	1st	2nd	3rd	4th	Total
Rt	2	4	5	5	16
Thru	11	14	10	17	52
Lt	8	8	10	9	35

Total	1st	2nd	3rd	4th	
8	1	2	2	3	Lt
64	8	21	19	16	Thru
65	11	16	21	17	Rt

	Lt	Thru	Rt
1st	37	65	4
2nd	49	73	8
3rd	61	99	6
4th	66	111	6
Total	213	348	24

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: HIGHWAY 395

EAST-WEST STREET: CACTUS DR

TIME: 08:00AM-09:00AM DATE: 01-30-24

NORTH LEG

Rt	Thru	Lt	
43	588	25	Total
9	155	7	1st
13	150	8	2nd
10	144	5	3rd
11	139	5	4th

	1st	2nd	3rd	4th	Total
Rt	6	10	8	7	31
Thru	20	22	20	15	77
Lt	13	11	10	10	44

Total	1st	2nd	3rd	4th	
16	5	5	3	3	Lt
82	20	23	21	18	Thru
71	20	17	19	15	Rt

	Lt	Thru	Rt
1st	74	111	10
2nd	61	120	12
3rd	62	106	10
4th	56	95	8
Total	253	432	40

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURN COUNT

PEAK HOUR

NORTH-SOUTH STREET: HIGHWAY 395
EAST-WEST STREET: CACTUS DR
JURISDICTION: ADELANTO

DATE: 01-30-24

PEAK HOUR: 04:30PM

NORTH LEG

TOTAL: 1,244

Rt	Thru	Lt	
77	1145	22	Total
24	280	4	1st
20	276	5	2nd
18	299	10	3rd
15	290	3	4th

EAST LEG TOTAL: 55

	1st	2nd	3rd	4th	Total
Rt	5	4	5	6	20
Thru	4	5	7	7	23
Lt	3	2	4	3	12

WEST LEG TOTAL: 86

Total	1st	2nd	3rd	4th	
20	4	5	6	5	Lt
24	5	3	10	6	Thru
42	10	10	12	10	Rt

PEAK HOUR FACTORS

NORTH LEG = 0.95
SOUTH LEG = 0.96
EAST LEG = 0.86
WEST LEG = 0.77

ALL LEGS = 0.94

SOUTH LEG

TOTAL: 874

	Lt	Thru	Rt
1st	33	179	3
2nd	25	178	5
3rd	32	191	5
4th	25	193	5
Total	115	741	18

HOUR TOTAL: 2,259

Prepared by NEWPORT TRAFFIC STUDIES

SANBAG CLASSIFICATION SUMMARY

NORTH-SOUTH STREET : HIGHWAY 395 ADELANTO

EAST-WEST STREET : CACTUS DR 01-30-24

BEGINNING TIME : 04:00PM

AUTOS			LARGE 2 AXLE			3 AXLE			4(+) AXLE			TOTALS
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	
						NORTH LEG						
12	235	2	0	1	0	0	0	0	0	5	3	258
9	243	3	0	1	1	0	3	0	0	8	1	269
24	272	0	0	0	1	0	1	1	0	7	2	308
20	261	1	0	2	0	0	3	0	0	10	4	301
18	289	0	0	4	2	0	2	1	0	4	7	327
15	281	0	0	2	0	0	1	0	0	6	3	308
15	251	3	0	1	1	0	0	0	0	10	1	282
12	230	1	0	4	0	0	3	0	0	7	2	259
125	2062	10	0	15	5	0	13	2	0	57	23	2312
						SOUTH LEG						
3	145	26	0	2	0	0	2	0	1	7	0	186
4	175	31	0	3	0	1	3	0	1	7	0	225
3	167	32	0	1	0	0	3	1	0	8	0	215
0	166	25	0	0	0	2	0	0	3	12	0	208
4	174	32	0	4	0	0	3	0	1	10	0	228
3	184	25	0	3	0	0	2	0	2	4	0	223
0	186	26	0	1	0	1	0	1	4	3	0	222
2	161	21	0	2	0	0	0	1	1	8	0	196
19	1358	218	0	16	0	4	13	3	13	59	0	1703
						EAST LEG						
0	5	0	1	0	0	1	0	0	2	0	1	10
2	6	0	1	0	2	0	0	1	0	0	1	13
3	3	1	0	1	1	1	0	1	1	0	0	12
2	5	1	0	0	0	0	0	0	2	0	1	11
3	7	2	0	0	0	2	0	0	0	0	2	16
4	7	1	0	0	1	0	0	0	2	0	1	16
3	6	2	0	0	0	0	0	1	0	0	0	12
0	1	0	0	2	0	0	0	0	1	0	3	7
17	40	7	2	3	4	4	0	3	8	0	9	97
						WEST LEG						
11	3	3	0	0	0	0	0	0	0	0	0	17
12	5	4	1	0	1	0	0	1	0	0	0	24
10	5	3	0	0	1	0	0	0	0	0	0	19
10	2	5	0	1	0	0	0	0	0	0	0	18
12	9	5	0	1	0	0	0	1	0	0	0	28
10	6	5	0	0	0	0	0	0	0	0	0	21
8	6	6	0	0	0	0	0	0	0	0	0	20
6	4	3	0	1	0	0	0	1	0	0	0	15
79	40	34	1	3	2	0	0	3	0	0	0	162

Prepared by Newport Traffic Studies

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: HIGHWAY 395

EAST-WEST STREET: CACTUS DR

TIME: 04:00PM-05:00PM DATE: 01-30-24

NORTH LEG

Rt	Thru	Lt	
65	1052	19	Total
12	241	5	1st
9	255	5	2nd
24	280	4	3rd
20	276	5	4th

	1st	2nd	3rd	4th	Total
Rt	4	3	5	4	16
Thru	5	6	4	5	20
Lt	1	4	3	2	10

Total	1st	2nd	3rd	4th	
18	3	6	4	5	Lt
16	3	5	5	3	Thru
44	11	13	10	10	Rt

	Lt	Thru	Rt
1st	26	156	4
2nd	31	188	6
3rd	33	179	3
4th	25	178	5
Total	115	701	18

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: HIGHWAY 395

EAST-WEST STREET: CACTUS DR

TIME: 05:00PM-06:00PM DATE: 01-30-24

NORTH LEG

60	1095	21	Total
18	299	10	1st
15	290	3	2nd
15	262	5	3rd
12	244	3	4th
Rt	Thru	Lt	

Rt	5	6	3	1	15
Thru	7	7	6	3	23
Lt	4	3	3	3	13
	1st	2nd	3rd	4th	Total

Total	1st	2nd	3rd	4th	
21	6	5	6	4	Lt
27	10	6	6	5	Thru
36	12	10	8	6	Rt

	Lt	Thru	Rt
1st	32	191	5
2nd	25	193	5
3rd	27	190	5
4th	22	171	3
Total	106	745	18

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURN COUNT

PEAK HOUR

NORTH-SOUTH STREET: MESA LINDA AVE
EAST-WEST STREET: MOJAVE DR
JURISDICTION: ADELANTO

DATE: 01-30-24

PEAK HOUR: 07:30AM

NORTH LEG

TOTAL: 3

Rt	Thru	Lt	
3			Total
0	0	0	1st
2	0	0	2nd
0	0	0	3rd
1	0	0	4th

~376
980
604

EAST LEG TOTAL: 566

Total	1st	2nd	3rd	4th	
0	0	0	0		Rt
568	140	137	145	146	Thru
36	8	12	10	6	Lt

1066
~500

WEST LEG TOTAL: 557

Total	1st	2nd	3rd	4th	
1	0	1	0		Lt
520	126	122	140	132	Thru
36	7	13	10	6	Rt

PEAK HOUR FACTORS

NORTH LEG = 0.38
SOUTH LEG = 0.95
EAST LEG = 0.97
WEST LEG = 0.93

ALL LEGS = 0.96

SOUTH LEG

TOTAL: 103

	Lt	Thru	Rt
1st	15	0	12
2nd	12	1	12
3rd	17	0	8
4th	12	0	14
Total	56	1	46

HOUR TOTAL: 1,267

Prepared by NEWPORT TRAFFIC STUDIES

SANBAG CLASSIFICATION SUMMARY

NORTH-SOUTH STREET : MESA LINDA AVE — ADELANTO

EAST-WEST STREET : MOJAVE DR — 01-30-24

BEGINNING TIME : 07:00AM

AUTOS RT	AUTOS THRU	AUTOS LT	LARGE 2 AXLE RT	LARGE 2 AXLE THRU	LARGE 2 AXLE LT	3 AXLE RT	3 AXLE THRU	3 AXLE LT	4(+) AXLE RT	4(+) AXLE THRU	4(+) AXLE LT	TOTALS
					NORTH LEG							
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	1
1	1	0	0	0	0	0	0	0	0	0	0	2
2	1	0	0	0	0	0	0	0	0	0	0	3
6	2	0	0	0	0	0	0	0	0	0	0	8
					SOUTH LEG							
10	0	11	0	0	0	0	0	0	0	0	0	21
13	0	11	0	0	0	0	0	0	0	0	0	24
12	0	15	0	0	0	0	0	0	0	0	0	27
12	1	12	0	0	0	0	0	0	0	0	0	25
8	0	17	0	0	0	0	0	0	0	0	0	25
14	0	12	0	0	0	0	0	0	0	0	0	26
9	0	14	0	0	0	0	0	0	0	0	0	23
8	0	10	0	0	0	0	0	0	0	0	0	18
86	1	102	0	0	0	0	0	0	0	0	0	189
					EAST LEG							
0	99	2	0	2	0	0	0	0	0	0	0	103
0	124	3	0	4	0	0	1	0	0	0	0	132
0	134	8	0	3	0	0	3	0	0	0	0	148
0	135	12	0	1	0	0	1	0	0	0	0	149
0	140	10	0	2	0	0	3	0	0	0	0	155
0	144	6	0	1	0	0	1	0	0	0	0	152
0	122	9	0	3	0	0	1	0	0	0	0	135
1	121	9	0	2	0	0	0	0	0	0	0	133
1	1019	59	0	18	0	0	10	0	0	0	0	1107
					WEST LEG							
2	94	0	1	0	0	0	1	0	0	0	0	98
3	119	2	0	3	0	0	4	0	0	0	0	131
6	121	0	1	1	0	0	3	0	0	1	0	133
13	114	1	0	2	0	0	5	0	0	1	0	136
10	137	0	0	2	0	0	1	0	0	0	0	150
6	126	0	0	3	0	0	3	0	0	0	0	138
6	118	1	0	3	0	0	2	0	0	0	0	130
8	113	0	0	0	0	0	1	0	0	0	0	122
54	942	4	2	14	0	0	20	0	0	2	0	1038

Prepared by Newport Traffic Studies

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: MESA LINDA AVE

EAST-WEST STREET: MOJAVE DR

TIME: 07:00AM-08:00AM DATE: 01-30-24

NORTH LEG

Rt	Thru	Lt	
2	0	0	Total
0	0	0	1st
0	0	0	2nd
0	0	0	3rd
2	0	0	4th

	1st	2nd	3rd	4th	Total
Rt	0	0	0	0	0
Thru	101	129	140	137	507
Lt	2	3	8	12	25

Total	1st	2nd	3rd	4th	
3	0	2	0	1	Lt
469	95	126	126	122	Thru
26	3	3	7	13	Rt

	Lt	Thru	Rt
1st	11	0	10
2nd	11	0	13
3rd	15	0	12
4th	12	1	12
Total	49	1	47

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: MESA LINDA AVE

EAST-WEST STREET: MOJAVE DR

TIME: 08:00AM-09:00AM DATE: 01-30-24

NORTH LEG

Rt	Thru	Lt	
4	2	0	Total
0	0	0	1st
1	0	0	2nd
1	1	0	3rd
2	1	0	4th

	1st	2nd	3rd	4th	Total
Rt	0	0	0	1	1
Thru	145	146	126	123	540
Lt	10	6	9	9	34

Total	1st	2nd	3rd	4th	
1	0		1	0	Lt
509	140	132	123	114	Thru
30	10	6	6	8	Rt

	Lt	Thru	Rt
1st	17	0	8
2nd	12	0	14
3rd	14	0	9
4th	10	0	8
Total	53	0	39

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURN COUNT

PEAK HOUR

NORTH-SOUTH STREET: MESA LINDA AVE
EAST-WEST STREET: MOJAVE DR
JURISDICTION: ADELANTO

DATE: 01-30-24

PEAK HOUR: 04:30PM

NORTH LEG

TOTAL: 5

2	3		Total
2	1	0	1st
0	1	0	2nd
0	0	0	3rd
0	1	0	4th
Rt	Thru	Lt	

~185
855
670

EAST LEG TOTAL:

	1st	2nd	3rd	4th	Total
Rt	1	0	0	0	1
Thru	150	159	159	163	631
Lt	11	11	10	6	38

678
804
~126

WEST LEG TOTAL: 702

Total	1st	2nd	3rd	4th	
	0	0	0	0	Lt
656	160	156	174	166	Thru
46	13	12	9	12	Rt

PEAK HOUR FACTORS

NORTH LEG = 0.42
SOUTH LEG = 0.83
EAST LEG = 0.99
WEST LEG = 0.96

ALL LEGS = 0.97

SOUTH LEG

	Lt	Thru	Rt
1st	8	0	1
2nd	7	1	9
3rd	6	0	12
4th	6	0	10
Total	27	1	32

TOTAL: 60

HOUR TOTAL: 1,437

Prepared by NEWPORT TRAFFIC STUDIES

SANBAG CLASSIFICATION SUMMARY

NORTH-SOUTH STREET : MESA LINDA AVE — ADELANTO

EAST-WEST STREET : MOJAVE DR — 01-30-24

BEGINNING TIME : 04:00PM

AUTOS RT	AUTOS THRU	AUTOS LT	LARGE 2 AXLE RT	LARGE 2 AXLE THRU	LARGE 2 AXLE LT	3 AXLE RT	3 AXLE THRU	3 AXLE LT	4(+) AXLE RT	4(+) AXLE THRU	4(+) AXLE LT	TOTALS
NORTH LEG												
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
2	1	0	0	0	0	0	0	0	0	0	0	3
0	1	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
2	3	0	0	0	0	0	0	0	0	0	0	5
SOUTH LEG												
5	0	8	0	0	0	0	0	0	0	0	0	13
5	0	11	0	0	0	0	0	0	0	0	0	16
1	0	8	0	0	0	0	0	0	0	0	0	9
9	1	7	0	0	0	0	0	0	0	0	0	17
12	0	6	0	0	0	0	0	0	0	0	0	18
10	0	6	0	0	0	0	0	0	0	0	0	16
8	0	9	0	0	0	0	0	0	0	0	0	17
7	0	5	0	0	0	0	0	0	0	0	0	12
57	1	60	0	0	0	0	0	0	0	0	0	118
EAST LEG												
0	137	8	0	0	0	0	0	0	0	0	0	145
0	144	14	0	3	0	0	3	0	0	1	0	165
1	143	11	0	3	0	0	3	0	0	1	0	162
0	158	11	0	1	0	0	0	0	0	0	0	170
0	155	10	0	2	0	0	2	0	0	0	0	169
0	161	6	0	2	0	0	0	0	0	0	0	169
1	145	8	0	0	0	0	1	0	0	0	0	155
0	141	10	0	2	0	0	0	0	0	0	0	153
2	1184	78	0	13	0	0	9	0	0	2	0	1288
WEST LEG												
9	147	0	0	1	0	0	1	0	0	0	0	158
9	146	0	0	3	0	0	3	0	0	0	0	161
13	157	0	0	1	0	0	2	0	0	0	0	173
12	153	0	0	2	0	0	1	0	0	0	0	168
9	172	0	0	1	0	0	1	0	0	0	0	183
12	164	0	0	0	0	0	2	0	0	0	0	178
12	151	2	0	4	0	0	3	0	0	0	0	172
8	140	1	0	2	0	0	2	0	0	0	0	153
84	1230	3	0	14	0	0	15	0	0	0	0	1346

Prepared by Newport Traffic Studies

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: MESA LINDA AVE

EAST-WEST STREET: MOJAVE DR

TIME: 04:00PM-05:00PM DATE: 01-30-24

NORTH LEG

Rt	Thru	Lt	
2	2	0	Total
0	0	0	1st
0	0	0	2nd
2	1	0	3rd
0	1	0	4th

	1st	2nd	3rd	4th	Total
Rt	0	0	1	0	1
Thru	137	151	150	159	597
Lt	8	14	11	11	44

Total	1st	2nd	3rd	4th	
0	0	0	0	0	Lt
617	149	152	160	156	Thru
43	9	9	13	12	Rt

	Lt	Thru	Rt
1st	8	0	5
2nd	11	0	5
3rd	8	0	1
4th	7	1	9
Total	34	1	20

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: MESA LINDA AVE

EAST-WEST STREET: MOJAVE DR

TIME: 05:00PM-06:00PM DATE: 01-30-24

NORTH LEG

Rt	Thru	Lt	
0	1	0	Total
0	0	0	1st
0	1	0	2nd
0	0	0	3rd
0	0	0	4th

	1st	2nd	3rd	4th	Total
Rt	0	0	1	0	1
Thru	159	163	146	143	611
Lt	10	6	8	10	34

Total	1st	2nd	3rd	4th	
3	0	0	2	1	Lt
642	174	166	158	144	Thru
41	9	12	12	8	Rt

	Lt	Thru	Rt
1st	6	0	12
2nd	6	0	10
3rd	9	0	8
4th	5	0	7
Total	26	0	37

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURN COUNT

PEAK HOUR

NORTH-SOUTH STREET: DIAMOND RD
EAST-WEST STREET: MOJAVE DR
JURISDICTION: ADELANTO

DATE: 01-17-24

PEAK HOUR: 07:45AM

NORTH LEG

TOTAL: 136

Rt	Thru	Lt	
124	3	9	Total
43	1	4	1st
33	0	3	2nd
27	0	1	3rd
21	2	1	4th

EAST LEG TOTAL: 458

	1st	2nd	3rd	4th	Total
Rt	4	3	3	2	12
Thru	98	111	100	106	415
Lt	9	10	6	6	31

WEST LEG TOTAL: 591

Total	1st	2nd	3rd	4th	
83	25	22	20	16	Lt
477	123	125	116	113	Thru
31	7	10	6	8	Rt

PEAK HOUR FACTORS

NORTH LEG = 0.71
SOUTH LEG = 0.76
EAST LEG = 0.92
WEST LEG = 0.94

ALL LEGS = 0.93

SOUTH LEG

TOTAL: 97

	Lt	Thru	Rt
1st	6	4	22
2nd	9	1	14
3rd	9	2	15
4th	5	0	10
Total	29	7	61

HOUR TOTAL: 1,282

Prepared by NEWPORT TRAFFIC STUDIES

SANBAG CLASSIFICATION SUMMARY

NORTH-SOUTH STREET : DIAMOND RD — ADELANTO

EAST-WEST STREET : MOJAVE DR — 01-17-24

BEGINNING TIME : 07:00AM

AUTOS RT	AUTOS THRU	AUTOS LT	LARGE 2 AXLE RT	LARGE 2 AXLE THRU	LARGE 2 AXLE LT	3 AXLE RT	3 AXLE THRU	3 AXLE LT	4(+) AXLE RT	4(+) AXLE THRU	4(+) AXLE LT	TOTALS
NORTH LEG												
3	0	1	0	0	0	0	0	0	0	0	0	4
6	0	1	0	0	0	0	0	0	0	0	0	7
23	0	0	1	0	0	0	0	0	0	0	0	24
42	1	4	1	0	0	0	0	0	0	0	0	48
33	0	3	0	0	0	0	0	0	0	0	0	36
27	0	1	0	0	0	0	0	0	0	0	0	28
20	2	1	1	0	0	0	0	0	0	0	0	24
13	0	2	0	0	0	0	0	0	0	0	0	15
167	3	13	3	0	0	0	0	0	0	0	0	186
SOUTH LEG												
7	1	5	0	0	0	0	0	0	0	0	0	13
13	0	3	0	0	0	0	0	0	0	0	0	16
14	1	3	0	0	0	0	0	0	0	0	0	18
21	4	6	1	0	0	0	0	0	0	0	0	32
14	1	9	0	0	0	0	0	0	0	0	0	24
15	2	9	0	0	0	0	0	0	0	0	0	26
10	0	5	0	0	0	0	0	0	0	0	0	15
10	2	4	0	0	0	0	0	0	0	0	0	16
104	11	44	1	0	0	0	0	0	0	0	0	160
EAST LEG												
4	36	2	0	4	0	0	0	0	0	1	0	47
1	52	3	0	4	0	0	1	0	0	0	0	61
0	68	6	1	5	1	0	2	0	0	1	0	84
3	91	9	1	6	0	0	1	0	0	0	0	111
3	106	10	0	4	0	0	0	0	0	1	0	124
2	94	5	1	5	1	0	1	0	0	0	0	109
2	98	6	0	4	0	0	2	0	0	2	0	114
2	86	3	0	5	1	0	0	0	0	0	0	97
17	631	44	3	37	3	0	7	0	0	5	0	747
WEST LEG												
2	44	4	1	4	0	0	0	0	0	1	0	56
1	82	4	2	6	0	0	0	0	0	0	0	95
2	125	15	2	2	1	1	2	0	0	0	0	150
7	120	23	0	1	1	0	1	1	0	1	0	155
8	121	22	2	4	0	0	0	0	0	0	0	157
6	111	19	0	2	1	0	2	0	0	1	0	142
7	107	16	1	5	0	0	0	0	0	1	0	137
5	94	17	0	3	0	0	1	0	0	0	0	120
38	804	120	8	27	3	1	6	1	0	4	0	1012

Prepared by Newport Traffic Studies

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: DIAMOND RD

EAST-WEST STREET: MOJAVE DR

TIME: 07:00AM-08:00AM DATE: 01-17-24

NORTH LEG

76	1	6	Total
3	0	1	1st
6	0	1	2nd
24	0	0	3rd
43	1	4	4th
Rt	Thru	Lt	

Rt	4	1	1	4	10
Thru	41	57	76	98	272
Lt	2	3	7	9	21
	1st	2nd	3rd	4th	Total

Total	1st	2nd	3rd	4th	
49	4	4	16	25	Lt
389	49	88	129	123	Thru
18	3	3	5	7	Rt

	Lt	Thru	Rt
1st	5	1	7
2nd	3	0	13
3rd	3	1	14
4th	6	4	22
Total	17	6	56

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: DIAMOND RD

EAST-WEST STREET: MOJAVE DR

TIME: 08:00AM-09:00AM DATE: 01-17-24

NORTH LEG

Rt	Thru	Lt	
94	2	7	Total
33	0	3	1st
27	0	1	2nd
21	2	1	3rd
13	0	2	4th

	1st	2nd	3rd	4th	Total
Rt	3	3	2	2	10
Thru	111	100	106	91	408
Lt	10	6	6	4	26

Total	1st	2nd	3rd	4th	
75	22	20	16	17	Lt
452	125	116	113	98	Thru
29	10	6	8	5	Rt

	Lt	Thru	Rt
1st	9	1	14
2nd	9	2	15
3rd	5	0	10
4th	4	2	10
Total	27	5	49

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURN COUNT

PEAK HOUR

NORTH-SOUTH STREET: DIAMOND RD
EAST-WEST STREET: MOJAVE DR
JURISDICTION: ADELANTO

DATE: 01-17-24

PEAK HOUR: 04:00PM

NORTH LEG

TOTAL: 39

Rt	Thru	Lt	
29		10	Total
8	0	0	1st
4	0	7	2nd
4	0	0	3rd
13	0	3	4th

EAST LEG TOTAL: 436

	1st	2nd	3rd	4th	Total
Rt	5	5	15	4	29
Thru	85	87	96	91	359
Lt	10	4	10	24	48

WEST LEG TOTAL: 459

Total	1st	2nd	3rd	4th	
17	8	2	2	5	Lt
413	105	101	97	110	Thru
29	10	5	7	7	Rt

SOUTH LEG

TOTAL: 44

	Lt	Thru	Rt
1st	4	0	3
2nd	7	0	8
3rd	3	1	6
4th	5	1	6
Total	19	2	23

PEAK HOUR FACTORS

NORTH LEG = 0.61
SOUTH LEG = 0.73
EAST LEG = 0.90
WEST LEG = 0.93

ALL LEGS = 0.91

HOUR TOTAL: 978

Prepared by NEWPORT TRAFFIC STUDIES

SANBAG CLASSIFICATION SUMMARY

NORTH-SOUTH STREET : DIAMOND RD — ADELANTO

EAST-WEST STREET : MOJAVE DR — 01-17-24

BEGINNING TIME : 04:00PM

AUTOS RT	AUTOS THRU	AUTOS LT	LARGE 2 AXLE RT	LARGE 2 AXLE THRU	LARGE 2 AXLE LT	3 AXLE RT	3 AXLE THRU	3 AXLE LT	4(+) AXLE RT	4(+) AXLE THRU	4(+) AXLE LT	TOTALS
NORTH LEG												
8	0	0	0	0	0	0	0	0	0	0	0	8
4	0	7	0	0	0	0	0	0	0	0	0	11
4	0	0	0	0	0	0	0	0	0	0	0	4
13	0	3	0	0	0	0	0	0	0	0	0	16
6	0	1	0	0	0	0	0	0	0	0	0	7
4	0	1	0	0	0	0	0	0	0	0	0	5
7	1	0	0	0	0	0	0	0	0	0	0	8
2	0	0	0	0	0	0	0	0	0	0	0	2
48	1	12	0	0	0	0	0	0	0	0	0	61
SOUTH LEG												
3	0	4	0	0	0	0	0	0	0	0	0	7
8	0	7	0	0	0	0	0	0	0	0	0	15
6	1	3	0	0	0	0	0	0	0	0	0	10
6	1	5	0	0	0	0	0	0	0	0	0	12
6	0	4	0	0	0	0	0	0	0	0	0	10
7	0	2	0	0	0	0	0	0	0	0	0	9
6	0	3	0	0	0	0	0	0	0	0	0	9
9	0	4	0	0	0	0	0	0	0	0	0	13
51	2	32	0	0	0	0	0	0	0	0	0	85
EAST LEG												
5	78	10	0	4	0	0	3	0	0	0	0	100
5	83	4	0	2	0	0	2	0	0	0	0	96
15	90	10	0	3	0	0	3	0	0	0	0	121
4	88	24	0	1	0	0	0	0	0	2	0	119
2	97	11	0	2	0	0	2	0	0	2	0	116
1	118	5	0	0	0	0	0	0	0	0	0	124
3	83	9	0	1	0	0	1	0	0	1	0	98
1	97	14	0	4	0	0	0	0	0	0	0	116
36	734	87	0	17	0	0	11	0	0	5	0	890
WEST LEG												
10	100	8	0	2	0	0	3	0	0	0	0	123
4	97	2	1	2	0	0	1	0	0	1	0	108
7	95	2	0	1	0	0	0	0	0	1	0	106
7	105	5	0	1	0	0	0	0	0	4	0	122
6	82	2	0	1	0	0	3	0	0	0	0	94
5	91	3	0	1	0	0	0	0	0	0	0	100
8	86	4	0	1	0	0	0	0	0	2	0	101
11	79	3	0	1	0	0	0	0	0	1	0	95
58	735	29	1	10	0	0	7	0	0	9	0	849

Prepared by Newport Traffic Studies

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: DIAMOND RD

EAST-WEST STREET: MOJAVE DR

TIME: 04:00PM-05:00PM DATE: 01-17-24

NORTH LEG

Rt	Thru	Lt	
29	0	10	Total
8	0	0	1st
4	0	7	2nd
4	0	0	3rd
13	0	3	4th

	1st	2nd	3rd	4th	Total
Rt	5	5	15	4	29
Thru	85	87	96	91	359
Lt	10	4	10	24	48

Total	1st	2nd	3rd	4th	
17	8	2	2	5	Lt
413	105	101	97	110	Thru
29	10	5	7	7	Rt

	Lt	Thru	Rt
1st	4	0	3
2nd	7	0	8
3rd	3	1	6
4th	5	1	6
Total	19	2	23

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: DIAMOND RD

EAST-WEST STREET: MOJAVE DR

TIME: 05:00PM-06:00PM DATE: 01-17-24

NORTH LEG

Rt	Thru	Lt	
19	1	2	Total
6	0	1	1st
4	0	1	2nd
7	1	0	3rd
2	0	0	4th

	1st	2nd	3rd	4th	Total
Rt	2	1	3	1	7
Thru	103	118	86	101	408
Lt	11	5	9	14	39

Total	1st	2nd	3rd	4th	
12	2	3	4	3	Lt
348	86	92	89	81	Thru
30	6	5	8	11	Rt

	Lt	Thru	Rt
1st	4	0	6
2nd	2	0	7
3rd	3	0	6
4th	4	0	9
Total	13	0	28

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURN COUNT

PEAK HOUR

NORTH-SOUTH STREET: DIAMOND RD
EAST-WEST STREET: TAWNEY RIDGE LN
JURISDICTION: ADELANTO

DATE: 01-17-24

PEAK HOUR: 07:15AM

NORTH LEG

TOTAL: 215

Rt	Thru	Lt	
4	43	168	Total
0	3	14	1st
0	8	36	2nd
1	15	56	3rd
3	17	62	4th

EAST LEG TOTAL: 80

	1st	2nd	3rd	4th	Total
Rt	6	19	22	27	74
Thru	0	0	1	0	1
Lt	2	2	1	0	5

Total	1st	2nd	3rd	4th	
3	0	0	2	1	Lt
5	0	2	2	1	Thru
	0	0	0	0	Rt

WEST LEG TOTAL: 8

PEAK HOUR FACTORS

NORTH LEG = 0.66
SOUTH LEG = 0.83
EAST LEG = 0.74
WEST LEG = 0.50

ALL LEGS = 0.69

	Lt	Thru	Rt
1st	0	3	0
2nd	0	5	0
3rd	0	6	0
4th	1	5	0
Total	1	19	

TOTAL: 20

SOUTH LEG

HOUR TOTAL: 323

Prepared by NEWPORT TRAFFIC STUDIES

SANBAG CLASSIFICATION SUMMARY

NORTH-SOUTH STREET : DIAMOND RD — ADELANTO

EAST-WEST STREET : TAWNEY RIDGE LN — 01-17-24

BEGINNING TIME : 07:00AM

AUTOS RT	AUTOS THRU	AUTOS LT	LARGE 2 AXLE RT	LARGE 2 AXLE THRU	LARGE 2 AXLE LT	3 AXLE RT	3 AXLE THRU	3 AXLE LT	4(+) AXLE RT	4(+) AXLE THRU	4(+) AXLE LT	TOTALS
NORTH LEG												
0	0	7	0	0	0	0	0	0	0	0	0	7
0	3	14	0	0	0	0	0	0	0	0	0	17
0	8	36	0	0	0	0	0	0	0	0	0	44
1	15	56	0	0	0	0	0	0	0	0	0	72
3	17	62	0	0	0	0	0	0	0	0	0	82
1	1	6	0	0	0	0	0	0	0	0	0	8
1	2	4	0	0	2	0	0	0	0	0	0	9
0	4	2	0	0	0	0	0	0	0	0	0	6
6	50	187	0	0	2	0	0	0	0	0	0	245
SOUTH LEG												
0	3	0	0	0	0	0	0	0	0	0	0	3
0	3	0	0	0	0	0	0	0	0	0	0	3
0	5	0	0	0	0	0	0	0	0	0	0	5
0	6	0	0	0	0	0	0	0	0	0	0	6
0	5	1	0	0	0	0	0	0	0	0	0	6
1	2	0	0	0	0	0	0	0	0	0	0	3
0	5	0	0	0	0	0	0	0	0	0	0	5
0	4	1	0	0	0	0	0	0	0	0	0	5
1	33	2	0	0	0	0	0	0	0	0	0	36
EAST LEG												
6	0	0	0	0	0	0	0	0	0	0	0	6
6	0	2	0	0	0	0	0	0	0	0	0	8
19	0	2	0	0	0	0	0	0	0	0	0	21
22	1	1	0	0	0	0	0	0	0	0	0	24
27	0	0	0	0	0	0	0	0	0	0	0	27
3	0	1	0	0	0	0	0	0	0	0	0	4
11	0	0	3	0	0	0	0	0	0	0	0	14
9	0	0	1	0	0	0	0	0	0	0	0	10
103	1	6	4	0	0	0	0	0	0	0	0	114
WEST LEG												
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	0	0	0	0	0	0	2
0	2	2	0	0	0	0	0	0	0	0	0	4
0	1	1	0	0	0	0	0	0	0	0	0	2
0	1	1	0	0	0	0	0	0	0	0	0	2
0	0	1	0	0	0	0	0	0	0	0	0	1
0	0	1	0	0	0	0	0	0	0	0	0	1
0	6	6	0	0	0	0	0	0	0	0	0	12

Prepared by Newport Traffic Studies

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: DIAMOND RD

EAST-WEST STREET: TAWNEY RIDGE LN

TIME: 07:00AM-08:00AM DATE: 01-17-24

NORTH LEG

Rt	Thru	Lt	
1	26	113	Total
0	0	7	1st
0	3	14	2nd
0	8	36	3rd
1	15	56	4th

	1st	2nd	3rd	4th	Total
Rt	6	6	19	22	53
Thru	0	0	0	1	1
Lt	0	2	2	1	5

Total	1st	2nd	3rd	4th	
2	0	0	0	2	Lt
4	0	0	2	2	Thru
0	0	0	0	0	Rt

	Lt	Thru	Rt
1st	0	3	0
2nd	0	3	0
3rd	0	5	0
4th	0	6	0
Total	0	17	0

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: DIAMOND RD

EAST-WEST STREET: TAWNEY RIDGE LN

TIME: 08:00AM-09:00AM DATE: 01-17-24

NORTH LEG

Rt	Thru	Lt	
5	24	76	Total
3	17	62	1st
1	1	6	2nd
1	2	6	3rd
0	4	2	4th

	1st	2nd	3rd	4th	Total
Rt	27	3	14	10	54
Thru	0	0	0	0	0
Lt	0	1	0	0	1

Total	1st	2nd	3rd	4th	
4	1	1	1	1	Lt
2	1	1	0	0	Thru
0	0	0	0	0	Rt

	Lt	Thru	Rt
1st	1	5	0
2nd	0	2	1
3rd	0	5	0
4th	1	4	0
Total	2	16	1

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURN COUNT

PEAK HOUR

NORTH-SOUTH STREET: DIAMOND RD
EAST-WEST STREET: TAWNEY RIDGE LN
JURISDICTION: ADELANTO

DATE: 01-17-24

PEAK HOUR: 04:45PM

NORTH LEG

TOTAL: 65

Rt	Thru	Lt	
1	19	45	Total
1	3	11	1st
0	3	14	2nd
0	7	10	3rd
0	6	10	4th

EAST LEG TOTAL: 31

	1st	2nd	3rd	4th	Total
Rt	6	9	6	6	27
Thru	0	0	0	0	
Lt	2	0	1	1	4

Total	1st	2nd	3rd	4th	
	0	0	0	0	Lt
1	0	1	0	0	Thru
	0	0	0	0	Rt

WEST LEG TOTAL: 1

PEAK HOUR FACTORS

NORTH LEG = 0.96
SOUTH LEG = 0.84
EAST LEG = 0.86
WEST LEG = 0.25

ALL LEGS = 0.94

	Lt	Thru	Rt
1st	0	7	1
2nd	0	6	0
3rd	0	8	0
4th	0	5	0
Total		26	1

SOUTH LEG

TOTAL: 27

HOUR TOTAL: 124

Prepared by NEWPORT TRAFFIC STUDIES

SANBAG CLASSIFICATION SUMMARY

NORTH-SOUTH STREET : DIAMOND RD — ADELANTO

EAST-WEST STREET : TAWNEY RIDGE LN — 01-17-24

BEGINNING TIME : 04:00PM

AUTOS			LARGE 2 AXLE			3 AXLE			4(+) AXLE			TOTALS
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	
NORTH LEG												
0	0	6	0	0	0	0	0	0	0	0	0	6
0	2	10	0	0	0	0	0	0	0	0	0	12
0	2	8	0	0	1	0	0	0	0	0	0	11
1	3	11	0	0	0	0	0	0	0	0	0	15
0	3	14	0	0	0	0	0	0	0	0	0	17
0	7	9	0	0	1	0	0	0	0	0	0	17
0	6	9	0	0	1	0	0	0	0	0	0	16
0	4	6	0	0	0	0	0	0	0	0	0	10
1	27	73	0	0	3	0	0	0	0	0	0	104
SOUTH LEG												
0	3	0	0	0	0	0	0	0	0	0	0	3
2	3	1	0	0	0	0	0	0	0	0	0	6
0	3	0	0	0	0	0	0	0	0	0	0	3
1	7	0	0	0	0	0	0	0	0	0	0	8
0	6	0	0	0	0	0	0	0	0	0	0	6
0	8	0	0	0	0	0	0	0	0	0	0	8
0	5	0	0	0	0	0	0	0	0	0	0	5
2	5	0	0	0	0	0	0	0	0	0	0	7
5	40	1	0	0	0	0	0	0	0	0	0	46
EAST LEG												
5	0	0	0	0	0	0	0	0	0	0	0	5
4	0	0	1	0	0	0	0	0	0	0	0	5
5	0	0	0	0	0	0	0	0	0	0	0	5
6	0	2	0	0	0	0	0	0	0	0	0	8
9	0	0	0	0	0	0	0	0	0	0	0	9
4	0	1	2	0	0	0	0	0	0	0	0	7
6	0	1	0	0	0	0	0	0	0	0	0	7
7	1	0	0	0	0	0	0	0	0	0	0	8
46	1	4	3	0	0	0	0	0	0	0	0	54
WEST LEG												
0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0	0	0	1
0	1	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0	0	0	1
0	3	1	0	0	0	0	0	0	0	0	0	4

Prepared by Newport Traffic Studies

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: DIAMOND RD

EAST-WEST STREET: TAWNEY RIDGE LN

TIME: 04:00PM-05:00PM DATE: 01-17-24

NORTH LEG

Rt	Thru	Lt	
1	7	36	Total
0	0	6	1st
0	2	10	2nd
0	2	9	3rd
1	3	11	4th

	1st	2nd	3rd	4th	Total
Rt	5	5	5	6	21
Thru	0	0	0	0	0
Lt	0	0	0	2	2

Total	1st	2nd	3rd	4th	
0	0	0	0	0	Lt
2	0	1	1	0	Thru
0	0	0	0	0	Rt

	Lt	Thru	Rt
1st	0	3	0
2nd	1	3	2
3rd	0	3	0
4th	0	7	1
Total	1	16	3

Prepared by NEWPORT TRAFFIC STUDIES

INTERSECTION TURNING COUNT

NORTH-SOUTH STREET: DIAMOND RD

EAST-WEST STREET: TAWNEY RIDGE LN

TIME: 05:00PM-06:00PM DATE: 01-17-24

NORTH LEG

0	20	40	Total
0	3	14	1st
0	7	10	2nd
0	6	10	3rd
0	4	6	4th
Rt	Thru	Lt	

Rt	9	6	6	7	28
Thru	0	0	0	1	1
Lt	0	1	1	0	2
	1st	2nd	3rd	4th	Total

Total	1st	2nd	3rd	4th	
1	0	0	0	1	Lt
1	1	0	0	0	Thru
0	0	0	0	0	Rt

	Lt	Thru	Rt
1st	0	6	0
2nd	0	8	0
3rd	0	5	0
4th	0	5	2
Total	0	24	2

Prepared by NEWPORT TRAFFIC STUDIES

Appendix C : Forecast Model Volume Development

2016 AM/PM Volumes



2040 AM/PM Volumes



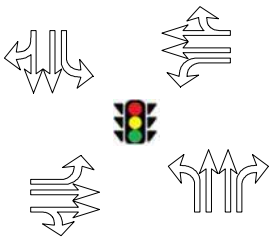
Appendix D: Intersection Capacity Analysis Calculations

DAVID EVANS AND ASSOCIATES INC.

