

**ATTACHMENT D**

**ATTACHMENT D**

# TRAFFIC IMPACT STUDY

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## PROJECT JUPITER DISTRIBUTION CENTER

## APPLE VALLEY, CALIFORNIA

*Prepared by:*



DAVID EVANS  
AND ASSOCIATES INC.

**October 05, 2015**



October 5, 2015

Job No. HSKJ00000002

Mr. Michael H. Wheeler, PE  
**Haskell Architects & Engineers PA**  
111 Riverside Avenue  
Jacksonville, FL 32202

**RE: Traffic Impact Study – Project Jupiter -Apple Valley, California**

Dear Mr. Wheeler;


**Hall & Foreman, a Division of David Evans and Associates, Inc.** is pleased to submit this Traffic Impact Study (TIS) Report for the proposed Distribution Center, an approximate 1,360,875 square-foot facility, on an approximate 106.5 acre site, located in the Town of Apple Valley, California. The proposed project is located at the southwest corner of Lafayette Street and Navajo Road located in the Town of Apple Valley, California.

The report examines the traffic impacts specifically for the project and presents recommended traffic improvements. The report also addresses the impacts of overall growth within the area to assure that cumulative traffic mitigations can be addressed.

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 760-524-9115.

Respectfully submitted,

**Hall & Foreman, a Division of David Evans and Associates, Inc.**

  
Robert A. Kilpatrick, P.E., T.E.  
Senior Project Manager / Senior Associate





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## 1 INTRODUCTION

This report identifies the traffic impacts and presents recommendations for access and traffic mitigation for the Project Jupiter Distribution Center. The proposed project is a Distribution Center, an approximate 1,360,875 square-foot facility, on an approximate 106.5 acre site, located in the Town of Apple Valley, California. The proposed project is located at the southwest corner of Lafayette Street and Navajo Road located in the Town of Apple Valley, California. *Figure 1* illustrates the vicinity map and project location and *Figure 2* illustrates the proposed project site plan. The proposed project is bounded to the north by Lafayette Street and the existing Walmart Distribution Center, Vacant Land to the south and west, and Navajo Road to the east.

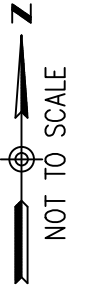
The intent of this Traffic Impact Study (TIS) is to address the impacts and mitigations required for the proposed development. This report identifies five (5) study scenarios. The scenarios include an Existing Conditions, Existing plus Project Conditions, Background Conditions, Project Opening Year 2016, and Buildout Year 2030.

The Existing plus Project Conditions address impacts due to Project Traffic.

The Background Condition addresses impacts due to ambient growth up to the Opening year 2016 within the study area. The ambient growth is estimated as an annual 2% growth rate. The Background Condition considers a trip distribution utilizing existing intersections included in the study area.

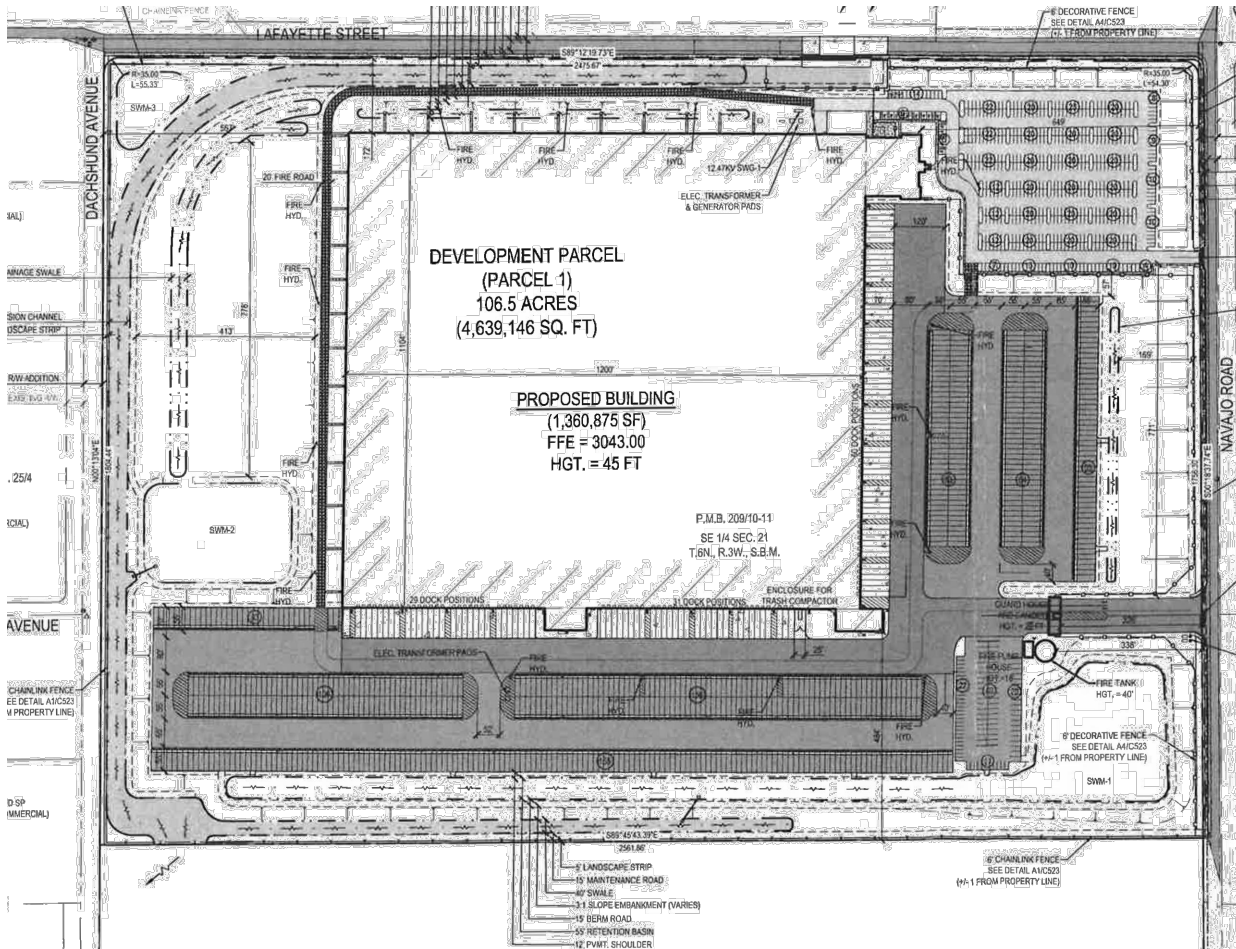
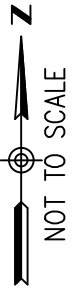
The Project Opening Year 2016 Condition addresses impacts due to Project Traffic and ambient growth up to the Opening year 2016 within the study area.

The Buildout Year 2030 Condition addresses the projects consistency with the North Apple Valley Industrial Specific Plan as provided in the North Apple Valley Specific Plan CMP Traffic Impact Analysis, by Urban Crossroads July 21, 2006.



**FIGURE 1: VICINITY MAP**

DISTRIBUTION CENTER  
APPLE VALLEY, CALIFORNIA



**FIGURE 2: SITE PLAN**



## 2 EXISTING CONDITION

### Existing Street System

The following roadways provide access to and within the study area;

**Dale Evans Parkway** is a north-south local roadway. It is a two lane roadway (one in each direction). Dale Evans Parkway provides regional and local access with the Dale Evans Parkway and I-15 freeway interchange.

**Navajo Road** is a north-south local roadway. It is a two lane roadway (one in each direction). Navajo Road provides local access within the project area.

**Johnson Road** is an east-west local roadway. It is a two lane roadway (one in each direction). Johnson Road provides regional and local access with the Johnson Road and I-15 freeway interchange.

The access to the proposed project will be obtained from two driveways proposed along Navajo Road.

The proposed project is located at the southwest corner of Lafayette Street and Navajo Road located in the Town of Apple Valley, California. Based on potential traffic impacts to the area roadways, four (4) existing intersections and one (1) future intersection have been identified for analysis;

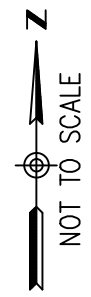
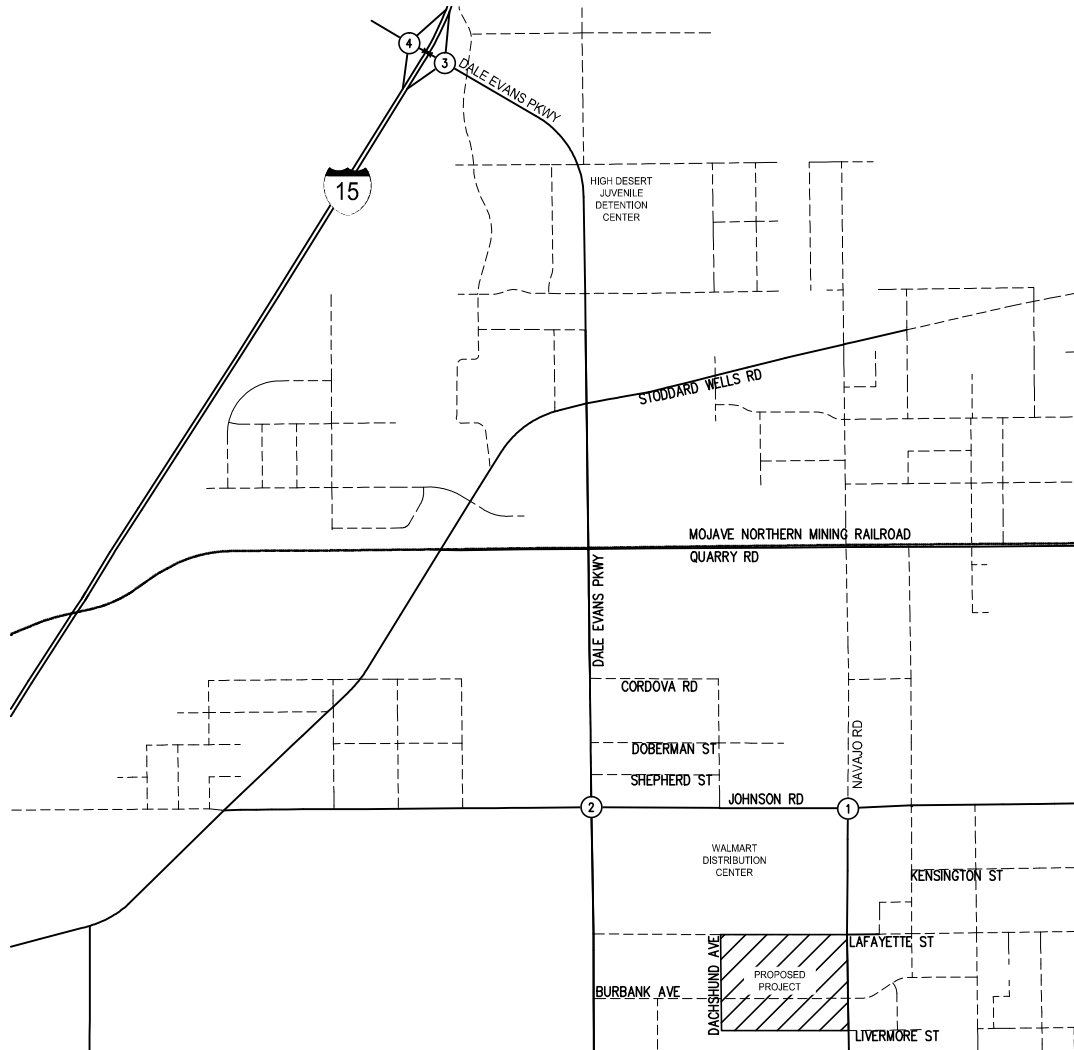
1. Johnson Road and Navajo Road
2. Dale Evans Pkwy and Johnson Road
3. Dale Evans Pkwy and I-15 Freeway NB Ramps
4. Dale Evans Pkwy and I-15 Freeway SB Ramps
5. Dale Evans Pkwy and Lafayette Street (Future Intersection)

All the study intersections are stop controlled.

### Existing Traffic Volumes

*Figure 3* illustrates the existing peak hour traffic volumes in the study area. Turn movement counts were obtained from Newport Traffic Studies, an independent traffic data collection company. Turn movement counts were collected during the AM and PM peak hour at the above-mentioned existing intersections identified for detailed analysis. These counts were conducted in August 2015. The resulting turning movement volumes are presented in the *Appendix A* of this report.

<p>① JOHNSON RD/ NAVAJO RD</p>	<p>② DALE EVANS PKWY/ JOHNSON RD</p>	<p>③ DALE EVANS PKWY/ I-15 FREEWAY NB RAMPS</p>	<p>④ DALE EVANS PKWY/ I-15 FREEWAY SB RAMPS</p>



**LEGEND**

- XX/XX - FRI/SUN PEAK HOUR VOLUMES
- Ⓧ - STUDY INTERSECTIONS



**FIGURE 3: EXISTING TRAFFIC VOLUMES**

DISTRIBUTION CENTER  
APPLE VALLEY, CALIFORNIA

## Capacity Analysis Methodologies

In order to verify the intersection capacity analysis impacts, present Level-of-Service (LOS) were conducted for the study intersections. The intersection capacity analyses are based on the existing intersection geometrics and traffic volumes during the AM and PM peak hours. The intersection capacity analyses were conducted for the un-signalized intersections using the Synchro Software. Synchro is released by Trafficware Ltd, version 8. Synchro implements the methods of the HCM 2010, chapter 15, 16 and 17.

### Un-Signalized Intersections

The Two-Way- Stop-Controlled (TWSC) intersection analysis LOS is computed for each movement and the most critical LOS is the one that describes the effectiveness of that intersection, which is typically the stop controlled left turn movement from the minor street. The All-Way-Stop-Controlled (AWSC) intersection analysis LOS is defined by the control delay of the whole intersection. *Table 1* provides the HCM 2010 LOS thresholds for TWSC and AWSC intersections.

Table 1: HCM 2010 - LOS Criteria for TWSC and AWSC

LOS	Control Delay per Vehicle (s/veh)
A	≤ 10
B	> 10 and ≤15
C	> 15 and ≤25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Source: **HCM 2010**

### 2.1 Existing Traffic Analysis

Intersection capacity analysis were conducted for the study intersection to determine an existing intersection level-of-service (LOS), based on the existing intersection geometrics and the AM and PM peak hour traffic volumes. The results of the analysis are shown in *Table 2* and provided in *Appendix A. Figure 4* illustrates the existing intersection geometrics utilized in the capacity analysis.

Table 2: Intersection Capacity Analysis - Existing Condition  
Traffic Study – Project Jupiter Distribution Center

Intersection	AM		PM	
	Delay (1)	LOS(2)	Delay (1)	LOS(2)
1 Johnson Road and Navajo Road (3)	8.9	A	9.1	A
2 Dale Evans Pkwy and Johnson Road (3)	8.5	A	11.0	B
3 Dale Evans Pkwy and I-15 Freeway NB Ramps (3)	8.9	A	9.4	A
4 Dale Evans Pkwy and I-15 Freeway SB Ramps (3)	9.3	A	9.9	A

(1) Delay –In Seconds

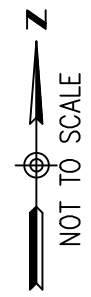
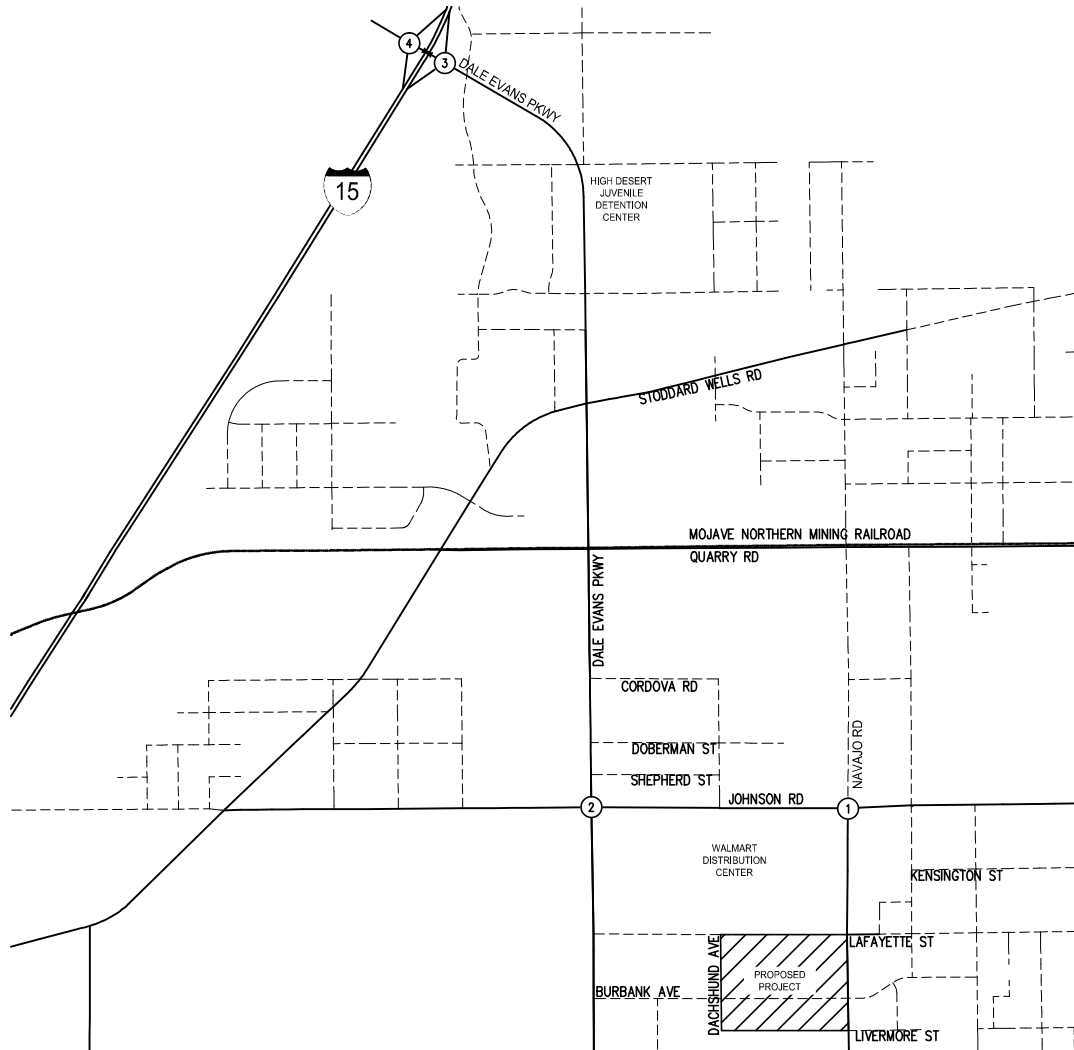
(2) LOS – HCM Level of Service