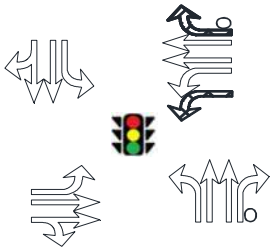
SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : MOJAVE DRIVE
N/S STREET : HIGHWAY 395
CONDITION : AM PEAK HOUR

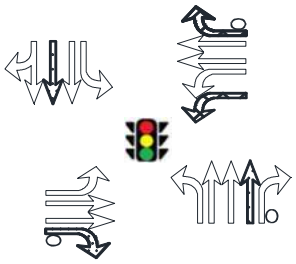
INTERSECTION : 1
PROJECTED GROWTH PER YEAR : 3.5%



EXISTING GEOMETRICS



CUMULATICE GEOMETRICS



FUTURE GEOMETRICS

TURN MOVEMENTS

Condition	Existing Condition	Year 2026 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2036 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2046 Condition	Future Year 2046 + Project Condition
Scenario #	1			3		5		7	9	11	13
MOJAVE DRIVE											
EB LEFT	31	2	4	37	0	37	11	48	48	35	35
EB THRU	348	24	71	443	22	465	122	565	587	413	435
EB RIGHT	140	10	0	150	0	150	49	199	199	244	244
WB LEFT	78	5	75	158	27	185	27	185	212	262	289
WB THRU	333	23	22	378	7	385	117	495	502	309	316
WB RIGHT	228	16	14	258	12	270	80	338	350	313	325
HIGHWAY 395											
NB LEFT	127	9	0	136	0	136	44	180	180	175	175
NB THRU	622	44	121	787	0	787	218	1005	1005	1446	1446
NB RIGHT	106	7	227	340	83	423	37	377	460	455	538
SB LEFT	151	11	12	174	34	208	53	227	261	250	284
SB THRU	652	46	37	735	0	735	228	963	963	1858	1858
SB RIGHT	45	3	2	50	0	50	16	66	66	48	48
TOTALS	**2861**	**200**	**585**	**3646**	**185**	**3831**	**1002**	**4648**	**4833**	**5808**	**5993**

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET	OF
TURN VOLUME SUMMARY	TMO	5-Mar-24	IPGIM51H-0001	2	OF 2

E/W STREET : MOJAVE DRIVE
N/S STREET : HIGHWAY 395
CONDITION : AM PEAK HOUR
PHF : 0.95

NORTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
3	109	34	1	1	1	1	0	2	0	21	0
8	119	41	1	1	0	1	2	0	0	14	0
11	113	36	0	1	0	0	2	0	0	15	0
16	108	31	0	2	1	0	0	1	0	12	0

SOUTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
24	99	28	0	3	1	1	0	0	0	19	0
26	110	31	2	1	0	1	4	0	0	15	0
24	107	33	1	2	0	0	2	0	0	15	0
23	100	33	0	0	0	0	1	0	0	10	0

EAST LEG

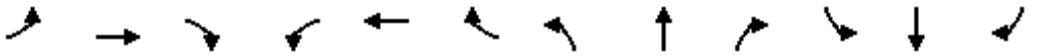
AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
51	79	19	1	0	0	0	0	0	0	0	0
55	85	17	0	1	1	1	2	1	0	0	0
61	80	18	0	0	0	0	0	1	0	0	0
54	71	13	1	1	2	0	1	0	0	0	0

WEST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
34	59	5	0	1	0	0	2	1	0	14	0
32	80	7	1	0	0	0	0	0	0	1	0
41	74	7	0	2	0	0	3	0	0	0	0
31	70	10	0	2	0	0	1	0	0	0	0

Number of Axles	2-Axle Trucks	3-Axle Trucks	4+ Axle Trucks
PCE factor	1.5	2	3

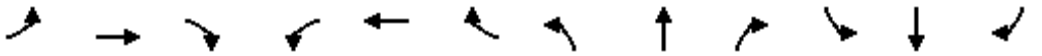
	Truck Volumes	Auto Volumes	Vehicle Totals	PCE Totals	Balanced PCE Totals
MOJAVE DRIVE					
EB LEFT	1	29	**30**	**31**	**31**
EB THRU	26	283	**309**	**348**	**348**
EB RIGHT	1	138	**139**	**140**	**140**
WB LEFT	5	67	**72**	**76**	**78**
WB THRU	5	315	**320**	**324**	**333**
WB RIGHT	3	221	**224**	**226**	**228**
HIGHWAY 395					
NB LEFT	1	125	**126**	**127**	**127**
NB THRU	72	416	**488**	**616**	**622**
NB RIGHT	5	97	**102**	**106**	**106**
SB LEFT	5	142	**147**	**151**	**151**
SB THRU	71	449	**520**	**651**	**652**
SB RIGHT	4	38	**42**	**45**	**45**



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	348	140	78	333	228	127	622	106	151	652	45
Future Volume (veh/h)	31	348	140	78	333	228	127	622	106	151	652	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	33	366	147	82	351	240	134	655	112	159	686	47
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	448	177	109	424	285	160	1083	483	502	1688	116
Arrive On Green	0.04	0.19	0.19	0.06	0.22	0.22	0.09	0.32	0.32	0.10	0.17	0.17
Sat Flow, veh/h	1684	2393	947	1684	1958	1315	1684	3420	1525	1684	3248	222
Grp Volume(v), veh/h	33	260	253	82	306	285	134	655	112	159	361	372
Grp Sat Flow(s),veh/h/ln	1684	1710	1630	1684	1710	1563	1684	1710	1525	1684	1710	1760
Q Serve(g_s), s	2.3	17.5	17.9	5.7	20.5	21.0	9.4	19.4	5.2	10.5	22.6	22.6
Cycle Q Clear(g_c), s	2.3	17.5	17.9	5.7	20.5	21.0	9.4	19.4	5.2	10.5	22.6	22.6
Prop In Lane	1.00		0.58	1.00		0.84	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	60	320	305	109	370	338	160	1083	483	502	889	915
V/C Ratio(X)	0.55	0.81	0.83	0.75	0.83	0.84	0.84	0.60	0.23	0.32	0.41	0.41
Avail Cap(c_a), veh/h	112	584	557	126	599	547	225	1083	483	502	889	915
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	56.9	46.7	46.9	55.2	44.9	45.1	53.4	34.7	19.7	42.7	33.2	33.2
Incr Delay (d2), s/veh	7.7	4.9	5.7	19.3	5.1	6.5	17.5	2.5	1.1	0.3	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	7.5	7.4	2.9	8.8	8.3	4.6	8.0	2.4	4.6	10.5	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.6	51.7	52.6	74.5	49.9	51.6	70.9	37.2	20.9	43.1	34.5	34.4
LnGrp LOS	E	D	D	E	D	D	E	D	C	D	C	C
Approach Vol, veh/h		546			673			901			892	
Approach Delay, s/veh		52.9			53.6			40.2			36.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	39.8	42.0	11.8	26.5	15.4	66.4	8.3	30.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	38.0	9.0	41.0	16.0	38.0	8.0	42.0
Max Q Clear Time (g_c+I1), s	12.5	21.4	7.7	19.9	11.4	24.6	4.3	23.0
Green Ext Time (p_c), s	0.1	3.8	0.0	2.6	0.1	3.2	0.0	3.0

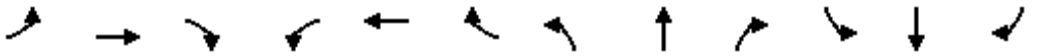
Intersection Summary	
HCM 6th Ctrl Delay	44.2
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	443	150	158	378	258	136	787	340	174	735	50
Future Volume (veh/h)	37	443	150	158	378	258	136	787	340	174	735	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	39	466	158	166	398	272	143	828	358	183	774	53
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	555	187	168	473	320	168	1083	483	386	1449	99
Arrive On Green	0.08	0.22	0.22	0.10	0.24	0.24	0.10	0.32	0.32	0.08	0.15	0.15
Sat Flow, veh/h	1684	2512	846	1684	1953	1320	1684	3420	1525	1684	3248	222
Grp Volume(v), veh/h	39	316	308	166	348	322	143	828	358	183	407	420
Grp Sat Flow(s),veh/h/ln	1684	1710	1648	1684	1710	1562	1684	1710	1525	1684	1710	1760
Q Serve(g_s), s	2.6	21.2	21.5	11.8	23.2	23.6	10.0	26.2	19.0	12.5	26.5	26.5
Cycle Q Clear(g_c), s	2.6	21.2	21.5	11.8	23.2	23.6	10.0	26.2	19.0	12.5	26.5	26.5
Prop In Lane	1.00		0.51	1.00		0.84	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	132	378	364	168	414	379	168	1083	483	386	763	785
V/C Ratio(X)	0.29	0.84	0.85	0.99	0.84	0.85	0.85	0.76	0.74	0.47	0.53	0.53
Avail Cap(c_a), veh/h	132	584	563	168	641	586	182	1083	483	386	763	785
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.82	0.82	0.82
Uniform Delay (d), s/veh	52.2	44.7	44.8	53.9	43.2	43.4	53.2	37.0	20.9	48.5	39.6	39.6
Incr Delay (d2), s/veh	1.2	6.3	7.1	65.0	5.9	7.2	28.6	5.1	9.8	0.7	2.2	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	9.2	9.0	7.8	10.0	9.4	5.4	11.0	7.5	5.6	12.5	12.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.4	51.0	51.9	118.9	49.2	50.6	81.8	42.1	30.8	49.3	41.8	41.8
LnGrp LOS	D	D	D	F	D	D	F	D	C	D	D	D
Approach Vol, veh/h		663			836			1329			1010	
Approach Delay, s/veh		51.6			63.6			43.3			43.2	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.5	42.0	16.0	30.5	16.0	57.5	13.4	33.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	38.0	12.0	41.0	13.0	38.0	8.0	45.0
Max Q Clear Time (g_c+I1), s	14.5	28.2	13.8	23.5	12.0	28.5	4.6	25.6
Green Ext Time (p_c), s	0.0	4.3	0.0	3.0	0.0	3.1	0.0	3.5

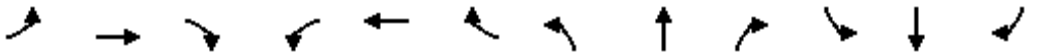
Intersection Summary	
HCM 6th Ctrl Delay	49.1
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	465	150	185	385	270	136	787	423	208	735	50
Future Volume (veh/h)	37	465	150	185	385	270	136	787	423	208	735	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	39	489	158	195	405	284	143	828	445	219	774	53
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	579	186	168	480	333	168	1054	470	388	1427	98
Arrive On Green	0.08	0.23	0.23	0.10	0.25	0.25	0.10	0.31	0.31	0.08	0.15	0.15
Sat Flow, veh/h	1684	2545	817	1684	1930	1339	1684	3420	1525	1684	3248	222
Grp Volume(v), veh/h	39	328	319	195	358	331	143	828	445	219	407	420
Grp Sat Flow(s),veh/h/ln	1684	1710	1653	1684	1710	1559	1684	1710	1525	1684	1710	1760
Q Serve(g_s), s	2.6	22.0	22.2	12.0	23.9	24.3	10.0	26.5	25.9	15.1	26.5	26.5
Cycle Q Clear(g_c), s	2.6	22.0	22.2	12.0	23.9	24.3	10.0	26.5	25.9	15.1	26.5	26.5
Prop In Lane	1.00		0.49	1.00		0.86	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	133	389	376	168	425	387	168	1055	470	388	751	773
V/C Ratio(X)	0.29	0.84	0.85	1.16	0.84	0.85	0.85	0.79	0.95	0.56	0.54	0.54
Avail Cap(c_a), veh/h	133	584	565	168	641	585	182	1055	470	388	751	773
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	52.1	44.3	44.4	54.0	42.9	43.0	53.2	37.9	23.3	49.6	40.1	40.1
Incr Delay (d2), s/veh	1.2	7.0	7.7	118.3	6.4	7.7	28.6	5.9	30.0	1.5	2.2	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	9.5	9.4	10.4	10.3	9.7	5.4	11.3	12.4	6.9	12.5	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.3	51.2	52.1	172.3	49.3	50.7	81.8	43.8	53.4	51.1	42.3	42.3
LnGrp LOS	D	D	D	F	D	D	F	D	D	D	D	D
Approach Vol, veh/h		686			884			1416			1046	
Approach Delay, s/veh		51.7			76.9			50.6			44.2	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.7	41.0	16.0	31.3	16.0	56.7	13.5	33.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	37.0	12.0	41.0	13.0	38.0	8.0	45.0
Max Q Clear Time (g_c+I1), s	17.1	28.5	14.0	24.2	12.0	28.5	4.6	26.3
Green Ext Time (p_c), s	0.0	4.2	0.0	3.1	0.0	3.1	0.0	3.6

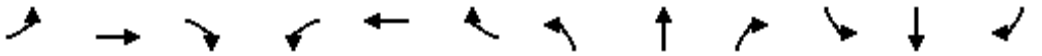
Intersection Summary	
HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	465	150	185	385	270	136	787	423	208	735	50
Future Volume (veh/h)	37	465	150	185	385	270	136	787	423	208	735	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	39	489	158	195	405	284	143	828	445	219	774	53
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	49	579	186	245	936	808	168	1054	585	431	1507	103
Arrive On Green	0.03	0.23	0.23	0.08	0.27	0.27	0.10	0.31	0.31	0.51	0.93	0.93
Sat Flow, veh/h	1684	2545	817	3267	3420	1525	1684	3420	1525	1684	3248	222
Grp Volume(v), veh/h	39	328	319	195	405	284	143	828	445	219	407	420
Grp Sat Flow(s),veh/h/ln	1684	1710	1653	1633	1710	1525	1684	1710	1525	1684	1710	1760
Q Serve(g_s), s	2.8	22.0	22.2	7.0	11.7	1.7	10.0	26.5	18.2	10.3	3.9	3.9
Cycle Q Clear(g_c), s	2.8	22.0	22.2	7.0	11.7	1.7	10.0	26.5	18.2	10.3	3.9	3.9
Prop In Lane	1.00		0.49	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	49	389	376	245	936	808	168	1055	585	431	793	817
V/C Ratio(X)	0.80	0.84	0.85	0.80	0.43	0.35	0.85	0.79	0.76	0.51	0.51	0.51
Avail Cap(c_a), veh/h	112	584	565	245	1197	924	210	1055	585	431	793	817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	57.9	44.3	44.4	54.6	35.9	8.9	53.1	37.9	17.6	24.3	2.5	2.5
Incr Delay (d2), s/veh	25.0	7.0	7.7	16.5	0.3	0.3	22.4	5.9	9.0	0.8	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	9.5	9.4	3.3	4.7	2.6	5.1	11.3	6.7	3.4	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.9	51.2	52.1	71.1	36.2	9.2	75.5	43.8	26.6	25.1	4.4	4.3
LnGrp LOS	F	D	D	E	D	A	E	D	C	C	A	A
Approach Vol, veh/h		686			884			1416			1046	
Approach Delay, s/veh		53.4			35.2			41.6			8.7	
Approach LOS		D			D			D			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.7	41.0	13.0	31.3	16.0	59.7	7.5	36.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	37.0	9.0	41.0	15.0	39.0	8.0	42.0
Max Q Clear Time (g_c+I1), s	12.3	28.5	9.0	24.2	12.0	5.9	4.8	13.7
Green Ext Time (p_c), s	0.2	4.2	0.0	3.1	0.1	4.8	0.0	3.3

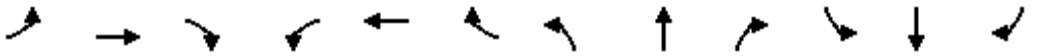
Intersection Summary	
HCM 6th Ctrl Delay	33.7
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	565	199	185	495	338	180	1005	377	227	963	66
Future Volume (veh/h)	48	565	199	185	495	338	180	1005	377	227	963	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	51	595	209	195	521	356	189	1058	397	239	1014	69
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	129	668	234	181	583	398	181	1079	481	311	1275	87
Arrive On Green	0.08	0.27	0.27	0.11	0.30	0.30	0.11	0.32	0.32	0.37	0.79	0.79
Sat Flow, veh/h	1684	2483	871	1684	1944	1327	1684	3420	1525	1684	3249	221
Grp Volume(v), veh/h	51	409	395	195	458	419	189	1058	397	239	534	549
Grp Sat Flow(s),veh/h/ln	1684	1710	1643	1684	1710	1561	1684	1710	1525	1684	1710	1760
Q Serve(g_s), s	3.7	29.9	30.0	14.0	33.3	33.4	14.0	39.9	23.6	16.2	23.2	23.2
Cycle Q Clear(g_c), s	3.7	29.9	30.0	14.0	33.3	33.4	14.0	39.9	23.6	16.2	23.2	23.2
Prop In Lane	1.00		0.53	1.00		0.85	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	129	460	442	181	513	469	181	1079	481	311	671	691
V/C Ratio(X)	0.40	0.89	0.89	1.08	0.89	0.89	1.04	0.98	0.83	0.77	0.79	0.80
Avail Cap(c_a), veh/h	129	539	518	181	605	552	181	1079	481	311	671	691
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.58	0.58	0.58
Uniform Delay (d), s/veh	57.2	45.7	45.7	58.0	43.5	43.5	58.0	44.1	23.3	38.5	11.0	11.0
Incr Delay (d2), s/veh	2.0	15.1	15.9	88.3	14.0	15.2	78.4	23.2	14.9	6.6	5.7	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	14.0	13.6	10.2	15.3	14.1	9.7	19.3	9.8	5.8	4.9	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	60.8	61.6	146.3	57.5	58.8	136.4	67.3	38.2	45.2	16.7	16.5
LnGrp LOS	E	E	E	F	E	E	F	E	D	D	B	B
Approach Vol, veh/h		855			1072			1644			1322	
Approach Delay, s/veh		61.1			74.1			68.2			21.8	
Approach LOS		E			E			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	45.0	18.0	39.0	18.0	55.0	14.0	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	41.0	14.0	41.0	14.0	45.0	9.0	46.0
Max Q Clear Time (g_c+I1), s	18.2	41.9	16.0	32.0	16.0	25.2	5.7	35.4
Green Ext Time (p_c), s	0.0	0.0	0.0	2.9	0.0	6.0	0.0	3.7

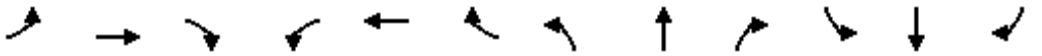
Intersection Summary	
HCM 6th Ctrl Delay	55.7
HCM 6th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	587	199	212	502	350	180	1005	460	261	963	66
Future Volume (veh/h)	48	587	199	212	502	350	180	1005	460	261	963	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	51	618	209	223	528	368	189	1058	484	275	1014	69
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	130	689	233	181	588	410	181	1079	481	302	1257	86
Arrive On Green	0.08	0.27	0.27	0.11	0.31	0.31	0.11	0.32	0.32	0.06	0.13	0.13
Sat Flow, veh/h	1684	2510	848	1684	1927	1342	1684	3420	1525	1684	3249	221
Grp Volume(v), veh/h	51	421	406	223	469	427	189	1058	484	275	534	549
Grp Sat Flow(s),veh/h/ln	1684	1710	1647	1684	1710	1558	1684	1710	1525	1684	1710	1760
Q Serve(g_s), s	3.7	30.8	30.9	14.0	34.1	34.1	14.0	39.9	30.9	21.1	39.4	39.5
Cycle Q Clear(g_c), s	3.7	30.8	30.9	14.0	34.1	34.1	14.0	39.9	30.9	21.1	39.4	39.5
Prop In Lane	1.00		0.51	1.00		0.86	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	130	470	453	181	522	476	181	1079	481	302	661	681
V/C Ratio(X)	0.39	0.90	0.90	1.23	0.90	0.90	1.04	0.98	1.01	0.91	0.81	0.81
Avail Cap(c_a), veh/h	130	539	520	181	605	551	181	1079	481	302	661	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.60	0.60	0.60
Uniform Delay (d), s/veh	57.1	45.4	45.4	58.0	43.2	43.2	58.0	44.1	25.2	60.1	52.0	52.0
Incr Delay (d2), s/veh	1.9	16.1	16.8	142.1	14.7	16.0	78.4	23.2	42.5	20.9	6.3	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	14.5	14.1	12.9	15.7	14.5	9.7	19.3	15.9	11.2	19.1	19.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.0	61.4	62.2	200.1	57.9	59.2	136.4	67.3	67.8	81.0	58.3	58.2
LnGrp LOS	E	E	E	F	E	E	F	E	F	F	E	E
Approach Vol, veh/h		878			1119			1731			1358	
Approach Delay, s/veh		61.6			86.7			75.0			62.9	
Approach LOS		E			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.3	45.0	18.0	39.7	18.0	54.3	14.0	43.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	41.0	14.0	41.0	14.0	45.0	9.0	46.0
Max Q Clear Time (g_c+I1), s	23.1	41.9	16.0	32.9	16.0	41.5	5.7	36.1
Green Ext Time (p_c), s	0.0	0.0	0.0	2.9	0.0	2.0	0.0	3.6

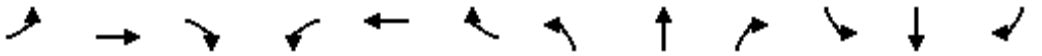
Intersection Summary	
HCM 6th Ctrl Delay	72.0
HCM 6th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	587	199	212	502	350	180	1005	460	261	963	66
Future Volume (veh/h)	48	587	199	212	502	350	180	1005	460	261	963	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	51	618	209	223	528	368	189	1058	484	275	1014	69
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	745	526	275	902	845	214	1399	562	489	2104	143
Arrive On Green	0.04	0.22	0.22	0.08	0.26	0.26	0.13	0.28	0.28	0.29	0.45	0.45
Sat Flow, veh/h	1684	3420	1525	3267	3420	1525	1684	4914	1525	1684	4699	319
Grp Volume(v), veh/h	51	618	209	223	528	368	189	1058	484	275	706	377
Grp Sat Flow(s),veh/h/ln	1684	1710	1525	1633	1710	1525	1684	1638	1525	1684	1638	1743
Q Serve(g_s), s	3.9	22.4	13.5	8.7	17.5	2.9	14.3	25.5	23.5	18.0	19.7	19.8
Cycle Q Clear(g_c), s	3.9	22.4	13.5	8.7	17.5	2.9	14.3	25.5	23.5	18.0	19.7	19.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	65	745	526	275	902	845	214	1399	562	489	1467	780
V/C Ratio(X)	0.79	0.83	0.40	0.81	0.59	0.44	0.88	0.76	0.86	0.56	0.48	0.48
Avail Cap(c_a), veh/h	117	1079	675	352	1210	983	272	1399	562	489	1467	780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	62.0	48.5	32.3	58.5	41.7	8.9	55.8	42.4	22.3	39.1	25.3	25.3
Incr Delay (d2), s/veh	18.9	3.7	0.5	10.7	0.6	0.4	23.1	3.9	15.8	1.3	1.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	9.5	4.8	3.9	7.1	3.7	7.2	10.3	9.6	7.3	7.4	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.9	52.2	32.8	69.2	42.3	9.3	78.9	46.3	38.1	40.4	26.3	27.2
LnGrp LOS	F	D	C	E	D	A	E	D	D	D	C	C
Approach Vol, veh/h		878			1119			1731			1358	
Approach Delay, s/veh		49.3			36.8			47.5			29.4	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	41.7	41.0	14.9	32.3	20.5	62.2	9.0	38.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	22.0	37.0	14.0	41.0	21.0	38.0	9.0	46.0
Max Q Clear Time (g_c+I1), s	20.0	27.5	10.7	24.4	16.3	21.8	5.9	19.5
Green Ext Time (p_c), s	0.2	5.4	0.2	3.9	0.2	5.7	0.0	4.5

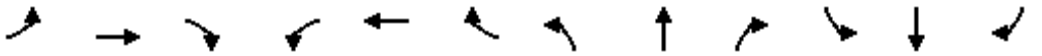
Intersection Summary	
HCM 6th Ctrl Delay	40.6
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	413	244	262	309	313	175	1446	455	250	1858	48
Future Volume (veh/h)	35	413	244	262	309	313	175	1446	455	250	1858	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	37	435	257	276	325	329	184	1522	479	263	1956	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	160	503	295	168	423	378	130	1236	551	291	1558	40
Arrive On Green	0.09	0.24	0.24	0.10	0.25	0.25	0.08	0.36	0.36	0.12	0.31	0.31
Sat Flow, veh/h	1684	2075	1216	1684	1710	1525	1684	3420	1525	1684	3406	88
Grp Volume(v), veh/h	37	358	334	276	325	329	184	1522	479	263	978	1029
Grp Sat Flow(s),veh/h/ln	1684	1710	1581	1684	1710	1525	1684	1710	1525	1684	1710	1784
Q Serve(g_s), s	2.6	26.1	26.4	13.0	23.0	26.9	10.0	47.0	28.4	20.1	59.5	59.5
Cycle Q Clear(g_c), s	2.6	26.1	26.4	13.0	23.0	26.9	10.0	47.0	28.4	20.1	59.5	59.5
Prop In Lane	1.00		0.77	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	160	415	384	168	423	378	130	1236	551	291	782	816
V/C Ratio(X)	0.23	0.86	0.87	1.64	0.77	0.87	1.42	1.23	0.87	0.90	1.25	1.26
Avail Cap(c_a), veh/h	160	552	511	168	605	540	130	1236	551	291	782	816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.13	0.13	0.13
Uniform Delay (d), s/veh	54.4	47.2	47.3	58.5	45.4	46.9	60.0	41.5	21.6	56.4	45.1	45.1
Incr Delay (d2), s/veh	0.7	10.4	12.0	312.8	3.7	10.6	228.2	111.2	16.8	5.7	114.0	118.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	11.8	11.2	20.0	9.7	10.8	12.3	37.5	11.8	9.1	50.0	53.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.2	57.6	59.3	371.3	49.2	57.5	288.2	152.7	38.3	62.1	159.1	164.0
LnGrp LOS	E	E	E	F	D	E	F	F	D	E	F	F
Approach Vol, veh/h		729			930			2185			2270	
Approach Delay, s/veh		58.3			147.7			139.0			150.1	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.5	51.0	17.0	35.5	14.0	63.5	16.3	36.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	47.0	13.0	42.0	10.0	49.0	9.0	46.0
Max Q Clear Time (g_c+I1), s	22.1	49.0	15.0	28.4	12.0	61.5	4.6	28.9
Green Ext Time (p_c), s	0.0	0.0	0.0	3.1	0.0	0.0	0.0	3.3

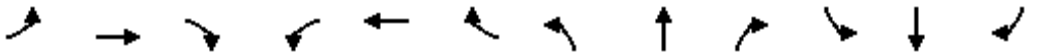
Intersection Summary	
HCM 6th Ctrl Delay	134.8
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	435	244	289	316	325	175	1446	538	284	1858	48
Future Volume (veh/h)	35	435	244	289	316	325	175	1446	538	284	1858	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	37	458	257	304	333	342	184	1522	566	299	1956	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	156	527	294	168	438	391	130	1236	551	280	1536	40
Arrive On Green	0.09	0.25	0.25	0.10	0.26	0.26	0.08	0.36	0.36	0.05	0.15	0.15
Sat Flow, veh/h	1684	2117	1180	1684	1710	1525	1684	3420	1525	1684	3406	88
Grp Volume(v), veh/h	37	369	346	304	333	342	184	1522	566	299	978	1029
Grp Sat Flow(s),veh/h/ln	1684	1710	1588	1684	1710	1525	1684	1710	1525	1684	1710	1784
Q Serve(g_s), s	2.6	26.9	27.2	13.0	23.4	27.9	10.0	47.0	35.1	21.6	58.6	58.6
Cycle Q Clear(g_c), s	2.6	26.9	27.2	13.0	23.4	27.9	10.0	47.0	35.1	21.6	58.6	58.6
Prop In Lane	1.00		0.74	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	156	426	395	168	438	391	130	1236	551	280	771	805
V/C Ratio(X)	0.24	0.87	0.87	1.81	0.76	0.88	1.42	1.23	1.03	1.07	1.27	1.28
Avail Cap(c_a), veh/h	156	552	513	168	605	540	130	1236	551	280	771	805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	54.7	46.8	46.9	58.5	44.7	46.4	60.0	41.5	23.2	61.4	55.3	55.3
Incr Delay (d2), s/veh	0.8	11.2	12.7	385.0	3.7	11.5	228.2	111.2	45.2	37.4	121.4	126.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	12.2	11.6	23.3	9.9	11.3	12.3	37.5	18.3	12.6	52.7	56.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	58.0	59.6	443.5	48.4	57.8	288.2	152.7	68.3	98.8	176.7	181.7
LnGrp LOS	E	E	E	F	D	E	F	F	F	F	F	F
Approach Vol, veh/h		752			979			2272			2306	
Approach Delay, s/veh		58.6			174.4			142.6			168.8	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.6	51.0	17.0	36.4	14.0	62.6	16.1	37.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	47.0	13.0	42.0	10.0	49.0	9.0	46.0
Max Q Clear Time (g_c+I1), s	23.6	49.0	15.0	29.2	12.0	60.6	4.6	29.9
Green Ext Time (p_c), s	0.0	0.0	0.0	3.2	0.0	0.0	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	147.1
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	435	244	289	316	325	175	1446	538	284	1858	48
Future Volume (veh/h)	35	435	244	289	316	325	175	1446	538	284	1858	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	37	458	257	304	333	342	184	1522	566	299	1956	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	46	621	467	350	894	862	209	1399	598	511	2285	60
Arrive On Green	0.03	0.18	0.18	0.11	0.26	0.26	0.12	0.28	0.28	0.30	0.46	0.46
Sat Flow, veh/h	1684	3420	1525	3267	3420	1525	1684	4914	1525	1684	4925	128
Grp Volume(v), veh/h	37	458	257	304	333	342	184	1522	566	299	1300	707
Grp Sat Flow(s),veh/h/ln	1684	1710	1525	1633	1710	1525	1684	1638	1525	1684	1638	1777
Q Serve(g_s), s	2.8	16.4	18.3	11.9	10.4	2.2	14.0	37.0	28.0	19.5	45.9	46.0
Cycle Q Clear(g_c), s	2.8	16.4	18.3	11.9	10.4	2.2	14.0	37.0	28.0	19.5	45.9	46.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	46	621	467	350	894	862	209	1399	598	511	1520	824
V/C Ratio(X)	0.80	0.74	0.55	0.87	0.37	0.40	0.88	1.09	0.95	0.59	0.86	0.86
Avail Cap(c_a), veh/h	117	1079	670	352	1210	1003	272	1399	598	511	1520	824
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.58	0.58	0.58
Uniform Delay (d), s/veh	62.9	50.3	37.7	57.1	39.3	8.6	56.0	46.5	22.9	38.3	31.0	31.0
Incr Delay (d2), s/veh	25.9	1.7	1.0	20.0	0.3	0.3	22.1	51.9	25.9	1.0	3.8	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	6.9	6.6	5.7	4.2	3.3	7.0	20.9	12.6	7.8	17.3	19.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.7	52.0	38.7	77.2	39.6	8.9	78.1	98.4	48.8	39.3	34.8	37.9
LnGrp LOS	F	D	D	E	D	A	E	F	D	D	C	D
Approach Vol, veh/h		752			979			2272			2306	
Approach Delay, s/veh		49.2			40.5			84.4			36.3	
Approach LOS		D			D			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	43.5	41.0	17.9	27.6	20.1	64.3	7.6	38.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	22.0	37.0	14.0	41.0	21.0	38.0	9.0	46.0
Max Q Clear Time (g_c+I1), s	21.5	39.0	13.9	20.3	16.0	48.0	4.8	12.4
Green Ext Time (p_c), s	0.0	0.0	0.0	3.3	0.2	0.0	0.0	3.1

Intersection Summary	
HCM 6th Ctrl Delay	55.8
HCM 6th LOS	E

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : MOJAVE DRIVE
N/S STREET : HIGHWAY 395
CONDITION : PM PEAK HOUR

INTERSECTION : 1
PROJECTED GROWTH PER YEAR : 3.5%

TURN MOVEMENTS

Condition	Existing Condition	Year 2026 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2036 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2046 Condition	Future Year 2046 + Project Condition
Scenario #	2			4		6		8	10	12	14
MOJAVE DRIVE											
EB LEFT	42	3	3	48	0	48	15	63	63	51	51
EB THRU	368	26	27	421	8	429	129	550	558	352	360
EB RIGHT	117	8	0	125	0	125	41	166	166	165	165
WB LEFT	93	7	220	320	78	398	33	353	431	433	511
WB THRU	387	27	68	482	20	502	135	617	637	472	492
WB RIGHT	193	14	16	223	32	255	68	291	323	364	396
HIGHWAY 395											
NB LEFT	124	9	0	133	0	133	43	176	176	215	215
NB THRU	734	51	47	832	0	832	257	1089	1089	2269	2269
NB RIGHT	111	8	91	210	31	241	39	249	280	355	386
SB LEFT	233	16	15	264	13	277	82	346	359	291	304
SB THRU	970	68	114	1152	0	1152	340	1492	1492	1955	1955
SB RIGHT	76	5	4	85	0	85	27	112	112	70	70
TOTALS	**3448**	**242**	**605**	**4295**	**182**	**4477**	**1209**	**5504**	**5686**	**6992**	**7174**

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET	OF
TURN VOLUME SUMMARY	TMO	5-Mar-24	IPGIM51H-0001	2	OF 2

E/W STREET : MOJAVE DRIVE
CONDITION : PM PEAK HOUR
N/S STREET : HIGHWAY 395
PHF : 0.96

NORTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
16	216	53	0	0	1	1	0	1	0	7	0
14	206	53	1	1	0	0	3	0	0	11	0
19	225	59	1	3	0	1	1	0	0	5	0
20	209	62	0	3	0	0	1	1	0	8	0

SOUTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
28	152	31	0	0	1	0	1	1	0	8	0
25	132	30	1	0	0	0	1	0	0	15	0
28	156	25	0	3	0	1	3	2	0	11	0
24	153	28	0	1	0	1	1	1	0	6	0

EAST LEG

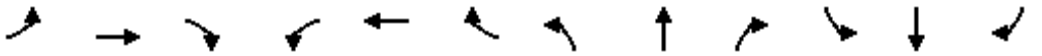
AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
43	87	24	1	1	1	1	1	1	0	0	1
50	93	21	0	0	1	0	0	0	0	0	0
44	99	18	0	2	0	0	2	1	0	0	0
50	96	20	1	1	0	0	0	0	0	0	0

WEST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
25	89	6	1	0	0	1	1	2	0	0	0
29	86	9	0	1	0	0	1	0	0	0	0
31	95	8	0	1	1	0	0	1	0	0	0
26	91	8	0	0	1	1	0	1	0	0	0

Number of Axles	2-Axle Trucks	3-Axle Trucks	4+ Axle Trucks
PCE factor	1.5	2	3

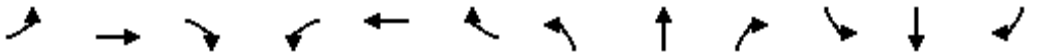
	Truck Volumes	Auto Volumes	Vehicle Totals	PCE Totals	Balanced PCE Totals
MOJAVE DRIVE					
EB LEFT	6	31	**37**	**42**	**42**
EB THRU	4	361	**365**	**368**	**368**
EB RIGHT	3	111	**114**	**117**	**117**
WB LEFT	5	83	**88**	**93**	**93**
WB THRU	7	375	**382**	**387**	**387**
WB RIGHT	3	187	**190**	**192**	**193**
HIGHWAY 395					
NB LEFT	5	114	**119**	**124**	**124**
NB THRU	50	593	**643**	**731**	**734**
NB RIGHT	3	105	**108**	**111**	**111**
SB LEFT	3	227	**230**	**233**	**233**
SB THRU	43	856	**899**	**970**	**970**
SB RIGHT	4	69	**73**	**76**	**76**



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	368	117	93	387	193	124	734	111	233	970	76
Future Volume (veh/h)	42	368	117	93	387	193	124	734	111	233	970	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	44	383	122	97	403	201	129	765	116	243	1010	79
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	55	470	148	112	483	238	420	1054	470	518	1178	92
Arrive On Green	0.03	0.18	0.18	0.07	0.22	0.22	0.25	0.31	0.31	0.62	0.73	0.73
Sat Flow, veh/h	1684	2560	805	1684	2220	1094	1684	3420	1525	1684	3213	251
Grp Volume(v), veh/h	44	254	251	97	309	295	129	765	116	243	537	552
Grp Sat Flow(s),veh/h/ln	1684	1710	1655	1684	1710	1603	1684	1710	1525	1684	1710	1755
Q Serve(g_s), s	3.1	17.1	17.5	6.8	20.7	21.1	7.5	23.9	5.5	9.4	27.1	27.1
Cycle Q Clear(g_c), s	3.1	17.1	17.5	6.8	20.7	21.1	7.5	23.9	5.5	9.4	27.1	27.1
Prop In Lane	1.00		0.49	1.00		0.68	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	55	314	304	112	372	349	420	1055	470	518	627	643
V/C Ratio(X)	0.80	0.81	0.82	0.86	0.83	0.84	0.31	0.73	0.25	0.47	0.86	0.86
Avail Cap(c_a), veh/h	112	584	565	112	584	548	420	1055	470	518	627	643
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	57.6	47.0	47.1	55.5	44.8	45.0	36.6	37.0	20.2	17.8	13.7	13.7
Incr Delay (d2), s/veh	22.0	5.0	5.6	45.9	5.8	7.0	0.4	4.4	1.2	0.5	12.0	11.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	7.4	7.3	4.2	8.9	8.6	3.0	10.0	2.5	2.9	6.6	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.6	51.9	52.7	101.3	50.7	52.0	37.0	41.3	21.5	18.3	25.8	25.5
LnGrp LOS	E	D	D	F	D	D	D	D	C	B	C	C
Approach Vol, veh/h		549			701			1010			1332	
Approach Delay, s/veh		54.5			58.2			38.5			24.3	
Approach LOS		D			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.9	41.0	12.0	26.1	33.9	48.0	7.9	30.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	37.0	8.0	41.0	11.0	44.0	8.0	41.0
Max Q Clear Time (g_c+I1), s	11.4	25.9	8.8	19.5	9.5	29.1	5.1	23.1
Green Ext Time (p_c), s	0.4	3.7	0.0	2.5	0.0	5.4	0.0	3.0

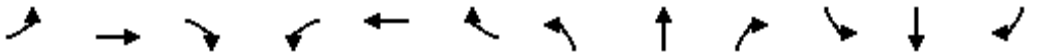
Intersection Summary	
HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	421	125	320	482	223	133	832	210	264	1152	85
Future Volume (veh/h)	48	421	125	320	482	223	133	832	210	264	1152	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	50	439	130	333	502	232	139	867	219	275	1200	89
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	63	529	155	182	623	287	346	1083	483	402	1130	84
Arrive On Green	0.04	0.20	0.20	0.11	0.27	0.27	0.21	0.32	0.32	0.32	0.47	0.47
Sat Flow, veh/h	1684	2607	765	1684	2275	1046	1684	3420	1525	1684	3228	239
Grp Volume(v), veh/h	50	287	282	333	377	357	139	867	219	275	635	654
Grp Sat Flow(s),veh/h/ln	1684	1710	1662	1684	1710	1612	1684	1710	1525	1684	1710	1757
Q Serve(g_s), s	3.5	19.3	19.6	13.0	24.6	24.8	8.6	27.8	10.2	17.1	42.0	42.0
Cycle Q Clear(g_c), s	3.5	19.3	19.6	13.0	24.6	24.8	8.6	27.8	10.2	17.1	42.0	42.0
Prop In Lane	1.00		0.46	1.00		0.65	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	63	347	337	182	468	441	346	1083	483	402	599	615
V/C Ratio(X)	0.79	0.83	0.84	1.83	0.80	0.81	0.40	0.80	0.45	0.68	1.06	1.06
Avail Cap(c_a), veh/h	112	584	568	182	656	618	346	1083	483	402	599	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.65	0.65	0.65
Uniform Delay (d), s/veh	57.3	45.8	45.9	53.5	40.6	40.6	41.3	37.5	18.1	37.0	32.1	32.1
Incr Delay (d2), s/veh	19.4	5.0	5.5	392.2	5.0	5.5	0.8	6.2	3.1	3.1	47.2	47.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	8.3	8.2	25.1	10.4	10.0	3.5	11.8	3.7	6.5	21.8	22.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.7	50.8	51.4	445.7	45.6	46.2	42.1	43.8	21.2	40.1	79.3	79.8
LnGrp LOS	E	D	D	F	D	D	D	D	C	D	F	F
Approach Vol, veh/h		619			1067			1225			1564	
Approach Delay, s/veh		53.2			170.6			39.5			72.6	
Approach LOS		D			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.6	42.0	17.0	28.4	28.6	46.0	8.5	36.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	38.0	13.0	41.0	8.0	42.0	8.0	46.0
Max Q Clear Time (g_c+I1), s	19.1	29.8	15.0	21.6	10.6	44.0	5.5	26.8
Green Ext Time (p_c), s	0.0	3.7	0.0	2.8	0.0	0.0	0.0	3.8

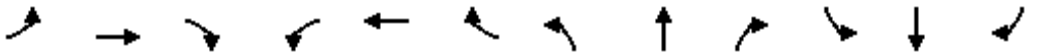
Intersection Summary	
HCM 6th Ctrl Delay	84.2
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	429	125	398	502	255	133	832	241	277	1152	85
Future Volume (veh/h)	48	429	125	398	502	255	133	832	241	277	1152	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	50	447	130	415	523	266	139	867	251	289	1200	89
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	63	538	155	196	625	317	342	1083	483	384	1103	82
Arrive On Green	0.04	0.21	0.21	0.12	0.28	0.28	0.20	0.32	0.32	0.30	0.45	0.45
Sat Flow, veh/h	1684	2619	755	1684	2196	1113	1684	3420	1525	1684	3228	239
Grp Volume(v), veh/h	50	291	286	415	407	382	139	867	251	289	635	654
Grp Sat Flow(s),veh/h/ln	1684	1710	1664	1684	1710	1600	1684	1710	1525	1684	1710	1757
Q Serve(g_s), s	3.5	19.5	19.8	14.0	26.8	26.9	8.6	27.8	11.8	18.6	41.0	41.0
Cycle Q Clear(g_c), s	3.5	19.5	19.8	14.0	26.8	26.9	8.6	27.8	11.8	18.6	41.0	41.0
Prop In Lane	1.00		0.45	1.00		0.70	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	63	351	342	196	487	455	342	1083	483	384	584	600
V/C Ratio(X)	0.79	0.83	0.84	2.11	0.84	0.84	0.41	0.80	0.52	0.75	1.09	1.09
Avail Cap(c_a), veh/h	112	584	569	196	670	626	342	1083	483	384	584	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.65	0.65	0.65
Uniform Delay (d), s/veh	57.3	45.6	45.8	53.0	40.3	40.3	41.6	37.5	18.0	38.8	32.7	32.7
Incr Delay (d2), s/veh	19.4	5.0	5.6	517.5	6.7	7.3	0.8	6.2	4.0	5.4	56.4	57.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	8.4	8.3	33.9	11.5	10.9	3.5	11.8	4.3	7.3	22.9	23.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.7	50.6	51.4	570.5	47.0	47.6	42.3	43.8	21.9	44.2	89.1	89.8
LnGrp LOS	E	D	D	F	D	D	D	D	C	D	F	F
Approach Vol, veh/h		627			1204			1257			1578	
Approach Delay, s/veh		53.0			227.6			39.2			81.2	
Approach LOS		D			F			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.4	42.0	18.0	28.6	28.4	45.0	8.5	38.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	38.0	14.0	41.0	8.0	41.0	8.0	47.0
Max Q Clear Time (g_c+I1), s	20.6	29.8	16.0	21.8	10.6	43.0	5.5	28.9
Green Ext Time (p_c), s	0.0	3.8	0.0	2.8	0.0	0.0	0.0	4.1

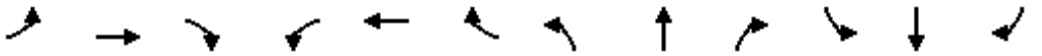
Intersection Summary	
HCM 6th Ctrl Delay	103.9
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	429	125	398	502	255	133	832	241	277	1152	85
Future Volume (veh/h)	48	429	125	398	502	255	133	832	241	277	1152	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	50	447	130	415	523	266	139	867	251	289	1200	89
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	63	530	153	377	958	834	320	1000	622	449	1192	88
Arrive On Green	0.04	0.20	0.20	0.12	0.28	0.28	0.19	0.29	0.29	0.53	0.74	0.74
Sat Flow, veh/h	1684	2619	755	3267	3420	1525	1684	3420	1525	1684	3228	239
Grp Volume(v), veh/h	50	291	286	415	523	266	139	867	251	289	635	654
Grp Sat Flow(s),veh/h/ln	1684	1710	1664	1633	1710	1525	1684	1710	1525	1684	1710	1757
Q Serve(g_s), s	3.8	21.2	21.6	15.0	16.9	1.9	9.5	31.2	6.0	15.8	48.0	48.0
Cycle Q Clear(g_c), s	3.8	21.2	21.6	15.0	16.9	1.9	9.5	31.2	6.0	15.8	48.0	48.0
Prop In Lane	1.00		0.45	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	63	346	337	377	958	834	320	1000	622	449	631	649
V/C Ratio(X)	0.79	0.84	0.85	1.10	0.55	0.32	0.43	0.87	0.40	0.64	1.01	1.01
Avail Cap(c_a), veh/h	117	539	525	377	1236	959	320	1000	622	449	631	649
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.65	0.65	0.65
Uniform Delay (d), s/veh	62.0	49.8	50.0	57.5	39.8	8.6	46.5	43.6	11.1	25.9	17.0	17.0
Incr Delay (d2), s/veh	19.2	6.9	7.8	76.4	0.5	0.2	0.9	10.1	1.9	2.0	30.3	30.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	9.3	9.3	9.9	6.8	2.5	3.9	13.9	2.4	4.9	11.1	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.3	56.7	57.8	133.9	40.3	8.8	47.4	53.7	13.1	27.9	47.3	47.5
LnGrp LOS	F	E	E	F	D	A	D	D	B	C	F	F
Approach Vol, veh/h		627			1204			1257			1578	
Approach Delay, s/veh		59.2			65.6			44.9			43.8	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	38.7	42.0	19.0	30.3	28.7	52.0	8.9	40.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	38.0	15.0	41.0	10.0	48.0	9.0	47.0
Max Q Clear Time (g_c+I1), s	17.8	33.2	17.0	23.6	11.5	50.0	5.8	18.9
Green Ext Time (p_c), s	0.2	2.5	0.0	2.7	0.0	0.0	0.0	4.0