(3) Un-Signalized Intersection

Source: **Hall & Foreman, Inc.**

As provided in *Table 2* under Existing Condition, all of the study intersections are operating at an acceptable LOS B or better.

① JOHNSON RD/ NAVAJO RD	② DALE EVANS PKWY/ JOHNSON RD	③ DALE EVANS PKWY/ I-15 FREEWAY NB RAMPS	④ DALE EVANS PKWY/ I-15 FREEWAY SB RAMPS



**LEGEND**

- UNSIGNALIZED INTERSECTION
- FREE RIGHT TURN
- STUDY INTERSECTIONS
- EXISTING GEOMETRICS

**FIGURE 4: EXISTING CONDITION  
INTERSECTION GEOMETRICS**  
DISTRIBUTION CENTER  
APPLE VALLEY, CALIFORNIA

### 3 Existing plus Project Condition

The proposed project is a Distribution Center, an approximate 1,360,875 square-foot facility, on an approximate 106.5 acre site. The project was analyzed to determine the amount of traffic that would be generated from the proposed development. The Existing plus Project Conditions address impacts due to Project Traffic.

#### Project Trip Generation

To identify potential traffic impacts, trip generation factors were applied to the land use to generate project trip estimates. The trip generation factors for a Distribution Center were obtained from the North Apple Valley Specific Plan CMP Traffic Impact Analysis (TIA), by Urban Crossroads dated July 21, 2006. The trip generation factors, recommended enter/exit splits for the total vehicles and trucks for the AM, PM, and Daily periods were based on the City of Fontana's "Truck Trip Generation Study," dated August 2003. The referenced trip generation rates and equations from Fontana Truck Study are provided in *Appendix B*. The Passenger Car Equivalent (PCE) Trips are calculated with a PCE factor of 2.5 as provided in the TIA.

Table 3: Project Trip Generation  
Traffic Study – Project Jupiter Distribution Center

Use	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
<b>1 Distribution Center 1,360,875 SF GFA</b>							
Auto Trip Factors	0.653	0.038	0.018	0.056	0.011	0.031	0.042
Truck Trip Factors	0.653	0.020	0.020	0.039	0.020	0.034	0.054
Total Trip Factors	1.236	0.058	0.037	0.095	0.032	0.064	0.096
Auto Trips	888	52	24	76	15	42	57
Truck Trips	888	27	27	53	28	46	73
Total Trips	1,776	79	50	129	43	88	131
Truck PCE Trips	2,220	66	66	133	69	115	184
Total PCE Trips	<b>3,108</b>	119	90	<b>209</b>	84	157	<b>241</b>

**Source:** North Apple Valley Specific Plan CMP Traffic Impact Analysis (TIA), by Urban Crossroads July 21, 2006

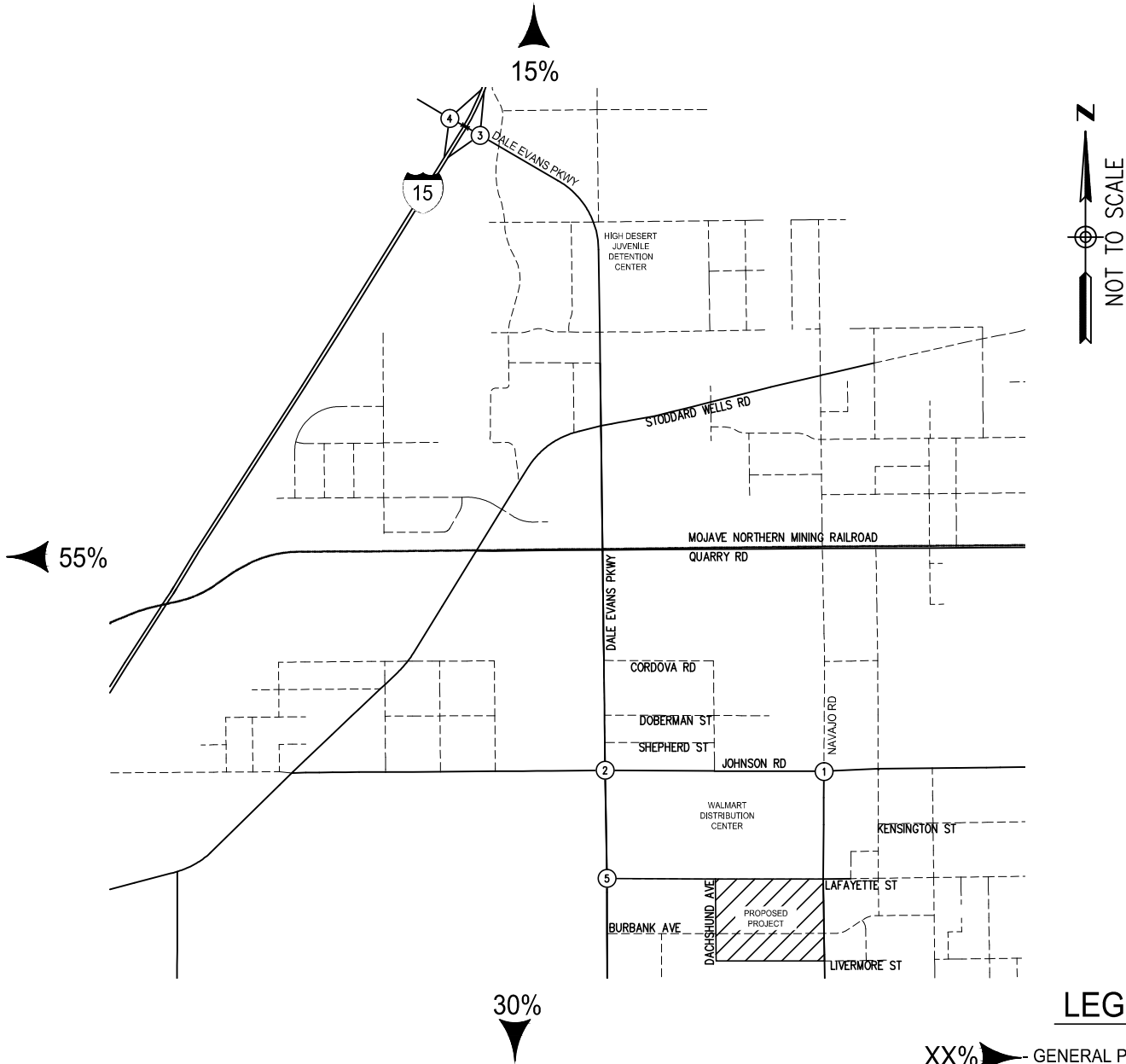
As presented in *Table 3*, it is estimated that the project will generate 3,108 daily trips, 209 PCE trips during the AM peak and 241 PCE trips during the PM peak periods.

#### Project Trip Distribution

To address the impacts of the estimated project traffic, the trips were distributed and assigned to the surrounding streets and study intersection. The project traffic was distributed based on the anticipated project utilization. Once the distribution pattern was established, project trips were assigned to the area streets that serve the project.

*Figure 5* illustrates the general and specific estimated distribution pattern for the Auto Trip Distribution. *Figure 6* illustrates the general and specific estimated distribution pattern for the Truck Project Trips. *Figure 7* illustrates the estimated Auto Project Trip Distribution. *Figure 8* illustrates the estimated Truck PCE Project Trip Distribution. *Figure 9* illustrates the estimated Total PCE Project Trip Distribution.