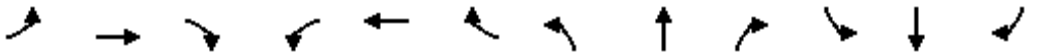
Intersection Summary	
HCM 6th Ctrl Delay	51.8
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	550	166	353	617	291	176	1089	249	346	1492	112
Future Volume (veh/h)	63	550	166	353	617	291	176	1089	249	346	1492	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	66	573	173	368	643	303	183	1134	259	360	1554	117
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	130	620	187	253	704	332	137	1112	496	312	1385	104
Arrive On Green	0.08	0.24	0.24	0.15	0.31	0.31	0.08	0.32	0.32	0.37	0.86	0.86
Sat Flow, veh/h	1684	2590	780	1684	2256	1063	1684	3420	1525	1684	3225	241
Grp Volume(v), veh/h	66	378	368	368	487	459	183	1134	259	360	819	852
Grp Sat Flow(s),veh/h/ln	1684	1710	1660	1684	1710	1609	1684	1710	1525	1684	1710	1757
Q Serve(g_s), s	6.0	34.5	34.7	24.0	43.9	43.9	13.0	52.0	15.5	29.7	68.7	68.7
Cycle Q Clear(g_c), s	6.0	34.5	34.7	24.0	43.9	43.9	13.0	52.0	15.5	29.7	68.7	68.7
Prop In Lane	1.00		0.47	1.00		0.66	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	130	409	397	253	534	502	137	1112	496	312	734	754
V/C Ratio(X)	0.51	0.92	0.93	1.46	0.91	0.91	1.34	1.02	0.52	1.15	1.12	1.13
Avail Cap(c_a), veh/h	130	438	425	253	609	573	137	1112	496	312	734	754
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.36	0.36	0.36
Uniform Delay (d), s/veh	70.9	59.4	59.5	68.0	53.0	53.0	73.5	54.0	21.7	50.3	11.3	11.3
Incr Delay (d2), s/veh	3.2	24.3	25.5	226.3	17.0	17.8	193.0	32.2	3.9	81.6	59.5	65.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	17.2	16.9	25.9	20.6	19.5	12.8	26.4	5.9	17.0	16.5	18.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.0	83.7	85.0	294.3	70.0	70.8	266.5	86.2	25.6	131.9	70.8	76.4
LnGrp LOS	E	F	F	F	E	E	F	F	C	F	F	F
Approach Vol, veh/h		812			1314			1576			2031	
Approach Delay, s/veh		83.5			133.1			97.2			84.0	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.7	56.0	28.0	42.3	17.0	72.7	16.4	53.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	27.0	52.0	24.0	41.0	13.0	66.0	8.0	57.0
Max Q Clear Time (g_c+I1), s	31.7	54.0	26.0	36.7	15.0	70.7	8.0	45.9
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	0.0	0.0	4.0

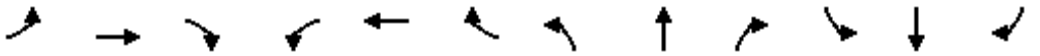
Intersection Summary	
HCM 6th Ctrl Delay	98.8
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	558	166	431	637	323	176	1089	280	359	1492	112
Future Volume (veh/h)	63	558	166	431	637	323	176	1089	280	359	1492	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	66	581	173	449	664	336	183	1134	292	374	1554	117
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	82	627	186	253	753	381	162	1112	496	310	1330	100
Arrive On Green	0.05	0.24	0.24	0.15	0.34	0.34	0.10	0.32	0.32	0.37	0.82	0.82
Sat Flow, veh/h	1684	2599	772	1684	2198	1112	1684	3420	1525	1684	3225	241
Grp Volume(v), veh/h	66	382	372	449	517	483	183	1134	292	374	819	852
Grp Sat Flow(s),veh/h/ln	1684	1710	1661	1684	1710	1600	1684	1710	1525	1684	1710	1757
Q Serve(g_s), s	6.2	34.9	35.1	24.0	45.5	45.5	15.4	52.0	18.0	29.4	66.0	66.0
Cycle Q Clear(g_c), s	6.2	34.9	35.1	24.0	45.5	45.5	15.4	52.0	18.0	29.4	66.0	66.0
Prop In Lane	1.00		0.46	1.00		0.70	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	82	412	401	253	586	548	162	1112	496	310	705	725
V/C Ratio(X)	0.81	0.93	0.93	1.78	0.88	0.88	1.13	1.02	0.59	1.21	1.16	1.18
Avail Cap(c_a), veh/h	84	438	426	253	609	570	162	1112	496	310	705	725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.34	0.34	0.34
Uniform Delay (d), s/veh	75.4	59.3	59.4	68.0	49.5	49.5	72.3	54.0	22.3	50.6	14.0	14.0
Incr Delay (d2), s/veh	41.2	24.9	26.1	365.6	13.9	14.7	109.1	32.2	5.1	104.0	78.3	84.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	17.5	17.2	35.7	20.9	19.7	11.4	26.4	6.9	18.8	20.6	22.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	116.6	84.2	85.5	433.6	63.4	64.2	181.4	86.2	27.4	154.6	92.3	98.4
LnGrp LOS	F	F	F	F	E	E	F	F	C	F	F	F
Approach Vol, veh/h		820			1449			1609			2045	
Approach Delay, s/veh		87.4			178.4			86.4			106.2	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.4	56.0	28.0	42.6	19.4	70.0	11.8	58.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	27.0	52.0	24.0	41.0	13.0	66.0	8.0	57.0
Max Q Clear Time (g_c+I1), s	31.4	54.0	26.0	37.1	17.4	68.0	8.2	47.5
Green Ext Time (p_c), s	0.0	0.0	0.0	1.5	0.0	0.0	0.0	3.9

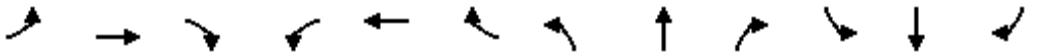
Intersection Summary	
HCM 6th Ctrl Delay	115.9
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	558	166	431	637	323	176	1089	280	359	1492	112
Future Volume (veh/h)	63	558	166	431	637	323	176	1089	280	359	1492	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	66	581	173	449	664	336	183	1134	292	374	1554	117
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	152	693	473	397	800	818	180	1273	580	510	2119	159
Arrive On Green	0.09	0.20	0.20	0.12	0.23	0.23	0.11	0.26	0.26	0.61	0.91	0.91
Sat Flow, veh/h	1684	3420	1525	3267	3420	1525	1684	4914	1525	1684	4662	351
Grp Volume(v), veh/h	66	581	173	449	664	336	183	1134	292	374	1092	579
Grp Sat Flow(s),veh/h/ln	1684	1710	1525	1633	1710	1525	1684	1638	1525	1684	1638	1737
Q Serve(g_s), s	5.2	22.8	12.4	17.0	25.8	0.0	15.0	31.1	7.7	22.1	12.7	12.8
Cycle Q Clear(g_c), s	5.2	22.8	12.4	17.0	25.8	0.0	15.0	31.1	7.7	22.1	12.7	12.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	152	693	473	397	800	818	180	1273	580	510	1489	789
V/C Ratio(X)	0.43	0.84	0.37	1.13	0.83	0.41	1.01	0.89	0.50	0.73	0.73	0.73
Avail Cap(c_a), veh/h	152	1002	610	397	1148	974	180	1334	599	510	1489	789
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.75	0.75	0.75
Uniform Delay (d), s/veh	60.3	53.6	37.6	61.5	51.0	19.3	62.5	50.0	14.1	23.6	4.1	4.1
Incr Delay (d2), s/veh	2.0	4.3	0.5	86.2	3.6	0.3	70.8	9.7	3.1	4.1	2.4	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	9.9	4.5	11.6	11.0	6.1	9.8	13.3	3.7	6.2	2.2	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.3	58.0	38.1	147.7	54.6	19.6	133.3	59.6	17.2	27.7	6.5	8.6
LnGrp LOS	E	E	D	F	D	B	F	E	B	C	A	A
Approach Vol, veh/h		820			1449			1609			2045	
Approach Delay, s/veh		54.1			75.3			60.3			11.0	
Approach LOS		D			E			E			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	46.4	40.3	21.0	32.4	19.0	67.6	16.6	36.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	28.0	38.0	17.0	41.0	15.0	51.0	11.0	47.0
Max Q Clear Time (g_c+I1), s	24.1	33.1	19.0	24.8	17.0	14.8	7.2	27.8
Green Ext Time (p_c), s	0.4	3.1	0.0	3.5	0.0	13.5	0.0	4.9

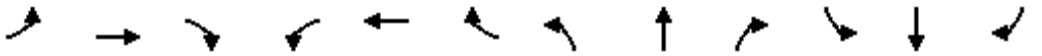
Intersection Summary	
HCM 6th Ctrl Delay	46.1
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	352	165	433	472	364	215	2269	355	291	1955	70
Future Volume (veh/h)	51	352	165	433	472	364	215	2269	355	291	1955	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	53	367	172	451	492	379	224	2364	370	303	2036	73
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	67	469	216	210	536	413	126	1454	648	242	1663	59
Arrive On Green	0.04	0.21	0.21	0.13	0.29	0.29	0.08	0.43	0.43	0.19	0.66	0.66
Sat Flow, veh/h	1684	2273	1048	1684	1840	1415	1684	3420	1525	1684	3368	120
Grp Volume(v), veh/h	53	275	264	451	457	414	224	2364	370	303	1027	1082
Grp Sat Flow(s),veh/h/ln	1684	1710	1611	1684	1710	1545	1684	1710	1525	1684	1710	1778
Q Serve(g_s), s	5.0	24.3	24.9	20.0	41.4	41.5	12.0	68.0	20.5	23.0	79.0	79.0
Cycle Q Clear(g_c), s	5.0	24.3	24.9	20.0	41.4	41.5	12.0	68.0	20.5	23.0	79.0	79.0
Prop In Lane	1.00		0.65	1.00		0.92	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	67	353	332	210	498	450	126	1454	648	242	844	878
V/C Ratio(X)	0.79	0.78	0.80	2.14	0.92	0.92	1.77	1.63	0.57	1.25	1.22	1.23
Avail Cap(c_a), veh/h	95	438	413	210	556	502	126	1454	648	242	844	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.16	0.16	0.16
Uniform Delay (d), s/veh	76.2	60.1	60.3	70.0	54.8	54.8	74.0	46.0	16.9	64.7	27.5	27.5
Incr Delay (d2), s/veh	25.3	7.0	8.4	529.8	19.1	20.8	378.3	285.1	3.6	118.6	99.4	105.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	10.9	10.7	39.4	19.8	18.1	18.3	84.8	7.4	17.1	47.7	51.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.5	67.1	68.7	599.8	73.9	75.7	452.3	331.1	20.5	183.2	126.8	133.3
LnGrp LOS	F	E	E	F	E	E	F	F	C	F	F	F
Approach Vol, veh/h		592			1322			2958			2412	
Approach Delay, s/veh		70.9			253.9			301.4			136.8	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	72.0	24.0	37.0	16.0	83.0	10.3	50.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	68.0	20.0	41.0	12.0	71.0	9.0	52.0
Max Q Clear Time (g_c+I1), s	25.0	70.0	22.0	26.9	14.0	81.0	7.0	43.5
Green Ext Time (p_c), s	0.0	0.0	0.0	2.4	0.0	0.0	0.0	3.2

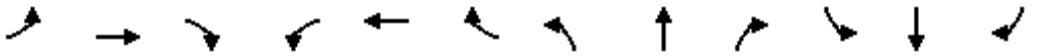
Intersection Summary	
HCM 6th Ctrl Delay	219.5
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	360	165	511	492	396	215	2269	386	304	1955	70
Future Volume (veh/h)	51	360	165	511	492	396	215	2269	386	304	1955	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	53	375	172	532	512	412	224	2364	402	317	2036	73
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	67	460	208	253	561	451	230	1112	496	377	1389	50
Arrive On Green	0.04	0.20	0.20	0.15	0.31	0.31	0.14	0.32	0.32	0.45	0.82	0.82
Sat Flow, veh/h	1684	2289	1034	1684	1801	1449	1684	3420	1525	1684	3368	120
Grp Volume(v), veh/h	53	279	268	532	486	438	224	2364	402	317	1027	1082
Grp Sat Flow(s),veh/h/ln	1684	1710	1614	1684	1710	1539	1684	1710	1525	1684	1710	1778
Q Serve(g_s), s	5.0	24.9	25.5	24.0	43.8	43.8	21.2	52.0	27.2	26.7	66.0	66.0
Cycle Q Clear(g_c), s	5.0	24.9	25.5	24.0	43.8	43.8	21.2	52.0	27.2	26.7	66.0	66.0
Prop In Lane	1.00		0.64	1.00		0.94	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	67	344	324	253	532	479	230	1112	496	377	705	734
V/C Ratio(X)	0.79	0.81	0.83	2.11	0.91	0.91	0.97	2.13	0.81	0.84	1.46	1.47
Avail Cap(c_a), veh/h	84	438	414	253	609	548	230	1112	496	377	705	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.14	0.14	0.14
Uniform Delay (d), s/veh	76.2	61.0	61.3	68.0	53.0	53.0	68.8	54.0	24.5	41.6	14.0	14.0
Incr Delay (d2), s/veh	32.4	8.8	10.5	511.1	17.0	18.4	51.8	510.1	13.4	2.5	206.6	214.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	11.3	11.1	45.9	20.6	18.7	12.2	100.1	11.2	8.7	45.8	49.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.6	69.8	71.8	579.1	70.0	71.5	120.6	564.1	38.0	44.1	220.6	228.5
LnGrp LOS	F	E	E	F	E	E	F	F	D	D	F	F
Approach Vol, veh/h		600			1456			2990			2426	
Approach Delay, s/veh		74.1			256.4			460.2			201.1	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	39.9	56.0	28.0	36.1	25.9	70.0	10.3	53.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	27.0	52.0	24.0	41.0	13.0	66.0	8.0	57.0
Max Q Clear Time (g_c+I1), s	28.7	54.0	26.0	27.5	23.2	68.0	7.0	45.8
Green Ext Time (p_c), s	0.0	0.0	0.0	2.4	0.0	0.0	0.0	4.0

Intersection Summary	
HCM 6th Ctrl Delay	305.3
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	360	165	511	492	396	215	2269	386	304	1955	70
Future Volume (veh/h)	51	360	165	511	492	396	215	2269	386	304	1955	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1768	1800	1800	1768	1800	1800	1768	1800	1800	1768	1800	1800
Adj Flow Rate, veh/h	53	375	172	532	512	412	224	2364	402	317	2036	73
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	70	483	634	302	656	746	461	1701	669	500	1798	64
Arrive On Green	0.04	0.14	0.14	0.09	0.19	0.19	0.27	0.35	0.35	0.10	0.12	0.12
Sat Flow, veh/h	1684	3420	1525	3267	3420	1525	1684	4914	1525	1684	4870	174
Grp Volume(v), veh/h	53	375	172	532	512	412	224	2364	402	317	1368	741
Grp Sat Flow(s),veh/h/ln	1684	1710	1525	1633	1710	1525	1684	1638	1525	1684	1638	1769
Q Serve(g_s), s	4.0	13.7	0.0	12.0	18.5	0.0	14.5	45.0	14.1	23.5	48.0	48.0
Cycle Q Clear(g_c), s	4.0	13.7	0.0	12.0	18.5	0.0	14.5	45.0	14.1	23.5	48.0	48.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	70	483	634	302	656	746	461	1701	669	500	1210	653
V/C Ratio(X)	0.75	0.78	0.27	1.76	0.78	0.55	0.49	1.39	0.60	0.63	1.13	1.13
Avail Cap(c_a), veh/h	117	1079	899	302	1158	970	461	1701	669	500	1210	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.62	0.62	0.62
Uniform Delay (d), s/veh	61.6	53.8	25.0	59.0	49.9	23.3	39.5	42.5	27.8	51.8	57.1	57.1
Incr Delay (d2), s/veh	14.9	2.7	0.2	357.2	2.1	0.6	0.8	179.1	4.0	1.6	66.0	72.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	5.9	3.4	19.7	7.8	8.3	5.8	45.2	4.5	10.8	32.0	35.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.6	56.5	25.3	416.2	52.0	23.9	40.3	221.6	31.8	53.4	123.1	129.8
LnGrp LOS	E	E	C	F	D	C	D	F	C	D	F	F
Approach Vol, veh/h		600			1456			2990			2426	
Approach Delay, s/veh		49.3			177.1			182.5			116.0	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	42.6	49.0	16.0	22.4	39.6	52.0	9.4	28.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	45.0	12.0	41.0	13.0	48.0	9.0	44.0
Max Q Clear Time (g_c+I1), s	25.5	47.0	14.0	15.7	16.5	50.0	6.0	20.5
Green Ext Time (p_c), s	0.0	0.0	0.0	2.6	0.0	0.0	0.0	4.5

Intersection Summary	
HCM 6th Ctrl Delay	149.2
HCM 6th LOS	F

CALCULATION OF FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES (NCHRP 255)

Intersection No.: 1
North/South Street: HIGHWAY 395
East/West Street: MOJAVE DRIVE

Analysis Condition: YEAR 2046 FUTURE TRAFFIC

A.M. Peak Hour

Approach Direction		Base Year Count	Forecast Future Year Link Volume			Turn Volume	Balanced Volume
South leg	Left	127	Approach	1,714	Left	175	175
NB	Through	622	Departure	2,250	Through	1,293	1,325
	Right	106			Right	228	228
North leg	Left	151	Approach	2,077	Left	238	238
SB	Through	652	Departure	1,618	Through	1,821	1,821
	Right	45			Right	46	46
West leg	Left	31	Approach	610	Left	30	31
EB	Through	348	Departure	505	Through	342	342
	Right	140			Right	244	244
East leg	Left	78	Approach	772	Left	186	187
WB	Through	333	Departure	806	Through	286	287
	Right	228			Right	297	299

P.M. Peak Hour

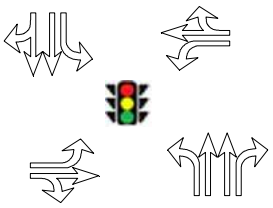
Approach Direction		Base Year Count	Forecast Future Year Link Volume			Turn Volume	Balanced Volume
South leg	Left	124	Approach	2,689	Left	215	215
NB	Through	734	Departure	2,217	Through	2,197	2,222
	Right	111			Right	257	264
North leg	Left	233	Approach	2,169	Left	269	276
SB	Through	970	Departure	2,589	Through	1,841	1,841
	Right	76			Right	66	66
West leg	Left	42	Approach	527	Left	47	48
EB	Through	368	Departure	682	Through	316	325
	Right	117			Right	165	165
East leg	Left	93	Approach	964	Left	212	213
WB	Through	387	Departure	840	Through	402	404
	Right	193			Right	346	348

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : CACTUS ROAD
N/S STREET : HIGHWAY 395
CONDITION : AM PEAK HOUR

INTERSECTION : 2
PROJECTED GROWTH PER YEAR : 3.5%



EXISTING GEOMETRICS

TURN MOVEMENTS

Condition	Existing Condition	Year 2026 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2036 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2046 Condition	Future Year 2046 + Project Condition
Scenario #	1			3		5		7	9	11	13
CACTUS ROAD											
EB LEFT	19	1	0	20	0	20	7	27	27	28	28
EB THRU	80	6	4	90	0	90	28	118	118	86	86
EB RIGHT	74	5	0	79	0	79	26	105	105	81	81
WB LEFT	57	4	40	101	0	101	20	121	121	116	116
WB THRU	81	6	2	89	0	89	28	117	117	64	64
WB RIGHT	45	3	45	93	3	96	16	109	112	124	127
HIGHWAY 395											
NB LEFT	264	18	0	282	0	282	92	374	374	264	264
NB THRU	566	40	10	616	12	628	198	814	826	1317	1329
NB RIGHT	51	4	129	184	0	184	18	202	202	213	213
SB LEFT	34	2	144	180	8	188	12	192	200	231	239
SB THRU	717	50	11	778	34	812	251	1029	1063	1959	1993
SB RIGHT	37	3	0	40	0	40	13	53	53	58	58
TOTALS	**2025**	**142**	**385**	**2552**	**57**	**2609**	**709**	**3261**	**3318**	**4541**	**4598**

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET	OF
TURN VOLUME SUMMARY	TMO	5-Mar-24	IPGIM51H-0001	2	OF 2

E/W STREET : CACTUS ROAD
CONDITION : AM PEAK HOUR
N/S STREET : HIGHWAY 395
PHF : 0.96

NORTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
5	125	4	0	2	0	0	3	0	0	19	1
9	139	4	0	2	1	0	0	0	0	14	2
13	138	6	0	0	1	0	0	0	0	12	1
10	130	5	0	3	0	0	0	0	0	11	0

SOUTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
4	90	65	2	1	1	0	1	0	0	19	0
6	94	74	1	0	0	2	3	0	1	14	0
10	103	61	1	1	0	0	2	0	1	14	0
7	97	62	0	1	0	1	0	0	2	8	0

EAST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
0	17	8	1	0	0	1	0	0	3	0	1
4	18	13	0	1	0	2	1	0	0	0	0
8	21	5	0	1	1	0	0	2	2	0	3
7	20	8	0	0	0	0	0	1	1	0	1

WEST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
16	16	2	1	0	1	0	0	0	0	0	0
20	20	4	0	0	0	0	0	1	0	0	0
17	23	4	0	0	0	0	0	1	0	0	0
19	21	3	0	0	0	0	0	0	0	0	0

Number of Axles	2-Axle Trucks	3-Axle Trucks	4+ Axle Trucks
PCE factor	1.5	2	3

	Truck Volumes	Auto Volumes	Vehicle Totals	PCE Totals	Balanced PCE Totals
CACTUS ROAD					
EB LEFT	3	13	**16**	**19**	**19**
EB THRU	0	80	**80**	**80**	**80**
EB RIGHT	1	72	**73**	**74**	**74**
WB LEFT	9	34	**43**	**57**	**57**
WB THRU	3	76	**79**	**81**	**81**
WB RIGHT	10	19	**29**	**45**	**45**
HIGHWAY 395					
NB LEFT	1	262	**263**	**264**	**264**
NB THRU	64	384	**448**	**566**	**566**
NB RIGHT	11	27	**38**	**51**	**51**
SB LEFT	6	19	**25**	**34**	**34**
SB THRU	66	532	**598**	**717**	**717**
SB RIGHT	0	37	**37**	**37**	**37**



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	80	74	57	81	45	264	566	51	34	717	37
Future Volume (veh/h)	19	80	74	57	81	45	264	566	51	34	717	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1872	1800	1800	1872	1800	1800
Adj Flow Rate, veh/h	20	83	77	59	84	47	275	590	53	35	747	39
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	174	137	127	147	173	97	696	1853	826	355	1157	60
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.78	1.00	1.00	0.20	0.35	0.35
Sat Flow, veh/h	1279	859	797	1246	1084	607	1783	3420	1525	1783	3306	173
Grp Volume(v), veh/h	20	0	160	59	0	131	275	590	53	35	386	400
Grp Sat Flow(s),veh/h/ln	1279	0	1657	1246	0	1691	1783	1710	1525	1783	1710	1769
Q Serve(g_s), s	1.7	0.0	10.8	5.6	0.0	8.5	5.9	0.0	0.0	1.9	22.8	22.8
Cycle Q Clear(g_c), s	10.2	0.0	10.8	16.3	0.0	8.5	5.9	0.0	0.0	1.9	22.8	22.8
Prop In Lane	1.00		0.48	1.00		0.36	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	174	0	264	147	0	269	696	1853	826	355	599	619
V/C Ratio(X)	0.12	0.00	0.61	0.40	0.00	0.49	0.39	0.32	0.06	0.10	0.65	0.65
Avail Cap(c_a), veh/h	364	0	511	332	0	521	696	1853	826	355	599	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	0.0	46.9	54.5	0.0	46.0	8.6	0.0	0.0	39.3	32.7	32.8
Incr Delay (d2), s/veh	0.3	0.0	2.2	1.8	0.0	1.4	0.3	0.4	0.1	0.1	5.3	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	4.6	1.8	0.0	3.6	1.8	0.1	0.0	0.8	9.7	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	0.0	49.2	56.3	0.0	47.3	9.0	0.4	0.1	39.4	38.0	37.9
LnGrp LOS	D	A	D	E	A	D	A	A	A	D	D	D
Approach Vol, veh/h		180			190			918			821	
Approach Delay, s/veh		49.4			50.1			3.0			38.0	
Approach LOS		D			D			A			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	27.9	69.0		23.1	50.9	46.0		23.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	6.9	65.0		37.0	29.0	42.0		37.0
Max Q Clear Time (g_c+I1), s	13.3	2.0		12.8	7.9	24.8		18.3
Green Ext Time (p_c), s	0.0	3.9		0.9	0.7	3.8		0.8

Intersection Summary	
HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	90	79	101	89	93	282	616	184	180	778	40
Future Volume (veh/h)	20	90	79	101	89	93	282	616	184	180	778	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1872	1800	1800	1872	1800	1800
Adj Flow Rate, veh/h	21	94	82	105	93	97	294	642	192	188	810	42
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	182	181	158	195	165	172	617	1853	826	275	1158	60
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.69	1.00	1.00	0.15	0.35	0.35
Sat Flow, veh/h	1212	887	774	1228	807	842	1783	3420	1525	1783	3308	171
Grp Volume(v), veh/h	21	0	176	105	0	190	294	642	192	188	419	433
Grp Sat Flow(s),veh/h/ln	1212	0	1661	1228	0	1649	1783	1710	1525	1783	1710	1769
Q Serve(g_s), s	1.9	0.0	11.3	10.0	0.0	12.4	9.1	0.0	0.0	12.0	25.3	25.3
Cycle Q Clear(g_c), s	14.3	0.0	11.3	21.3	0.0	12.4	9.1	0.0	0.0	12.0	25.3	25.3
Prop In Lane	1.00		0.47	1.00		0.51	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	182	0	339	195	0	336	617	1853	826	275	599	619
V/C Ratio(X)	0.12	0.00	0.52	0.54	0.00	0.56	0.48	0.35	0.23	0.68	0.70	0.70
Avail Cap(c_a), veh/h	308	0	512	323	0	508	617	1853	826	275	599	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.4	0.0	42.5	52.0	0.0	43.0	13.5	0.0	0.0	48.0	33.6	33.6
Incr Delay (d2), s/veh	0.3	0.0	1.2	2.3	0.0	1.5	0.5	0.4	0.5	6.8	6.7	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	4.7	3.2	0.0	5.2	2.7	0.1	0.1	5.6	10.9	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.7	0.0	43.8	54.3	0.0	44.5	14.0	0.4	0.5	54.8	40.2	40.0
LnGrp LOS	D	A	D	D	A	D	B	A	A	D	D	D
Approach Vol, veh/h		197			295			1128			1040	
Approach Delay, s/veh		44.4			48.0			4.0			42.8	
Approach LOS		D			D			A			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	32.5	69.0		28.5	45.5	46.0		28.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	6.6	65.0		37.0	29.0	42.0		37.0
Max Q Clear Time (g_c+I1), s	14.3	2.0		16.3	11.1	27.3		23.3
Green Ext Time (p_c), s	0.0	4.8		1.0	0.7	4.0		1.2

Intersection Summary	
HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	90	79	101	89	96	282	628	184	188	812	40
Future Volume (veh/h)	20	90	79	101	89	96	282	628	184	188	812	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1872	1800	1800	1872	1800	1800
Adj Flow Rate, veh/h	21	94	82	105	93	100	294	654	192	196	846	42
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	179	181	158	195	162	174	617	1853	826	275	1161	58
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.69	1.00	1.00	0.15	0.35	0.35
Sat Flow, veh/h	1209	887	774	1228	793	853	1783	3420	1525	1783	3316	165
Grp Volume(v), veh/h	21	0	176	105	0	193	294	654	192	196	436	452
Grp Sat Flow(s),veh/h/ln	1209	0	1661	1228	0	1646	1783	1710	1525	1783	1710	1770
Q Serve(g_s), s	1.9	0.0	11.3	10.0	0.0	12.7	9.1	0.0	0.0	12.5	26.7	26.7
Cycle Q Clear(g_c), s	14.6	0.0	11.3	21.3	0.0	12.7	9.1	0.0	0.0	12.5	26.7	26.7
Prop In Lane	1.00		0.47	1.00		0.52	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	179	0	339	195	0	336	617	1853	826	275	599	620
V/C Ratio(X)	0.12	0.00	0.52	0.54	0.00	0.57	0.48	0.35	0.23	0.71	0.73	0.73
Avail Cap(c_a), veh/h	305	0	512	323	0	508	617	1853	826	275	599	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.80	0.80	0.80	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	0.0	42.5	52.0	0.0	43.0	13.5	0.0	0.0	48.2	34.0	34.0
Incr Delay (d2), s/veh	0.3	0.0	1.2	2.3	0.0	1.5	0.5	0.4	0.5	8.4	7.6	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	4.7	3.2	0.0	5.3	2.7	0.1	0.1	6.0	11.6	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.9	0.0	43.7	54.3	0.0	44.6	14.0	0.4	0.5	56.6	41.6	41.4
LnGrp LOS	D	A	D	D	A	D	B	A	A	E	D	D
Approach Vol, veh/h		197			298			1140			1084	
Approach Delay, s/veh		44.4			48.0			3.9			44.3	
Approach LOS		D			D			A			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	32.5	69.0		28.5	45.5	46.0		28.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	6.6	65.0		37.0	29.0	42.0		37.0
Max Q Clear Time (g_c+I1), s	14.5	2.0		16.6	11.1	28.7		23.3
Green Ext Time (p_c), s	0.0	4.9		1.0	0.7	4.0		1.2

Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	118	105	121	117	109	374	814	202	192	1029	53
Future Volume (veh/h)	27	118	105	121	117	109	374	814	202	192	1029	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1872	1800	1800	1872	1800	1800
Adj Flow Rate, veh/h	28	123	109	126	122	114	390	848	210	200	1072	55
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	200	219	194	203	213	199	489	1818	811	227	1273	65
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.55	1.00	1.00	0.13	0.38	0.38
Sat Flow, veh/h	1162	880	780	1167	856	800	1783	3420	1525	1783	3310	170
Grp Volume(v), veh/h	28	0	232	126	0	236	390	848	210	200	554	573
Grp Sat Flow(s),veh/h/ln	1162	0	1660	1167	0	1656	1783	1710	1525	1783	1710	1769
Q Serve(g_s), s	2.8	0.0	15.9	13.7	0.0	16.2	22.8	0.0	0.0	14.3	38.3	38.3
Cycle Q Clear(g_c), s	19.0	0.0	15.9	29.6	0.0	16.2	22.8	0.0	0.0	14.3	38.3	38.3
Prop In Lane	1.00		0.47	1.00		0.48	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	200	0	413	203	0	412	489	1818	811	227	658	681
V/C Ratio(X)	0.14	0.00	0.56	0.62	0.00	0.57	0.80	0.47	0.26	0.88	0.84	0.84
Avail Cap(c_a), veh/h	232	0	460	236	0	459	489	1818	811	302	658	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.41	0.41	0.41	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	0.0	42.6	55.6	0.0	42.8	26.5	0.0	0.0	55.7	36.4	36.4
Incr Delay (d2), s/veh	0.3	0.0	1.2	3.8	0.0	1.4	3.9	0.4	0.3	20.1	12.4	12.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	6.6	4.2	0.0	6.8	6.8	0.1	0.1	7.5	17.2	17.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	0.0	43.9	59.4	0.0	44.2	30.3	0.4	0.3	75.8	48.8	48.5
LnGrp LOS	D	A	D	E	A	D	C	A	A	E	D	D
Approach Vol, veh/h		260			362			1448			1327	
Approach Delay, s/veh		44.7			49.5			8.4			52.7	
Approach LOS		D			D			A			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.6	73.1		36.3	39.7	54.0		36.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	22.6	60.0		36.0	32.0	50.0		36.0
Max Q Clear Time (g_c+I1), s	16.3	2.0		21.0	24.8	40.3		31.6
Green Ext Time (p_c), s	0.2	6.8		1.2	0.7	4.4		0.7

Intersection Summary	
HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	118	105	121	117	112	374	826	202	200	1063	53
Future Volume (veh/h)	27	118	105	121	117	112	374	826	202	200	1063	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1872	1800	1800	1872	1800	1800
Adj Flow Rate, veh/h	28	123	109	126	122	117	390	860	210	208	1107	55
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	197	219	194	203	210	202	489	1578	704	352	1275	63
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.55	0.92	0.92	0.20	0.38	0.38
Sat Flow, veh/h	1159	880	780	1167	844	810	1783	3420	1525	1783	3316	165
Grp Volume(v), veh/h	28	0	232	126	0	239	390	860	210	208	571	591
Grp Sat Flow(s),veh/h/ln	1159	0	1660	1167	0	1654	1783	1710	1525	1783	1710	1770
Q Serve(g_s), s	2.8	0.0	15.9	13.7	0.0	16.5	22.8	5.1	1.9	13.8	40.1	40.1
Cycle Q Clear(g_c), s	19.3	0.0	15.9	29.6	0.0	16.5	22.8	5.1	1.9	13.8	40.1	40.1
Prop In Lane	1.00		0.47	1.00		0.49	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	197	0	413	203	0	412	489	1578	704	352	658	681
V/C Ratio(X)	0.14	0.00	0.56	0.62	0.00	0.58	0.80	0.54	0.30	0.59	0.87	0.87
Avail Cap(c_a), veh/h	229	0	460	236	0	458	489	1578	704	352	658	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.38	0.38	0.38	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.3	0.0	42.6	55.6	0.0	42.9	26.5	2.9	2.8	47.4	36.9	37.0
Incr Delay (d2), s/veh	0.3	0.0	1.2	3.8	0.0	1.5	3.6	0.5	0.4	2.6	14.5	14.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	6.6	4.2	0.0	6.9	6.7	1.1	0.6	6.1	18.2	18.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	0.0	43.9	59.4	0.0	44.4	30.1	3.4	3.2	50.0	51.4	51.0
LnGrp LOS	D	A	D	E	A	D	C	A	A	D	D	D
Approach Vol, veh/h		260			365			1460			1370	
Approach Delay, s/veh		44.7			49.5			10.5			51.0	
Approach LOS		D			D			B			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	39.6	64.0		36.4	39.6	54.0		36.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	22.6	60.0		36.0	32.0	50.0		36.0
Max Q Clear Time (g_c+I1), s	15.8	7.1		21.3	24.8	42.1		31.6
Green Ext Time (p_c), s	0.3	6.9		1.2	0.7	3.9		0.7

Intersection Summary	
HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	86	81	116	64	124	264	1317	213	231	1959	58
Future Volume (veh/h)	28	86	81	116	64	124	264	1317	213	231	1959	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1872	1800	1800	1872	1800	1800
Adj Flow Rate, veh/h	29	90	84	121	67	129	275	1372	222	241	2041	60
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	179	182	170	202	117	225	321	1870	834	265	1749	51
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.36	1.00	1.00	0.15	0.52	0.52
Sat Flow, veh/h	1206	857	799	1230	550	1059	1783	3420	1525	1783	3393	99
Grp Volume(v), veh/h	29	0	174	121	0	196	275	1372	222	241	1024	1077
Grp Sat Flow(s),veh/h/ln	1206	0	1656	1230	0	1609	1783	1710	1525	1783	1710	1782
Q Serve(g_s), s	2.9	0.0	12.0	12.5	0.0	14.2	18.5	0.0	0.0	17.3	67.0	67.0
Cycle Q Clear(g_c), s	17.1	0.0	12.0	24.5	0.0	14.2	18.5	0.0	0.0	17.3	67.0	67.0
Prop In Lane	1.00		0.48	1.00		0.66	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	179	0	351	202	0	341	321	1870	834	265	881	918
V/C Ratio(X)	0.16	0.00	0.50	0.60	0.00	0.57	0.86	0.73	0.27	0.91	1.16	1.17
Avail Cap(c_a), veh/h	257	0	459	282	0	446	321	1870	834	274	881	918
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.14	0.14	0.14	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.6	0.0	45.1	55.9	0.0	46.0	40.0	0.0	0.0	54.5	31.5	31.5
Incr Delay (d2), s/veh	0.4	0.0	1.1	2.8	0.0	1.5	3.4	0.4	0.1	31.1	85.2	89.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	5.0	4.0	0.0	5.8	6.5	0.1	0.0	9.7	45.4	48.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.0	0.0	46.2	58.7	0.0	47.5	43.4	0.4	0.1	85.5	116.7	120.9
LnGrp LOS	D	A	D	E	A	D	D	A	A	F	F	F
Approach Vol, veh/h		203			317			1869			2342	
Approach Delay, s/veh		47.3			51.8			6.7			115.4	
Approach LOS		D			D			A			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	23.3	75.1		31.6	27.4	71.0		31.6
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	20.0	62.0		36.0	15.0	67.0		36.0
Max Q Clear Time (g_c+I1), s	19.3	2.0		19.1	20.5	69.0		26.5
Green Ext Time (p_c), s	0.1	14.0		0.9	0.0	0.0		1.0

Intersection Summary	
HCM 6th Ctrl Delay	65.3
HCM 6th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	86	81	116	64	127	264	1329	213	239	1993	58
Future Volume (veh/h)	28	86	81	116	64	127	264	1329	213	239	1993	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1872	1800	1800	1872	1800	1800
Adj Flow Rate, veh/h	29	90	84	121	67	132	275	1384	222	249	2076	60
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	177	182	170	203	115	226	321	1631	728	390	1750	50
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.24	0.63	0.63	0.22	0.52	0.52
Sat Flow, veh/h	1202	857	799	1230	541	1067	1783	3420	1525	1783	3395	98
Grp Volume(v), veh/h	29	0	174	121	0	199	275	1384	222	249	1041	1095
Grp Sat Flow(s),veh/h/ln	1202	0	1656	1230	0	1608	1783	1710	1525	1783	1710	1782
Q Serve(g_s), s	2.9	0.0	12.0	12.5	0.0	14.5	19.2	41.7	8.6	16.5	67.0	67.0
Cycle Q Clear(g_c), s	17.4	0.0	12.0	24.5	0.0	14.5	19.2	41.7	8.6	16.5	67.0	67.0
Prop In Lane	1.00		0.48	1.00		0.66	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	177	0	351	203	0	341	321	1631	728	390	881	919
V/C Ratio(X)	0.16	0.00	0.50	0.60	0.00	0.58	0.86	0.85	0.31	0.64	1.18	1.19
Avail Cap(c_a), veh/h	255	0	459	282	0	445	321	1631	728	390	881	919
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.10	0.10	0.10	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	0.0	45.1	55.9	0.0	46.0	47.8	20.1	14.0	46.1	31.5	31.5
Incr Delay (d2), s/veh	0.4	0.0	1.1	2.8	0.0	1.6	2.5	0.6	0.1	3.5	93.0	97.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	5.0	4.0	0.0	5.9	7.9	11.9	2.6	7.4	47.3	50.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.3	0.0	46.2	58.7	0.0	47.6	50.3	20.7	14.1	49.6	124.5	128.9
LnGrp LOS	D	A	D	E	A	D	D	C	B	D	F	F
Approach Vol, veh/h		203			320			1881			2385	
Approach Delay, s/veh		47.3			51.8			24.2			118.7	
Approach LOS		D			D			C			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	32.4	66.0		31.6	27.4	71.0		31.6
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	20.0	62.0		36.0	15.0	67.0		36.0
Max Q Clear Time (g_c+I1), s	18.5	43.7		19.4	21.2	69.0		26.5
Green Ext Time (p_c), s	0.1	9.5		0.9	0.0	0.0		1.1

Intersection Summary	
HCM 6th Ctrl Delay	74.1
HCM 6th LOS	E

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : CACTUS ROAD
N/S STREET : HIGHWAY 395
CONDITION : PM PEAK HOUR

INTERSECTION : 2
PROJECTED GROWTH PER YEAR : 3.5%

TURN MOVEMENTS

Condition	Existing Condition	Year 2026 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2036 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2046 Condition	Future Year 2046 + Project Condition
Scenario #	2			4		6		8	10	12	14
CACTUS ROAD											
EB LEFT	22	2	0	24	0	24	8	32	32	25	25
EB THRU	25	2	3	30	0	30	9	39	39	24	24
EB RIGHT	42	3	0	45	0	45	15	60	60	45	45
WB LEFT	22	2	121	145	0	145	8	153	153	180	180
WB THRU	24	2	4	30	0	30	8	38	38	31	31
WB RIGHT	33	2	138	173	7	180	12	185	192	232	239
HIGHWAY 395											
NB LEFT	116	8	0	124	0	124	41	165	165	135	135
NB THRU	821	57	15	893	32	925	287	1180	1212	2429	2461
NB RIGHT	32	2	51	85	0	85	11	96	96	120	120
SB LEFT	58	4	55	117	3	120	20	137	140	133	136
SB THRU	1215	85	12	1312	13	1325	425	1737	1750	2091	2104
SB RIGHT	77	5	0	82	0	82	27	109	109	56	56
TOTALS	**2487**	**174**	**399**	**3060**	**55**	**3115**	**871**	**3931**	**3986**	**5501**	**5556**

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET	OF
TURN VOLUME SUMMARY	TMO	5-Mar-24	IPGIM51H-0001	2	OF 2

E/W STREET : CACTUS ROAD
CONDITION : PM PEAK HOUR
N/S STREET : HIGHWAY 395
PHF : 0.94

NORTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
24	272	0	0	0	1	0	1	1	0	7	2
20	261	1	0	2	0	0	3	0	0	10	4
18	289	0	0	4	2	0	2	1	0	4	7
15	281	0	0	2	0	0	1	0	0	6	3

SOUTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
3	167	32	0	1	0	0	3	1	0	8	0
0	166	25	0	0	0	2	0	0	3	12	0
4	174	32	0	4	0	0	3	0	1	10	0
3	184	25	0	3	0	0	2	0	2	4	0

EAST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
3	3	1	0	1	1	1	0	1	1	0	0
2	5	1	0	0	0	0	0	0	2	0	1
3	7	2	0	0	0	2	0	0	0	0	2
4	7	1	0	0	1	0	0	0	2	0	1

WEST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
10	5	3	0	0	1	0	0	0	0	0	0
10	2	5	0	1	0	0	0	0	0	0	0
12	9	5	0	1	0	0	0	1	0	0	0
10	6	5	0	0	0	0	0	0	0	0	0