① JOHNSON RD/ NAVAJO RD	② DALE EVANS PKWY/ JOHNSON RD	③ DALE EVANS PKWY/ I-15 FREEWAY NB RAMPS	④ DALE EVANS PKWY/ I-15 FREEWAY SB RAMPS	⑤ DALE EVANS PKWY/ LAFAYETTE ST
50% ↘	5% ↓, 10% ↘, 15% ↗, 40% →, 15% ↗, 5% ↑	15% →	15% ↘	20% ↘, 20% ↗, 30% ↘, 30% ↗

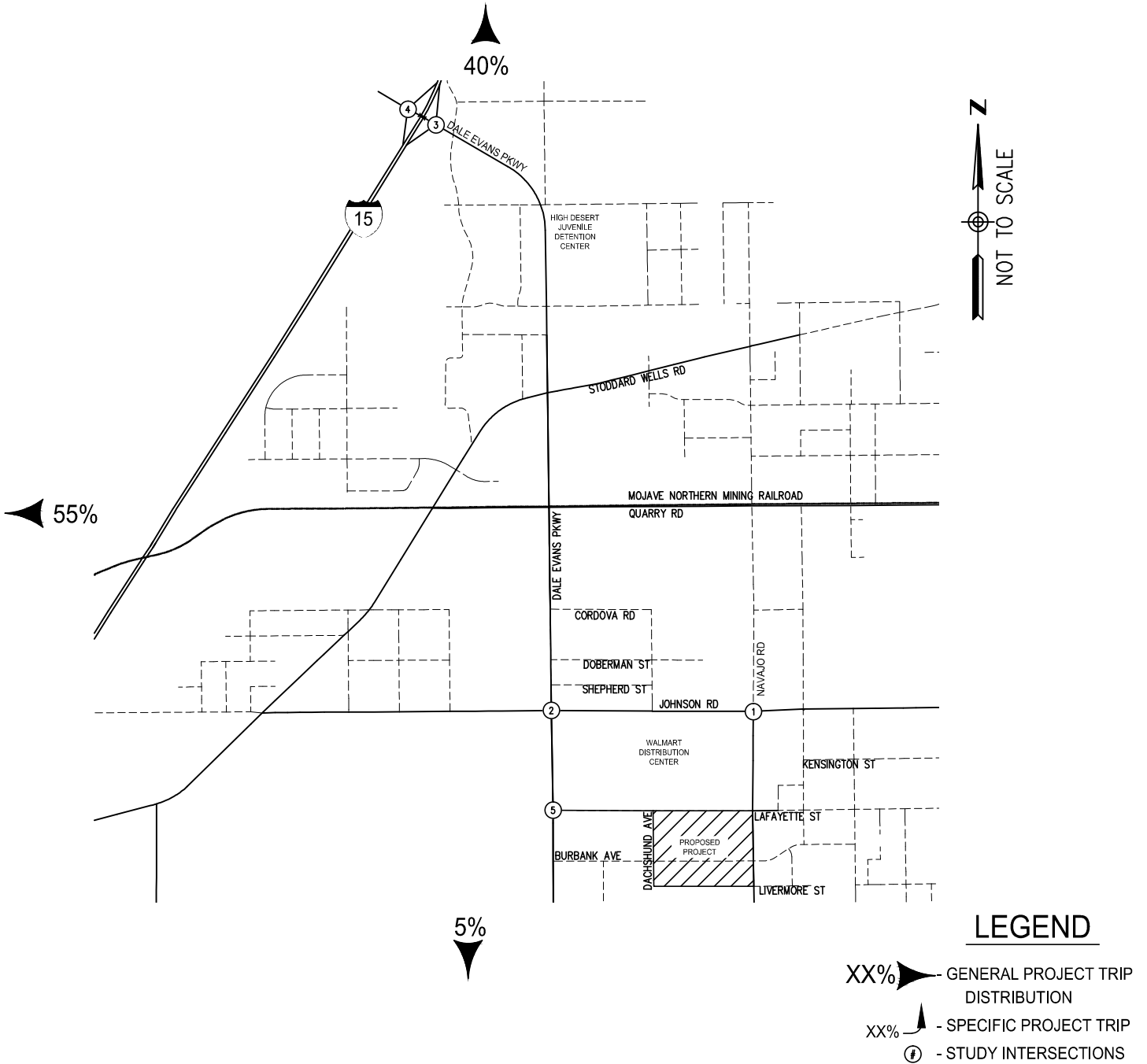


**LEGEND**

- XX% ↘ GENERAL PROJECT TRIP DISTRIBUTION
- XX% ↗ - SPECIFIC PROJECT TRIP
- ⊕ - STUDY INTERSECTIONS

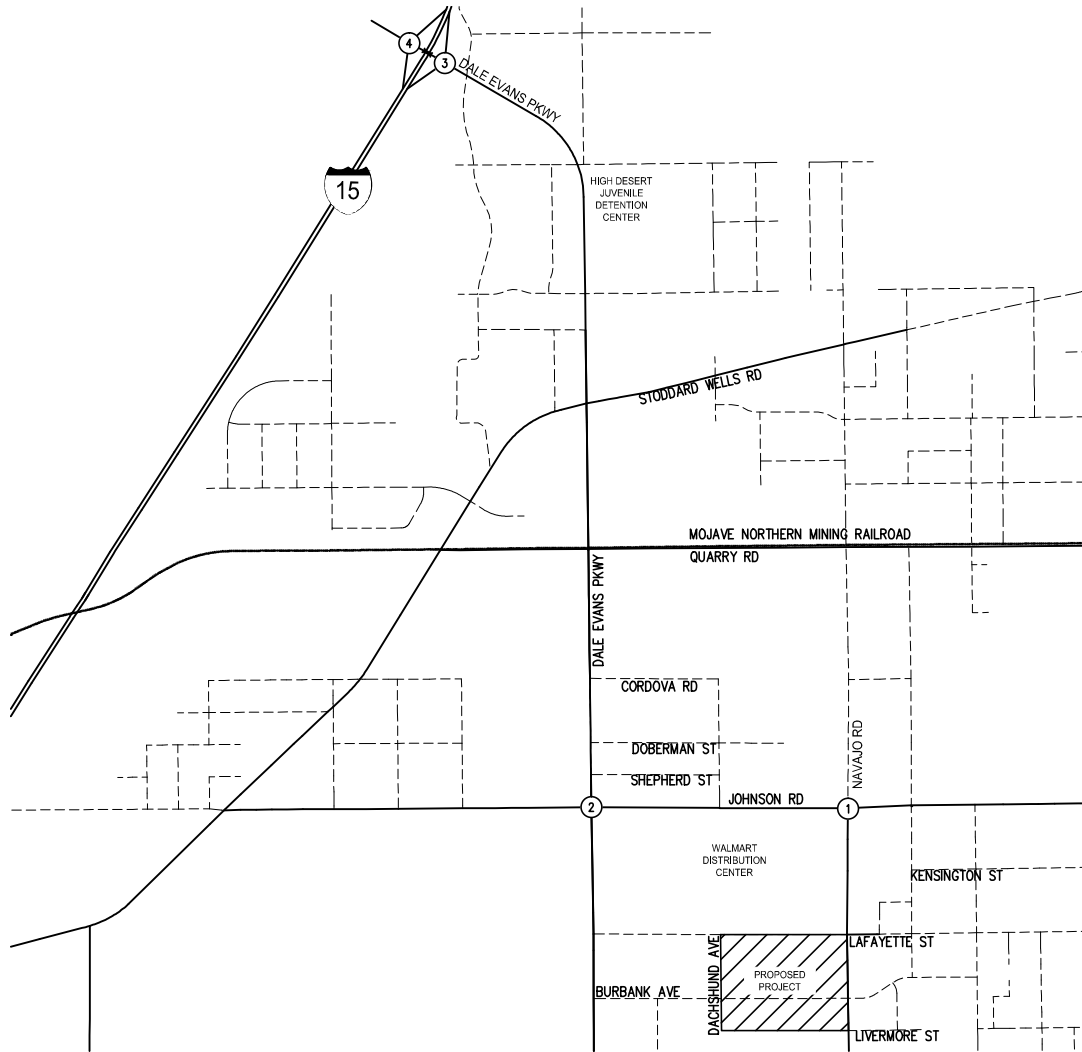
**FIGURE 5: AUTO TRIP  
DISTRIBUTION**  
DISTRIBUTION CENTER  
APPLE VALLEY, CALIFORNIA

① JOHNSON RD/ NAVAJO RD	② DALE EVANS PKWY/ JOHNSON RD	③ DALE EVANS PKWY/ I-15 FREEWAY NB RAMPS	④ DALE EVANS PKWY/ I-15 FREEWAY SB RAMPS	⑤ DALE EVANS PKWY/ LAFAYETTE ST



**FIGURE 6: TRUCK TRIP DISTRIBUTION**  
 DISTRIBUTION CENTER  
 APPLE VALLEY, CALIFORNIA

① JOHNSON RD/ NAVAJO RD	② DALE EVANS PKWY/ JOHNSON RD	③ DALE EVANS PKWY/ I-15 FREEWAY NB RAMPS	④ DALE EVANS PKWY/ I-15 FREEWAY SB RAMPS	⑤ DALE EVANS PKWY/ LAFAYETTE ST
25/10 ↘ 10/20 ↘	5/5 ↘ 5/5 ↘ 5/5 ↘ 10/15 ↘ 20/5 ↘ 10/5 ↘ 5/5 ↘ 5/5 ↘	5/5 ↘ 10/5 →	10/5 ↘	10/5 ↘ 5/10 ↘ 5/15 ↘ 15/5 ↘



**LEGEND**

**AUTO TRIPS**  
 AM PEAK PERIOD - 52 IN / 24 OUT  
 PM PEAK PERIOD - 15 IN / 42 OUT

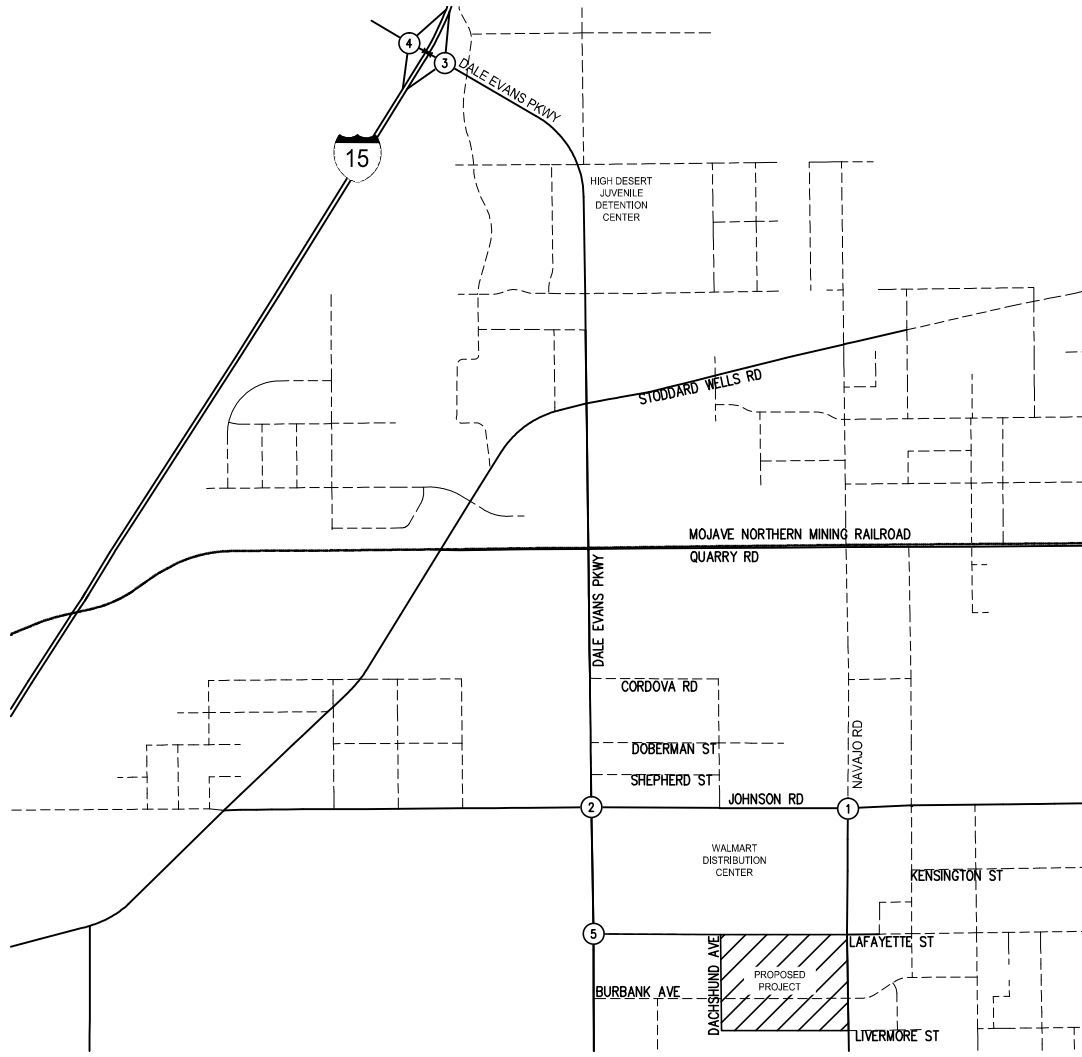
XX/XX ↘ - AM/PM PROJECT TRIP  
 Ⓣ - STUDY INTERSECTIONS



**FIGURE 7: AUTO PROJECT TRIPS**  
 DISTRIBUTION CENTER  
 APPLE VALLEY, CALIFORNIA



① JOHNSON RD/ NAVAJO RD	② DALE EVANS PKWY/ JOHNSON RD	③ DALE EVANS PKWY/ I-15 FREEWAY NB RAMPS	④ DALE EVANS PKWY/ I-15 FREEWAY SB RAMPS	⑤ DALE EVANS PKWY/ LAFAYETTE ST
55/60 ↘	5/5 ↘ 55/60 ↘ 55/100 ↘	25/45 ↘ 55/100 ↘ 25/30 →	25/30 ↘ 55/100 ↘	5/5 ↘ 5/10 ↘



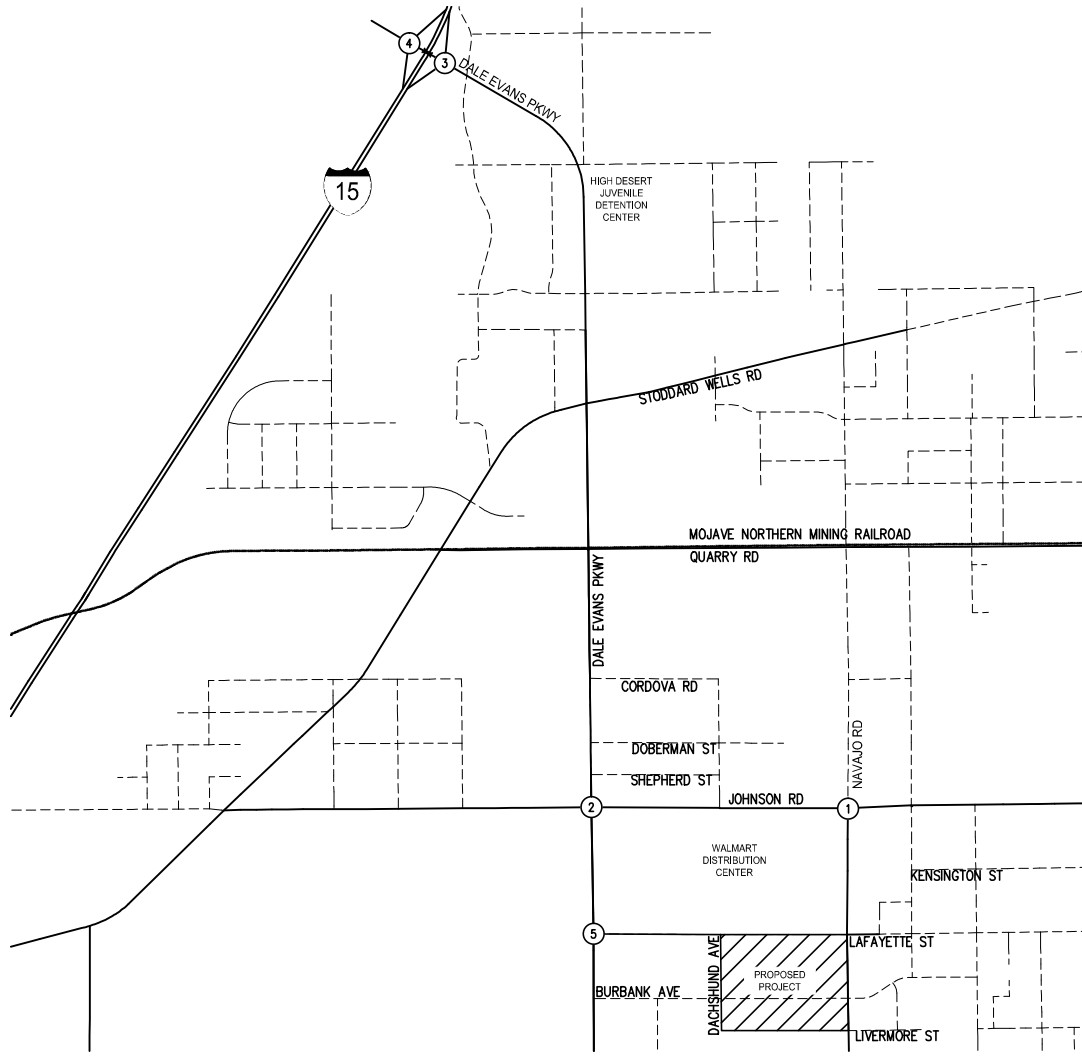
**TRUCK PCE TRIPS**  
 AM PEAK PERIOD - 66 IN / 66 OUT  
 PM PEAK PERIOD - 69 IN / 115 OUT