Number of Axles	2-Axle Trucks	3-Axle Trucks	4+ Axle Trucks
PCE factor	1.5	2	3

	Truck Volumes	Auto Volumes	Vehicle Totals	PCE Totals	Balanced PCE Totals
CACTUS ROAD					
EB LEFT	2	18	**20**	**22**	**22**
EB THRU	2	22	**24**	**25**	**25**
EB RIGHT	0	42	**42**	**42**	**42**
WB LEFT	7	5	**12**	**22**	**22**
WB THRU	1	22	**23**	**24**	**24**
WB RIGHT	8	12	**20**	**33**	**33**
HIGHWAY 395					
NB LEFT	1	114	**115**	**116**	**116**
NB THRU	50	691	**741**	**821**	**821**
NB RIGHT	8	10	**18**	**32**	**32**
SB LEFT	21	1	**22**	**58**	**58**
SB THRU	42	1103	**1,145**	**1210**	**1,215**
SB RIGHT	0	77	**77**	**77**	**77**



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	25	42	22	24	33	116	821	32	58	1210	77
Future Volume (veh/h)	22	25	42	22	24	33	116	821	32	58	1210	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1872	1800	1800	1872	1800	1800
Adj Flow Rate, veh/h	23	27	45	23	26	35	123	873	34	62	1287	82
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	119	48	80	109	55	74	572	2655	1184	80	1632	104
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.64	1.00	1.00	0.04	0.50	0.50
Sat Flow, veh/h	1363	607	1011	1349	695	936	1783	3420	1525	1783	3265	208
Grp Volume(v), veh/h	23	0	72	23	0	61	123	873	34	62	673	696
Grp Sat Flow(s),veh/h/ln	1363	0	1618	1349	0	1632	1783	1710	1525	1783	1710	1763
Q Serve(g_s), s	2.0	0.0	5.1	2.0	0.0	4.3	3.4	0.0	0.0	4.1	38.9	39.2
Cycle Q Clear(g_c), s	6.3	0.0	5.1	7.2	0.0	4.3	3.4	0.0	0.0	4.1	38.9	39.2
Prop In Lane	1.00		0.63	1.00		0.57	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	119	0	128	109	0	129	572	2655	1184	80	855	881
V/C Ratio(X)	0.19	0.00	0.56	0.21	0.00	0.47	0.21	0.33	0.03	0.78	0.79	0.79
Avail Cap(c_a), veh/h	420	0	485	407	0	489	572	2655	1184	134	855	881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	0.0	53.3	56.7	0.0	52.9	15.2	0.0	0.0	56.7	24.7	24.8
Incr Delay (d2), s/veh	0.8	0.0	3.9	1.0	0.0	2.7	0.2	0.3	0.0	14.8	7.2	7.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.2	0.7	0.0	1.8	1.3	0.1	0.0	2.1	15.8	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.7	0.0	57.1	57.7	0.0	55.6	15.3	0.3	0.0	71.5	32.0	31.9
LnGrp LOS	E	A	E	E	A	E	B	A	A	E	C	C
Approach Vol, veh/h		95			84			1030			1431	
Approach Delay, s/veh		57.0			56.2			2.1			33.7	
Approach LOS		E			E			A			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.4	97.2		13.5	42.5	64.0		13.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	63.0		36.0	12.0	60.0		36.0
Max Q Clear Time (g_c+I1), s	6.3	2.0		8.3	5.4	41.2		9.2
Green Ext Time (p_c), s	0.0	6.3		0.4	0.1	8.0		0.3

Intersection Summary	
HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	30	45	145	30	173	124	893	85	117	1312	82
Future Volume (veh/h)	24	30	45	145	30	173	124	893	85	117	1312	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1872	1800	1800	1872	1800	1800
Adj Flow Rate, veh/h	26	32	48	154	32	184	132	950	90	124	1396	87
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	122	119	179	249	42	244	386	2194	979	134	1635	102
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.43	1.00	1.00	0.08	0.50	0.50
Sat Flow, veh/h	1184	650	975	1339	231	1329	1783	3420	1525	1783	3270	203
Grp Volume(v), veh/h	26	0	80	154	0	216	132	950	90	124	728	755
Grp Sat Flow(s),veh/h/ln	1184	0	1625	1339	0	1561	1783	1710	1525	1783	1710	1763
Q Serve(g_s), s	2.6	0.0	5.1	13.4	0.0	15.7	5.9	0.0	0.0	8.3	44.5	44.9
Cycle Q Clear(g_c), s	18.3	0.0	5.1	18.5	0.0	15.7	5.9	0.0	0.0	8.3	44.5	44.9
Prop In Lane	1.00		0.60	1.00		0.85	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	122	0	298	249	0	286	386	2194	979	134	855	882
V/C Ratio(X)	0.21	0.00	0.27	0.62	0.00	0.75	0.34	0.43	0.09	0.93	0.85	0.86
Avail Cap(c_a), veh/h	260	0	487	405	0	468	386	2194	979	134	855	882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.80	0.80	0.80	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	0.0	42.1	50.0	0.0	46.4	28.3	0.0	0.0	55.2	26.1	26.2
Incr Delay (d2), s/veh	0.9	0.0	0.5	2.5	0.0	4.0	0.4	0.5	0.1	56.1	10.4	10.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	2.1	4.6	0.0	6.4	2.3	0.2	0.0	5.7	18.5	19.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.0	0.0	42.6	52.5	0.0	50.5	28.7	0.5	0.1	111.3	36.6	36.7
LnGrp LOS	E	A	D	D	A	D	C	A	A	F	D	D
Approach Vol, veh/h		106			370			1172			1607	
Approach Delay, s/veh		45.8			51.3			3.7			42.4	
Approach LOS		D			D			A			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	81.0		26.0	30.0	64.0		26.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	63.0		36.0	12.0	60.0		36.0
Max Q Clear Time (g_c+I1), s	10.3	2.0		20.3	7.9	46.9		20.5
Green Ext Time (p_c), s	0.0	7.3		0.4	0.1	7.2		1.5

Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	30	45	145	30	180	124	925	85	120	1325	82
Future Volume (veh/h)	24	30	45	145	30	180	124	925	85	120	1325	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1872	1800	1800	1872	1800	1800
Adj Flow Rate, veh/h	26	32	48	154	32	191	132	984	90	128	1410	87
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	116	119	179	250	41	245	386	2193	978	134	1636	101
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.43	1.00	1.00	0.08	0.50	0.50
Sat Flow, veh/h	1176	650	975	1339	224	1336	1783	3420	1525	1783	3272	201
Grp Volume(v), veh/h	26	0	80	154	0	223	132	984	90	128	735	762
Grp Sat Flow(s),veh/h/ln	1176	0	1625	1339	0	1560	1783	1710	1525	1783	1710	1764
Q Serve(g_s), s	2.6	0.0	5.1	13.4	0.0	16.3	5.9	0.0	0.0	8.6	45.2	45.7
Cycle Q Clear(g_c), s	18.9	0.0	5.1	18.5	0.0	16.3	5.9	0.0	0.0	8.6	45.2	45.7
Prop In Lane	1.00		0.60	1.00		0.86	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	116	0	299	250	0	287	386	2193	978	134	855	882
V/C Ratio(X)	0.22	0.00	0.27	0.62	0.00	0.78	0.34	0.45	0.09	0.96	0.86	0.86
Avail Cap(c_a), veh/h	253	0	487	405	0	468	386	2193	978	134	855	882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	0.0	42.0	50.0	0.0	46.6	28.4	0.0	0.0	55.3	26.3	26.4
Incr Delay (d2), s/veh	1.0	0.0	0.5	2.5	0.0	4.6	0.4	0.5	0.1	64.6	11.0	11.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	2.1	4.6	0.0	6.6	2.3	0.2	0.0	6.1	18.9	19.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.6	0.0	42.5	52.4	0.0	51.2	28.8	0.5	0.1	119.9	37.3	37.4
LnGrp LOS	E	A	D	D	A	D	C	A	A	F	D	D
Approach Vol, veh/h		106			377			1206			1625	
Approach Delay, s/veh		46.0			51.7			3.6			43.9	
Approach LOS		D			D			A			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	80.9		26.1	29.9	64.0		26.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	63.0		36.0	12.0	60.0		36.0
Max Q Clear Time (g_c+I1), s	10.6	2.0		20.9	7.9	47.7		20.5
Green Ext Time (p_c), s	0.0	7.7		0.4	0.1	7.0		1.6

Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	39	60	153	38	185	165	1180	96	137	1737	109
Future Volume (veh/h)	32	39	60	153	38	185	165	1180	96	137	1737	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1872	1800	1800	1872	1800	1800
Adj Flow Rate, veh/h	34	41	63	161	40	195	174	1242	101	144	1828	115
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	106	124	191	227	52	253	233	2181	973	166	1962	122
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.26	1.00	1.00	0.09	0.60	0.60
Sat Flow, veh/h	1163	640	983	1311	267	1300	1783	3420	1525	1783	3270	204
Grp Volume(v), veh/h	34	0	104	161	0	235	174	1242	101	144	947	996
Grp Sat Flow(s),veh/h/ln	1163	0	1623	1311	0	1566	1783	1710	1525	1783	1710	1763
Q Serve(g_s), s	4.6	0.0	8.8	19.3	0.0	22.8	14.3	0.0	0.0	12.8	79.4	83.1
Cycle Q Clear(g_c), s	27.3	0.0	8.8	28.1	0.0	22.8	14.3	0.0	0.0	12.8	79.4	83.1
Prop In Lane	1.00		0.61	1.00		0.83	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	106	0	315	227	0	304	233	2181	973	166	1026	1058
V/C Ratio(X)	0.32	0.00	0.33	0.71	0.00	0.77	0.75	0.57	0.10	0.87	0.92	0.94
Avail Cap(c_a), veh/h	141	0	365	268	0	352	233	2181	973	223	1026	1058
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.20	0.20	0.20	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.0	0.0	55.5	67.6	0.0	61.1	56.7	0.0	0.0	71.6	28.7	29.4
Incr Delay (d2), s/veh	1.7	0.0	0.6	6.8	0.0	8.8	2.7	0.2	0.0	23.1	14.7	16.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	3.7	6.9	0.0	9.8	5.8	0.1	0.0	6.8	33.4	36.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.8	0.0	56.1	74.4	0.0	69.9	59.4	0.2	0.0	94.7	43.4	46.2
LnGrp LOS	E	A	E	E	A	E	E	A	A	F	D	D
Approach Vol, veh/h		138			396			1517			2087	
Approach Delay, s/veh		60.9			71.7			7.0			48.3	
Approach LOS		E			E			A			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.9	106.0		35.1	24.9	100.0		35.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	20.0	92.0		36.0	16.0	96.0		36.0
Max Q Clear Time (g_c+I1), s	14.8	2.0		29.3	16.3	85.1		30.1
Green Ext Time (p_c), s	0.1	11.2		0.3	0.0	8.3		1.0

Intersection Summary	
HCM 6th Ctrl Delay	35.8
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	39	60	153	38	192	165	1212	96	140	1750	109
Future Volume (veh/h)	32	39	60	153	38	192	165	1212	96	140	1750	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1872	1800	1800	1872	1800	1800
Adj Flow Rate, veh/h	33	41	63	161	40	202	174	1276	101	147	1842	115
Peak Hour Factor	0.96	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	124	191	228	50	254	233	2175	970	169	1963	121
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.26	1.00	1.00	0.09	0.60	0.60
Sat Flow, veh/h	1156	640	983	1311	259	1306	1783	3420	1525	1783	3272	202
Grp Volume(v), veh/h	33	0	104	161	0	242	174	1276	101	147	953	1004
Grp Sat Flow(s),veh/h/ln	1156	0	1623	1311	0	1565	1783	1710	1525	1783	1710	1764
Q Serve(g_s), s	4.5	0.0	8.8	19.3	0.0	23.6	14.3	0.0	0.0	13.0	80.6	84.5
Cycle Q Clear(g_c), s	28.1	0.0	8.8	28.1	0.0	23.6	14.3	0.0	0.0	13.0	80.6	84.5
Prop In Lane	1.00		0.61	1.00		0.83	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	99	0	316	228	0	304	233	2175	970	169	1026	1058
V/C Ratio(X)	0.33	0.00	0.33	0.71	0.00	0.80	0.75	0.59	0.10	0.87	0.93	0.95
Avail Cap(c_a), veh/h	135	0	365	268	0	352	233	2175	970	223	1026	1058
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.16	0.16	0.16	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.8	0.0	55.5	67.6	0.0	61.4	56.7	0.0	0.0	71.5	28.9	29.7
Incr Delay (d2), s/veh	1.9	0.0	0.6	6.8	0.0	10.5	2.2	0.2	0.0	23.9	15.5	17.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	3.7	6.9	0.0	10.2	5.7	0.1	0.0	6.9	34.1	37.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.7	0.0	56.1	74.4	0.0	71.9	58.9	0.2	0.0	95.4	44.4	47.4
LnGrp LOS	E	A	E	E	A	E	E	A	A	F	D	D
Approach Vol, veh/h		137			403			1551			2104	
Approach Delay, s/veh		61.0			72.9			6.8			49.4	
Approach LOS		E			E			A			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	19.1	105.7		35.1	24.9	100.0		35.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	20.0	92.0		36.0	16.0	96.0		36.0
Max Q Clear Time (g_c+I1), s	15.1	2.0		30.1	16.3	86.5		30.1
Green Ext Time (p_c), s	0.1	11.7		0.3	0.0	7.4		1.0

Intersection Summary	
HCM 6th Ctrl Delay	36.3
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	24	45	180	31	232	135	2429	120	133	2091	56
Future Volume (veh/h)	25	24	45	180	31	232	135	2429	120	133	2091	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1872	1800	1800	1872	1800	1800
Adj Flow Rate, veh/h	26	25	47	189	33	244	142	2557	126	140	2201	59
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	116	219	275	38	284	153	2260	1008	100	2148	57
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.17	1.00	1.00	0.06	0.63	0.63
Sat Flow, veh/h	1120	559	1051	1349	185	1369	1783	3420	1525	1783	3403	91
Grp Volume(v), veh/h	26	0	72	189	0	277	142	2557	126	140	1101	1159
Grp Sat Flow(s),veh/h/ln	1120	0	1611	1349	0	1554	1783	1710	1525	1783	1710	1784
Q Serve(g_s), s	3.7	0.0	5.9	21.6	0.0	27.5	12.6	0.0	0.0	9.0	101.0	101.0
Cycle Q Clear(g_c), s	31.2	0.0	5.9	27.5	0.0	27.5	12.6	0.0	0.0	9.0	101.0	101.0
Prop In Lane	1.00		0.65	1.00		0.88	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	85	0	335	275	0	323	153	2260	1008	100	1079	1126
V/C Ratio(X)	0.30	0.00	0.22	0.69	0.00	0.86	0.93	1.13	0.12	1.40	1.02	1.03
Avail Cap(c_a), veh/h	104	0	362	299	0	350	153	2260	1008	100	1079	1126
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	76.1	0.0	52.6	64.0	0.0	61.1	65.8	0.0	0.0	75.5	29.5	29.5
Incr Delay (d2), s/veh	2.0	0.0	0.3	5.8	0.0	17.8	9.3	59.7	0.0	227.7	32.5	34.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	2.4	7.9	0.0	12.4	5.5	18.7	0.0	10.4	46.0	48.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.1	0.0	52.9	69.8	0.0	78.9	75.0	59.7	0.0	303.2	62.0	64.1
LnGrp LOS	E	A	D	E	A	E	E	F	A	F	F	F
Approach Vol, veh/h		98			466			2825			2400	
Approach Delay, s/veh		59.6			75.2			57.8			77.1	
Approach LOS		E			E			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	109.7		37.3	17.7	105.0		37.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	103.0		36.0	11.0	101.0		36.0
Max Q Clear Time (g_c+I1), s	11.6	2.0		33.2	14.6	103.0		29.5
Green Ext Time (p_c), s	0.0	58.7		0.1	0.0	0.0		1.3

Intersection Summary	
HCM 6th Ctrl Delay	67.2
HCM 6th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	24	45	180	31	239	135	2461	120	136	2104	56
Future Volume (veh/h)	25	24	45	180	31	239	135	2461	120	136	2104	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1872	1800	1800	1872	1800	1800
Adj Flow Rate, veh/h	26	25	47	189	33	252	142	2591	126	143	2215	59
Peak Hour Factor	0.96	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	119	224	283	38	292	144	2243	1000	100	2148	57
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.11	0.87	0.87	0.06	0.63	0.63
Sat Flow, veh/h	1112	559	1051	1349	180	1373	1783	3420	1525	1783	3404	90
Grp Volume(v), veh/h	26	0	72	189	0	285	142	2591	126	143	1108	1166
Grp Sat Flow(s),veh/h/ln	1112	0	1611	1349	0	1553	1783	1710	1525	1783	1710	1784
Q Serve(g_s), s	3.7	0.0	5.9	21.5	0.0	28.3	12.7	104.9	1.9	9.0	101.0	101.0
Cycle Q Clear(g_c), s	32.0	0.0	5.9	27.4	0.0	28.3	12.7	104.9	1.9	9.0	101.0	101.0
Prop In Lane	1.00		0.65	1.00		0.88	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	85	0	343	283	0	331	144	2243	1000	100	1079	1126
V/C Ratio(X)	0.31	0.00	0.21	0.67	0.00	0.86	0.99	1.16	0.13	1.43	1.03	1.04
Avail Cap(c_a), veh/h	98	0	362	299	0	349	144	2243	1000	100	1079	1126
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	76.1	0.0	51.9	63.2	0.0	60.7	71.3	10.2	3.6	75.5	29.5	29.5
Incr Delay (d2), s/veh	2.0	0.0	0.3	5.3	0.0	18.6	19.0	70.4	0.0	239.7	34.3	36.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	2.4	7.8	0.0	12.8	6.3	28.1	0.5	10.7	46.5	49.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.1	0.0	52.2	68.4	0.0	79.3	90.3	80.6	3.7	315.2	63.8	66.0
LnGrp LOS	E	A	D	E	A	E	F	F	A	F	F	F
Approach Vol, veh/h		98			474			2859			2417	
Approach Delay, s/veh		59.1			75.0			77.7			79.7	
Approach LOS		E			E			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	108.9		38.1	16.9	105.0		38.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	103.0		36.0	11.0	101.0		36.0
Max Q Clear Time (g_c+I1), s	11.9	106.9		34.0	14.7	103.0		30.3
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	0.0		1.2

Intersection Summary	
HCM 6th Ctrl Delay	78.0
HCM 6th LOS	E

CALCULATION OF FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES (NCHRP 255)

Intersection No.: 2
North/South Street: HIGHWAY 395
East/West Street: CACTUS ROAD

Analysis Condition: YEAR 2046 FUTURE TRAFFIC

A.M. Peak Hour

			Forecast Future Year				
Approach Direction		**Base Year Count**		**Link Volume**		**Turn Volume**	**Balanced Volume**
South leg	Left	264	Approach	1,618	Left	264	264
NB	Through	566	Departure	2,077	Through	1,307	1,307
	Right	51			Right	84	84
North leg	Left	34	Approach	2,042	Left	87	87
SB	Through	717	Departure	1,412	Through	1,924	1,948
	Right	37			Right	58	58
West leg	Left	19	Approach	185	Left	28	28
EB	Through	80	Departure	382	Through	82	82
	Right	74			Right	80	81
East leg	Left	57	Approach	210	Left	75	76
WB	Through	81	Departure	251	Through	62	62
	Right	45			Right	79	79

P.M. Peak Hour

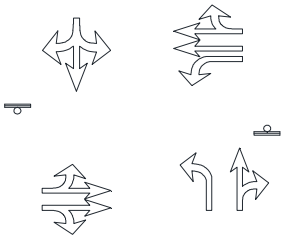
			Forecast Future Year				
Approach Direction		**Base Year Count**		**Link Volume**		**Turn Volume**	**Balanced Volume**
South leg	Left	116	Approach	2,589	Left	135	135
NB	Through	821	Departure	2,169	Through	2,414	2,414
	Right	32			Right	69	69
North leg	Left	58	Approach	2,180	Left	78	78
SB	Through	1,215	Departure	2,532	Through	2,067	2,079
	Right	77			Right	56	56
West leg	Left	22	Approach	89	Left	25	25
EB	Through	25	Departure	217	Through	21	21
	Right	42			Right	45	45
East leg	Left	22	Approach	177	Left	59	59
WB	Through	24	Departure	167	Through	27	27
	Right	33			Right	94	94

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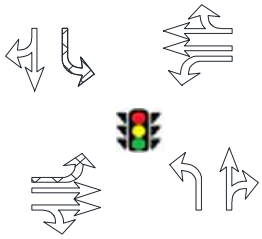
SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : MOJAVE DRIVE
N/S STREET : MESA LINDA AVENUE
CONDITION : AM PEAK HOUR

INTERSECTION : 3
PROJECTED GROWTH PER YEAR : 3.5%



EXISTING GEOMETRICS



CUMULATICE GEOMETRICS

TURN MOVEMENTS

Condition	Existing Condition	Year 2026 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2036 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2046 Condition	Future Year 2046 + Project Condition
Scenario #	1			3		5		7	9	11	13
MOJAVE DRIVE											
EB LEFT	1	0	183	184	0	184	0	184	184	226	226
EB THRU	565	40	121	726	139	865	198	924	1063	843	982
EB RIGHT	39	3	6	48	0	48	14	62	62	49	49
WB LEFT	36	3	5	44	0	44	13	57	57	54	54
WB THRU	580	41	51	672	46	718	203	875	921	752	798
WB RIGHT	1	0	68	69	0	69	0	69	69	122	122
MESA LINDA AVENUE											
NB LEFT	56	4	14	74	0	74	20	94	94	59	59
NB THRU	1	0	0	1	0	1	0	1	1	35	35
NB RIGHT	46	3	2	51	0	51	16	67	67	51	51
SB LEFT	1	0	29	30	0	30	0	30	30	41	41
SB THRU	1	0	0	1	0	1	0	1	1	11	11
SB RIGHT	3	0	46	49	0	49	1	50	50	73	73
TOTALS	**1330**	**94**	**525**	**1949**	**185**	**2134**	**465**	**2414**	**2599**	**2316**	**2501**

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET	OF
TURN VOLUME SUMMARY	TMO	5-Mar-24	IPGIM51H-0001	2	OF 2

E/W STREET : MOJAVE DRIVE
N/S STREET : MESA LINDA AVENUE
CONDITION : AM PEAK HOUR
PHF : 0.96

NORTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0

Number of Axles	2-Axle Trucks	3-Axle Trucks	4+ Axle Trucks
PCE factor	1.5	2	3

SOUTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
12	0	15	0	0	0	0	0	0	0	0	0
12	1	12	0	0	0	0	0	0	0	0	0
8	0	17	0	0	0	0	0	0	0	0	0
14	0	12	0	0	0	0	0	0	0	0	0

EAST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
0	134	8	0	3	0	0	3	0	0	0	0
0	135	12	0	1	0	0	1	0	0	0	0
0	140	10	0	2	0	0	3	0	0	0	0
0	144	6	0	1	0	0	1	0	0	0	0

WEST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
6	121	0	1	1	0	0	3	0	0	1	0
13	114	1	0	2	0	0	5	0	0	1	0
10	137	0	0	2	0	0	1	0	0	0	0
6	126	0	0	3	0	0	3	0	0	0	0

	Truck Volumes	Auto Volumes	Vehicle Totals	PCE Totals	Balanced PCE Totals
MOJAVE DRIVE					
EB LEFT	0	1	**1**	**1**	**1**
EB THRU	22	498	**520**	**540**	**565**
EB RIGHT	1	35	**36**	**37**	**39**
WB LEFT	0	36	**36**	**36**	**36**
WB THRU	15	553	**568**	**580**	**580**
WB RIGHT	0	0	**0**	**1**	**1**
MESA LINDA AVENUE					
NB LEFT	0	56	**56**	**56**	**56**
NB THRU	0	1	**1**	**1**	**1**
NB RIGHT	0	46	**46**	**46**	**46**
SB LEFT	0	0	**0**	**1**	**1**
SB THRU	0	0	**0**	**1**	**1**
SB RIGHT	0	3	**3**	**3**	**3**

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	565	39	36	580	1	56	1	46	1	1	3
Future Vol, veh/h	1	565	39	36	580	1	56	1	46	1	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	250	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	589	41	38	604	1	58	1	48	1	1	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	605	0	0	630	0	0	991	1293	315	978	1313	303
Stage 1	-	-	-	-	-	-	612	612	-	681	681	-
Stage 2	-	-	-	-	-	-	379	681	-	297	632	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	983	-	-	962	-	-	203	164	687	208	160	699
Stage 1	-	-	-	-	-	-	452	487	-	411	453	-
Stage 2	-	-	-	-	-	-	620	453	-	693	477	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	983	-	-	962	-	-	195	157	687	186	153	699
Mov Cap-2 Maneuver	-	-	-	-	-	-	195	157	-	186	153	-
Stage 1	-	-	-	-	-	-	451	486	-	410	435	-
Stage 2	-	-	-	-	-	-	591	435	-	642	476	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	22	16.9
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	195	641	983	-	-	962	-	-	309
HCM Lane V/C Ratio	0.299	0.076	0.001	-	-	0.039	-	-	0.017
HCM Control Delay (s)	31.2	11.1	8.7	0	-	8.9	-	-	16.9
HCM Lane LOS	D	B	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	1.2	0.2	0	-	-	0.1	-	-	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	726	48	44	672	69	74	1	51	30	1	49
Future Volume (veh/h)	184	726	48	44	672	69	74	1	51	30	1	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	192	756	50	46	700	72	77	1	53	31	1	51
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	226	1253	83	83	944	97	648	12	651	646	13	650
Arrive On Green	0.13	0.38	0.38	0.05	0.30	0.30	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1714	3256	215	1714	3130	322	1374	28	1501	1371	29	1500
Grp Volume(v), veh/h	192	397	409	46	382	390	77	0	54	31	0	52
Grp Sat Flow(s),veh/h/ln	1714	1710	1761	1714	1710	1742	1374	0	1530	1371	0	1530
Q Serve(g_s), s	9.9	16.7	16.8	2.4	18.1	18.1	3.1	0.0	1.9	1.2	0.0	1.8
Cycle Q Clear(g_c), s	9.9	16.7	16.8	2.4	18.1	18.1	4.9	0.0	1.9	3.1	0.0	1.8
Prop In Lane	1.00		0.12	1.00		0.18	1.00		0.98	1.00		0.98
Lane Grp Cap(c), veh/h	226	658	678	83	516	525	648	0	663	646	0	663
V/C Ratio(X)	0.85	0.60	0.60	0.55	0.74	0.74	0.12	0.00	0.08	0.05	0.00	0.08
Avail Cap(c_a), veh/h	267	658	678	114	516	525	648	0	663	646	0	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.2	22.2	22.2	41.9	28.3	28.3	16.4	0.0	15.0	15.9	0.0	15.0
Incr Delay (d2), s/veh	19.6	4.1	4.0	5.6	9.3	9.1	0.4	0.0	0.2	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	6.6	6.8	1.1	7.9	8.1	1.0	0.0	0.7	0.4	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	26.2	26.1	47.5	37.5	37.4	16.8	0.0	15.2	16.0	0.0	15.2
LnGrp LOS	E	C	C	D	D	D	B	A	B	B	A	B
Approach Vol, veh/h		998			818			131			83	
Approach Delay, s/veh		32.3			38.0			16.1			15.5	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.4	38.6		43.0	15.9	31.1		43.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	6.0	33.0		39.0	14.0	25.0		39.0
Max Q Clear Time (g_c+I1), s	4.4	18.8		5.1	11.9	20.1		6.9
Green Ext Time (p_c), s	0.0	3.7		0.4	0.1	1.8		0.5

Intersection Summary	
HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	865	48	44	718	69	74	1	51	30	1	49
Future Volume (veh/h)	184	865	48	44	718	69	74	1	51	30	1	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	192	901	50	46	748	72	77	1	53	31	1	51
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	226	1268	70	83	951	91	648	12	651	646	13	650
Arrive On Green	0.13	0.38	0.38	0.05	0.30	0.30	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1714	3294	183	1714	3152	303	1374	28	1501	1371	29	1500
Grp Volume(v), veh/h	192	468	483	46	406	414	77	0	54	31	0	52
Grp Sat Flow(s),veh/h/ln	1714	1710	1767	1714	1710	1745	1374	0	1530	1371	0	1530
Q Serve(g_s), s	9.9	20.8	20.8	2.4	19.5	19.6	3.1	0.0	1.9	1.2	0.0	1.8
Cycle Q Clear(g_c), s	9.9	20.8	20.8	2.4	19.5	19.6	4.9	0.0	1.9	3.1	0.0	1.8
Prop In Lane	1.00		0.10	1.00		0.17	1.00		0.98	1.00		0.98
Lane Grp Cap(c), veh/h	226	658	680	83	516	526	648	0	663	646	0	663
V/C Ratio(X)	0.85	0.71	0.71	0.55	0.79	0.79	0.12	0.00	0.08	0.05	0.00	0.08
Avail Cap(c_a), veh/h	267	658	680	114	516	526	648	0	663	646	0	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.2	23.4	23.4	41.9	28.8	28.8	16.4	0.0	15.0	15.9	0.0	15.0
Incr Delay (d2), s/veh	19.6	6.4	6.2	5.6	11.5	11.3	0.4	0.0	0.2	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	8.5	8.7	1.1	8.8	9.0	1.0	0.0	0.7	0.4	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	29.9	29.7	47.5	40.3	40.1	16.8	0.0	15.2	16.0	0.0	15.2
LnGrp LOS	E	C	C	D	D	D	B	A	B	B	A	B
Approach Vol, veh/h		1143			866			131			83	
Approach Delay, s/veh		34.5			40.6			16.1			15.5	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.4	38.6		43.0	15.9	31.1		43.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	6.0	33.0		39.0	14.0	25.0		39.0
Max Q Clear Time (g_c+I1), s	4.4	22.8		5.1	11.9	21.6		6.9
Green Ext Time (p_c), s	0.0	3.7		0.4	0.1	1.5		0.5

Intersection Summary	
HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	924	62	57	875	69	94	1	67	30	1	50
Future Volume (veh/h)	184	924	62	57	875	69	94	1	67	30	1	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	192	962	65	59	911	72	98	1	70	31	1	52
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	369	1750	118	119	1260	100	433	6	452	414	9	450
Arrive On Green	0.22	0.54	0.54	0.07	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1714	3251	220	1714	3211	254	1373	22	1507	1350	29	1501
Grp Volume(v), veh/h	192	506	521	59	485	498	98	0	71	31	0	53
Grp Sat Flow(s),veh/h/ln	1714	1710	1760	1714	1710	1754	1373	0	1529	1350	0	1530
Q Serve(g_s), s	12.9	25.2	25.2	4.3	31.3	31.3	7.2	0.0	4.4	2.2	0.0	3.3
Cycle Q Clear(g_c), s	12.9	25.2	25.2	4.3	31.3	31.3	10.5	0.0	4.4	6.7	0.0	3.3
Prop In Lane	1.00		0.12	1.00		0.14	1.00		0.99	1.00		0.98
Lane Grp Cap(c), veh/h	369	921	948	119	671	688	433	0	459	414	0	459
V/C Ratio(X)	0.52	0.55	0.55	0.50	0.72	0.72	0.23	0.00	0.15	0.07	0.00	0.12
Avail Cap(c_a), veh/h	369	921	948	119	671	688	433	0	459	414	0	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.1	19.7	19.7	58.3	33.5	33.5	36.8	0.0	33.4	35.9	0.0	33.0
Incr Delay (d2), s/veh	1.3	2.4	2.3	3.2	6.7	6.5	1.2	0.0	0.7	0.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	9.7	10.0	1.9	13.4	13.7	2.6	0.0	1.7	0.8	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.4	22.0	22.0	61.5	40.2	40.0	38.0	0.0	34.1	36.2	0.0	33.5
LnGrp LOS	D	C	C	E	D	D	D	A	C	D	A	C
Approach Vol, veh/h		1219			1042			169			84	
Approach Delay, s/veh		25.8			41.3			36.4			34.5	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	74.0		43.0	32.0	55.0		43.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	70.0		39.0	28.0	51.0		39.0
Max Q Clear Time (g_c+I1), s	6.3	27.2		8.7	14.9	33.3		12.5
Green Ext Time (p_c), s	0.0	6.6		0.3	0.4	5.1		0.6

Intersection Summary		
HCM 6th Ctrl Delay		33.2
HCM 6th LOS		C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	1063	62	57	921	69	94	1	67	30	1	50
Future Volume (veh/h)	184	1063	62	57	921	69	94	1	67	30	1	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	192	1107	65	59	959	72	98	1	70	31	1	52
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	422	1768	104	119	1166	88	433	6	452	414	9	450
Arrive On Green	0.25	0.54	0.54	0.07	0.36	0.36	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1714	3283	193	1714	3224	242	1373	22	1507	1350	29	1501
Grp Volume(v), veh/h	192	576	596	59	509	522	98	0	71	31	0	53
Grp Sat Flow(s),veh/h/ln	1714	1710	1765	1714	1710	1756	1373	0	1529	1350	0	1530
Q Serve(g_s), s	12.4	30.5	30.5	4.3	35.1	35.1	7.2	0.0	4.4	2.2	0.0	3.3
Cycle Q Clear(g_c), s	12.4	30.5	30.5	4.3	35.1	35.1	10.5	0.0	4.4	6.7	0.0	3.3
Prop In Lane	1.00		0.11	1.00		0.14	1.00		0.99	1.00		0.98
Lane Grp Cap(c), veh/h	422	921	951	119	618	635	433	0	459	414	0	459
V/C Ratio(X)	0.45	0.63	0.63	0.50	0.82	0.82	0.23	0.00	0.15	0.07	0.00	0.12
Avail Cap(c_a), veh/h	422	921	951	119	618	635	433	0	459	414	0	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.6	20.9	20.9	58.3	37.7	37.7	36.8	0.0	33.4	35.9	0.0	33.0
Incr Delay (d2), s/veh	0.8	3.2	3.1	3.2	11.8	11.5	1.2	0.0	0.7	0.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	11.8	12.2	1.9	15.8	16.2	2.6	0.0	1.7	0.8	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	24.1	24.0	61.5	49.5	49.2	38.0	0.0	34.1	36.2	0.0	33.5
LnGrp LOS	D	C	C	E	D	D	D	A	C	D	A	C
Approach Vol, veh/h		1364			1090			169			84	
Approach Delay, s/veh		26.6			50.0			36.4			34.5	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	74.0		43.0	36.0	51.0		43.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	70.0		39.0	32.0	47.0		39.0
Max Q Clear Time (g_c+I1), s	6.3	32.5		8.7	14.4	37.1		12.5
Green Ext Time (p_c), s	0.0	7.9		0.3	0.4	4.0		0.6

Intersection Summary	
HCM 6th Ctrl Delay	36.9
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	843	49	54	752	122	59	35	51	41	11	73
Future Volume (veh/h)	226	843	49	54	752	122	59	35	51	41	11	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	235	878	51	56	783	127	61	36	53	43	11	76
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	369	1769	103	119	1156	187	399	197	290	400	59	408
Arrive On Green	0.22	0.54	0.54	0.07	0.39	0.39	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1714	3285	191	1714	2946	478	1331	658	968	1329	197	1359
Grp Volume(v), veh/h	235	457	472	56	454	456	61	0	89	43	0	87
Grp Sat Flow(s),veh/h/ln	1714	1710	1766	1714	1710	1714	1331	0	1626	1329	0	1555
Q Serve(g_s), s	16.2	21.9	21.9	4.1	28.6	28.6	4.6	0.0	5.3	3.2	0.0	5.4
Cycle Q Clear(g_c), s	16.2	21.9	21.9	4.1	28.6	28.6	10.0	0.0	5.3	8.5	0.0	5.4
Prop In Lane	1.00		0.11	1.00		0.28	1.00		0.60	1.00		0.87
Lane Grp Cap(c), veh/h	369	921	951	119	671	672	399	0	488	400	0	467
V/C Ratio(X)	0.64	0.50	0.50	0.47	0.68	0.68	0.15	0.00	0.18	0.11	0.00	0.19
Avail Cap(c_a), veh/h	369	921	951	119	671	672	399	0	488	400	0	467
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.4	18.9	18.9	58.2	32.7	32.7	37.5	0.0	33.7	36.8	0.0	33.7
Incr Delay (d2), s/veh	3.6	1.9	1.9	2.9	5.4	5.4	0.8	0.0	0.8	0.5	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	8.4	8.6	1.8	12.1	12.1	1.6	0.0	2.2	1.1	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.0	20.8	20.7	61.1	38.1	38.1	38.3	0.0	34.5	37.4	0.0	34.6
LnGrp LOS	D	C	C	E	D	D	D	A	C	D	A	C
Approach Vol, veh/h		1164			966			150			130	
Approach Delay, s/veh		26.7			39.5			36.0			35.5	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	74.0		43.0	32.0	55.0		43.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	70.0		39.0	28.0	51.0		39.0
Max Q Clear Time (g_c+I1), s	6.1	23.9		10.5	18.2	30.6		12.0
Green Ext Time (p_c), s	0.0	5.7		0.6	0.4	4.9		0.6

Intersection Summary	
HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	982	49	54	798	122	59	35	51	41	11	73
Future Volume (veh/h)	226	982	49	54	798	122	59	35	51	41	11	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	235	1023	51	56	831	127	61	36	53	43	11	76
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	422	1785	89	119	1075	164	399	197	290	400	59	408
Arrive On Green	0.25	0.54	0.54	0.07	0.36	0.36	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1714	3315	165	1714	2974	454	1331	658	968	1329	197	1359
Grp Volume(v), veh/h	235	528	546	56	478	480	61	0	89	43	0	87
Grp Sat Flow(s),veh/h/ln	1714	1710	1770	1714	1710	1718	1331	0	1626	1329	0	1555
Q Serve(g_s), s	15.6	26.8	26.8	4.1	32.2	32.2	4.6	0.0	5.3	3.2	0.0	5.4
Cycle Q Clear(g_c), s	15.6	26.8	26.8	4.1	32.2	32.2	10.0	0.0	5.3	8.5	0.0	5.4
Prop In Lane	1.00		0.09	1.00		0.26	1.00		0.60	1.00		0.87
Lane Grp Cap(c), veh/h	422	921	953	119	618	621	399	0	488	400	0	467
V/C Ratio(X)	0.56	0.57	0.57	0.47	0.77	0.77	0.15	0.00	0.18	0.11	0.00	0.19
Avail Cap(c_a), veh/h	422	921	953	119	618	621	399	0	488	400	0	467
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.8	20.0	20.0	58.2	36.8	36.8	37.5	0.0	33.7	36.8	0.0	33.7
Incr Delay (d2), s/veh	1.6	2.6	2.5	2.9	9.1	9.1	0.8	0.0	0.8	0.5	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	10.3	10.6	1.8	14.2	14.2	1.6	0.0	2.2	1.1	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	22.6	22.5	61.1	45.9	45.8	38.3	0.0	34.5	37.4	0.0	34.6
LnGrp LOS	D	C	C	E	D	D	D	A	C	D	A	C
Approach Vol, veh/h		1309			1014			150			130	
Approach Delay, s/veh		26.5			46.7			36.0			35.5	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	74.0		43.0	36.0	51.0		43.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	70.0		39.0	32.0	47.0		39.0
Max Q Clear Time (g_c+I1), s	6.1	28.8		10.5	17.6	34.2		12.0
Green Ext Time (p_c), s	0.0	7.0		0.6	0.5	4.3		0.6

Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : MOJAVE DRIVE
N/S STREET : MESA LINDA AVENUE
CONDITION : PM PEAK HOUR

INTERSECTION : 3
PROJECTED GROWTH PER YEAR : 3.5%

TURN MOVEMENTS

Condition	Existing Condition	Year 2026 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2036 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2046 Condition	Future Year 2046 + Project Condition
Scenario #	2			4		6		8	10	12	14
MOJAVE DRIVE											
EB LEFT	1	0	71	72	0	72	0	72	72	89	89
EB THRU	665	47	47	759	52	811	233	992	1044	873	925
EB RIGHT	46	3	15	64	0	64	16	80	80	36	36
WB LEFT	38	3	15	56	0	56	13	69	69	47	47
WB THRU	644	45	150	839	130	969	225	1,064	1194	1,014	1144
WB RIGHT	1	0	27	28	0	28	0	28	28	59	59
MESA LINDA AVENUE											
NB LEFT	27	2	9	38	0	38	9	47	47	36	36
NB THRU	1	0	0	1	0	1	0	1	1	24	24
NB RIGHT	32	2	2	36	0	36	11	47	47	57	57
SB LEFT	1	0	96	97	0	97	0	97	97	159	159
SB THRU	3	0	0	3	0	3	1	4	4	68	68
SB RIGHT	2	0	145	147	0	147	1	148	148	219	219
TOTALS	**1461**	**102**	**577**	**2140**	**182**	**2322**	**509**	**2649**	**2831**	**2681**	**2863**

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET	OF
TURN VOLUME SUMMARY	TMO	5-Mar-24	IPGIM51H-0001	2	OF 2

E/W STREET : MOJAVE DRIVE
N/S STREET : MESA LINDA AVENUE
CONDITION : PM PEAK HOUR
PHF : 0.97

NORTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
2	1	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0	0	0

SOUTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
1	0	8	0	0	0	0	0	0	0	0	0
9	1	7	0	0	0	0	0	0	0	0	0
12	0	6	0	0	0	0	0	0	0	0	0
10	0	6	0	0	0	0	0	0	0	0	0

EAST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
1	143	11	0	3	0	0	3	0	0	1	0
0	158	11	0	1	0	0	0	0	0	0	0
0	155	10	0	2	0	0	2	0	0	0	0
0	161	6	0	2	0	0	0	0	0	0	0

WEST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
13	157	0	0	1	0	0	2	0	0	0	0
12	153	0	0	2	0	0	1	0	0	0	0
9	172	0	0	1	0	0	1	0	0	0	0
12	164	0	0	0	0	0	2	0	0	0	0

Number of Axles	2-Axle Trucks	3-Axle Trucks	4+ Axle Trucks
PCE factor	1.5	2	3

	Truck Volumes	Auto Volumes	Vehicle Totals	PCE Totals	Balanced PCE Totals
MOJAVE DRIVE					
EB LEFT	0	0	**0**	**1**	**1**
EB THRU	10	646	**656**	**664**	**665**
EB RIGHT	0	46	**46**	**46**	**46**
WB LEFT	0	38	**38**	**38**	**38**
WB THRU	14	617	**631**	**642**	**644**
WB RIGHT	0	1	**1**	**1**	**1**
MESA LINDA AVENUE					
NB LEFT	0	27	**27**	**27**	**27**
NB THRU	0	1	**1**	**1**	**1**
NB RIGHT	0	32	**32**	**32**	**32**
SB LEFT	0	0	**0**	**1**	**1**
SB THRU	0	3	**3**	**3**	**3**
SB RIGHT	0	2	**2**	**2**	**2**