**LEGEND**  
 XX/XX ↘ - AM/PM PROJECT TRIP  
 Ⓜ - STUDY INTERSECTIONS



**FIGURE 8: TRUCK PCE  
PROJECT TRIPS**  
 DISTRIBUTION CENTER  
 APPLE VALLEY, CALIFORNIA

① JOHNSON RD/ NAVAJO RD	② DALE EVANS PKWY/ JOHNSON RD	③ DALE EVANS PKWY/ I-15 FREEWAY NB RAMPS	④ DALE EVANS PKWY/ I-15 FREEWAY SB RAMPS	⑤ DALE EVANS PKWY/ LAFAYETTE ST
80/70 ↘ 65/120 ↘	10/10 ↓ 60/65 ↓ 20/5 → 10/5 ↓ 60/105 ↖ 10/15 ← 5/5 ↖ 10/15 ↖	30/50 ↖ 55/100 ↖ 35/35 → 55/60 ↘	35/35 ↖ 55/100 ↖	10/15 ↖ 10/20 ↖ 5/15 ↖ 15/5 ↖



**ADJUSTED TRIPS**  
 AM PEAK PERIOD - 119 IN / 90 OUT  
 PM PEAK PERIOD - 84 IN / 157 OUT

**LEGEND**  
 XX/XX ↘ - AM/PM PROJECT TRIP  
 Ⓛ - STUDY INTERSECTIONS

### 3.1 Existing plus Project Traffic Analysis

Based on the proposed project trip generation, traffic distribution and assignment patterns intersection capacity analyses were conducted to assess the estimated project impacts. The project trips were added to the Existing Traffic Volumes to develop the Existing plus Project Traffic Volumes, illustrated in *Figure 10*.

Intersection capacity analysis for the Existing plus Project Condition was performed using the methodology presented in *Chapter 2*. The results of the analysis are shown in *Table 4* and provided in *Appendix A*.

Table 4: Intersection Capacity Analysis - Existing plus Project Condition  
Traffic Study – Project Jupiter Distribution Center

Intersection	AM		PM	
	Delay (1)	LOS(2)	Delay (1)	LOS(2)
1 Johnson Road and Navajo Road (3)	9.6	A	10.3	A
2 Dale Evans Pkwy and Johnson Road (3)	9.3	A	12.3	B
3 Dale Evans Pkwy and I-15 Freeway NB Ramps (3)	9.3	A	10.0	A
4 Dale Evans Pkwy and I-15 Freeway SB Ramps (3)	11.0	B	13.6	B
5 Dale Evans Pkwy and Lafayette St (3)	9.1	A	10.6	B

(1) Delay –In Seconds

(2) LOS – HCM Level of Service

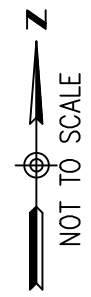
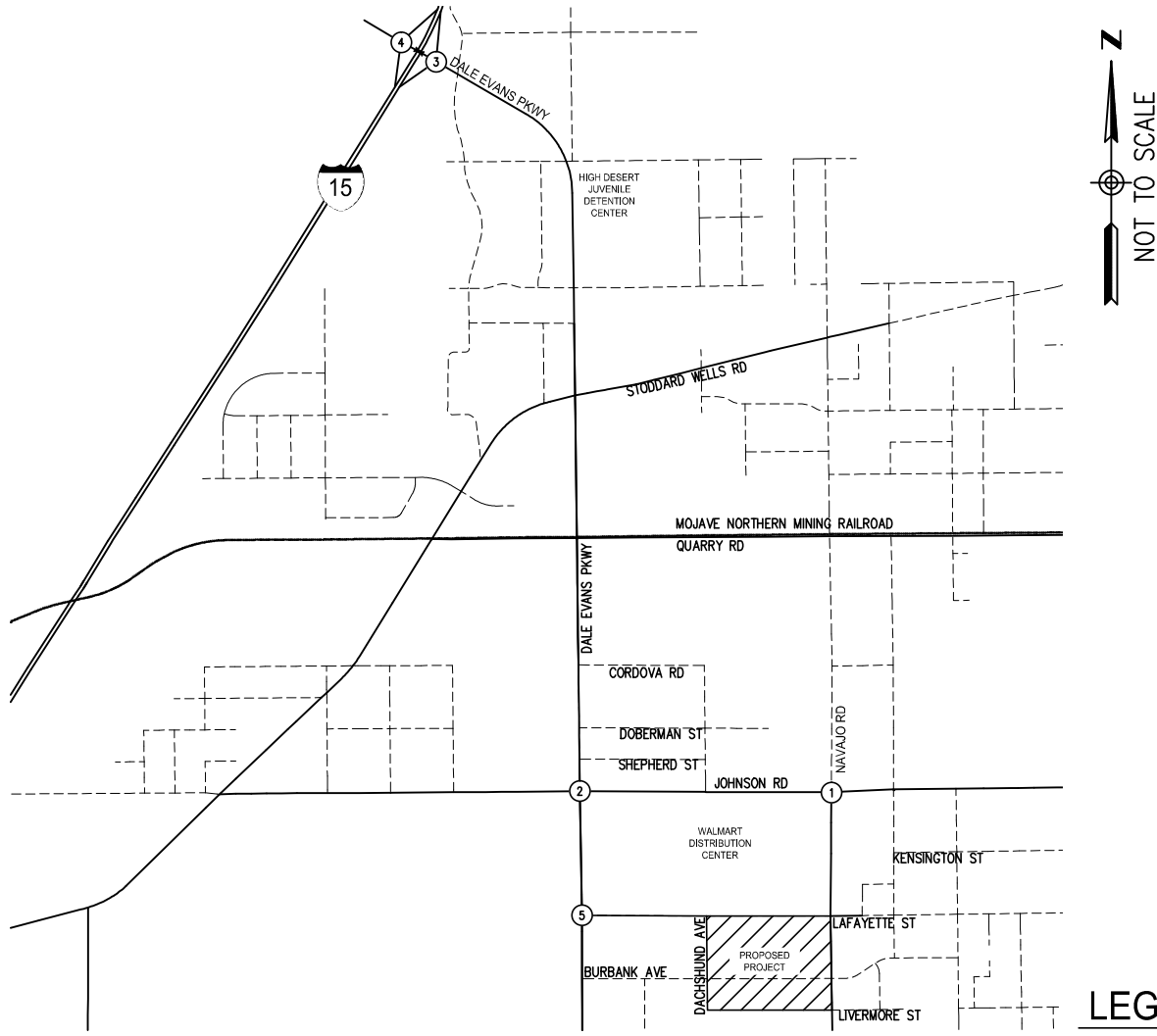
(3) Un-Signalized Intersection

Source: **Hall & Foreman, Inc.**

As provided in *Table 4* under Existing plus Project Condition, all of the study intersections are anticipated to continue operating at an acceptable LOS B or better.

The Proposed Project improvements include providing a southbound left turn lane and a northbound right turn lane at the newly constructed intersection of Dale Evans Parkway and Lafayette Street. The Existing plus Project Condition Intersection Geometrics are illustrated in *Figure 11*.

<p>① JOHNSON RD/ NAVAJO RD</p>	<p>② DALE EVANS PKWY/ JOHNSON RD</p>	<p>③ DALE EVANS PKWY/ I-15 FREEWAY NB RAMPS</p>	<p>④ DALE EVANS PKWY/ I-15 FREEWAY SB RAMPS</p>	<p>⑤ DALE EVANS PKWY/ LAFAYETTE ST</p>