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	665	45	38	644	1	27	1	32	1	3	2
Future Vol, veh/h	1	665	45	38	644	1	27	1	32	1	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	250	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	686	46	39	664	1	28	1	33	1	3	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	665	0	0	732	0	0	1123	1454	366	1089	1477	333
Stage 1	-	-	-	-	-	-	711	711	-	743	743	-
Stage 2	-	-	-	-	-	-	412	743	-	346	734	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	934	-	-	882	-	-	163	131	637	172	127	669
Stage 1	-	-	-	-	-	-	395	439	-	378	425	-
Stage 2	-	-	-	-	-	-	593	425	-	649	429	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	934	-	-	882	-	-	154	125	637	156	121	669
Mov Cap-2 Maneuver	-	-	-	-	-	-	154	125	-	156	121	-
Stage 1	-	-	-	-	-	-	394	438	-	377	406	-
Stage 2	-	-	-	-	-	-	561	406	-	613	428	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	21.6	26.3
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	154	567	934	-	-	882	-	-	175
HCM Lane V/C Ratio	0.181	0.06	0.001	-	-	0.044	-	-	0.035
HCM Control Delay (s)	33.5	11.8	8.9	0	-	9.3	-	-	26.3
HCM Lane LOS	D	B	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	0.6	0.2	0	-	-	0.1	-	-	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	759	64	56	839	28	38	1	36	97	3	147
Future Volume (veh/h)	72	759	64	56	839	28	38	1	36	97	3	147
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	74	782	66	58	865	29	39	1	37	100	3	152
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	94	1247	105	73	1278	43	542	17	646	663	13	650
Arrive On Green	0.05	0.39	0.39	0.04	0.38	0.38	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1714	3192	269	1714	3376	113	1251	40	1491	1391	30	1500
Grp Volume(v), veh/h	74	419	429	58	438	456	39	0	38	100	0	155
Grp Sat Flow(s),veh/h/ln	1714	1710	1752	1714	1710	1780	1251	0	1532	1391	0	1530
Q Serve(g_s), s	3.8	17.8	17.8	3.0	19.3	19.3	1.8	0.0	1.3	4.0	0.0	5.7
Cycle Q Clear(g_c), s	3.8	17.8	17.8	3.0	19.3	19.3	7.6	0.0	1.3	5.3	0.0	5.7
Prop In Lane	1.00		0.15	1.00		0.06	1.00		0.97	1.00		0.98
Lane Grp Cap(c), veh/h	94	668	684	73	647	674	542	0	664	663	0	663
V/C Ratio(X)	0.79	0.63	0.63	0.79	0.68	0.68	0.07	0.00	0.06	0.15	0.00	0.23
Avail Cap(c_a), veh/h	114	668	684	114	647	674	542	0	664	663	0	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.0	22.1	22.1	42.7	23.4	23.4	18.5	0.0	14.8	16.4	0.0	16.1
Incr Delay (d2), s/veh	25.4	4.4	4.3	17.9	5.6	5.4	0.3	0.0	0.2	0.5	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	7.0	7.2	1.6	7.8	8.1	0.5	0.0	0.5	1.3	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.4	26.5	26.5	60.6	29.0	28.7	18.7	0.0	15.0	16.9	0.0	16.9
LnGrp LOS	E	C	C	E	C	C	B	A	B	B	A	B
Approach Vol, veh/h		922			952			77			255	
Approach Delay, s/veh		29.8			30.8			16.9			16.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.8	39.2		43.0	8.9	38.1		43.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	6.0	33.0		39.0	6.0	33.0		39.0
Max Q Clear Time (g_c+I1), s	5.8	19.8		7.7	5.8	21.3		9.6
Green Ext Time (p_c), s	0.0	3.8		1.2	0.0	3.8		0.3

Intersection Summary		
HCM 6th Ctrl Delay		28.3
HCM 6th LOS		C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	811	64	56	969	28	38	1	36	97	3	147
Future Volume (veh/h)	72	811	64	56	969	28	38	1	36	97	3	147
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	74	836	66	58	999	29	39	1	37	100	3	152
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	94	1254	99	73	1285	37	542	17	646	663	13	650
Arrive On Green	0.05	0.39	0.39	0.04	0.38	0.38	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1714	3211	253	1714	3394	99	1251	40	1491	1391	30	1500
Grp Volume(v), veh/h	74	445	457	58	503	525	39	0	38	100	0	155
Grp Sat Flow(s),veh/h/ln	1714	1710	1754	1714	1710	1782	1251	0	1532	1391	0	1530
Q Serve(g_s), s	3.8	19.3	19.3	3.0	23.3	23.3	1.8	0.0	1.3	4.0	0.0	5.7
Cycle Q Clear(g_c), s	3.8	19.3	19.3	3.0	23.3	23.3	7.6	0.0	1.3	5.3	0.0	5.7
Prop In Lane	1.00		0.14	1.00		0.06	1.00		0.97	1.00		0.98
Lane Grp Cap(c), veh/h	94	668	685	73	647	675	542	0	664	663	0	663
V/C Ratio(X)	0.79	0.67	0.67	0.79	0.78	0.78	0.07	0.00	0.06	0.15	0.00	0.23
Avail Cap(c_a), veh/h	114	668	685	114	647	675	542	0	664	663	0	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.0	22.6	22.6	42.7	24.6	24.6	18.5	0.0	14.8	16.4	0.0	16.1
Incr Delay (d2), s/veh	25.4	5.2	5.1	17.9	8.9	8.6	0.3	0.0	0.2	0.5	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	7.7	7.9	1.6	9.8	10.2	0.5	0.0	0.5	1.3	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.4	27.8	27.7	60.6	33.5	33.2	18.7	0.0	15.0	16.9	0.0	16.9
LnGrp LOS	E	C	C	E	C	C	B	A	B	B	A	B
Approach Vol, veh/h		976			1086			77			255	
Approach Delay, s/veh		30.7			34.8			16.9			16.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.8	39.2		43.0	8.9	38.1		43.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	6.0	33.0		39.0	6.0	33.0		39.0
Max Q Clear Time (g_c+I1), s	5.8	21.3		7.7	5.8	25.3		9.6
Green Ext Time (p_c), s	0.0	3.8		1.2	0.0	3.4		0.3

Intersection Summary		
HCM 6th Ctrl Delay		30.7
HCM 6th LOS		C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	992	80	69	1064	28	47	1	47	97	4	148
Future Volume (veh/h)	72	992	80	69	1064	28	47	1	47	97	4	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	74	1023	82	71	1097	29	48	1	48	100	4	153
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	182	1899	152	88	1830	48	294	9	422	400	11	420
Arrive On Green	0.11	0.59	0.59	0.05	0.54	0.54	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1714	3207	257	1714	3404	90	1249	31	1499	1378	39	1492
Grp Volume(v), veh/h	74	545	560	71	551	575	48	0	49	100	0	157
Grp Sat Flow(s),veh/h/ln	1714	1710	1754	1714	1710	1784	1249	0	1530	1378	0	1531
Q Serve(g_s), s	6.5	30.6	30.6	6.6	35.2	35.2	5.1	0.0	3.8	9.3	0.0	13.1
Cycle Q Clear(g_c), s	6.5	30.6	30.6	6.6	35.2	35.2	18.3	0.0	3.8	13.1	0.0	13.1
Prop In Lane	1.00		0.15	1.00		0.05	1.00		0.98	1.00		0.97
Lane Grp Cap(c), veh/h	182	1013	1038	88	919	959	294	0	430	400	0	431
V/C Ratio(X)	0.41	0.54	0.54	0.80	0.60	0.60	0.16	0.00	0.11	0.25	0.00	0.36
Avail Cap(c_a), veh/h	182	1013	1038	182	919	959	294	0	430	400	0	431
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	66.8	19.5	19.5	75.1	25.2	25.3	53.4	0.0	42.7	47.6	0.0	46.0
Incr Delay (d2), s/veh	1.5	2.1	2.0	15.2	2.9	2.8	1.2	0.0	0.5	1.5	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	11.9	12.2	3.2	14.2	14.8	1.7	0.0	1.5	3.4	0.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.2	21.6	21.6	90.3	28.1	28.0	54.6	0.0	43.2	49.1	0.0	48.4
LnGrp LOS	E	C	C	F	C	C	D	A	D	D	A	D
Approach Vol, veh/h		1179			1197			97			257	
Approach Delay, s/veh		24.5			31.8			48.8			48.7	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.3	98.7		49.0	21.0	90.0		49.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	17.0	86.0		45.0	17.0	86.0		45.0
Max Q Clear Time (g_c+I1), s	8.6	32.6		15.1	8.5	37.2		20.3
Green Ext Time (p_c), s	0.1	7.5		1.2	0.1	7.6		0.4

Intersection Summary	
HCM 6th Ctrl Delay	30.8
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	1044	80	69	1194	28	47	1	47	97	4	148
Future Volume (veh/h)	72	1044	80	69	1194	28	47	1	47	97	4	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	74	1076	82	71	1231	29	48	1	48	100	4	153
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	92	1907	145	88	2016	47	294	9	422	400	11	420
Arrive On Green	0.05	0.59	0.59	0.05	0.59	0.59	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1714	3221	245	1714	3415	80	1249	31	1499	1378	39	1492
Grp Volume(v), veh/h	74	571	587	71	616	644	48	0	49	100	0	157
Grp Sat Flow(s),veh/h/ln	1714	1710	1756	1714	1710	1786	1249	0	1530	1378	0	1531
Q Serve(g_s), s	6.8	32.7	32.8	6.6	36.9	37.0	5.1	0.0	3.8	9.3	0.0	13.1
Cycle Q Clear(g_c), s	6.8	32.7	32.8	6.6	36.9	37.0	18.3	0.0	3.8	13.1	0.0	13.1
Prop In Lane	1.00		0.14	1.00		0.05	1.00		0.98	1.00		0.97
Lane Grp Cap(c), veh/h	92	1013	1040	88	1009	1054	294	0	430	400	0	431
V/C Ratio(X)	0.81	0.56	0.56	0.80	0.61	0.61	0.16	0.00	0.11	0.25	0.00	0.36
Avail Cap(c_a), veh/h	182	1013	1040	182	1009	1054	294	0	430	400	0	431
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	74.9	20.0	20.0	75.1	21.0	21.0	53.4	0.0	42.7	47.6	0.0	46.0
Incr Delay (d2), s/veh	15.0	2.3	2.2	15.2	2.8	2.6	1.2	0.0	0.5	1.5	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	12.7	13.1	3.2	14.5	15.1	1.7	0.0	1.5	3.4	0.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.9	22.3	22.2	90.3	23.8	23.7	54.6	0.0	43.2	49.1	0.0	48.4
LnGrp LOS	F	C	C	F	C	C	D	A	D	D	A	D
Approach Vol, veh/h		1232			1331			97			257	
Approach Delay, s/veh		26.3			27.3			48.8			48.7	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.3	98.7		49.0	12.6	98.4		49.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	17.6	86.0		45.0	17.0	86.0		45.0
Max Q Clear Time (g_c+I1), s	8.6	34.8		15.1	8.8	39.0		20.3
Green Ext Time (p_c), s	0.1	8.0		1.2	0.1	9.1		0.4

Intersection Summary	
HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	873	36	47	1014	59	36	24	57	159	68	219
Future Volume (veh/h)	89	873	36	47	1014	59	36	24	57	159	68	219
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	92	900	37	48	1045	61	37	25	59	164	70	226
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	182	2035	84	61	1765	103	173	134	316	367	105	340
Arrive On Green	0.11	0.61	0.61	0.04	0.54	0.54	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1714	3348	138	1714	3284	192	1100	476	1122	1335	374	1208
Grp Volume(v), veh/h	92	460	477	48	544	562	37	0	84	164	0	296
Grp Sat Flow(s),veh/h/ln	1714	1710	1775	1714	1710	1766	1100	0	1598	1335	0	1583
Q Serve(g_s), s	8.1	23.1	23.1	4.4	34.5	34.5	4.9	0.0	6.4	17.0	0.0	26.5
Cycle Q Clear(g_c), s	8.1	23.1	23.1	4.4	34.5	34.5	31.4	0.0	6.4	23.4	0.0	26.5
Prop In Lane	1.00		0.08	1.00		0.11	1.00		0.70	1.00		0.76
Lane Grp Cap(c), veh/h	182	1040	1079	61	919	949	173	0	449	367	0	445
V/C Ratio(X)	0.51	0.44	0.44	0.78	0.59	0.59	0.21	0.00	0.19	0.45	0.00	0.67
Avail Cap(c_a), veh/h	182	1040	1079	182	919	949	173	0	449	367	0	445
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.5	16.8	16.8	76.5	25.1	25.1	64.7	0.0	43.6	52.5	0.0	50.8
Incr Delay (d2), s/veh	2.2	1.4	1.3	19.1	2.8	2.7	2.8	0.0	0.9	3.9	0.0	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	8.8	9.2	2.2	13.9	14.4	1.5	0.0	2.7	6.1	0.0	11.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.8	18.2	18.1	95.7	27.9	27.8	67.5	0.0	44.5	56.4	0.0	58.5
LnGrp LOS	E	B	B	F	C	C	E	A	D	E	A	E
Approach Vol, veh/h		1029			1154			121			460	
Approach Delay, s/veh		22.8			30.7			51.6			57.7	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.7	101.3		49.0	21.0	90.0		49.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	17.0	86.0		45.0	17.0	86.0		45.0
Max Q Clear Time (g_c+I1), s	6.4	25.1		28.5	10.1	36.5		33.4
Green Ext Time (p_c), s	0.0	5.8		2.1	0.1	7.4		0.4

Intersection Summary		
HCM 6th Ctrl Delay	33.1	
HCM 6th LOS	C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	925	36	47	1144	59	36	24	57	159	68	219
Future Volume (veh/h)	89	925	36	47	1144	59	36	24	57	159	68	219
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	92	954	37	48	1179	61	37	25	59	164	70	226
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	1957	76	61	1832	95	206	146	344	402	115	370
Arrive On Green	0.06	0.58	0.58	0.04	0.55	0.55	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1714	3356	130	1714	3308	171	1100	476	1122	1335	374	1208
Grp Volume(v), veh/h	92	486	505	48	609	631	37	0	84	164	0	296
Grp Sat Flow(s),veh/h/ln	1714	1710	1777	1714	1710	1769	1100	0	1598	1335	0	1583
Q Serve(g_s), s	8.5	26.5	26.5	4.4	39.5	39.6	4.8	0.0	6.2	16.4	0.0	25.5
Cycle Q Clear(g_c), s	8.5	26.5	26.5	4.4	39.5	39.6	30.3	0.0	6.2	22.6	0.0	25.5
Prop In Lane	1.00		0.07	1.00		0.10	1.00		0.70	1.00		0.76
Lane Grp Cap(c), veh/h	111	997	1036	61	947	980	206	0	489	402	0	485
V/C Ratio(X)	0.83	0.49	0.49	0.78	0.64	0.64	0.18	0.00	0.17	0.41	0.00	0.61
Avail Cap(c_a), veh/h	182	997	1036	182	947	980	206	0	489	402	0	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	73.9	19.4	19.4	76.5	24.7	24.8	60.3	0.0	40.6	48.9	0.0	47.4
Incr Delay (d2), s/veh	14.5	1.7	1.6	19.1	3.4	3.3	1.9	0.0	0.8	3.0	0.0	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	10.3	10.7	2.2	15.9	16.4	1.4	0.0	2.6	5.8	0.0	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.4	21.1	21.1	95.7	28.1	28.0	62.2	0.0	41.4	51.9	0.0	53.0
LnGrp LOS	F	C	C	F	C	C	E	A	D	D	A	D
Approach Vol, veh/h		1083			1288			121			460	
Approach Delay, s/veh		26.8			30.6			47.8			52.6	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.7	97.3		53.0	14.4	92.6		53.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	17.0	82.0		49.0	17.0	82.0		49.0
Max Q Clear Time (g_c+I1), s	6.4	28.5		27.5	10.5	41.6		32.3
Green Ext Time (p_c), s	0.0	6.3		2.3	0.1	8.8		0.5

Intersection Summary		
HCM 6th Ctrl Delay	33.3	
HCM 6th LOS	C	

CALCULATION OF FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES (NCHRP 255)

Intersection No.: 3
North/South Street: MESA LINDA AVENUE
East/West Street: MOJAVE DRIVE

Analysis Condition: YEAR 2045 FUTURE TRAFFIC

A.M. Peak Hour

Approach Direction		Base Year Count	Forecast Future Year Link Volume			Turn Volume	Balanced Volume
South leg	Left	56	Approach	139	Left	45	45
NB	Through	1	Departure	98	Through	35	35
	Right	46			Right	49	49
North leg	Left	1	Approach	53	Left	12	12
SB	Through	1	Departure	127	Through	11	11
	Right	3			Right	27	27
West leg	Left	1	Approach	806	Left	40	43
EB	Through	565	Departure	772	Through	672	722
	Right	39			Right	40	43
East leg	Left	36	Approach	879	Left	49	49
WB	Through	580	Departure	732	Through	701	701
	Right	1			Right	54	54

P.M. Peak Hour

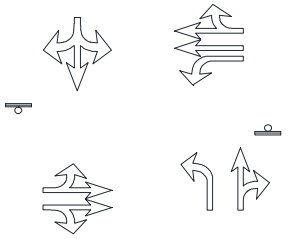
Approach Direction		Base Year Count	Forecast Future Year Link Volume			Turn Volume	Balanced Volume
South leg	Left	27	Approach	104	Left	27	27
NB	Through	1	Departure	119	Through	24	24
	Right	32			Right	55	55
North leg	Left	1	Approach	202	Left	63	63
SB	Through	3	Departure	73	Through	68	68
	Right	2			Right	74	74
West leg	Left	1	Approach	840	Left	18	18
EB	Through	665	Departure	964	Through	826	826
	Right	46			Right	21	21
East leg	Left	38	Approach	940	Left	32	32
WB	Through	644	Departure	943	Through	864	864
	Right	1			Right	32	32

DAVID EVANS AND ASSOCIATES INC.

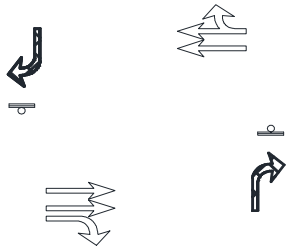
SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : MOJAVE DRIVE
N/S STREET : DIAMOND ROAD
CONDITION : AM PEAK HOUR

INTERSECTION : 4
PROJECTED GROWTH PER YEAR : 3.5%



EXISTING GEOMETRICS



CUMULATICE GEOMETRICS

TURN MOVEMENTS

Condition	Existing Condition	Year 2025 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2035 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2045 Condition	Future Year 2045 + Project Condition
Scenario #	1			3		5		7	9	11	13
MOJAVE DRIVE											
EB LEFT	85	6	0	91	0	91	30	121	121	100	100
EB THRU	492	34	142	668	38	706	172	840	878	753	791
EB RIGHT	33	2	0	35	0	35	12	47	47	20	20
WB LEFT	32	2	0	34	0	34	11	45	45	44	44
WB THRU	456	32	469	957	122	1079	160	1,117	1239	1,134	1256
WB RIGHT	13	1	0	14	0	14	5	19	19	35	35
DIAMOND ROAD											
NB LEFT	30	2	0	32	0	32	11	43	43	19	19
NB THRU	7	0	0	7	0	7	2	9	9	8	8
NB RIGHT	62	4	0	66	0	66	22	88	88	75	75
SB LEFT	9	1	0	10	0	10	3	13	13	27	27
SB THRU	3	0	0	3	0	3	1	4	4	5	5
SB RIGHT	131	9	0	140	0	140	46	186	186	200	200
TOTALS	**1353**	**93**	**611**	**2057**	**160**	**2217**	**475**	**2532**	**2692**	**2420**	**2580**

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET	OF
TURN VOLUME SUMMARY	TMO	5-Mar-24	IPGIM51H-0001	2	OF 2

E/W STREET : MOJAVE DRIVE
CONDITION : AM PEAK HOUR

N/S STREET : DIAMOND ROAD
PHF : 0.93

NORTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
42	1	4	1	0	0	0	0	0	0	0	0
33	0	3	0	0	0	0	0	0	0	0	0
27	0	1	0	0	0	0	0	0	0	0	0
20	2	1	1	0	0	0	0	0	0	0	0

SOUTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
21	4	6	1	0	0	0	0	0	0	0	0
14	1	9	0	0	0	0	0	0	0	0	0
15	2	9	0	0	0	0	0	0	0	0	0
10	0	5	0	0	0	0	0	0	0	0	0

EAST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
3	91	9	1	6	0	0	1	0	0	0	0
3	106	10	0	4	0	0	0	0	0	1	0
2	94	5	1	5	1	0	1	0	0	0	0
2	98	6	0	4	0	0	2	0	0	2	0

WEST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
7	120	23	0	1	1	0	1	1	0	1	0
8	121	22	2	4	0	0	0	0	0	0	0
6	111	19	0	2	1	0	2	0	0	1	0
7	107	16	1	5	0	0	0	0	0	1	0

Number of Axles	2-Axle Trucks	3-Axle Trucks	4+ Axle Trucks
PCE factor	1.5	2	3

	Truck Volumes	Auto Volumes	Vehicle Totals	PCE Totals	Balanced PCE Totals
MOJAVE DRIVE					
EB LEFT	3	80	**83**	**85**	**85**
EB THRU	18	459	**477**	**492**	**492**
EB RIGHT	3	28	**31**	**33**	**33**
WB LEFT	1	30	**31**	**32**	**32**
WB THRU	26	389	**415**	**435**	**456**
WB RIGHT	2	10	**12**	**13**	**13**
DIAMOND ROAD					
NB LEFT	0	29	**29**	**29**	**30**
NB THRU	0	7	**7**	**7**	**7**
NB RIGHT	1	60	**61**	**62**	**62**
SB LEFT	0	9	**9**	**9**	**9**
SB THRU	0	3	**3**	**3**	**3**
SB RIGHT	2	122	**124**	**125**	**131**

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	85	492	33	32	456	13	30	7	62	9	3	131
Future Vol, veh/h	85	492	33	32	456	13	30	7	62	9	3	131
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	450	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	91	529	35	34	490	14	32	8	67	10	3	141

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	504	0	0	564	0	0	1026	1283	265	1016	1311	252
Stage 1	-	-	-	-	-	-	711	711	-	565	565	-
Stage 2	-	-	-	-	-	-	315	572	-	451	746	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1071	-	-	1018	-	-	192	167	739	195	160	754
Stage 1	-	-	-	-	-	-	395	439	-	482	511	-
Stage 2	-	-	-	-	-	-	676	508	-	563	424	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1071	-	-	1018	-	-	140	148	739	156	142	754
Mov Cap-2 Maneuver	-	-	-	-	-	-	140	148	-	156	142	-
Stage 1	-	-	-	-	-	-	361	402	-	441	494	-
Stage 2	-	-	-	-	-	-	528	491	-	460	388	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0.6	24.8	13.7
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	287	1071	-	-	1018	-	-	566
HCM Lane V/C Ratio	0.371	0.085	-	-	0.034	-	-	0.272
HCM Control Delay (s)	24.8	8.7	-	-	8.7	-	-	13.7
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1.6	0.3	-	-	0.1	-	-	1.1

Intersection	
Int Delay, s/veh	11

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	91	668	35	34	957	14	32	7	66	10	3	140
Future Vol, veh/h	91	668	35	34	957	14	32	7	66	10	3	140
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	450	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	98	718	38	37	1029	15	34	8	71	11	3	151

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1044	0	0	756	0	0	1504	2032	359	1670	2063	522
Stage 1	-	-	-	-	-	-	914	914	-	1111	1111	-
Stage 2	-	-	-	-	-	-	590	1118	-	559	952	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	674	-	-	864	-	-	85	58	643	64	55	505
Stage 1	-	-	-	-	-	-	298	355	-	226	287	-
Stage 2	-	-	-	-	-	-	466	285	-	486	341	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	674	-	-	864	-	-	49	47	643	43	45	505
Mov Cap-2 Maneuver	-	-	-	-	-	-	49	47	-	43	45	-
Stage 1	-	-	-	-	-	-	255	304	-	193	275	-
Stage 2	-	-	-	-	-	-	309	273	-	360	292	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0.3	146.8	38.5
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	116	674	-	-	864	-	-	265
HCM Lane V/C Ratio	0.973	0.145	-	-	0.042	-	-	0.621
HCM Control Delay (s)	146.8	11.2	-	-	9.4	-	-	38.5
HCM Lane LOS	F	B	-	-	A	-	-	E
HCM 95th %tile Q(veh)	6.3	0.5	-	-	0.1	-	-	3.8

Intersection	
Int Delay, s/veh	17.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	91	706	35	34	1079	14	32	7	66	10	3	140
Future Vol, veh/h	91	706	35	34	1079	14	32	7	66	10	3	140
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	450	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	98	759	38	37	1160	15	34	8	71	11	3	151

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1175	0	0	797	0	0	1611	2204	380	1822	2235	588
Stage 1	-	-	-	-	-	-	955	955	-	1242	1242	-
Stage 2	-	-	-	-	-	-	656	1249	-	580	993	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	602	-	-	834	-	-	71	45	624	49	43	457
Stage 1	-	-	-	-	-	-	282	339	-	188	249	-
Stage 2	-	-	-	-	-	-	426	247	-	472	326	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	602	-	-	834	-	-	37	36	624	31	34	457
Mov Cap-2 Maneuver	-	-	-	-	-	-	37	36	-	31	34	-
Stage 1	-	-	-	-	-	-	236	284	-	157	238	-
Stage 2	-	-	-	-	-	-	269	236	-	341	273	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0.3	263.1	62.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	90	602	-	-	834	-	-	213
HCM Lane V/C Ratio	1.254	0.163	-	-	0.044	-	-	0.772
HCM Control Delay (s)	263.1	12.1	-	-	9.5	-	-	62.9
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	8.1	0.6	-	-	0.1	-	-	5.4

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑↱				↱			↱
Traffic Vol, veh/h	0	797	35	0	1113	14	0	0	73	0	0	143
Future Vol, veh/h	0	797	35	0	1113	14	0	0	73	0	0	143
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	450	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	857	38	0	1197	15	0	0	78	0	0	154

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	429	-	-	606
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	580	0	0	445
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	580	-	-	445
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	12.2	17.3
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	580	-	-	-	-	445
HCM Lane V/C Ratio	0.135	-	-	-	-	0.346
HCM Control Delay (s)	12.2	-	-	-	-	17.3
HCM Lane LOS	B	-	-	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	-	1.5

Intersection	
Int Delay, s/veh	81.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	121	840	47	45	1117	19	43	9	88	13	4	186
Future Vol, veh/h	121	840	47	45	1117	19	43	9	88	13	4	186
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	450	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	127	884	49	47	1176	20	45	9	93	14	4	196

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1196	0	0	933	0	0	1822	2428	442	1981	2467	598
Stage 1	-	-	-	-	-	-	1138	1138	-	1280	1280	-
Stage 2	-	-	-	-	-	-	684	1290	-	701	1187	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	591	-	-	742	-	-	49	32	569	37	31	450
Stage 1	-	-	-	-	-	-	218	279	-	178	239	-
Stage 2	-	-	-	-	-	-	410	236	-	400	264	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	591	-	-	742	-	-	~ 19	24	569	17	23	450
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 19	24	-	17	23	-
Stage 1	-	-	-	-	-	-	171	219	-	140	224	-
Stage 2	-	-	-	-	-	-	213	221	-	252	207	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.4	$ 1051.3	281.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	50	591	-	-	742	-	-	150
HCM Lane V/C Ratio	2.947	0.216	-	-	0.064	-	-	1.425
HCM Control Delay (s)	$ 1051.3	12.8	-	-	10.2	-	-	281.1
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	15.7	0.8	-	-	0.2	-	-	13.8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	120

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	121	878	47	45	1239	19	43	9	88	13	4	186
Future Vol, veh/h	121	878	47	45	1239	19	43	9	88	13	4	186
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	450	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	127	924	49	47	1304	20	45	9	93	14	4	196

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1324	0	0	973	0	0	1926	2596	462	2129	2635	662
Stage 1	-	-	-	-	-	-	1178	1178	-	1408	1408	-
Stage 2	-	-	-	-	-	-	748	1418	-	721	1227	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	528	-	-	717	-	-	~ 41	25	552	29	24	409
Stage 1	-	-	-	-	-	-	206	267	-	149	207	-
Stage 2	-	-	-	-	-	-	375	205	-	389	253	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	528	-	-	717	-	-	~ 14	18	552	~ 11	17	409
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 14	18	-	~ 11	17	-
Stage 1	-	-	-	-	-	-	156	203	-	113	193	-
Stage 2	-	-	-	-	-	-	179	191	-	234	192	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.6	0.4	$ 1512	$ 538.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	38	528	-	-	717	-	-	108
HCM Lane V/C Ratio	3.878	0.241	-	-	0.066	-	-	1.979
HCM Control Delay (s)	$ 1512	14	-	-	10.4	-	-	$ 538.1
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	16.9	0.9	-	-	0.2	-	-	17.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑↱				↱			↱
Traffic Vol, veh/h	0	999	47	0	1284	19	0	0	97	0	0	190
Future Vol, veh/h	0	999	47	0	1284	19	0	0	97	0	0	190
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1052	49	0	1352	20	0	0	102	0	0	200

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	526	-	-	686
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	502	0	0	395
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	502	-	-	395
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	14	23.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	502	-	-	-	-	395
HCM Lane V/C Ratio	0.203	-	-	-	-	0.506
HCM Control Delay (s)	14	-	-	-	-	23.1
HCM Lane LOS	B	-	-	-	-	C
HCM 95th %tile Q(veh)	0.8	-	-	-	-	2.8

Intersection	
Int Delay, s/veh	57.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	100	753	20	44	1134	35	19	8	75	27	5	200
Future Vol, veh/h	100	753	20	44	1134	35	19	8	75	27	5	200
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	450	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	105	793	21	46	1194	37	20	8	79	28	5	211

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1231	0	0	814	0	0	1695	2326	397	1916	2329	616
Stage 1	-	-	-	-	-	-	1003	1003	-	1305	1305	-
Stage 2	-	-	-	-	-	-	692	1323	-	611	1024	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	573	-	-	822	-	-	61	38	608	42	38	438
Stage 1	-	-	-	-	-	-	263	322	-	172	232	-
Stage 2	-	-	-	-	-	-	405	228	-	453	315	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	573	-	-	822	-	-	23	29	608	~ 24	29	438
Mov Cap-2 Maneuver	-	-	-	-	-	-	23	29	-	~ 24	29	-
Stage 1	-	-	-	-	-	-	215	263	-	141	219	-
Stage 2	-	-	-	-	-	-	194	215	-	312	257	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.3	286.5	$ 467
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	83	573	-	-	822	-	-	132
HCM Lane V/C Ratio	1.294	0.184	-	-	0.056	-	-	1.85
HCM Control Delay (s)	286.5	12.7	-	-	9.6	-	-	$ 467
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	8	0.7	-	-	0.2	-	-	18.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	92.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	100	791	20	44	1256	35	19	8	75	27	5	200
Future Vol, veh/h	100	791	20	44	1256	35	19	8	75	27	5	200
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	450	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	105	833	21	46	1322	37	20	8	79	28	5	211

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1359	0	0	854	0	0	1799	2494	417	2064	2497	680
Stage 1	-	-	-	-	-	-	1043	1043	-	1433	1433	-
Stage 2	-	-	-	-	-	-	756	1451	-	631	1064	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	512	-	-	794	-	-	51	29	590	32	29	398
Stage 1	-	-	-	-	-	-	249	309	-	143	201	-
Stage 2	-	-	-	-	-	-	371	197	-	440	302	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	512	-	-	794	-	-	~ 16	22	590	~ 16	22	398
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 16	22	-	~ 16	22	-
Stage 1	-	-	-	-	-	-	198	246	-	114	189	-
Stage 2	-	-	-	-	-	-	160	186	-	293	240	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.3	$ 510.7	$ 794.3
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	61	512	-	-	794	-	-	96
HCM Lane V/C Ratio	1.76	0.206	-	-	0.058	-	-	2.544
HCM Control Delay (s)	$ 510.7	13.8	-	-	9.8	-	-	$ 794.3
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	9.9	0.8	-	-	0.2	-	-	22.6

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑↱				↱			↱
Traffic Vol, veh/h	0	891	20	0	1300	35	0	0	83	0	0	205
Future Vol, veh/h	0	891	20	0	1300	35	0	0	83	0	0	205
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	938	21	0	1368	37	0	0	87	0	0	216

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	469	-	-	703
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	546	0	0	385
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	546	-	-	385
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	12.8	25.6
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	546	-	-	-	-	385
HCM Lane V/C Ratio	0.16	-	-	-	-	0.56
HCM Control Delay (s)	12.8	-	-	-	-	25.6
HCM Lane LOS	B	-	-	-	-	D
HCM 95th %tile Q(veh)	0.6	-	-	-	-	3.3

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : MOJAVE DRIVE
N/S STREET : DIAMOND ROAD
CONDITION : PM PEAK HOUR

INTERSECTION : 4
PROJECTED GROWTH PER YEAR : 3.5%

TURN MOVEMENTS

Condition	Existing Condition	Year 2025 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2035 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2045 Condition	Future Year 2045 + Project Condition
Scenario #	2			4		6		8	10	12	14
MOJAVE DRIVE											
EB LEFT	25	2	0	27	0	27	9	36	36	69	69
EB THRU	635	44	445	1124	114	1238	222	1,346	1460	1,298	1412
EB RIGHT	44	3	0	47	0	47	15	62	62	44	44
WB LEFT	48	3	0	51	0	51	17	68	68	48	48
WB THRU	606	42	189	837	46	883	212	1,049	1095	850	896
WB RIGHT	29	2	0	31	0	31	10	41	41	79	79
DIAMOND ROAD											
NB LEFT	31	2	0	33	0	33	11	44	44	29	29
NB THRU	2	0	0	2	0	2	1	3	3	5	5
NB RIGHT	23	2	0	25	0	25	8	33	33	26	26
SB LEFT	10	1	0	11	0	11	4	15	15	24	24
SB THRU	1	0	0	1	0	1	0	1	1	2	2
SB RIGHT	47	3	0	50	0	50	16	66	66	91	91
TOTALS	**1501**	**104**	**634**	**2239**	**160**	**2399**	**525**	**2764**	**2924**	**2565**	**2725**

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET	OF
TURN VOLUME SUMMARY	TMO	5-Mar-24	IPGIM51H-0001	2	OF 2

E/W STREET : MOJAVE DRIVE
N/S STREET : DIAMOND ROAD
CONDITION : PM PEAK HOUR
PHF : 0.91

NORTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
8	0	0	0	0	0	0	0	0	0	0	0
4	0	7	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0
13	0	3	0	0	0	0	0	0	0	0	0

SOUTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
3	0	4	0	0	0	0	0	0	0	0	0
8	0	7	0	0	0	0	0	0	0	0	0
6	1	3	0	0	0	0	0	0	0	0	0
6	1	5	0	0	0	0	0	0	0	0	0

EAST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
5	78	10	0	4	0	0	3	0	0	0	0
5	83	4	0	2	0	0	2	0	0	0	0
15	90	10	0	3	0	0	3	0	0	0	0
4	88	24	0	1	0	0	0	0	0	2	0

WEST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
10	100	8	0	2	0	0	3	0	0	0	0
4	97	2	1	2	0	0	1	0	0	1	0
7	95	2	0	1	0	0	0	0	0	1	0
7	105	5	0	1	0	0	0	0	0	4	0

Number of Axles	2-Axle Trucks	3-Axle Trucks	4+ Axle Trucks
PCE factor	1.5	2	3

	Truck Volumes	Auto Volumes	Vehicle Totals	PCE Totals	Balanced PCE Totals
MOJAVE DRIVE					
EB LEFT	0	17	**17**	**17**	**25**
EB THRU	16	397	**413**	**423**	**635**
EB RIGHT	1	28	**29**	**30**	**44**
WB LEFT	0	48	**48**	**48**	**48**
WB THRU	20	339	**359**	**376**	**606**
WB RIGHT	0	29	**29**	**29**	**29**
DIAMOND ROAD					
NB LEFT	0	19	**19**	**19**	**31**
NB THRU	0	2	**2**	**2**	**2**
NB RIGHT	0	23	**23**	**23**	**23**
SB LEFT	0	10	**10**	**10**	**10**
SB THRU	0	0	**0**	**1**	**1**
SB RIGHT	0	29	**29**	**29**	**47**

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	635	44	48	606	29	31	2	23	10	1	47
Future Vol, veh/h	25	635	44	48	606	29	31	2	23	10	1	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	450	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	27	698	48	53	666	32	34	2	25	11	1	52

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	698	0	0	746	0	0	1192	1556	349	1192	1588	349
Stage 1	-	-	-	-	-	-	752	752	-	788	788	-
Stage 2	-	-	-	-	-	-	440	804	-	404	800	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	908	-	-	871	-	-	145	114	653	145	109	653
Stage 1	-	-	-	-	-	-	373	421	-	355	405	-
Stage 2	-	-	-	-	-	-	571	398	-	600	400	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	908	-	-	871	-	-	123	104	653	128	99	653
Mov Cap-2 Maneuver	-	-	-	-	-	-	123	104	-	128	99	-
Stage 1	-	-	-	-	-	-	362	408	-	344	380	-
Stage 2	-	-	-	-	-	-	492	374	-	557	388	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.7	34.3	17.1
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	183	908	-	-	871	-	-	362
HCM Lane V/C Ratio	0.336	0.03	-	-	0.061	-	-	0.176
HCM Control Delay (s)	34.3	9.1	-	-	9.4	-	-	17.1
HCM Lane LOS	D	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.4	0.1	-	-	0.2	-	-	0.6

Intersection	
Int Delay, s/veh	9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	1124	47	51	837	31	33	2	25	11	1	50
Future Vol, veh/h	27	1124	47	51	837	31	33	2	25	11	1	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	450	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	30	1235	52	56	920	34	36	2	27	12	1	55

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	954	0	0	1287	0	0	1868	2361	618	1728	2396	477
Stage 1	-	-	-	-	-	-	1295	1295	-	1049	1049	-
Stage 2	-	-	-	-	-	-	573	1066	-	679	1347	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	729	-	-	546	-	-	46	36	437	58	34	540
Stage 1	-	-	-	-	-	-	175	235	-	247	307	-
Stage 2	-	-	-	-	-	-	477	301	-	412	222	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	729	-	-	546	-	-	~ 36	31	437	46	29	540
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 36	31	-	46	29	-
Stage 1	-	-	-	-	-	-	168	225	-	237	275	-
Stage 2	-	-	-	-	-	-	383	270	-	367	213	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.7	278.7	40
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	58	729	-	-	546	-	-	169
HCM Lane V/C Ratio	1.137	0.041	-	-	0.103	-	-	0.403
HCM Control Delay (s)	278.7	10.1	-	-	12.3	-	-	40
HCM Lane LOS	F	B	-	-	B	-	-	E
HCM 95th %tile Q(veh)	5.5	0.1	-	-	0.3	-	-	1.8

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	11.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	1238	47	51	883	31	33	2	25	11	1	50
Future Vol, veh/h	27	1238	47	51	883	31	33	2	25	11	1	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	450	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	1360	52	56	970	34	36	2	27	12	1	55

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1004	0	0	1412	0	0	1988	2506	680	1810	2541	502
Stage 1	-	-	-	-	-	-	1390	1390	-	1099	1099	-
Stage 2	-	-	-	-	-	-	598	1116	-	711	1442	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	698	-	-	489	-	-	37	29	398	50	27	520
Stage 1	-	-	-	-	-	-	152	211	-	230	291	-
Stage 2	-	-	-	-	-	-	461	285	-	395	199	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	698	-	-	489	-	-	~ 29	25	398	39	23	520
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 29	25	-	39	23	-
Stage 1	-	-	-	-	-	-	149	207	-	225	258	-
Stage 2	-	-	-	-	-	-	364	252	-	356	195	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.7	$ 410.1	49.1
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	47	698	-	-	489	-	-	147
HCM Lane V/C Ratio	1.403	0.021	-	-	0.115	-	-	0.463
HCM Control Delay (s)	$ 410.1	10.3	-	-	13.3	-	-	49.1
HCM Lane LOS	F	B	-	-	B	-	-	E
HCM 95th %tile Q(veh)	6.3	0.1	-	-	0.4	-	-	2.1

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↱				↱			↱
Traffic Vol, veh/h	0	1265	47	0	934	31	0	0	27	0	0	51
Future Vol, veh/h	0	1265	47	0	934	31	0	0	27	0	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	450	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1390	52	0	1026	34	0	0	30	0	0	56

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	695	-	-	530
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	389	0	0	499
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	389	-	-	499
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	15	13.1
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	389	-	-	-	-	499
HCM Lane V/C Ratio	0.076	-	-	-	-	0.112
HCM Control Delay (s)	15	-	-	-	-	13.1
HCM Lane LOS	C	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.4

Intersection	
Int Delay, s/veh	38.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	1346	62	68	1049	41	44	3	33	15	1	66
Future Vol, veh/h	36	1346	62	68	1049	41	44	3	33	15	1	66
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	450	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	38	1417	65	72	1104	43	46	3	35	16	1	69

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1147	0	0	1482	0	0	2190	2784	709	2056	2828	574
Stage 1	-	-	-	-	-	-	1493	1493	-	1270	1270	-
Stage 2	-	-	-	-	-	-	697	1291	-	786	1558	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	616	-	-	460	-	-	~ 26	19	381	33	18	467
Stage 1	-	-	-	-	-	-	132	188	-	181	241	-
Stage 2	-	-	-	-	-	-	402	236	-	356	175	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	616	-	-	460	-	-	~ 18	15	381	21	14	467
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 18	15	-	21	14	-
Stage 1	-	-	-	-	-	-	124	176	-	170	203	-
Stage 2	-	-	-	-	-	-	287	199	-	298	164	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.8	$ 1145.5	176
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	29	616	-	-	460	-	-	88
HCM Lane V/C Ratio	2.904	0.062	-	-	0.156	-	-	0.981
HCM Control Delay (s)	$ 1145.5	11.2	-	-	14.3	-	-	176
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	10	0.2	-	-	0.5	-	-	5.6

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	45.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	1460	62	68	1095	41	44	3	33	15	1	66
Future Vol, veh/h	36	1460	62	68	1095	41	44	3	33	15	1	66
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	450	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	19	1537	65	72	1153	43	46	3	35	16	1	69

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1196	0	0	1602	0	0	2296	2915	769	2127	2959	598
Stage 1	-	-	-	-	-	-	1575	1575	-	1319	1319	-
Stage 2	-	-	-	-	-	-	721	1340	-	808	1640	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	591	-	-	414	-	-	~ 22	16	348	29	15	450
Stage 1	-	-	-	-	-	-	117	172	-	169	229	-
Stage 2	-	-	-	-	-	-	389	223	-	345	160	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	591	-	-	414	-	-	~ 15	13	348	18	12	450
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 15	13	-	18	12	-
Stage 1	-	-	-	-	-	-	113	166	-	164	189	-
Stage 2	-	-	-	-	-	-	270	184	-	295	155	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.9	$ 1390.6	234.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	25	591	-	-	414	-	-	77
HCM Lane V/C Ratio	3.368	0.032	-	-	0.173	-	-	1.121
HCM Control Delay (s)	$ 1390.6	11.3	-	-	15.5	-	-	234.9
HCM Lane LOS	F	B	-	-	C	-	-	F
HCM 95th %tile Q(veh)	10.4	0.1	-	-	0.6	-	-	6.3