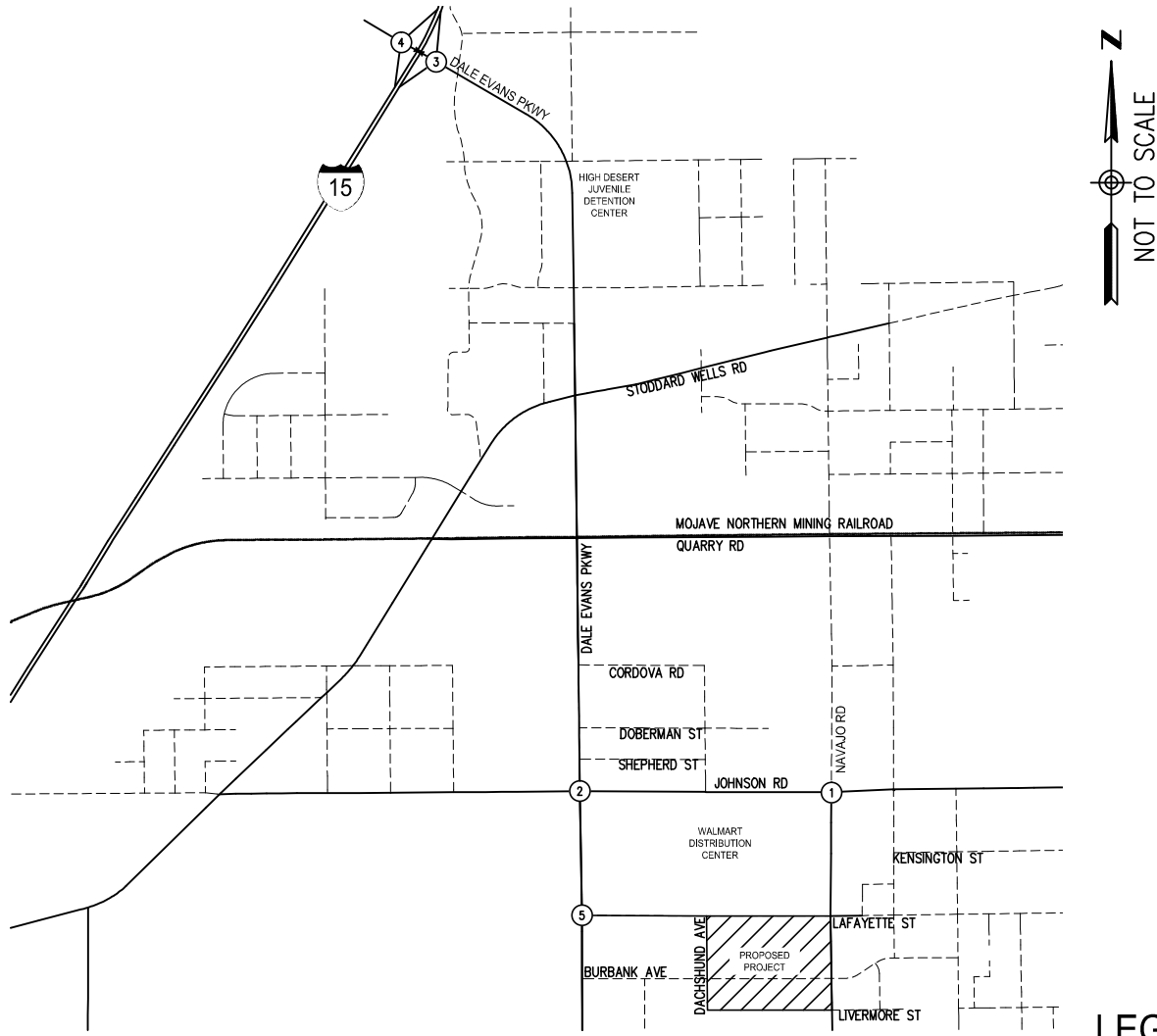
**LEGEND**

XX/XX - FRI/SUN PEAK HOUR VOLUMES  
 Ⓢ - STUDY INTERSECTIONS

**FIGURE 10: EXISTING PLUS PROJECT  
TRAFFIC VOLUMES**

DISTRIBUTION CENTER  
APPLE VALLEY, CALIFORNIA

① JOHNSON RD/ NAVAJO RD	② DALE EVANS PKWY/ JOHNSON RD	③ DALE EVANS PKWY/ I-15 FREEWAY NB RAMPS	④ DALE EVANS PKWY/ I-15 FREEWAY SB RAMPS	⑤ DALE EVANS PKWY/ LAFAYETTE ST



**LEGEND**

- UNSIGNALIZED INTERSECTION
- FREE RIGHT TURN
- STUDY INTERSECTIONS
- EXISTING GEOMETRICS
- PROPOSED GEOMETRICS

**FIGURE 11: EXISTING + PROJECT CONDITION  
INTERSECTION GEOMETRICS**

DISTRIBUTION CENTER  
APPLE VALLEY, CALIFORNIA

## 4 Background Condition

The project is anticipated to open in the Year 2016. To analyze the project impacts, the inclusion of traffic generated by regional ambient growth within the study area is necessary. Typically, ambient growth is expected over the years at rates ranging from 1% to 2% annually, a 2% annual increase was utilized. The Background Condition addresses impacts due to ambient growth up to the project opening year 2016. *Figure 12* illustrates Background Traffic Volumes.

### 4.1 Background Traffic Analysis

Intersection capacity analysis for the Background Condition was performed using the methodology presented in *Chapter 2*. The results of the analysis are shown in *Table 5* and provided in *Appendix A*.

Table 5: Intersection Capacity Analysis - Background Condition  
Traffic Study - Project Jupiter Distribution Center

Intersection	AM		PM	
	Delay (1)	LOS(2)	Delay (1)	LOS(2)
1 Johnson Road and Navajo Road (3)	9.1	A	9.3	A
2 Dale Evans Pkwy and Johnson Road (3)	8.8	A	11.7	B
3 Dale Evans Pkwy and I-15 Freeway NB Ramps (3)	9.1	A	9.6	A
4 Dale Evans Pkwy and I-15 Freeway SB Ramps (3)	9.6	A	10.2	B

(1) Delay –In Seconds

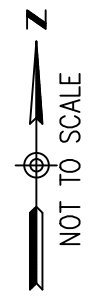
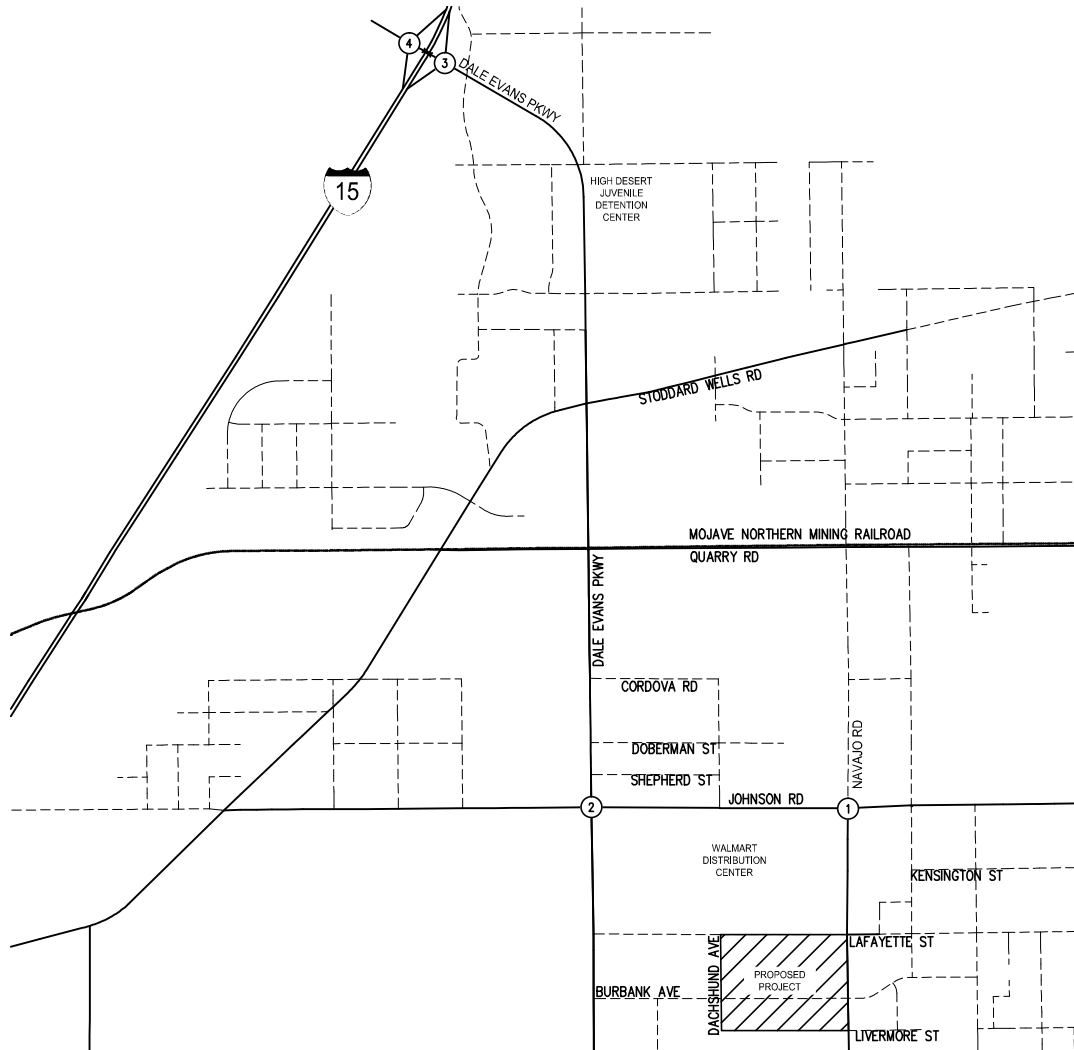
(2) LOS – HCM Level of Service

(3) Un-Signalized Intersection

Source: **Hall & Foreman, Inc.**

As provided in *Table 5* under Background Condition, all of the study intersections are anticipated to continue operating at an acceptable LOS B or better.