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑↱				↱			↱
Traffic Vol, veh/h	0	1496	62	0	1163	41	0	0	36	0	0	67
Future Vol, veh/h	0	1496	62	0	1163	41	0	0	36	0	0	67
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	450	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1575	65	0	1224	43	0	0	38	0	0	71

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	788	-	-	634
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	338	0	0	427
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	338	-	-	427
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	17	15.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	338	-	-	-	-	427
HCM Lane V/C Ratio	0.112	-	-	-	-	0.165
HCM Control Delay (s)	17	-	-	-	-	15.1
HCM Lane LOS	C	-	-	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	-	0.6

Intersection	
Int Delay, s/veh	25

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	69	1298	44	48	850	79	29	5	26	24	2	91
Future Vol, veh/h	69	1298	44	48	850	79	29	5	26	24	2	91
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	450	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	73	1366	46	51	895	83	31	5	27	25	2	96

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	978	0	0	1412	0	0	2063	2592	683	1871	2597	489
Stage 1	-	-	-	-	-	-	1512	1512	-	1039	1039	-
Stage 2	-	-	-	-	-	-	551	1080	-	832	1558	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	714	-	-	489	-	-	32	25	396	45	25	530
Stage 1	-	-	-	-	-	-	128	184	-	250	310	-
Stage 2	-	-	-	-	-	-	491	297	-	334	175	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	714	-	-	489	-	-	~ 21	20	396	29	20	530
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 21	20	-	29	20	-
Stage 1	-	-	-	-	-	-	115	165	-	225	278	-
Stage 2	-	-	-	-	-	-	358	266	-	270	157	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.6	$ 629.9	213.5
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	35	714	-	-	489	-	-	106
HCM Lane V/C Ratio	1.805	0.102	-	-	0.103	-	-	1.162
HCM Control Delay (s)	$ 629.9	10.6	-	-	13.2	-	-	213.5
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	6.9	0.3	-	-	0.3	-	-	8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	27.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	69	1412	44	48	896	79	29	5	26	24	2	91
Future Vol, veh/h	69	1412	44	48	896	79	29	5	26	24	2	91
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	450	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	36	1486	46	51	943	83	31	5	27	25	2	96

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1026	0	0	1532	0	0	2133	2686	743	1905	2691	513
Stage 1	-	-	-	-	-	-	1558	1558	-	1087	1087	-
Stage 2	-	-	-	-	-	-	575	1128	-	818	1604	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	685	-	-	440	-	-	~ 29	22	362	43	22	512
Stage 1	-	-	-	-	-	-	120	175	-	234	295	-
Stage 2	-	-	-	-	-	-	475	282	-	340	166	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	685	-	-	440	-	-	~ 19	18	362	27	18	512
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 19	18	-	27	18	-
Stage 1	-	-	-	-	-	-	114	166	-	222	261	-
Stage 2	-	-	-	-	-	-	339	249	-	288	157	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.7	$ 721.2	249.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	32	685	-	-	440	-	-	99
HCM Lane V/C Ratio	1.974	0.053	-	-	0.115	-	-	1.244
HCM Control Delay (s)	$ 721.2	10.5	-	-	14.2	-	-	249.1
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	7.2	0.2	-	-	0.4	-	-	8.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↱				↱			↱
Traffic Vol, veh/h	0	1481	44	0	944	79	0	0	31	0	0	93
Future Vol, veh/h	0	1481	44	0	944	79	0	0	31	0	0	93
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	450	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1559	46	0	994	83	0	0	33	0	0	98

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	780	-	-	539
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	342	0	0	492
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	342	-	-	492
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	16.6	14.1
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	342	-	-	-	-	492
HCM Lane V/C Ratio	0.095	-	-	-	-	0.199
HCM Control Delay (s)	16.6	-	-	-	-	14.1
HCM Lane LOS	C	-	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	-	0.7

CALCULATION OF FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES (NCHRP 255)

Intersection No.: 4
North/South Street: DIAMOND ROAD
East/West Street: MOJAVE DRIVE

Analysis Condition: YEAR 2045 FUTURE TRAFFIC

A.M. Peak Hour

			Forecast Future Year				
Approach Direction		**Base Year Count**		**Link Volume**		**Turn Volume**	**Balanced Volume**
South leg	Left	30	Approach	99	Left	19	19
NB	Through	7	Departure	68	Through	8	8
	Right	62			Right	75	75
North leg	Left	9	Approach	234	Left	27	27
SB	Through	3	Departure	142	Through	5	5
	Right	131			Right	198	200
West leg	Left	85	Approach	715	Left	100	100
EB	Through	492	Departure	872	Through	611	611
	Right	33			Right	20	20
East leg	Left	32	Approach	756	Left	44	44
WB	Through	456	Departure	711	Through	657	665
	Right	13			Right	35	35

P.M. Peak Hour

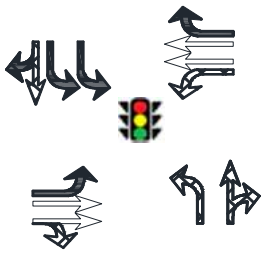
			Forecast Future Year				
Approach Direction		**Base Year Count**		**Link Volume**		**Turn Volume**	**Balanced Volume**
South leg	Left	31	Approach	56	Left	28	29
NB	Through	2	Departure	93	Through	5	5
	Right	23			Right	26	26
North leg	Left	10	Approach	111	Left	24	24
SB	Through	1	Departure	151	Through	2	2
	Right	47			Right	88	91
West leg	Left	25	Approach	938	Left	69	69
EB	Through	635	Departure	750	Through	853	853
	Right	44			Right	44	44
East leg	Left	48	Approach	749	Left	48	48
WB	Through	606	Departure	902	Through	636	661
	Right	29			Right	79	79

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : MOJAVE DRIVE
N/S STREET : TOPAZ ROAD
CONDITION : AM PEAK HOUR

INTERSECTION : 5
PROJECTED GROWTH PER YEAR : 3.5%



PROJECT GEOMETRICS

TURN MOVEMENTS

Condition	Existing Condition	Year 2025 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2035 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2045 Condition	Future Year 2045 + Project Condition
Scenario #	1			3		5		7	9	11	13
MOJAVE DRIVE											
EB LEFT	0	0	120	120	139	259	0	120	259	121	260
EB THRU	610	42	32	684	0	684	214	898	898	735	735
EB RIGHT	0	0	0	0	0	0	0	0	0	34	34
WB LEFT	0	0	0	0	0	0	0	0	0	34	34
WB THRU	617	43	256	916	27	943	217	1,133	1160	1,105	1132
WB RIGHT	0	0	213	213	26	239	0	213	239	214	240
TOPAZ ROAD											
NB LEFT	0	0	0	0	0	0	0	0	0	32	32
NB THRU	0	0	0	0	0	0	0	0	0	3	3
NB RIGHT	0	0	0	0	0	0	0	0	0	27	27
SB LEFT	0	0	110	110	38	148	0	110	148	111	149
SB THRU	0	0	0	0	0	0	0	0	0	3	3
SB RIGHT	0	0	0	0	19	19	0	0	19	1	20
TOTALS	**1227**	**85**	**731**	**2043**	**249**	**2292**	**431**	**2474**	**2723**	**2420**	**2669**

Intersection	
Int Delay, s/veh	772.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	259	684	943	239	148	19
Future Vol, veh/h	259	684	943	239	148	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	278	735	1014	257	159	20

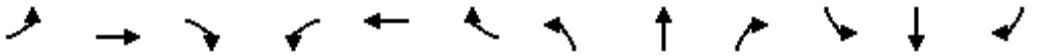
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1271	0	-	0	2067	636
Stage 1	-	-	-	-	1143	-
Stage 2	-	-	-	-	924	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	553	-	-	-	~ 48	425
Stage 1	-	-	-	-	270	-
Stage 2	-	-	-	-	352	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	553	-	-	-	~ 7	425
Mov Cap-2 Maneuver	-	-	-	-	~ 7	-
Stage 1	-	-	-	-	~ 41	-
Stage 2	-	-	-	-	352	-

Approach	EB	WB	SB
HCM Control Delay, s	8	0	$ 10555.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	553	-	-	-	8
HCM Lane V/C Ratio	0.504	-	-	-	22.446
HCM Control Delay (s)	17.9	4.3	-	$	10555.8
HCM Lane LOS	C	A	-	-	F
HCM 95th %tile Q(veh)	2.8	-	-	-	24.2

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	684	0	37	911	239	32	0	0	148	0	19
Future Volume (veh/h)	259	684	0	37	911	239	32	0	0	148	0	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	278	735	0	41	980	257	36	0	0	159	0	20
Peak Hour Factor	0.93	0.93	0.90	0.90	0.93	0.93	0.90	0.90	0.90	0.93	0.90	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	314	1720	0	51	1196	534	44	440	0	220	0	434
Arrive On Green	0.18	0.50	0.00	0.03	0.35	0.35	0.03	0.00	0.00	0.07	0.00	0.28
Sat Flow, veh/h	1714	3510	0	1714	3420	1525	1714	1800	0	3326	0	1525
Grp Volume(v), veh/h	278	735	0	41	980	257	36	0	0	159	0	20
Grp Sat Flow(s),veh/h/ln	1714	1710	0	1714	1710	1525	1714	1800	0	1663	0	1525
Q Serve(g_s), s	16.2	13.9	0.0	2.4	26.7	13.5	2.1	0.0	0.0	4.8	0.0	1.0
Cycle Q Clear(g_c), s	16.2	13.9	0.0	2.4	26.7	13.5	2.1	0.0	0.0	4.8	0.0	1.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	314	1720	0	51	1196	534	44	440	0	220	0	434
V/C Ratio(X)	0.89	0.43	0.00	0.80	0.82	0.48	0.81	0.00	0.00	0.72	0.00	0.05
Avail Cap(c_a), veh/h	453	2141	0	117	1472	656	101	440	0	260	0	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.7	16.1	0.0	49.3	30.3	26.0	49.5	0.0	0.0	46.8	0.0	26.5
Incr Delay (d2), s/veh	13.9	0.2	0.0	24.0	3.1	0.7	28.0	0.0	0.0	7.8	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	5.3	0.0	1.4	11.2	4.9	1.3	0.0	0.0	2.2	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	16.3	0.0	73.3	33.4	26.7	77.5	0.0	0.0	54.6	0.0	26.7
LnGrp LOS	D	B	A	E	C	C	E	A	A	D	A	C
Approach Vol, veh/h		1013			1278			36			179	
Approach Delay, s/veh		26.8			33.3			77.5			51.5	
Approach LOS		C			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	55.4	6.7	33.1	22.7	39.8	10.8	29.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	64.0	6.0	27.0	27.0	44.0	8.0	25.0
Max Q Clear Time (g_c+I1), s	4.4	15.9	4.1	3.0	18.2	28.7	6.8	0.0
Green Ext Time (p_c), s	0.0	6.1	0.0	0.1	0.5	7.1	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	6.1

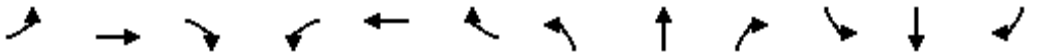
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	259	898	1160	239	148	19
Future Vol, veh/h	259	898	1160	239	148	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	273	945	1221	252	156	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1473	0	-	0	2366	737
Stage 1	-	-	-	-	1347	-
Stage 2	-	-	-	-	1019	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	464	-	-	-	~ 30	365
Stage 1	-	-	-	-	211	-
Stage 2	-	-	-	-	314	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	464	-	-	-	0	365
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	314	-

Approach	EB	WB	SB
HCM Control Delay, s	10.9	0	23.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	464	-	-	-	365
HCM Lane V/C Ratio	0.588	-	-	-	0.482
HCM Control Delay (s)	23.2	7.4	-	-	23.7
HCM Lane LOS	C	A	-	-	C
HCM 95th %tile Q(veh)	3.7	-	-	-	2.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	898	0	49	1117	239	43	0	0	148	0	19
Future Volume (veh/h)	259	898	0	49	1117	239	43	0	0	148	0	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	273	945	0	52	1176	252	45	0	0	156	0	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	300	1772	0	66	1305	582	97	370	0	182	0	389
Arrive On Green	0.18	0.52	0.00	0.04	0.38	0.38	0.06	0.00	0.00	0.11	0.00	0.25
Sat Flow, veh/h	1714	3510	0	1714	3420	1525	1714	1800	0	1714	0	1525
Grp Volume(v), veh/h	273	945	0	52	1176	252	45	0	0	156	0	20
Grp Sat Flow(s),veh/h/ln	1714	1710	0	1714	1710	1525	1714	1800	0	1714	0	1525
Q Serve(g_s), s	19.0	22.4	0.0	3.7	39.4	14.9	3.1	0.0	0.0	10.9	0.0	1.2
Cycle Q Clear(g_c), s	19.0	22.4	0.0	3.7	39.4	14.9	3.1	0.0	0.0	10.9	0.0	1.2
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	300	1772	0	66	1305	582	97	370	0	182	0	389
V/C Ratio(X)	0.91	0.53	0.00	0.79	0.90	0.43	0.46	0.00	0.00	0.86	0.00	0.05
Avail Cap(c_a), veh/h	352	1828	0	127	1378	614	127	370	0	211	0	389
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	49.2	19.5	0.0	58.0	35.4	27.9	55.6	0.0	0.0	53.5	0.0	34.2
Incr Delay (d2), s/veh	24.3	0.3	0.0	18.1	8.2	0.5	3.4	0.0	0.0	25.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	8.8	0.0	1.9	17.6	5.5	1.4	0.0	0.0	6.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.5	19.8	0.0	76.1	43.6	28.4	59.0	0.0	0.0	78.8	0.0	34.5
LnGrp LOS	E	B	A	E	D	C	E	A	A	E	A	C
Approach Vol, veh/h		1218			1480			45			176	
Approach Delay, s/veh		31.8			42.1			59.0			73.7	
Approach LOS		C			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	67.0	10.9	35.0	25.3	50.4	16.9	29.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	65.0	9.0	31.0	25.0	49.0	15.0	25.0
Max Q Clear Time (g_c+I1), s	5.7	24.4	5.1	3.2	21.0	41.4	12.9	0.0
Green Ext Time (p_c), s	0.0	8.4	0.0	0.1	0.3	5.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	40.0
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	260	735	1132	240	149	20
Future Vol, veh/h	260	735	1132	240	149	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	274	774	1192	253	157	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1445	0	-	0	2254	723
Stage 1	-	-	-	-	1319	-
Stage 2	-	-	-	-	935	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	475	-	-	-	~ 36	373
Stage 1	-	-	-	-	218	-
Stage 2	-	-	-	-	347	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	475	-	-	-	0	373
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	347	-

Approach	EB	WB	SB
HCM Control Delay, s	10.7	0	23.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	475	-	-	-	373
HCM Lane V/C Ratio	0.576	-	-	-	0.477
HCM Control Delay (s)	22.4	6.6	-	-	23.1
HCM Lane LOS	C	A	-	-	C
HCM 95th %tile Q(veh)	3.6	-	-	-	2.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	735	34	83	1113	240	51	3	27	149	3	20
Future Volume (veh/h)	260	735	34	83	1113	240	51	3	27	149	3	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	274	774	36	87	1172	253	54	3	28	157	3	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	301	1642	76	108	1303	581	98	31	287	183	50	347
Arrive On Green	0.18	0.49	0.49	0.06	0.38	0.38	0.06	0.21	0.21	0.11	0.25	0.25
Sat Flow, veh/h	1714	3327	155	1714	3420	1525	1714	150	1398	1714	194	1361
Grp Volume(v), veh/h	274	398	412	87	1172	253	54	0	31	157	0	24
Grp Sat Flow(s),veh/h/ln	1714	1710	1772	1714	1710	1525	1714	0	1548	1714	0	1555
Q Serve(g_s), s	19.1	18.7	18.7	6.1	39.3	15.0	3.7	0.0	2.0	11.0	0.0	1.4
Cycle Q Clear(g_c), s	19.1	18.7	18.7	6.1	39.3	15.0	3.7	0.0	2.0	11.0	0.0	1.4
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.90	1.00		0.88
Lane Grp Cap(c), veh/h	301	844	875	108	1303	581	98	0	318	183	0	396
V/C Ratio(X)	0.91	0.47	0.47	0.80	0.90	0.44	0.55	0.00	0.10	0.86	0.00	0.06
Avail Cap(c_a), veh/h	352	913	946	127	1377	614	127	0	318	211	0	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	49.2	20.3	20.4	56.3	35.5	28.0	55.8	0.0	39.2	53.5	0.0	34.3
Incr Delay (d2), s/veh	24.5	0.4	0.4	26.6	8.1	0.5	4.7	0.0	0.6	25.6	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	7.5	7.7	3.4	17.5	5.6	1.7	0.0	0.8	6.0	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.7	20.8	20.7	82.9	43.6	28.5	60.6	0.0	39.8	79.1	0.0	34.6
LnGrp LOS	E	C	C	F	D	C	E	A	D	E	A	C
Approach Vol, veh/h		1084			1512			85			181	
Approach Delay, s/veh		34.1			43.3			53.0			73.2	
Approach LOS		C			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	64.1	11.0	35.0	25.4	50.4	17.0	29.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	65.0	9.0	31.0	25.0	49.0	15.0	25.0
Max Q Clear Time (g_c+I1), s	8.1	20.7	5.7	3.4	21.1	41.3	13.0	4.0
Green Ext Time (p_c), s	0.0	6.1	0.0	0.1	0.3	5.1	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : MOJAVE DRIVE
N/S STREET : TOPAZ ROAD
CONDITION : PM PEAK HOUR

INTERSECTION : 5
PROJECTED GROWTH PER YEAR : 3.5%

TURN MOVEMENTS

Condition	Existing Condition	Year 2025 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2035 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2045 Condition	Future Year 2045 + Project Condition
Scenario #	2			4		6		8	10	12	14
MOJAVE DRIVE											
EB LEFT	0	0	44	44	52	96	0	44	96	45	97
EB THRU	704	49	101	854	0	854	246	1,100	1100	989	989
EB RIGHT	0	0	0	0	0	0	0	0	0	55	55
WB LEFT	0	0	0	0	0	0	0	0	0	20	20
WB THRU	684	47	112	843	78	921	239	1,082	1160	872	950
WB RIGHT	0	0	77	77	10	87	0	77	87	78	88
TOPAZ ROAD											
NB LEFT	0	0	0	0	0	0	0	0	0	184	184
NB THRU	0	0	0	0	0	0	0	0	0	3	3
NB RIGHT	0	0	0	0	0	0	0	0	0	77	77
SB LEFT	0	0	344	344	114	458	0	344	458	345	459
SB THRU	0	0	0	0	0	0	0	0	0	3	3
SB RIGHT	0	0	0	0	52	52	0	0	52	1	53
TOTALS	**1388**	**96**	**678**	**2162**	**306**	**2468**	**485**	**2647**	**2953**	**2672**	**2978**

Intersection	
Int Delay, s/veh	850.7

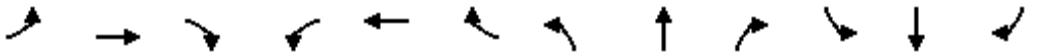
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	96	854	921	87	458	52
Future Vol, veh/h	96	854	921	87	458	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	105	938	1012	96	503	57

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1108	0	-	0	1739	554
Stage 1	-	-	-	-	1060	-
Stage 2	-	-	-	-	679	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	638	-	-	-	~ 80	481
Stage 1	-	-	-	-	~ 299	-
Stage 2	-	-	-	-	~ 471	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	638	-	-	-	~ 52	481
Mov Cap-2 Maneuver	-	-	-	-	~ 52	-
Stage 1	-	-	-	-	~ 196	-
Stage 2	-	-	-	-	~ 471	-

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	$ 4111.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	638	-	-	-	57
HCM Lane V/C Ratio	0.165	-	-	-	9.832
HCM Control Delay (s)	11.8	1.7	-	-	$ 4111.8
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.6	-	-	-	66.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	854	0	37	943	87	33	0	0	458	0	52
Future Volume (veh/h)	96	854	0	37	943	87	33	0	0	458	0	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	105	938	0	41	1036	96	36	0	0	503	0	57
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	1648	0	52	1496	667	45	346	0	574	0	516
Arrive On Green	0.07	0.48	0.00	0.03	0.44	0.44	0.03	0.00	0.00	0.17	0.00	0.34
Sat Flow, veh/h	1714	3510	0	1714	3420	1525	1714	1800	0	3326	0	1525
Grp Volume(v), veh/h	105	938	0	41	1036	96	36	0	0	503	0	57
Grp Sat Flow(s),veh/h/ln	1714	1710	0	1714	1710	1525	1714	1800	0	1663	0	1525
Q Serve(g_s), s	7.8	25.5	0.0	3.1	31.8	2.9	2.7	0.0	0.0	19.2	0.0	3.3
Cycle Q Clear(g_c), s	7.8	25.5	0.0	3.1	31.8	2.9	2.7	0.0	0.0	19.2	0.0	3.3
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	1648	0	52	1496	667	45	346	0	574	0	516
V/C Ratio(X)	0.82	0.57	0.00	0.79	0.69	0.14	0.79	0.00	0.00	0.88	0.00	0.11
Avail Cap(c_a), veh/h	171	1648	0	92	1496	667	92	346	0	665	0	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.3	24.1	0.0	62.6	29.5	7.5	62.9	0.0	0.0	52.4	0.0	29.6
Incr Delay (d2), s/veh	20.4	1.4	0.0	22.7	2.7	0.5	25.9	0.0	0.0	11.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	10.6	0.0	1.7	13.5	1.8	1.5	0.0	0.0	8.9	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.7	25.5	0.0	85.3	32.2	7.9	88.9	0.0	0.0	63.8	0.0	30.0
LnGrp LOS	E	C	A	F	C	A	F	A	A	E	A	C
Approach Vol, veh/h		1043			1173			36			560	
Approach Delay, s/veh		30.9			32.0			88.9			60.4	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	66.6	7.4	48.0	13.7	60.9	26.4	29.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	56.0	7.0	44.0	13.0	50.0	26.0	25.0
Max Q Clear Time (g_c+I1), s	5.1	27.5	4.7	5.3	9.8	33.8	21.2	0.0
Green Ext Time (p_c), s	0.0	7.7	0.0	0.3	0.1	7.1	0.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	38.0
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	1644.1

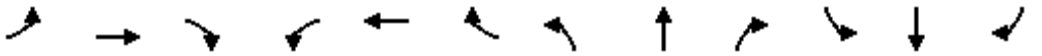
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	96	1100	1160	87	458	52
Future Vol, veh/h	96	1100	1160	87	458	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	101	1158	1221	92	482	55

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1313	0	-	0	2048	657
Stage 1	-	-	-	-	1267	-
Stage 2	-	-	-	-	781	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	533	-	-	-	~ 50	412
Stage 1	-	-	-	-	~ 232	-
Stage 2	-	-	-	-	~ 417	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	533	-	-	-	~ 23	412
Mov Cap-2 Maneuver	-	-	-	-	~ 23	-
Stage 1	-	-	-	-	~ 109	-
Stage 2	-	-	-	-	~ 417	-

Approach	EB	WB	SB
HCM Control Delay, s	3.8	0	$ 9510.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	533	-	-	-	25
HCM Lane V/C Ratio	0.19	-	-	-	21.474
HCM Control Delay (s)	13.3	3	-	-	$ 9510.8
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.7	-	-	-	67

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	1100	0	69	1116	87	44	0	0	458	0	52
Future Volume (veh/h)	96	1100	0	69	1116	87	44	0	0	458	0	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	101	1158	0	77	1175	92	49	0	0	482	0	55
Peak Hour Factor	0.95	0.95	0.90	0.90	0.95	0.95	0.90	0.90	0.90	0.95	0.90	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	123	1663	0	96	1610	718	62	321	0	549	0	469
Arrive On Green	0.07	0.49	0.00	0.06	0.47	0.47	0.04	0.00	0.00	0.16	0.00	0.31
Sat Flow, veh/h	1714	3510	0	1714	3420	1525	1714	1800	0	3326	0	1525
Grp Volume(v), veh/h	101	1158	0	77	1175	92	49	0	0	482	0	55
Grp Sat Flow(s),veh/h/ln	1714	1710	0	1714	1710	1525	1714	1800	0	1663	0	1525
Q Serve(g_s), s	8.1	36.8	0.0	6.2	38.8	2.8	4.0	0.0	0.0	19.8	0.0	3.6
Cycle Q Clear(g_c), s	8.1	36.8	0.0	6.2	38.8	2.8	4.0	0.0	0.0	19.8	0.0	3.6
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	1663	0	96	1610	718	62	321	0	549	0	469
V/C Ratio(X)	0.82	0.70	0.00	0.80	0.73	0.13	0.79	0.00	0.00	0.88	0.00	0.12
Avail Cap(c_a), veh/h	171	1663	0	135	1610	718	110	321	0	641	0	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	64.1	27.9	0.0	65.3	29.9	7.0	66.9	0.0	0.0	57.1	0.0	34.9
Incr Delay (d2), s/veh	19.6	2.4	0.0	20.4	3.0	0.4	19.0	0.0	0.0	11.9	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	15.5	0.0	3.3	16.5	1.8	2.1	0.0	0.0	9.2	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.8	30.4	0.0	85.7	32.8	7.4	85.9	0.0	0.0	69.0	0.0	35.4
LnGrp LOS	F	C	A	F	C	A	F	A	A	E	A	D
Approach Vol, veh/h		1259			1344			49			537	
Approach Delay, s/veh		34.7			34.1			85.9			65.5	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	72.1	9.1	47.0	14.0	69.9	27.1	29.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	61.0	9.0	43.0	14.0	58.0	27.0	25.0
Max Q Clear Time (g_c+I1), s	8.2	38.8	6.0	5.6	10.1	40.8	21.8	0.0
Green Ext Time (p_c), s	0.0	9.1	0.0	0.3	0.1	8.4	0.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	40.4
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	831.1

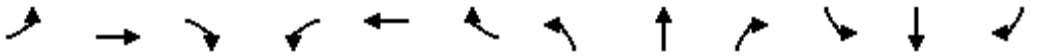
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	97	989	950	88	459	53
Future Vol, veh/h	97	989	950	88	459	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	102	1041	1000	93	483	56

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1093	0	-	0	1772	547
Stage 1	-	-	-	-	1047	-
Stage 2	-	-	-	-	725	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	646	-	-	-	~ 76	486
Stage 1	-	-	-	-	~ 303	-
Stage 2	-	-	-	-	~ 446	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	646	-	-	-	~ 48	486
Mov Cap-2 Maneuver	-	-	-	-	~ 48	-
Stage 1	-	-	-	-	~ 190	-
Stage 2	-	-	-	-	~ 446	-

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	$ 4272.9
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	646	-	-	-	53
HCM Lane V/C Ratio	0.158	-	-	-	10.169
HCM Control Delay (s)	11.6	1.8	-	-	$ 4272.9
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.6	-	-	-	63.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	989	55	70	921	88	213	3	77	459	3	53
Future Volume (veh/h)	97	989	55	70	921	88	213	3	77	459	3	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	102	1041	61	78	969	93	237	3	86	483	3	56
Peak Hour Factor	0.95	0.95	0.90	0.90	0.95	0.95	0.90	0.90	0.90	0.95	0.90	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	124	1573	92	97	1585	707	294	10	275	546	14	261
Arrive On Green	0.07	0.48	0.48	0.06	0.46	0.46	0.17	0.19	0.19	0.16	0.18	0.18
Sat Flow, veh/h	1714	3283	192	1714	3420	1525	1714	52	1482	3326	78	1459
Grp Volume(v), veh/h	102	542	560	78	969	93	237	0	89	483	0	59
Grp Sat Flow(s),veh/h/ln	1714	1710	1765	1714	1710	1525	1714	0	1533	1663	0	1537
Q Serve(g_s), s	8.2	33.9	33.9	6.3	29.7	2.9	18.6	0.0	7.0	19.9	0.0	4.6
Cycle Q Clear(g_c), s	8.2	33.9	33.9	6.3	29.7	2.9	18.6	0.0	7.0	19.9	0.0	4.6
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.97	1.00		0.95
Lane Grp Cap(c), veh/h	124	819	846	97	1585	707	294	0	285	546	0	275
V/C Ratio(X)	0.82	0.66	0.66	0.80	0.61	0.13	0.81	0.00	0.31	0.88	0.00	0.21
Avail Cap(c_a), veh/h	196	819	846	159	1585	707	367	0	285	689	0	275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	64.1	27.8	27.8	65.2	28.1	7.4	55.8	0.0	49.3	57.2	0.0	49.1
Incr Delay (d2), s/veh	14.2	4.2	4.1	14.0	1.8	0.4	10.2	0.0	2.8	11.1	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	14.7	15.2	3.1	12.6	1.8	8.9	0.0	2.9	9.2	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.3	32.0	31.9	79.2	29.9	7.8	66.0	0.0	52.1	68.3	0.0	50.9
LnGrp LOS	E	C	C	E	C	A	E	A	D	E	A	D
Approach Vol, veh/h		1204			1140			326			542	
Approach Delay, s/veh		35.9			31.4			62.2			66.4	
Approach LOS		D			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	71.1	28.0	29.0	14.1	68.9	27.0	30.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	56.0	30.0	25.0	16.0	53.0	29.0	26.0
Max Q Clear Time (g_c+I1), s	8.3	35.9	20.6	6.6	10.2	31.7	21.9	9.0
Green Ext Time (p_c), s	0.1	7.5	0.5	0.2	0.1	7.6	1.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	42.1
HCM 6th LOS	D

CALCULATION OF FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES (NCHRP 255)

Intersection No.: 5
North/South Street: TOPAZ ROAD
East/West Street: MOJAVE DRIVE

Analysis Condition: YEAR 2045 FUTURE TRAFFIC

A.M. Peak Hour

Approach Direction		Base Year Count	Forecast Future Year Link Volume			Turn Volume	Balanced Volume
South leg	Left	1	Approach	61	Left	32	32
NB	Through	1	Departure	69	Through	3	3
	Right	1			Right	27	27
North leg	Left	1	Approach	3	Left	1	1
SB	Through	1	Departure	3	Through	3	3
	Right	1			Right	1	1
West leg	Left	1	Approach	732	Left	1	1
EB	Through	610	Departure	881	Through	691	703
	Right	1			Right	34	34
East leg	Left	1	Approach	874	Left	34	34
WB	Through	617	Departure	717	Through	849	849
	Right	1			Right	1	1

P.M. Peak Hour

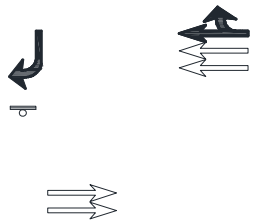
Approach Direction		Base Year Count	Forecast Future Year Link Volume			Turn Volume	Balanced Volume
South leg	Left	1	Approach	256	Left	184	184
NB	Through	1	Departure	77	Through	3	3
	Right	1			Right	75	77
North leg	Left	1	Approach	3	Left	1	1
SB	Through	1	Departure	3	Through	3	3
	Right	1			Right	1	1
West leg	Left	1	Approach	951	Left	1	1
EB	Through	704	Departure	943	Through	866	888
	Right	1			Right	55	55
East leg	Left	1	Approach	752	Left	20	20
WB	Through	684	Departure	940	Through	760	760
	Right	1			Right	1	1

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : MOJAVE DRIVE
N/S STREET : GRAND PRIX ROAD
CONDITION : AM PEAK HOUR

INTERSECTION : 6
PROJECTED GROWTH PER YEAR : 3.5%



PROJECT GEOMETRICS

TURN MOVEMENTS

Condition	Existing Condition	Year 2025 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2035 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2045 Condition	Future Year 2045 + Project Condition
Scenario #	1			3		5		7	9	11	13
MOJAVE DRIVE											
EB LEFT	0	0	0	0	0	0	0	0	0	0	0
EB THRU	610	42	142	794	38	832	214	1,008	1046	873	911
EB RIGHT	0	0	0	0	0	0	0	0	0	0	0
WB LEFT	0	0	0	0	0	0	0	0	0	0	0
WB THRU	617	43	469	1129	55	1184	217	1,346	1401	1,353	1408
WB RIGHT	0	0	0	0	67	67	0	0	67	0	67
GRAND PRIX ROAD											
NB LEFT	0	0	0	0	0	0	0	0	0	0	0
NB THRU	0	0	0	0	0	0	0	0	0	0	0
NB RIGHT	0	0	0	0	0	0	0	0	0	0	0
SB LEFT	0	0	0	0	0	0	0	0	0	0	0
SB THRU	0	0	0	0	0	0	0	0	0	0	0
SB RIGHT	0	0	0	0	18	18	0	0	18	0	18
TOTALS	**1227**	**85**	**611**	**1923**	**178**	**2101**	**431**	**2354**	**2532**	**2226**	**2404**

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↱			↱
Traffic Vol, veh/h	0	832	1184	67	0	18
Future Vol, veh/h	0	832	1184	67	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	895	1273	72	0	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	673
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	402
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	402
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	402
HCM Lane V/C Ratio	-	-	-	0.048
HCM Control Delay (s)	-	-	-	14.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑↑			↱
Traffic Vol, veh/h	0	832	1189	67	0	18
Future Vol, veh/h	0	832	1189	67	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	895	1278	72	0	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	675
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	344
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	344
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	344
HCM Lane V/C Ratio	-	-	-	0.056
HCM Control Delay (s)	-	-	-	16.1
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↱			↱
Traffic Vol, veh/h	0	1046	1401	67	0	18
Future Vol, veh/h	0	1046	1401	67	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1101	1475	71	0	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	773
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	346
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	346
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	346
HCM Lane V/C Ratio	-	-	-	0.055
HCM Control Delay (s)	-	-	-	16
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Traffic Vol, veh/h	0	1046	1407	67	0	18
Future Vol, veh/h	0	1046	1407	67	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1101	1481	71	0	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	776
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	295
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	295
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	295
HCM Lane V/C Ratio	-	-	-	0.064
HCM Control Delay (s)	-	-	-	18
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↱			↱
Traffic Vol, veh/h	0	911	1408	67	0	18
Future Vol, veh/h	0	911	1408	67	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	959	1482	71	0	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	777
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	344
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	344
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	344
HCM Lane V/C Ratio	-	-	-	0.055
HCM Control Delay (s)	-	-	-	16.1
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Traffic Vol, veh/h	0	911	1438	67	0	18
Future Vol, veh/h	0	911	1438	67	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	959	1514	71	0	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	793
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	288
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	288
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	288
HCM Lane V/C Ratio	-	-	-	0.066
HCM Control Delay (s)	-	-	-	18.4
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.2

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : MOJAVE DRIVE
N/S STREET : GRAND PRIX ROAD
CONDITION : PM PEAK HOUR

INTERSECTION : 6
PROJECTED GROWTH PER YEAR : 3.5%

TURN MOVEMENTS

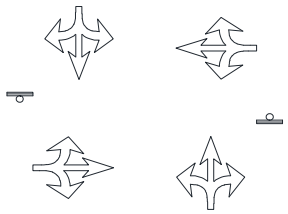
Condition	Existing Condition	Year 2025 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2035 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2045 Condition	Future Year 2045 + Project Condition
Scenario #	2			4		6		8	10	12	14
MOJAVE DRIVE											
EB LEFT	0	0	0	0	0	0	0	0	0	0	0
EB THRU	704	49	445	1198	114	1312	246	1,444	1558	1,411	1525
EB RIGHT	0	0	0	0	0	0	0	0	0	0	0
WB LEFT	0	0	0	0	0	0	0	0	0	0	0
WB THRU	684	47	189	920	21	941	239	1,159	1180	970	991
WB RIGHT	0	0	0	0	25	25	0	0	25	0	25
GRAND PRIX ROAD											
NB LEFT	0	0	0	0	0	0	0	0	0	0	0
NB THRU	0	0	0	0	0	0	0	0	0	0	0
NB RIGHT	0	0	0	0	0	0	0	0	0	0	0
SB LEFT	0	0	0	0	0	0	0	0	0	0	0
SB THRU	0	0	0	0	0	0	0	0	0	0	0
SB RIGHT	0	0	0	0	51	51	0	0	51	0	51
TOTALS	**1388**	**96**	**634**	**2118**	**211**	**2329**	**485**	**2603**	**2814**	**2381**	**2592**

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : TAWNEY RIDGE LANE
N/S STREET : DIAMOND ROAD
CONDITION : AM PEAK HOUR

INTERSECTION : 7
PROJECTED GROWTH PER YEAR : 3.5%



EXISTING GEOMETRICS

TURN MOVEMENTS

Condition	Existing Condition	Year 2025 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2035 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2045 Condition	Future Year 2045 + Project Condition
Scenario #	1			3		5		7	9	11	13
TAWNEY RIDGE LANE											
EB LEFT	3	0	0	3	0	3	1	4	4	1	1
EB THRU	5	0	0	5	3	8	2	7	10	7	10
EB RIGHT	1	0	0	1	0	1	0	1	1	4	4
WB LEFT	5	0	0	5	0	5	2	7	7	42	42
WB THRU	1	0	0	1	8	9	0	1	9	2	10
WB RIGHT	74	5	0	79	0	79	26	105	105	48	48
DIAMOND ROAD											
NB LEFT	1	0	0	1	0	1	0	1	1	4	4
NB THRU	19	1	0	20	0	20	7	27	27	48	48
NB RIGHT	1	0	0	1	0	1	0	1	1	14	14
SB LEFT	168	12	0	180	0	180	59	239	239	155	155
SB THRU	43	3	0	46	0	46	15	61	61	96	96
SB RIGHT	4	0	0	4	0	4	1	5	5	2	2
TOTALS	**325**	**21**	**0**	**346**	**11**	**357**	**113**	**459**	**470**	**423**	**434**

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET	OF
TURN VOLUME SUMMARY	TMO	5-Mar-24	IPGIM51H-0001	2	OF 2

E/W STREET : TAWNEY RIDGE LANE
N/S STREET : DIAMOND ROAD
CONDITION : AM PEAK HOUR
PHF : 0.69

NORTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
0	3	14	0	0	0	0	0	0	0	0	0
0	8	36	0	0	0	0	0	0	0	0	0
1	15	56	0	0	0	0	0	0	0	0	0
3	17	62	0	0	0	0	0	0	0	0	0

SOUTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
0	3	0	0	0	0	0	0	0	0	0	0
0	5	0	0	0	0	0	0	0	0	0	0
0	6	0	0	0	0	0	0	0	0	0	0
0	5	1	0	0	0	0	0	0	0	0	0

EAST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
6	0	2	0	0	0	0	0	0	0	0	0
19	0	2	0	0	0	0	0	0	0	0	0
22	1	1	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0

WEST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	0	0	0	0	0	0
0	2	2	0	0	0	0	0	0	0	0	0
0	1	1	0	0	0	0	0	0	0	0	0

Number of Axles	2-Axle Trucks	3-Axle Trucks	4+ Axle Trucks
PCE factor	1.5	2	3

	Truck Volumes	Auto Volumes	Vehicle Totals	PCE Totals	Balanced PCE Totals
TAWNEY RIDGE LANE					
EB LEFT	0	3	**3**	**3**	**3**
EB THRU	0	5	**5**	**5**	**5**
EB RIGHT	0	0	**0**	**1**	**1**
WB LEFT	0	5	**5**	**5**	**5**
WB THRU	0	1	**1**	**1**	**1**
WB RIGHT	0	74	**74**	**74**	**74**
DIAMOND ROAD					
NB LEFT	0	1	**1**	**1**	**1**
NB THRU	0	19	**19**	**19**	**19**
NB RIGHT	0	0	**0**	**1**	**1**
SB LEFT	0	168	**168**	**168**	**168**
SB THRU	0	43	**43**	**43**	**43**
SB RIGHT	0	4	**4**	**4**	**4**

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	5	1	5	1	74	1	19	1	168	43	4
Future Vol, veh/h	3	5	1	5	1	74	1	19	1	168	43	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	7	1	7	1	107	1	28	1	243	62	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	108	0	0	8	0	0	119	138	8	99	85	55
Stage 1	-	-	-	-	-	-	16	16	-	69	69	-
Stage 2	-	-	-	-	-	-	103	122	-	30	16	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1495	-	-	1625	-	-	861	757	1080	888	809	1018
Stage 1	-	-	-	-	-	-	1009	886	-	946	841	-
Stage 2	-	-	-	-	-	-	908	799	-	992	886	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1495	-	-	1625	-	-	801	751	1080	857	803	1018
Mov Cap-2 Maneuver	-	-	-	-	-	-	801	751	-	857	803	-
Stage 1	-	-	-	-	-	-	1006	883	-	943	837	-
Stage 2	-	-	-	-	-	-	831	795	-	957	883	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.5	0.5	9.9	11.7
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	764	1495	-	-	1625	-	-	848
HCM Lane V/C Ratio	0.04	0.003	-	-	0.004	-	-	0.367
HCM Control Delay (s)	9.9	7.4	0	-	7.2	0	-	11.7
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	1.7

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	5	1	5	1	79	1	20	1	180	46	4
Future Vol, veh/h	3	5	1	5	1	79	1	20	1	180	46	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	7	1	7	1	114	1	29	1	261	67	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	115	0	0	8	0	0	125	145	8	103	88	58
Stage 1	-	-	-	-	-	-	16	16	-	72	72	-
Stage 2	-	-	-	-	-	-	109	129	-	31	16	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1487	-	-	1625	-	-	854	750	1080	882	806	1014
Stage 1	-	-	-	-	-	-	1009	886	-	943	839	-
Stage 2	-	-	-	-	-	-	901	793	-	991	886	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1487	-	-	1625	-	-	790	744	1080	849	800	1014
Mov Cap-2 Maneuver	-	-	-	-	-	-	790	744	-	849	800	-
Stage 1	-	-	-	-	-	-	1006	883	-	940	835	-
Stage 2	-	-	-	-	-	-	820	789	-	954	883	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.5	0.4	10	12.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	757	1487	-	-	1625	-	-	841
HCM Lane V/C Ratio	0.042	0.003	-	-	0.004	-	-	0.396
HCM Control Delay (s)	10	7.4	0	-	7.2	0	-	12.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	1.9

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	8	1	5	9	79	1	20	1	180	46	4
Future Vol, veh/h	3	8	1	5	9	79	1	20	1	180	46	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	12	1	7	13	114	1	29	1	261	67	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	127	0	0	13	0	0	142	162	13	120	105	70
Stage 1	-	-	-	-	-	-	21	21	-	84	84	-
Stage 2	-	-	-	-	-	-	121	141	-	36	21	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1472	-	-	1619	-	-	832	734	1073	860	789	998
Stage 1	-	-	-	-	-	-	1003	882	-	929	829	-
Stage 2	-	-	-	-	-	-	888	784	-	985	882	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1472	-	-	1619	-	-	769	728	1073	827	783	998
Mov Cap-2 Maneuver	-	-	-	-	-	-	769	728	-	827	783	-
Stage 1	-	-	-	-	-	-	1000	879	-	926	825	-
Stage 2	-	-	-	-	-	-	807	780	-	948	879	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.9	0.4	10.1	12.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	741	1472	-	-	1619	-	-	820
HCM Lane V/C Ratio	0.043	0.003	-	-	0.004	-	-	0.407
HCM Control Delay (s)	10.1	7.5	0	-	7.2	0	-	12.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	2

Intersection	
Int Delay, s/veh	8.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	7	1	7	1	105	1	27	1	239	61	5
Future Vol, veh/h	4	7	1	7	1	105	1	27	1	239	61	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	7	1	7	1	111	1	28	1	252	64	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	112	0	0	8	0	0	121	142	8	101	87	57
Stage 1	-	-	-	-	-	-	16	16	-	71	71	-
Stage 2	-	-	-	-	-	-	105	126	-	30	16	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1490	-	-	1625	-	-	859	753	1080	885	807	1015
Stage 1	-	-	-	-	-	-	1009	886	-	944	840	-
Stage 2	-	-	-	-	-	-	906	796	-	992	886	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1490	-	-	1625	-	-	797	747	1080	853	801	1015
Mov Cap-2 Maneuver	-	-	-	-	-	-	797	747	-	853	801	-
Stage 1	-	-	-	-	-	-	1006	883	-	941	836	-
Stage 2	-	-	-	-	-	-	828	792	-	956	883	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.5	0.4	10	11.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	757	1490	-	-	1625	-	-	844
HCM Lane V/C Ratio	0.04	0.003	-	-	0.005	-	-	0.38
HCM Control Delay (s)	10	7.4	0	-	7.2	0	-	11.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	1.8

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	10	1	7	9	105	1	27	1	239	61	5
Future Vol, veh/h	4	10	1	7	9	105	1	27	1	239	61	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	11	1	7	9	111	1	28	1	252	64	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	120	0	0	12	0	0	133	154	12	113	99	65
Stage 1	-	-	-	-	-	-	20	20	-	79	79	-
Stage 2	-	-	-	-	-	-	113	134	-	34	20	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1480	-	-	1620	-	-	844	741	1074	869	795	1005
Stage 1	-	-	-	-	-	-	1004	883	-	935	833	-
Stage 2	-	-	-	-	-	-	897	789	-	987	883	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1480	-	-	1620	-	-	782	735	1074	838	789	1005
Mov Cap-2 Maneuver	-	-	-	-	-	-	782	735	-	838	789	-
Stage 1	-	-	-	-	-	-	1001	880	-	932	829	-
Stage 2	-	-	-	-	-	-	819	785	-	951	880	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2	0.4	10	12
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	745	1480	-	-	1620	-	-	830
HCM Lane V/C Ratio	0.041	0.003	-	-	0.005	-	-	0.387
HCM Control Delay (s)	10	7.4	0	-	7.2	0	-	12
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	1.8

Intersection	
Int Delay, s/veh	9.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	7	4	42	2	48	4	48	14	155	96	2
Future Vol, veh/h	1	7	4	42	2	48	4	48	14	155	96	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	7	4	44	2	51	4	51	15	163	101	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	53	0	0	11	0	0	178	152	9	160	129	28
Stage 1	-	-	-	-	-	-	11	11	-	116	116	-
Stage 2	-	-	-	-	-	-	167	141	-	44	13	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1566	-	-	1621	-	-	789	743	1079	810	765	1053
Stage 1	-	-	-	-	-	-	1015	890	-	894	803	-
Stage 2	-	-	-	-	-	-	840	784	-	975	889	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1566	-	-	1621	-	-	690	721	1079	740	743	1053
Mov Cap-2 Maneuver	-	-	-	-	-	-	690	721	-	740	743	-
Stage 1	-	-	-	-	-	-	1014	889	-	893	781	-
Stage 2	-	-	-	-	-	-	709	762	-	906	888	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	3.3	10.1	12.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	773	1566	-	-	1621	-	-	743
HCM Lane V/C Ratio	0.09	0.001	-	-	0.027	-	-	0.358
HCM Control Delay (s)	10.1	7.3	0	-	7.3	0	-	12.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	1.6

Intersection	
Int Delay, s/veh	9.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	10	4	42	10	48	4	48	14	155	96	2
Future Vol, veh/h	1	10	4	42	10	48	4	48	14	155	96	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	11	4	44	11	51	4	51	15	163	101	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	62	0	0	15	0	0	191	165	13	173	142	37
Stage 1	-	-	-	-	-	-	15	15	-	125	125	-
Stage 2	-	-	-	-	-	-	176	150	-	48	17	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1554	-	-	1616	-	-	773	731	1073	794	753	1041
Stage 1	-	-	-	-	-	-	1010	887	-	884	796	-
Stage 2	-	-	-	-	-	-	831	777	-	971	885	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1554	-	-	1616	-	-	675	710	1073	724	731	1041
Mov Cap-2 Maneuver	-	-	-	-	-	-	675	710	-	724	731	-
Stage 1	-	-	-	-	-	-	1009	886	-	883	774	-
Stage 2	-	-	-	-	-	-	701	755	-	902	884	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	3.1	10.2	12.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	762	1554	-	-	1616	-	-	728
HCM Lane V/C Ratio	0.091	0.001	-	-	0.027	-	-	0.366
HCM Control Delay (s)	10.2	7.3	0	-	7.3	0	-	12.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	1.7

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : TAWNEY RIDGE LANE
N/S STREET : DIAMOND ROAD
CONDITION : PM PEAK HOUR

INTERSECTION : 7
PROJECTED GROWTH PER YEAR : 3.5%

TURN MOVEMENTS

Condition	Existing Condition	Year 2025 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2035 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2045 Condition	Future Year 2045 + Project Condition
Scenario #	2			4		6		8	10	12	14
TAWNEY RIDGE LANE											
EB LEFT	1	0	0	1	0	1	0	1	1	1	1
EB THRU	1	0	0	1	7	8	0	1	8	1	8
EB RIGHT	1	0	0	1	0	1	0	1	1	3	3
WB LEFT	4	0	0	4	0	4	1	5	5	29	29
WB THRU	1	0	0	1	3	4	0	1	4	1	4
WB RIGHT	28	2	0	30	0	30	10	40	40	2	2
DIAMOND ROAD											
NB LEFT	1	0	0	1	0	1	0	1	1	3	3
NB THRU	26	2	0	28	0	28	9	37	37	54	54
NB RIGHT	1	0	0	1	0	1	0	1	1	37	37
SB LEFT	46	3	0	49	0	49	16	65	65	12	12
SB THRU	19	1	0	20	0	20	7	27	27	47	47
SB RIGHT	1	0	0	1	0	1	0	1	1	1	1
TOTALS	**130**	**8**	**0**	**138**	**10**	**148**	**43**	**181**	**191**	**191**	**201**

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET	OF
TURN VOLUME SUMMARY	TMO	5-Mar-24	IPGIM51H-0001	2	OF 2

E/W STREET : TAWNEY RIDGE LANE
N/S STREET : DIAMOND ROAD
CONDITION : PM PEAK HOUR
PHF : 0.94

NORTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
1	3	11	0	0	0	0	0	0	0	0	0
0	3	14	0	0	0	0	0	0	0	0	0
0	7	9	0	0	1	0	0	0	0	0	0
0	6	9	0	0	1	0	0	0	0	0	0

SOUTH LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
1	7	0	0	0	0	0	0	0	0	0	0
0	6	0	0	0	0	0	0	0	0	0	0
0	8	0	0	0	0	0	0	0	0	0	0
0	5	0	0	0	0	0	0	0	0	0	0

EAST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
6	0	2	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0
4	0	1	2	0	0	0	0	0	0	0	0
6	0	1	0	0	0	0	0	0	0	0	0

WEST LEG

AUTO			LARGE 2 AXLE			LARGE 3 AXLE			LARGE 4(+) AXLE		
RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT
0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0

Number of Axles	2-Axle Trucks	3-Axle Trucks	4+ Axle Trucks
PCE factor	1.5	2	3

	Truck Volumes	Auto Volumes	Vehicle Totals	PCE Totals	Balanced PCE Totals
TAWNEY RIDGE LANE					
EB LEFT	0	0	**0**	**1**	**1**
EB THRU	0	1	**1**	**1**	**1**
EB RIGHT	0	0	**0**	**1**	**1**
WB LEFT	0	4	**4**	**4**	**4**
WB THRU	0	0	**0**	**1**	**1**
WB RIGHT	2	25	**27**	**28**	**28**
DIAMOND ROAD					
NB LEFT	0	0	**0**	**1**	**1**
NB THRU	0	26	**26**	**26**	**26**
NB RIGHT	0	1	**1**	**1**	**1**
SB LEFT	2	43	**45**	**46**	**46**
SB THRU	0	19	**19**	**19**	**19**
SB RIGHT	0	1	**1**	**1**	**1**

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	4	1	28	1	26	1	46	19	1
Future Vol, veh/h	1	1	1	4	1	28	1	26	1	46	19	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	1	1	4	1	30	1	28	1	49	20	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	31	0	0	2	0	0	39	43	2	42	28	16
Stage 1	-	-	-	-	-	-	4	4	-	24	24	-
Stage 2	-	-	-	-	-	-	35	39	-	18	4	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1595	-	-	1634	-	-	971	853	1088	966	869	1069
Stage 1	-	-	-	-	-	-	1024	897	-	999	879	-
Stage 2	-	-	-	-	-	-	986	866	-	1006	897	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1595	-	-	1634	-	-	951	850	1088	939	866	1069
Mov Cap-2 Maneuver	-	-	-	-	-	-	951	850	-	939	866	-
Stage 1	-	-	-	-	-	-	1023	896	-	998	877	-
Stage 2	-	-	-	-	-	-	960	864	-	973	896	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	0.9	9.3	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	860	1595	-	-	1634	-	-	918
HCM Lane V/C Ratio	0.035	0.001	-	-	0.003	-	-	0.076
HCM Control Delay (s)	9.3	7.3	0	-	7.2	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	4	1	30	1	28	1	49	20	1
Future Vol, veh/h	1	1	1	4	1	30	1	28	1	49	20	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	1	1	4	1	32	1	30	1	52	21	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	33	0	0	2	0	0	40	45	2	44	29	17
Stage 1	-	-	-	-	-	-	4	4	-	25	25	-
Stage 2	-	-	-	-	-	-	36	41	-	19	4	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1592	-	-	1634	-	-	969	851	1088	963	868	1068
Stage 1	-	-	-	-	-	-	1024	897	-	998	878	-
Stage 2	-	-	-	-	-	-	985	865	-	1005	897	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1592	-	-	1634	-	-	947	848	1088	933	865	1068
Mov Cap-2 Maneuver	-	-	-	-	-	-	947	848	-	933	865	-
Stage 1	-	-	-	-	-	-	1023	896	-	997	875	-
Stage 2	-	-	-	-	-	-	957	862	-	970	896	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	0.8	9.4	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	857	1592	-	-	1634	-	-	914
HCM Lane V/C Ratio	0.037	0.001	-	-	0.003	-	-	0.081
HCM Control Delay (s)	9.4	7.3	0	-	7.2	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	8	1	4	4	30	1	28	1	49	20	1
Future Vol, veh/h	1	8	1	4	4	30	1	28	1	49	20	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	9	1	4	4	32	1	30	1	52	21	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	36	0	0	10	0	0	51	56	10	55	40	20
Stage 1	-	-	-	-	-	-	12	12	-	28	28	-
Stage 2	-	-	-	-	-	-	39	44	-	27	12	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1588	-	-	1623	-	-	953	839	1077	948	856	1064
Stage 1	-	-	-	-	-	-	1014	890	-	994	876	-
Stage 2	-	-	-	-	-	-	981	862	-	996	890	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1588	-	-	1623	-	-	931	836	1077	919	853	1064
Mov Cap-2 Maneuver	-	-	-	-	-	-	931	836	-	919	853	-
Stage 1	-	-	-	-	-	-	1013	889	-	993	873	-
Stage 2	-	-	-	-	-	-	953	859	-	961	889	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.8	9.4	9.4
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	845	1588	-	-	1623	-	-	901
HCM Lane V/C Ratio	0.038	0.001	-	-	0.003	-	-	0.083
HCM Control Delay (s)	9.4	7.3	0	-	7.2	0	-	9.4
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	5	1	40	1	37	1	65	27	1
Future Vol, veh/h	1	1	1	5	1	40	1	37	1	65	27	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	1	1	5	1	42	1	39	1	68	28	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	43	0	0	2	0	0	51	57	2	56	36	22
Stage 1	-	-	-	-	-	-	4	4	-	32	32	-
Stage 2	-	-	-	-	-	-	47	53	-	24	4	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1579	-	-	1634	-	-	953	838	1088	946	860	1061
Stage 1	-	-	-	-	-	-	1024	897	-	990	872	-
Stage 2	-	-	-	-	-	-	972	855	-	999	897	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1579	-	-	1634	-	-	925	835	1088	909	857	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	925	835	-	909	857	-
Stage 1	-	-	-	-	-	-	1023	896	-	989	869	-
Stage 2	-	-	-	-	-	-	936	852	-	954	896	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	0.8	9.5	9.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	842	1579	-	-	1634	-	-	895
HCM Lane V/C Ratio	0.049	0.001	-	-	0.003	-	-	0.109
HCM Control Delay (s)	9.5	7.3	0	-	7.2	0	-	9.5
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	8	1	5	4	40	1	37	1	65	27	1
Future Vol, veh/h	1	8	1	5	4	40	1	37	1	65	27	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	8	1	5	4	42	1	39	1	68	28	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	46	0	0	9	0	0	61	67	9	66	46	25
Stage 1	-	-	-	-	-	-	11	11	-	35	35	-
Stage 2	-	-	-	-	-	-	50	56	-	31	11	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1575	-	-	1624	-	-	939	828	1079	932	850	1057
Stage 1	-	-	-	-	-	-	1015	890	-	986	870	-
Stage 2	-	-	-	-	-	-	968	852	-	991	890	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1575	-	-	1624	-	-	911	825	1079	895	847	1057
Mov Cap-2 Maneuver	-	-	-	-	-	-	911	825	-	895	847	-
Stage 1	-	-	-	-	-	-	1014	889	-	985	867	-
Stage 2	-	-	-	-	-	-	933	849	-	946	889	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.7	9.6	9.6
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	832	1575	-	-	1624	-	-	882
HCM Lane V/C Ratio	0.049	0.001	-	-	0.003	-	-	0.111
HCM Control Delay (s)	9.6	7.3	0	-	7.2	0	-	9.6
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	3	29	1	2	3	54	37	12	47	1
Future Vol, veh/h	1	1	3	29	1	2	3	54	37	12	47	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	1	3	31	1	2	3	57	39	13	49	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	3	0	0	4	0	0	94	70	3	117	70	2
Stage 1	-	-	-	-	-	-	5	5	-	64	64	-
Stage 2	-	-	-	-	-	-	89	65	-	53	6	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1632	-	-	1631	-	-	894	824	1087	864	824	1088
Stage 1	-	-	-	-	-	-	1022	896	-	952	846	-
Stage 2	-	-	-	-	-	-	923	845	-	965	895	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1632	-	-	1631	-	-	839	808	1087	777	808	1088
Mov Cap-2 Maneuver	-	-	-	-	-	-	839	808	-	777	808	-
Stage 1	-	-	-	-	-	-	1021	895	-	951	830	-
Stage 2	-	-	-	-	-	-	851	829	-	870	894	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	6.6	9.5	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	900	1632	-	-	1631	-	-	805
HCM Lane V/C Ratio	0.11	0.001	-	-	0.019	-	-	0.078
HCM Control Delay (s)	9.5	7.2	0	-	7.2	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	8.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	8	3	29	4	2	3	54	37	12	47	1
Future Vol, veh/h	1	8	3	29	4	2	3	54	37	12	47	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	8	3	31	4	2	3	57	39	13	49	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	6	0	0	11	0	0	104	80	10	127	80	5
Stage 1	-	-	-	-	-	-	12	12	-	67	67	-
Stage 2	-	-	-	-	-	-	92	68	-	60	13	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1628	-	-	1621	-	-	881	814	1077	851	814	1084
Stage 1	-	-	-	-	-	-	1014	890	-	948	843	-
Stage 2	-	-	-	-	-	-	920	842	-	957	889	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1628	-	-	1621	-	-	825	798	1077	764	798	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	825	798	-	764	798	-
Stage 1	-	-	-	-	-	-	1013	889	-	947	827	-
Stage 2	-	-	-	-	-	-	848	826	-	863	888	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	6	9.6	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	890	1628	-	-	1621	-	-	794
HCM Lane V/C Ratio	0.111	0.001	-	-	0.019	-	-	0.08
HCM Control Delay (s)	9.6	7.2	0	-	7.3	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.3

CALCULATION OF FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES (NCHRP 255)

Intersection No.: 7
North/South Street: DIAMOND ROAD
East/West Street: TAWNEY RIDGE LANE

Analysis Condition: YEAR 2046 FUTURE TRAFFIC

A.M. Peak Hour

			Forecast Future Year				
Approach Direction		**Base Year Count**		**Link Volume**		**Turn Volume**	**Balanced Volume**
South leg	Left	1	Approach	58	Left	4	4
NB	Through	19	Departure	140	Through	48	48
	Right	1			Right	14	14
North leg	Left	168	Approach	215	Left	155	155
SB	Through	43	Departure	96	Through	96	96
	Right	4			Right	2	2
West leg	Left	3	Approach	9	Left	1	1
EB	Through	5	Departure	6	Through	7	7
	Right	1			Right	4	4
East leg	Left	5	Approach	80	Left	42	42
WB	Through	1	Departure	174	Through	2	2
	Right	74			Right	48	48

P.M. Peak Hour

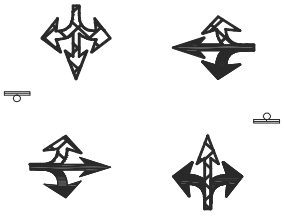
			Forecast Future Year				
Approach Direction		**Base Year Count**		**Link Volume**		**Turn Volume**	**Balanced Volume**
South leg	Left	1	Approach	123	Left	3	3
NB	Through	26	Departure	77	Through	54	54
	Right	1			Right	37	37
North leg	Left	46	Approach	66	Left	12	12
SB	Through	19	Departure	55	Through	47	47
	Right	1			Right	1	1
West leg	Left	1	Approach	3	Left	1	1
EB	Through	1	Departure	3	Through	1	1
	Right	1			Right	3	3
East leg	Left	4	Approach	33	Left	29	29
WB	Through	1	Departure	48	Through	1	1
	Right	28			Right	2	2

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : TAWNEY RIDGE LANE
N/S STREET : TOPAZ ROAD
CONDITION : AM PEAK HOUR

INTERSECTION : 8
PROJECTED GROWTH PER YEAR : 3.5%



PROJECT GEOMETRICS

TURN MOVEMENTS

Condition	Existing Condition	Year 2025 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2035 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2045 Condition	Future Year 2045 + Project Condition
Scenario #	1			3		5		7	9	11	13
TAWNEY RIDGE LANE											
EB LEFT	0	0	140	140	0	140	0	140	140	140	140
EB THRU	9	0	0	9	0	9	3	12	12	12	12
EB RIGHT	0	0	6	6	8	14	0	6	14	6	14
WB LEFT	0	0	0	0	0	0	0	0	0	0	0
WB THRU	6	0	0	6	0	6	1	7	7	8	8
WB RIGHT	0	0	0	0	0	0	0	0	0	0	0
TOPAZ ROAD											
NB LEFT	0	0	0	0	3	3	0	0	3	0	3
NB THRU	0	0	95	95	0	95	0	95	95	95	95
NB RIGHT	0	0	0	0	0	0	0	0	0	0	0
SB LEFT	0	0	0	0	0	0	0	0	0	0	0
SB THRU	0	0	29	29	0	29	0	29	29	29	29
SB RIGHT	0	0	42	42	0	42	0	42	42	42	42
TOTALS	**15**	**0**	**312**	**327**	**11**	**338**	**4**	**331**	**342**	**332**	**343**

Intersection	
Int Delay, s/veh	9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	140	9	14	0	6	0	3	95	0	0	29	42
Future Vol, veh/h	140	9	14	0	6	0	3	95	0	0	29	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	69	69	69	69	90	69	90	69	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	156	13	20	0	9	0	4	106	0	0	32	47

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	9	0	0	33	0	0	384	344	23	397	354	9
Stage 1	-	-	-	-	-	-	335	335	-	9	9	-
Stage 2	-	-	-	-	-	-	49	9	-	388	345	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1624	-	-	1592	-	-	578	582	1060	567	574	1079
Stage 1	-	-	-	-	-	-	683	646	-	1017	892	-
Stage 2	-	-	-	-	-	-	969	892	-	640	640	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1624	-	-	1592	-	-	488	525	1060	445	518	1079
Mov Cap-2 Maneuver	-	-	-	-	-	-	488	525	-	445	518	-
Stage 1	-	-	-	-	-	-	616	583	-	917	892	-
Stage 2	-	-	-	-	-	-	894	892	-	473	577	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.1	0	13.7	10.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	523	1624	-	-	1592	-	-	748
HCM Lane V/C Ratio	0.21	0.096	-	-	-	-	-	0.105
HCM Control Delay (s)	13.7	7.5	0	-	0	-	-	10.4
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.8	0.3	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	140	12	14	0	7	0	3	95	0	0	29	42
Future Vol, veh/h	140	12	14	0	7	0	3	95	0	0	29	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	147	13	15	0	7	0	3	100	0	0	31	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	7	0	0	28	0	0	360	322	21	372	329	7
Stage 1	-	-	-	-	-	-	315	315	-	7	7	-
Stage 2	-	-	-	-	-	-	45	7	-	365	322	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1627	-	-	1599	-	-	599	599	1062	589	593	1081
Stage 1	-	-	-	-	-	-	700	659	-	1020	894	-
Stage 2	-	-	-	-	-	-	974	894	-	658	655	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1627	-	-	1599	-	-	512	544	1062	471	538	1081
Mov Cap-2 Maneuver	-	-	-	-	-	-	512	544	-	471	538	-
Stage 1	-	-	-	-	-	-	636	598	-	926	894	-
Stage 2	-	-	-	-	-	-	902	894	-	498	595	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.3	0	13.2	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	543	1627	-	-	1599	-	-	765
HCM Lane V/C Ratio	0.19	0.091	-	-	-	-	-	0.098
HCM Control Delay (s)	13.2	7.4	0	-	0	-	-	10.2
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.7	0.3	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	140	9	14	0	6	0	3	95	0	0	29	42
Future Vol, veh/h	140	9	14	0	6	0	3	95	0	0	29	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	69	69	69	69	90	69	90	69	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	156	13	20	0	9	0	4	106	0	0	32	47

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	9	0	0	33	0	0	384	344	23	397	354	9
Stage 1	-	-	-	-	-	-	335	335	-	9	9	-
Stage 2	-	-	-	-	-	-	49	9	-	388	345	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1624	-	-	1592	-	-	578	582	1060	567	574	1079
Stage 1	-	-	-	-	-	-	683	646	-	1017	892	-
Stage 2	-	-	-	-	-	-	969	892	-	640	640	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1624	-	-	1592	-	-	488	525	1060	445	518	1079
Mov Cap-2 Maneuver	-	-	-	-	-	-	488	525	-	445	518	-
Stage 1	-	-	-	-	-	-	616	583	-	917	892	-
Stage 2	-	-	-	-	-	-	894	892	-	473	577	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.1	0	13.7	10.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	523	1624	-	-	1592	-	-	748
HCM Lane V/C Ratio	0.21	0.096	-	-	-	-	-	0.105
HCM Control Delay (s)	13.7	7.5	0	-	0	-	-	10.4
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.8	0.3	-	-	0	-	-	0.4

DAVID EVANS AND ASSOCIATES INC.

SUBJECT	BY	DATE	JOB NO.	SHEET OF
TURN MOVEMENTS	TMO	5-Mar-24	IPGIM51H-0001	1 OF 2

E/W STREET : TAWNEY RIDGE LANE
N/S STREET : TOPAZ ROAD
CONDITION : PM PEAK HOUR

INTERSECTION : 8
PROJECTED GROWTH PER YEAR : 3.5%

TURN MOVEMENTS

Condition	Existing Condition	Year 2025 Ambient Growth	Other Area Projects	Background Condition	Project Trips	Background + Project Condition	Year 2035 Ambient Growth	Future Background Condition	Future Background + Project Condition	Future Year 2045 Condition	Future Year 2045 + Project Condition
Scenario #	2			4		6		8	10	12	14
TAWNEY RIDGE LANE											
EB LEFT	0	0	52	52	0	52	0	52	52	52	52
EB THRU	3	0	0	3	0	3	0	3	3	5	5
EB RIGHT	0	0	18	18	3	21	0	18	21	18	21
WB LEFT	0	0	0	0	0	0	0	0	0	0	0
WB THRU	3	0	0	3	0	3	0	3	3	5	5
WB RIGHT	0	0	0	0	0	0	0	0	0	0	0
TOPAZ ROAD											
NB LEFT	0	0	0	0	7	7	0	0	7	0	7
NB THRU	0	0	35	35	0	35	0	35	35	35	35
NB RIGHT	0	0	0	0	0	0	0	0	0	0	0
SB LEFT	0	0	0	0	0	0	0	0	0	0	0
SB THRU	0	0	90	90	0	90	0	90	90	90	90
SB RIGHT	0	0	132	132	0	132	0	132	132	132	132
TOTALS	**6**	**0**	**327**	**333**	**10**	**343**	**0**	**333**	**343**	**337**	**347**

Intersection	
Int Delay, s/veh	9.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	52	3	21	0	3	0	7	35	0	0	90	132
Future Vol, veh/h	52	3	21	0	3	0	7	35	0	0	90	132
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	94	94	94	94	90	94	90	94	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	58	3	22	0	3	0	7	39	0	0	100	147

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	3	0	0	25	0	0	257	133	14	153	144	3
Stage 1	-	-	-	-	-	-	130	130	-	3	3	-
Stage 2	-	-	-	-	-	-	127	3	-	150	141	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1632	-	-	1603	-	-	700	761	1072	819	751	1087
Stage 1	-	-	-	-	-	-	878	792	-	1025	897	-
Stage 2	-	-	-	-	-	-	882	897	-	857	784	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1632	-	-	1603	-	-	527	734	1072	764	724	1087
Mov Cap-2 Maneuver	-	-	-	-	-	-	527	734	-	764	724	-
Stage 1	-	-	-	-	-	-	846	763	-	988	897	-
Stage 2	-	-	-	-	-	-	678	897	-	784	756	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.1	0	10.6	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	690	1632	-	-	1603	-	-	903
HCM Lane V/C Ratio	0.067	0.035	-	-	-	-	-	0.273
HCM Control Delay (s)	10.6	7.3	0	-	0	-	-	10.5
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	1.1

Intersection	
Int Delay, s/veh	9.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	52	3	21	0	3	0	7	35	0	0	90	132
Future Vol, veh/h	52	3	21	0	3	0	7	35	0	0	90	132
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	55	3	22	0	3	0	7	37	0	0	95	139

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	3	0	0	25	0	0	244	127	14	146	138	3
Stage 1	-	-	-	-	-	-	124	124	-	3	3	-
Stage 2	-	-	-	-	-	-	120	3	-	143	135	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1632	-	-	1603	-	-	714	767	1072	827	757	1087
Stage 1	-	-	-	-	-	-	885	797	-	1025	897	-
Stage 2	-	-	-	-	-	-	889	897	-	865	789	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1632	-	-	1603	-	-	547	741	1072	775	731	1087
Mov Cap-2 Maneuver	-	-	-	-	-	-	547	741	-	775	731	-
Stage 1	-	-	-	-	-	-	855	770	-	990	897	-
Stage 2	-	-	-	-	-	-	693	897	-	796	762	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5	0	10.5	10.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	700	1632	-	-	1603	-	-	908
HCM Lane V/C Ratio	0.063	0.034	-	-	-	-	-	0.257
HCM Control Delay (s)	10.5	7.3	0	-	0	-	-	10.3
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	1

Intersection	
Int Delay, s/veh	9.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	52	5	21	0	5	0	7	35	0	0	90	132
Future Vol, veh/h	52	5	21	0	5	0	7	35	0	0	90	132
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	95	95	95	95	90	95	90	95	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	58	5	22	0	5	0	7	39	0	0	100	147

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	5	0	0	27	0	0	261	137	16	157	148	5
Stage 1	-	-	-	-	-	-	132	132	-	5	5	-
Stage 2	-	-	-	-	-	-	129	5	-	152	143	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1630	-	-	1600	-	-	696	758	1069	814	747	1084
Stage 1	-	-	-	-	-	-	876	791	-	1022	896	-
Stage 2	-	-	-	-	-	-	880	896	-	855	782	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1630	-	-	1600	-	-	523	731	1069	759	720	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	523	731	-	759	720	-
Stage 1	-	-	-	-	-	-	844	763	-	985	896	-
Stage 2	-	-	-	-	-	-	676	896	-	782	754	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.9	0	10.6	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	687	1630	-	-	1600	-	-	900
HCM Lane V/C Ratio	0.067	0.035	-	-	-	-	-	0.274
HCM Control Delay (s)	10.6	7.3	0	-	0	-	-	10.5
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	1.1

Appendix E: Highway 395 and Mojave Industrial Complex Map Other Area Projects

1. Cactus North Project
2. Cactus Industrial Project
3. Mojave 68 Project
4. Covington Project

HOPLAND ST

BLDG 7 COVINGTON

BLDG 6 COVINGTON

BLDG 4 COVINGTON

POPPY RD

ONYX RD

BLDG 4 COVINGTON

TOPAZ RD

NORTH

0 100 200 400 600

Scale 1" = 200'

PROP. INDUSTRIAL BLDG. 'A' 86,995 FT.²

PROP. INDUSTRIAL BLDG. 'B' 86,995 FT.²

CACTUS RD

TAWNY RIDGE LN

BLDG 1 IPG

395

MESA LINDA AVE

MOJAVE 68 IPG

BLDG 3 COVINGTON

BLDG 2 IPG

GRAND PRIX

DIAMOND RD

BLDG 2 COVINGTON

BLDG 1 COVINGTON

BLDG 1 IPG

MOJAVE DR

REVISION

NO.

KIER+WRIGHT

MASTER SITE PLAN EXHIBIT
OF
MOJAVE DRIVE AT MESA LINDA AVENUE
FOR
INDUSTRIAL PROPERTY GROUP, INC.

VICTORVILLE, CALIFORNIA

DATE	OCT 2023
SCALE	AS SHOWN
DESIGNER	
DRAWN BY	
JOB NO.	A22221
SHEET	1
OF 1	SHEET

DAVID EVANS AND ASSOCIATES INC.

January 23, 2024

Job No. PIXI5AMG-0003

MEMORANDUM

To: Mr. Simon Bouzaglou
55555 Amargosa LLC
5901 South Eastern Avenue
Commerce, CA 90040

From: James M. Daisa, PE
Senior Transportation Project Manager



RE: SCOPING AGREEMENT FOR FOCUSED TRAFFIC IMPACT ANALYSIS AND VEHICLE MILES TRAVELED (VMT) SCREENING FOR PROPOSED CACTUS NORTH WAREHOUSE AT NWC OF CACTUS ROAD AND MESA LINDA ROAD, VICTORVILLE, CA 92308, A.P.N. # 3128-571-07, 08

This memorandum presents key elements of the scope of work for the Focused Traffic Impact Analysis Report (TIA Report) evaluating the above referenced development project. It is standard practice for the City of Victorville to review and approve the scope of the TIA and other key information, which is to include proposed assumptions and methodologies, estimated project trip generation, distribution of project trips to proposed study intersections, and scenarios and timeframes to be analyzed in the study.

In addition to establishing the scope of the focused traffic study, this memorandum includes a screening assessment to determine if a Vehicle Miles Traveled (VMT) analysis to identify potential transportation impacts for CEQA clearance is required of the project. The screening assessment is based on Victorville's adopted criteria for exempting development projects from having to conduct a VMT analysis as defined in the Resolution No. P-20-010 *Vehicle Miles Traveled (VMT) Analysis Guidelines* adopted by the city in May of 2020.

A. Project Description

The project site is located on the northwest corner of the intersection of Cactus Road and Mesa Linda Road in the City of Victorville, as illustrated in **Exhibit A**. The proposed project is to construct two buildings with 86,995 square feet of warehousing for each (a total of 173,990 square feet). Each warehouse building is comprised of 80,085 square feet of warehouse, and 6,910 square feet of offices (3,973 square feet on the lower level and 2,937 square feet on the upper level). Each warehouse includes 14 truck loading docks, and 72 automobile parking spaces.

The proposed project is bounded to the north by vacant/undeveloped properties, to the south by Cactus Road, to the east by unimproved Mesa Linda Road, and to the west by undeveloped/future Lassen Road. **Exhibit B** illustrates the proposed site plan.

<u>Circulation Improvements and Site Access</u>

A full access driveway is proposed on Lassen Road accessing the site's automobile parking along the western edge of the property and proposed industrial building A, indirectly, internal roads on the northern side of the building that provides gate-controlled area to access the loading docks in the middle of the two proposed buildings. A full access driveway is proposed on Mesa Linda Road accessing the site's automobile parking along eastern edge of the property and proposed industrial building B, indirectly, internal roads on the northern side of the building that provides gate-controlled area to access the loading docks in the middle of the two proposed buildings.

To help select a trip generation rate for the proposed project representative of the range of potential tenants / warehouse functions, **Table A** includes the average of the rates for all warehouse types in the ITE Trip Generation manual and the average of the rates for all warehouse types except High-Cube Fulfillment Sort Facility—the most intensive type of warehouse. The secondary average rate (excluding High-Cube Fulfillment Sort Facility) represents two thirds of the ITE warehouse types and covers a broad range of tenant types and operations.

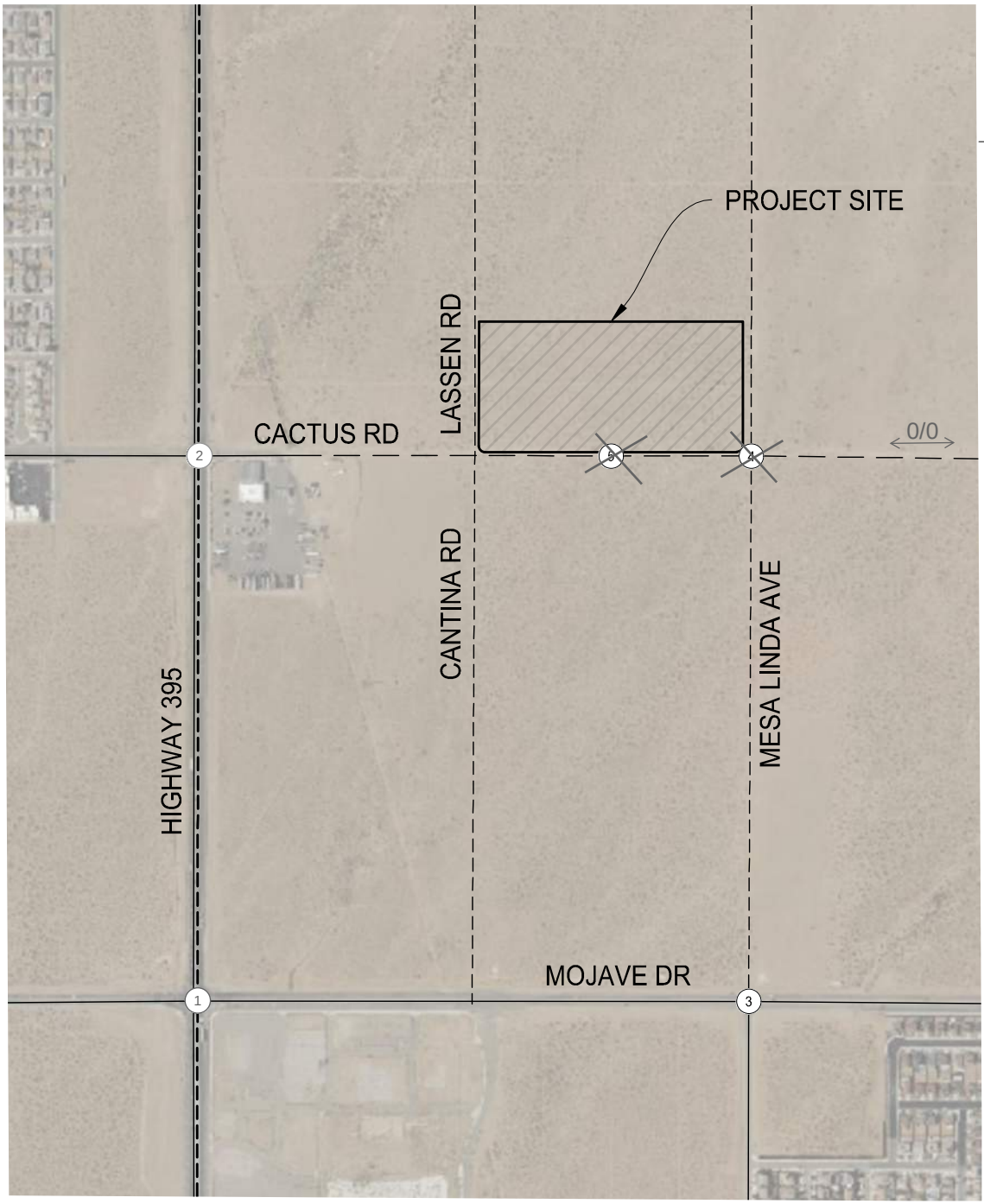
Table B summarizes the estimated trip generation of the proposed project for an average weekday, and weekday AM (7-9 AM) and PM (4-6 PM) peak hours, based on the secondary average rates identified in **Table A**. The proposed warehouse would generate about 415 vehicle trips per day and 43 vehicle trips in both the AM and PM peak hours.

Table B: Cactus North Industrial Warehouse Project Trip Generation

Land Use	Gross Floor Area (KSF)	Daily	AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
			In	Out	Total	In	Out	Total
Warehouse (ITE Land Use Category 150)	173.99	Vehicle Trip Generation Rates (Trips Per 1,000 Square Feet of Gross Floor Area)						
		2.36	0.18	0.06	0.24	0.07	0.17	0.24
		Total Vehicle Trip Generation						
		411	32	10	42	12	30	42
	Mode Share	Project Trip Generation by Vehicle Type						
Passenger Cars (Percent of Total)	74.21%	305	24	7	31	9	22	31
2-Axle Trucks (Percent of Total)	4.55%	19	2	0	2	1	1	2
3-Axle Trucks (Percent of Total)	4.18%	18	2	0	2	1	1	2
4-Axle Trucks (Percent of Total)	17.04%	70	5	2	7	2	5	7
	PCE Factor	Project Trip Generation in Passenger Car Equivalents (PCE)						
Passenger Cars)	1.0	305	24	7	31	9	22	31
2-Axle Trucks	1.5	29	3	0	3	2	2	4
3-Axle Trucks	2.0	36	4	0	4	2	2	4
4 + Axle Trucks	3.0	210	15	6	21	6	15	21
Total Passenger Car Equivalents (PCE)		**580**	**46**	**13**	**59**	**19**	**41**	**60**

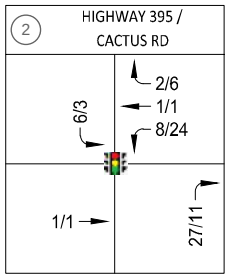
Notes:
KSF = Thousands of Square Feet.
AM / PM Peak Hour of Adjacent Street Traffic = Trip generation coinciding with the highest hourly volumes of traffic on the adjacent streets during the AM (7:00 AM and 9:00 AM) and PM (4:00 PM and 6:00 PM) commuter peak periods.
Source of trip generation rates: Institute of Transportation Engineers (ITE) Trip Generation (11th Edition). Average rates for land use category 150 (Warehouse).
Source of passenger car / truck mode share (percentage of total): South Coast Air Quality Management District High Cube Warehouse Trip Generation Study (2016). Based on data from eight high cube warehouses in the Inland Empire over 1,000,000 square feet in size. The average warehouse building size is 1,364,496 square feet.
Passenger Car Equivalents (PCE) factors: Industry standard values utilized in neighboring jurisdictions

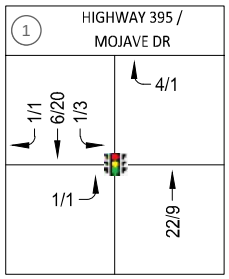
For truck intensive land uses, it is standard practice to convert trips to passenger car equivalents (PCEs) for intersection capacity analysis. This conversion reflects the effects of large vehicles on intersection operations both from the physical space a truck occupies but also from their effect on the intersection's saturation flow rate due to the slower acceleration of trucks. When converted to PCEs, the proposed project generates about 583 daily PCE trips, with 60 PCE trips in both the AM and PM peak hours.

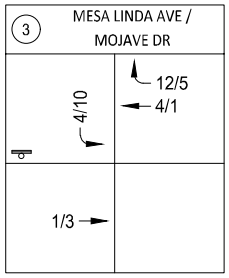


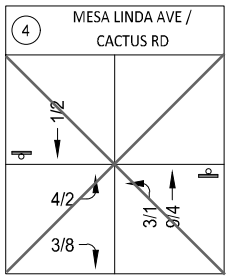
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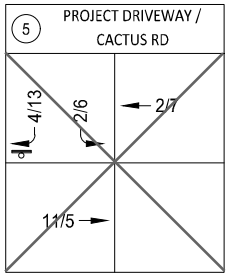
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TOTAL PROJECT PCE TRIPS

AM PEAK HOUR - 46 IN / 13 OUT
PM PEAK HOUR - 19 IN / 41 OUT

LEGEND

XX/XX - AM/PM PROJECT TRIP
(#) - STUDY INTERSECTIONS
- SIGNALIZED INTERSECTION
- STOP CONTROLLED APPROACH

DAVID EVANS AND ASSOCIATES INC.

EXHIBIT E: TOTAL PROJECT PCE TRIPS
CACTUS NORTH WAREHOUSE
VICTORVILLE, CALIFORNIA

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2. Cactus Industrial Project

FOCUSED TRAFFIC ANALYSIS FOR GENERAL PLAN LEVEL OF SERVICE CONFORMANCE AND VEHICLE MILES TRAVELED (VMT) ANALYSIS

LOS ANGELES
201 S. Figueroa St,
Suite 240
Los Angeles, CA 90012
213.337.3680
Fax :213.337.3679

ONTARIO
4141 E. Inland Empire Blvd,
Suite 250
Ontario, CA 91764
909.481.5750
Fax:909.481.5757

SAN DIEGO
3530 Camino Del Rio North,
Suite 105
San Diego, CA 92108
619.400.0600
Fax: 619.400.0599

SANTA CLARITA
25152 Springfield Ct,
Suite 350
Santa Clarita, CA 91355
661.284.7400
Fax 661.284.7401

TEMECULA
41951 Remington Ave,
Suite 220
Temecula, CA 92590
951.294.9300
Fax: 951.294-9301

TUSTIN
17782 17th St,
Suite 200
Tustin, CA 92780
714.665.4500
Fax: 714.665.4501

VICTORVILLE
18484 Outer Highway 18 North,
Suite 225
Apple Valley, CA 92307
760.524.9100
Fax 760.524.9101

www.deainc

PROPOSED CACTUS ROAD WAREHOUSE

VICTORVILLE, CALIFORNIA

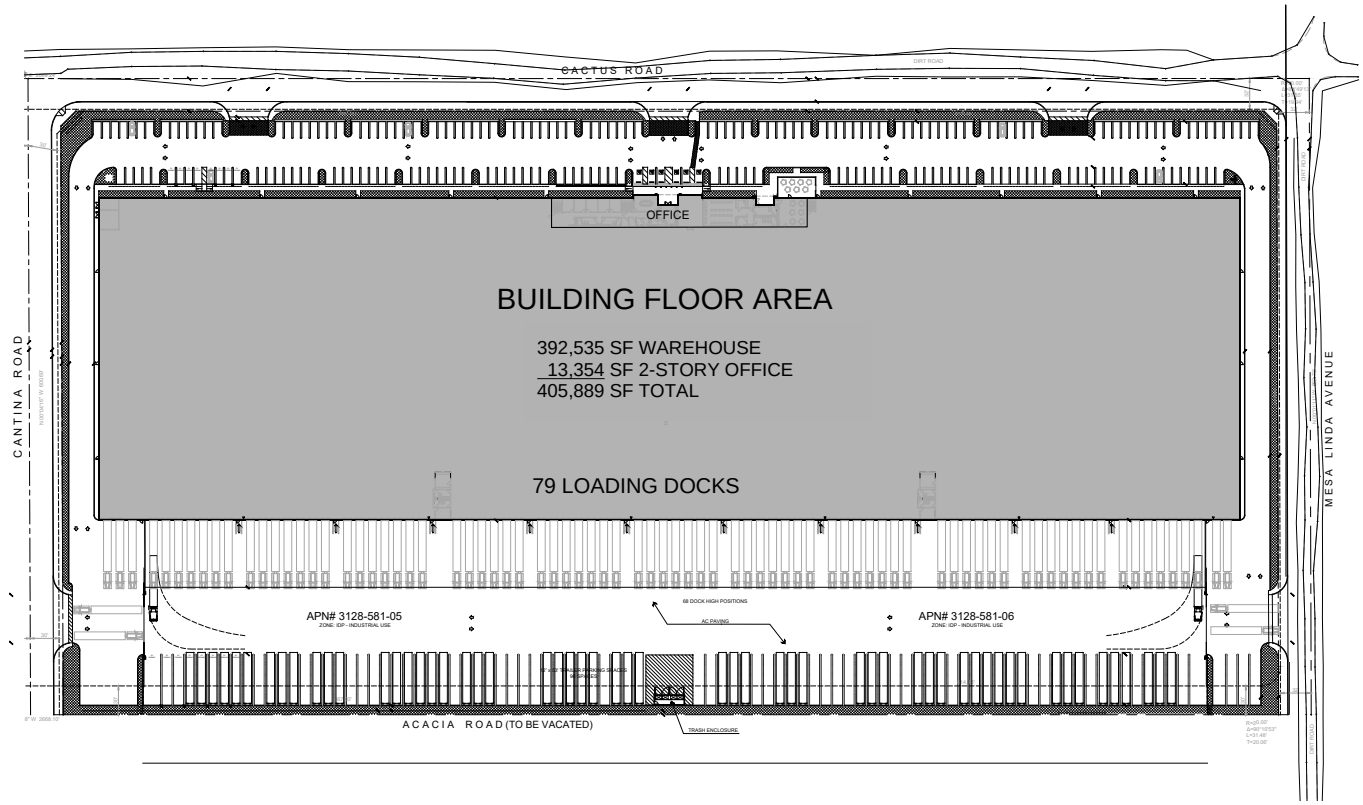
Prepared by:

DAVID EVANS AND ASSOCIATES INC.

DRAFT REPORT
August 7, 2023

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DAVID EVANS AND ASSOCIATES INC.

FIGURE 2: SITE PLAN
PROPOSED CACTUS WAREHOUSE
VICTORVILLE, CALIFORNIA

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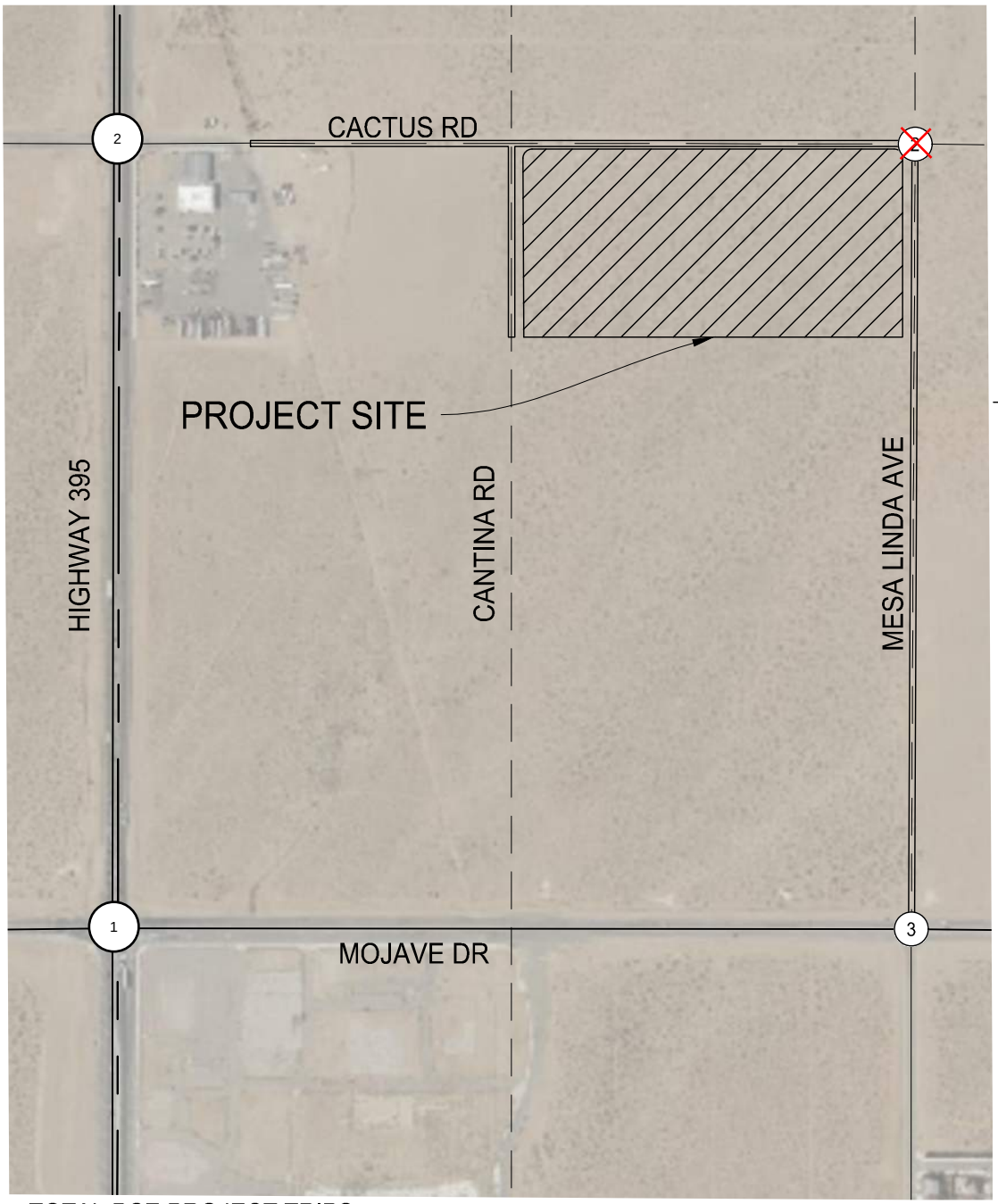
Table 5-2: Project Trip Generation

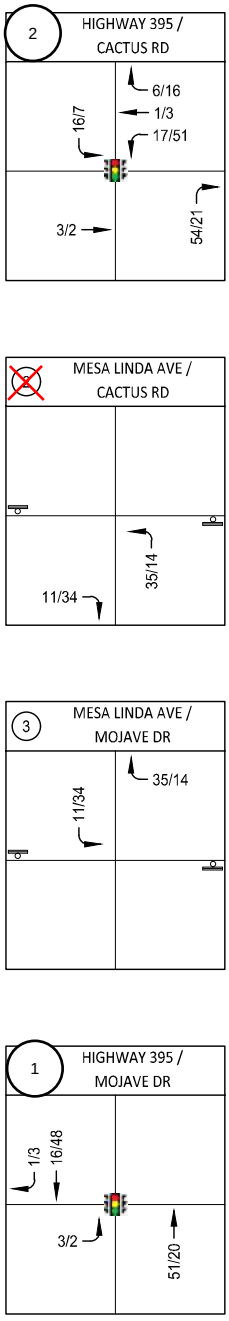
Land Use	Gross Floor Area (KSF)	Daily	AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
			In	Out	Total	In	Out	Total
Warehouse (ITE Land Use Category 150)	405.89	Vehicle Trip Generation Rates (Trips Per 1,000 Square Feet of Gross Floor Area)						
		2.36	0.18	0.06	0.24	0.07	0.17	0.24
		Total Vehicle Trip Generation						
		958	76	23	99	28	71	99
	Mode Share	Project Trip Generation by Vehicle Type						
Passenger Cars (Percent of Total)	74.21%	711	56	17	73	21	53	73
2-Axle Trucks (Percent of Total)	4.55%	44	3	1	4	1	3	4
3-Axle Trucks (Percent of Total)	4.18%	40	3	1	4	1	3	4
4-Axle Trucks (Percent of Total)	17.04%	163	13	4	17	5	12	17
	PCE Factor	Project Trip Generation in Passenger Car Equivalents (PCE)						
Passenger Cars)	1.0	711	56	17	73	21	53	73
2-Axle Trucks	1.5	65	5	2	7	2	5	7
3-Axle Trucks	2.0	80	6	2	8	2	6	8
4 + Axle Trucks	3.0	490	39	12	50	15	36	50
Total Passenger Car Equivalents (PCE)		**1,346**	106	33	**139**	40	100	**140**

Notes:
KSF = Thousands of Square Feet.AM / PM Peak Hour of Adjacent Street Traffic = trip generation coinciding with the highest hourly volumes of traffic on the adjacent streets during the AM (7:00 AM and 9:00 AM) and PM (4:00 PM and 6:00 PM) commuter peak periods.
Source of trip generation rates: Institute of Transportation Engineers (ITE) Trip Generation (11th Edition).
Source of passenger car / truck mode share (percentage of total): South Coast Air Quality Management District High Cube Warehouse Trip Generation Study (2016). Based on data from eight high cube warehouses in the Inland Empire over 1,000,000 square feet in size. The average warehouse building size in the study was 1,364,496 square feet.
Passenger Car Equivalents (PCE) factors: Industry standard values utilized in neighboring jurisdictions.

5.2 Project Trip Distribution and Assignment

The distribution of the automobile trips (employees/visitors) is illustrated in **Figure 6**. The distribution of truck trips is illustrated in **Figure 7**. Truck trips are distributed to truck routes designated in Victorville's General Plan, the nearest of which includes Mojave Drive from I-15 to Highway 395. Highway 395, as a state highway, is also a designated truck route by the State of California. The assignment of total project trips (automobile plus trucks in passenger car equivalent) to proposed study intersections is illustrated in **Figure 8.**





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TOTAL PCE PROJECT TRIPS

AM PEAK HOUR - 106 IN / 33 OUT
PM PEAK HOUR - 40 IN / 100 OUT

LEGEND

XX/XX - AM/PM TOTAL PCE PROJECT TRIPS
(#) - STUDY INTERSECTIONS
- SIGNALIZED INTERSECTION
- STOP CONTROLLED APPROACH

DAVID EVANS AND ASSOCIATES INC.

FIGURE 8: TOTAL PROJECT PCE TRIPS
PROPOSED CACTUS WAREHOUSE
VICTORVILLE, CALIFORNIA

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Last Opened: Jun 09, 2023 - 6:03pm by: hsay

3. Mojave 68 Project

FOCUSED TRAFFIC ANALYSIS FOR GENERAL PLAN LEVEL OF SERVICE CONFORMANCE AND VEHICLE MILES TRAVELED (VMT) ANALYSIS

LOS ANGELES
201 S. Figueroa St,
Suite 240
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San Diego, CA 92108
619.400.0600
Fax: 619.400.0599

SANTA CLARITA
25152 Springfield Ct,
Suite 350
Santa Clarita, CA 91355
661.284.7400
Fax 661.284.7401

TEMECULA
41951 Remington Ave,
Suite 220
Temecula, CA 92590
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Fax: 951.294-9301

TUSTIN
17782 17th St,
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Tustin, CA 92780
714.665.4500
Fax: 714.665.4501

VICTORVILLE
18484 Outer Highway 18 North,
Suite 225
Apple Valley, CA 92307
760.524.9100
Fax 760.524.9101

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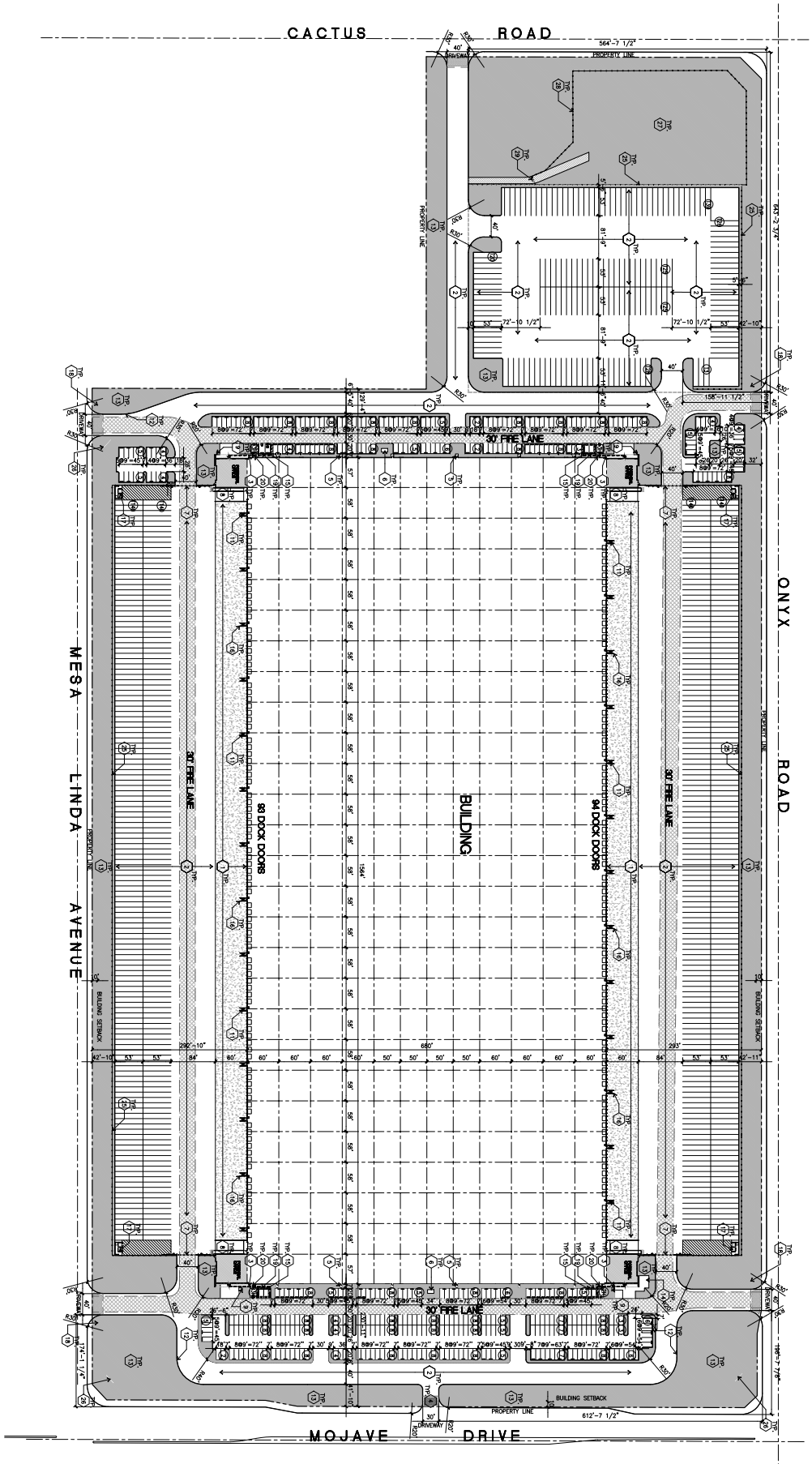
PROPOSED
MOJAVE DRIVE WAREHOUSE

VICTORVILLE, CALIFORNIA

Prepared by:

DAVID EVANS AND ASSOCIATES INC.

FINAL REPORT
April 3, 2023



DAVID EVANS AND ASSOCIATES INC.

FIGURE 2: SITE PLAN
PROPOSED INDUSTRIAL SITE
VICTORVILLE, CALIFORNIA

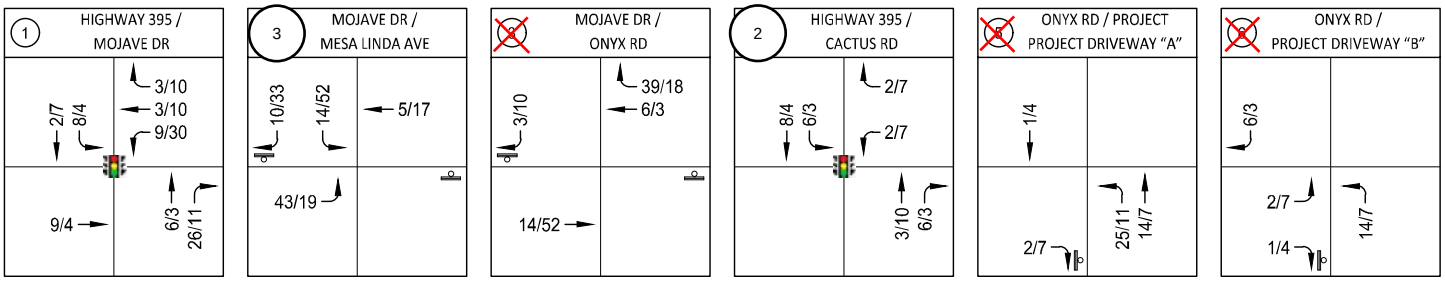
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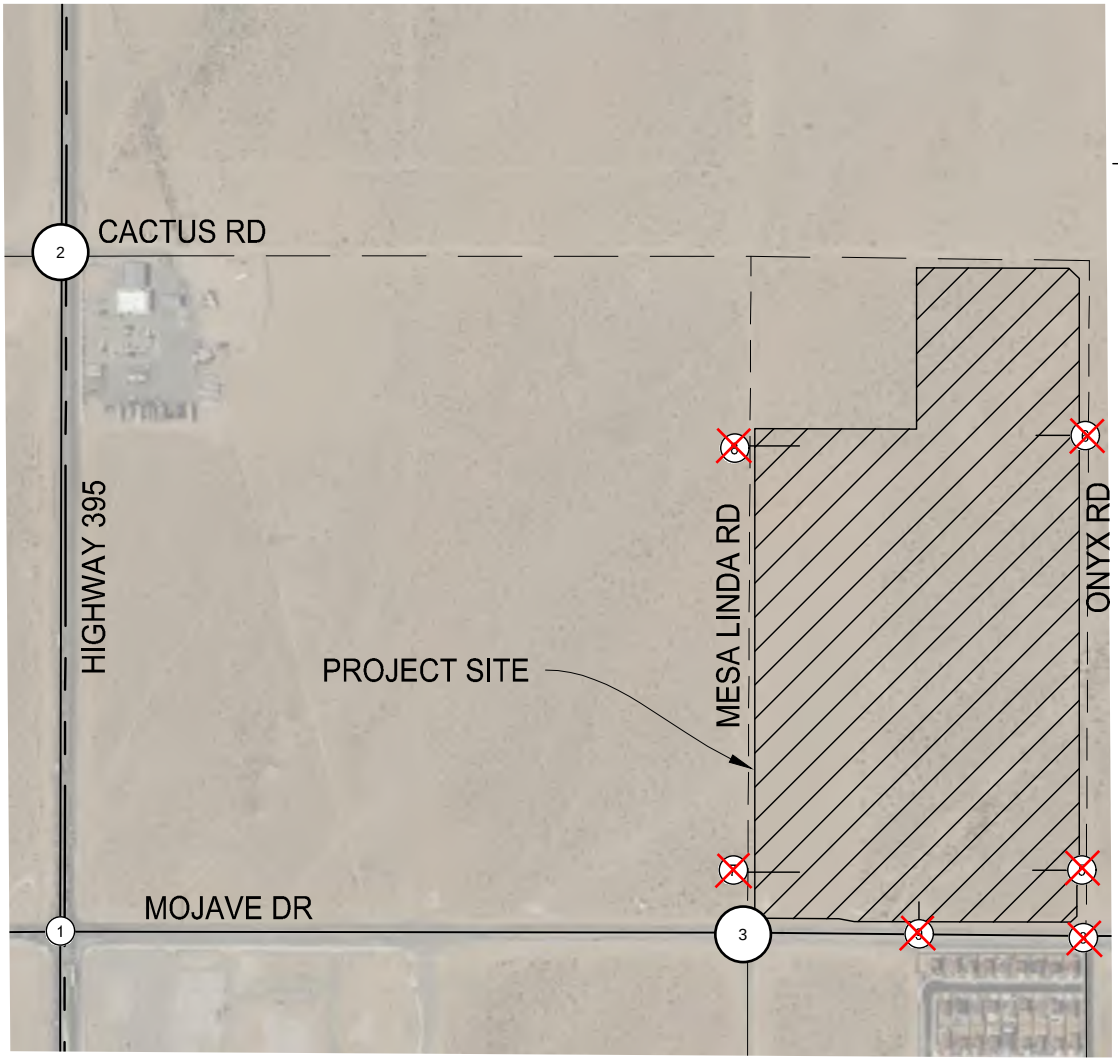
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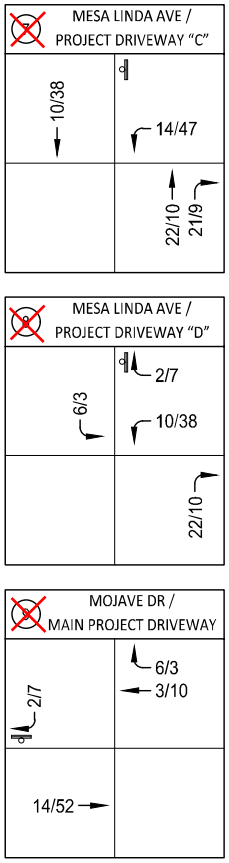
Table 5-1: Project Trip Generation

	Use	Gross Floor Area (KSF)	Daily	AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
				In	Out	Total	In	Out	Total
1	**High Cube Transload Warehouse (Comprises 80% of Building)** (ITE Land Use Category 154)	877.8	*Vehicle Trip Generation Rates (Trips Per 1,000 Square Feet of Gross Floor Area)*						
			1.40	0.06	0.02	0.08	0.03	0.07	0.10
			Total Vehicle Trip Generation						
			1,229	55	16	71	25	63	88
		Mode Share	*Total Project Trip Generation by Vehicle Type*						
	Passenger Cars (Percent of Total)	79.57%	978	43	13	56	20	50	70
	2-Axle Trucks (Percent of Total)	3.46%	43	2	1	3	1	2	3
	3-Axle Trucks (Percent of Total)	4.64%	58	3	1	4	1	3	4
	4-Axle Trucks (Percent of Total)	12.33%	152	7	2	9	4	8	12
		PCE Factor	*Project Trip Generation in Passenger Car Equivalents (PCE)*						
	Passenger Cars)	1.0	978	43	13	56	20	50	70
	2-Axle Trucks	1.5	65	3	2	5	2	3	5
	3-Axle Trucks (Percent of Total)	2.0	116	6	2	8	2	6	8
	4-Axle Trucks (Percent of Total)	3.0	456	21	6	27	12	24	36
		PCE Total	*1,615*	*73*	*23*	96	*36*	*83*	119
2	**High Cube Cold Storage Warehouse (Comprises 20% of Building)** (ITE Land Use Category 157)	219.5	*Vehicle Trip Generation Rates (Trips Per 1,000 Square Feet of Gross Floor Area)*						
			2.12	0.08	0.03	0.11	0.03	0.09	0.12
			Total Vehicle Trip Generation						
			466	19	6	25	8	19	27
		Mode Share	*Total Project Trip Generation by Vehicle Type*						
	Passenger Cars (Percent of Total)	79.57%	371	15	5	20	6	15	21
	2-Axle Trucks (Percent of Total)	3.46%	17	1	1	2	1	1	2
	3-Axle Trucks (Percent of Total)	4.64%	22	1	1	2	1	1	2
	4-Axle Trucks (Percent of Total)	12.33%	58	3	1	4	1	3	4
		PCE Factor	*Total Project Trip Generation in Passenger Car Equivalents (PCE)*						
	Passenger Cars)	1.0	371	15	5	20	6	15	21
	2-Axle Trucks	1.5	26	2	2	4	2	2	4
	3-Axle Trucks (Percent of Total)	2.0	44	2	2	4	2	2	4
	4-Axle Trucks (Percent of Total)	3.0	174	9	3	12	3	9	12
		PCE Total	*615*	*28*	*12*	40	*13*	*28*	41
	Combined Total Project Trips								
		Mode Share	*Combined Total Project Trip Generation by Vehicle Type*						
	Passenger Cars (Percent of Total)	79.57%	1,349	58	17	75	25	66	91
	2-Axle Trucks (Percent of Total)	3.46%	59	3	1	4	1	3	4
	3-Axle Trucks (Percent of Total)	4.64%	79	3	1	4	1	4	5
	4-Axle Trucks (Percent of Total)	12.33%	209	9	3	12	4	11	15
	Total Combined Project Vehicle Trips (Non-PCE)		**1,696**	**73**	**22**	**95**	**31**	**84**	**115**
		PCE Factor	*Combined Total Project Trip Generation in PCEs*						
	Passenger Cars)	1.0	1,349	58	17	75	25	66	91
	2-Axle Trucks	1.5	89	5	2	7	2	5	7
	3-Axle Trucks (Percent of Total)	2.0	158	6	2	8	2	8	10
	4-Axle Trucks (Percent of Total)	3.0	627	27	9	36	12	33	45
	Total Combined Project Vehicle Trips (PCE)		**2,223**	**96**	**30**	**126**	**41**	**112**	**153**

Notes:
KSF = Thousands of Square Feet.
AM / PM Peak Hour of Adjacent Street Traffic = Trip generation coinciding with the highest hourly volumes of traffic on the adjacent streets during the AM (7:00 AM and 9:00 AM) and PM (4:00 PM and 6:00 PM) commuter peak periods.
Source of trip generation rates: Institute of Transportation Engineers (ITE) Trip Generation (11th Edition). Average rates for land use category 154 (High-Cube Transload and Short-Term Storage Warehouse) and land use category 157 (High-Cube Cold Storage Warehouse)
Source of passenger car / truck mode share (percentage of total): Fontana Truck Trip Generation Study for Heavy Warehouse Uses (August 2003).
Passenger Car Equivalents (PCE) factors: Industry standard values utilized in neighboring jurisdictions.







TOTAL PROJECT TRIPS

AM PEAK HOUR - 93 IN / 30 OUT
PM PEAK HOUR - 42 IN / 108 OUT

LEGEND

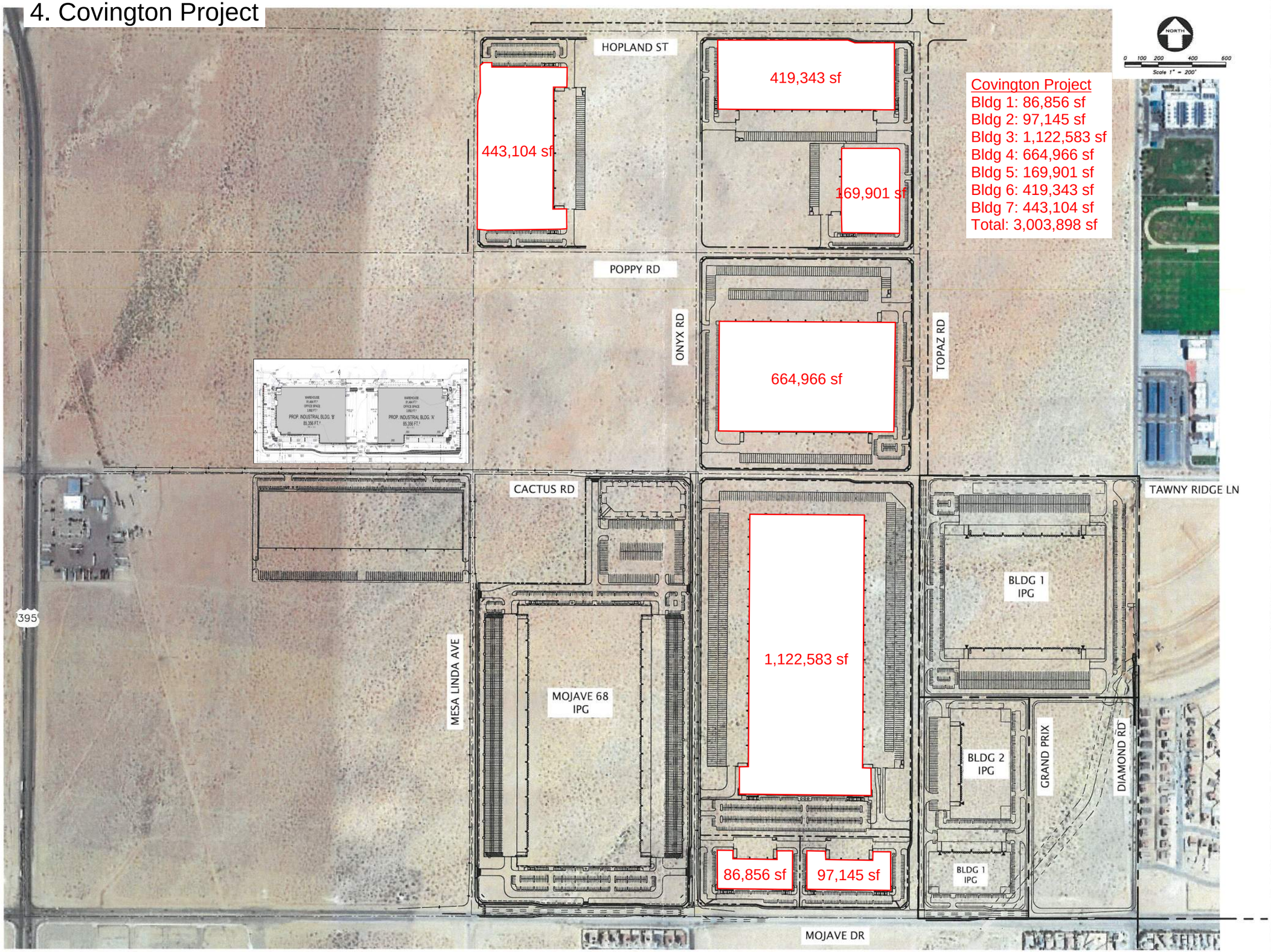
XX/XX - AM/PM PROJECT TRIP
(#) - STUDY INTERSECTIONS
- SIGNALIZED INTERSECTION
- STOP CONTROLLED APPROACH

DAVID EVANS AND ASSOCIATES INC.

FIGURE 10: TOTAL PROJECT TRIPS
PROPOSED INDUSTRIAL SITE
VICTORVILLE, CALIFORNIA

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4. Covington Project



Covington Project
Bldg 1: 86,856 sf
Bldg 2: 97,145 sf
Bldg 3: 1,122,583 sf
Bldg 4: 664,966 sf
Bldg 5: 169,901 sf
Bldg 6: 419,343 sf
Bldg 7: 443,104 sf
Total: 3,003,898 sf

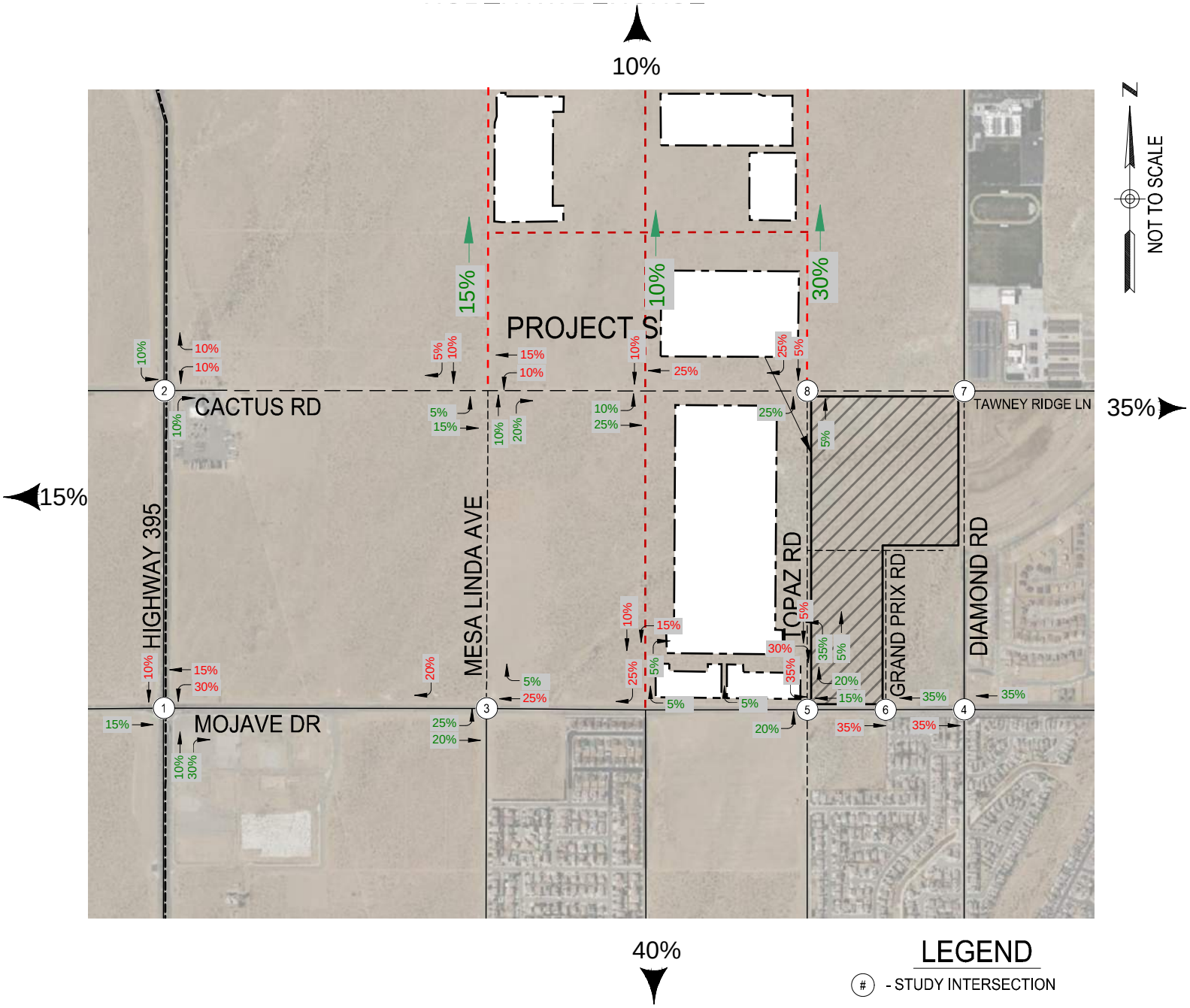
BY | NO. | REVISION

KIER+WRIGHT
Phone: (949) 598-8383
www.kierwright.com

MASTER SITE PLAN EXHIBIT
OF
MOJAVE DRIVE AT MESA LINDA AVENUE
FOR
INDUSTRIAL PROPERTY GROUP, INC.
VICTORVILLE, CALIFORNIA

DATE	OCT 2023
SCALE	AS SHOWN
DESIGNER	
DRAWN BY	
JOB NO.	A22221
SHEET	1
OF 1	SHEET

AUTOMOBILE TRIP DISTRIBUTION



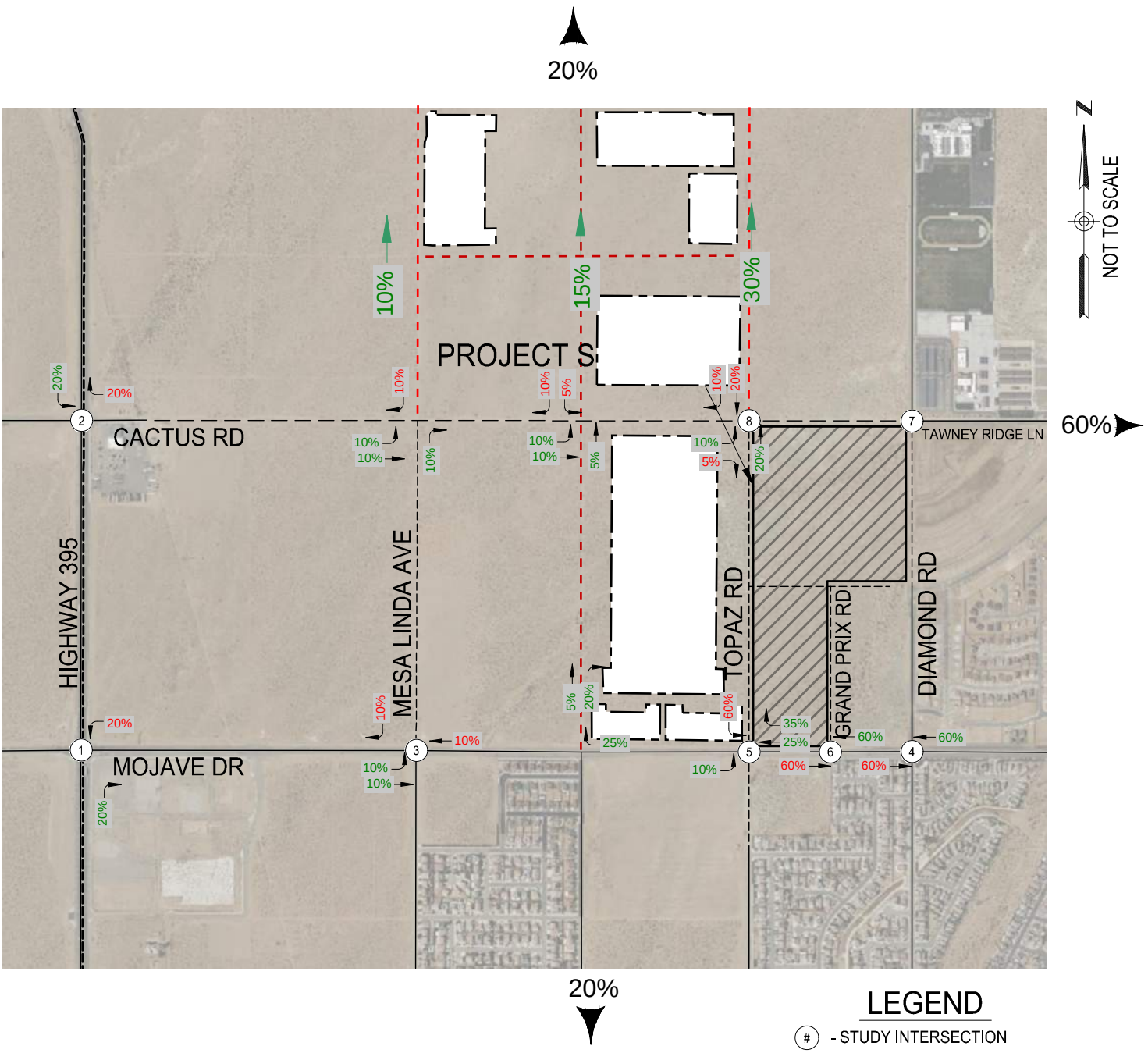
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(#) - STUDY INTERSECTION

DAVID EVANS AND ASSOCIATES INC.

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TRUCK TRIP DISTRIBUTION



DAVID EVANS AND ASSOCIATES INC.

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Land Use	Gross Floor Area (KSF)	Daily	AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
			In	Out	Total	In	Out	Total
Warehouse (ITE Land Use Categories 150, 154, 155, 156, 157)	3,003.90	Vehicle Trip Generation Rates						
		2.36	0.18	0.06	0.24	0.07	0.17	0.24
		Total Vehicle Trip Generation						
		7,090	555	166	721	202	519	721
	Mode Share	Project Trip Generation by Vehicle Type						
Passenger Cars (Percent of Total)	74.21%	5,261	412	123	535	150	385	535
2-Axle Trucks (Percent of Total)	4.55%	323	25	8	33	9	24	33
3-Axle Trucks (Percent of Total)	4.18%	297	23	7	30	8	22	30
4-Axle Trucks (Percent of Total)	17.04%	1208	95	28	123	34	89	123
	PCE Factor	Project Trip Generation in Passenger Car Equivalents (PCE)						
Passenger Cars)	1.0	5,261	412	123	535	150	385	535
2-Axle Trucks	1.5	485	38	12	50	14	36	50
3-Axle Trucks	2.0	594	46	14	60	16	44	60
4 + Axle Trucks	3.0	3,624	285	84	369	102	267	369
Total Passenger Car Equivalents (PCE)		**9,964**	**781**	**233**	**1014**	**282**	**732**	**1014**

Notes:

KSF = Thousands of Square Feet.

AM / PM Peak Hour of Adjacent Street Traffic = Trip generation coinciding with the highest hourly volumes of traffic on the adjacent streets during the AM (7:00 AM and 9:00 AM) and PM (4:00 PM and 6:00 PM) commuter peak periods.

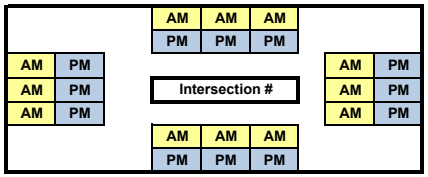
Source of trip generation rates: Institute of Transportation Engineers (ITE) Trip Generation (11th Edition). Average rates for land use category 150 (Warehouse).

Source of passenger car / truck mode share (percentage of total): South Coast Air Quality Management District High Cube Warehouse Trip Generation Study (2016). Based on data from eight high cube warehouses in the Inland Empire over 1,000,000 square feet in size. The average warehouse building size is 1,364,496 square feet.

Passenger Car Equivalents (PCE) factors: Industry standard values utilized in neighboring jurisdictions

5. Tentative Tract (TT 20422)

AUTO PROJECT TRIPS



AM PEAK:	11 IN / 31 OUT
PM PEAK:	36 IN / 21 OUT

Roundup: 1

INSTRUCTIONS:
FILL OUT AM/PM PEAK ONLY. DATA CALCULATED BASED ON THE VALUES IN THE "PRIMARY MOVEMENT IN-OUT" AND "PRIMARY DISTRIBUTION" TABS. *TO BE USED IN EXHIBT D1.*

AM PEAK:	IN / OUT
PM PEAK:	IN / OUT