<p>① JOHNSON RD/ NAVAJO RD</p>	<p>② DALE EVANS PKWY/ JOHNSON RD</p>	<p>③ DALE EVANS PKWY/ I-15 FREEWAY NB RAMPS</p>	<p>④ DALE EVANS PKWY/ I-15 FREEWAY SB RAMPS</p>



**LEGEND**

- XX/XX - FRI/SUN PEAK HOUR VOLUMES
- Ⓧ - STUDY INTERSECTIONS



**FIGURE 12: BACKGROUND TRAFFIC VOLUMES**

DISTRIBUTION CENTER  
APPLE VALLEY, CALIFORNIA

## 5 Project Opening Year 2016

The Project Opening Year 2016 Condition addresses impacts due to project traffic and ambient growth up to the Opening year 2016 within the study area.

### 5.1 Project Opening Year 2016 Traffic Analysis

Based on the proposed project trip generation, traffic distribution and assignment patterns intersection capacity analyses were conducted to assess the estimated project impacts. The project trips were added to the Background Volumes to develop the Project Opening Year 2016 Traffic Volumes, illustrated in *Figure 13*.

Intersection capacity analysis for the Project Opening Year 2016 Condition was performed using the methodology presented in *Chapter 2*. The results of the analysis are shown in *Table 6* and provided in *Appendix A*.

Table 6: Intersection Capacity Analysis - Project Opening Year 2016 Condition  
Traffic Study – Project Jupiter Distribution Center

Intersection	AM		PM	
	Delay (1)	LOS(2)	Delay (1)	LOS(2)
1 Johnson Road and Navajo Road (3)	9.9	A	10.6	B
2 Dale Evans Pkwy and Johnson Road (3)	9.6	A	13.3	B
3 Dale Evans Pkwy and I-15 Freeway NB Ramps (3)	9.6	A	10.3	A
4 Dale Evans Pkwy and I-15 Freeway SB Ramps (3)	11.5	B	14.4	B
5 Dale Evans Pkwy and Lafayette St (3)	9.2	A	10.7	B

(1) Delay –In Seconds

(2) LOS – HCM Level of Service

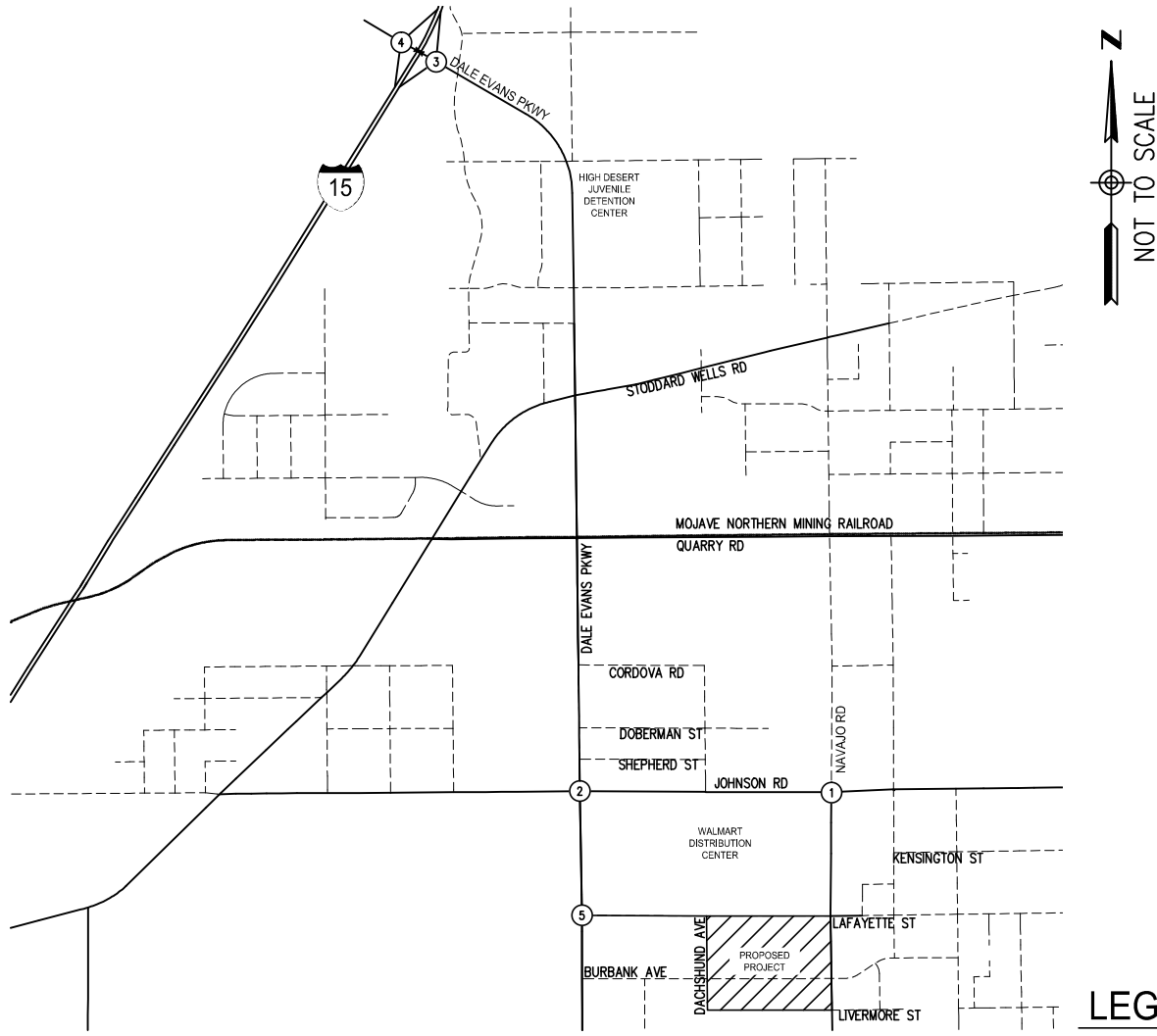
(3) Un-Signalized Intersection

Source: **Hall & Foreman, Inc.**

As presented in *Table 6* under Project Opening Year 2016 Condition, all of the study intersections are anticipated to continue to operate at an acceptable LOS B or better.



<p>① JOHNSON RD/ NAVAJO RD</p>	<p>② DALE EVANS PKWY/ JOHNSON RD</p>	<p>③ DALE EVANS PKWY/ I-15 FREEWAY NB RAMPS</p>	<p>④ DALE EVANS PKWY/ I-15 FREEWAY SB RAMPS</p>	<p>⑤ DALE EVANS PKWY/ LAFAYETTE ST</p>
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**LEGEND**

XX/XX - FRI/SUN PEAK HOUR VOLUMES  
 Ⓛ - STUDY INTERSECTIONS

**FIGURE 13: PROJECT OPENING  
YEAR 2016  
TRAFFIC VOLUMES**

## 6 BUILDOUT – YEAR 2030

The Buildout Year 2030 Condition addresses the proposed projects consistency with the North Apple Valley Industrial Specific Plan. The North Apple Valley Industrial Specific Plan Preferred Alternative included 3,854.5 acres of industrial uses and 260.9 acres (2,500,200 square feet) of general commercial retail use. The industrial uses consist of approximately 33,678,500 square feet of industrial park use and 3,259,200 square feet of general light industrial use. The 740.4 acres of “Airport Industrial” is comprised of approximately 500 acres of runways and associated airport facilities, and lands available for ancillary airport uses, including machine shops, research facilities and other activities with the airport’s capacity to serve up to 368 general aviation aircraft. The Proposed Land Use Plan for the Preferred Alternative is illustrated in *Figure 14*.

As provided in the Proposed Land Use Plan for the North Apple Valley Industrial Specific Plan Preferred Alternative the Distribution Center proposed project is proposed to be constructed within the Specific Plan Industrial Area. The proposed project is a Distribution Center, an approximate 1,360,875 square-foot facility, on an approximate 106.5 acre site located at the southwest corner of Lafayette Street and Navajo Road located in the Town of Apple Valley, California.

The North Apple Valley Industrial Specific Plan study area is generally defined by the I-15 Freeway corridor to the west, the Dale Evans Parkway/I-15 Freeway interchange to the north, Joshua Road (extended) to the east and Ottawa Road (extended) to the south. The North Apple Valley Industrial Specific Plan has direct access points to Quarry Road, Johnson Road, Saugus Road, Gustine Street, Corwin Road, Waalew Road, Dale Evans Parkway, and Central Road. Regional traffic will be drawn from the I-15 Freeway, Highway 18 (Happy Trails Highway), and local area traffic associated with the urban development of the City of Victorville and City of Hesperia. Additional traffic is anticipated to be generated from the future High Desert Corridor, which is proposed to pass through the southwest corner of the Specific Plan area.

The trip generation factors for a Distribution Center were obtained from the North Apple Valley Specific Plan CMP Traffic Impact Analysis (TIA), by Urban Crossroads dated July 21, 2006. The trip generation factors, recommended enter/exit splits for the total vehicles and trucks for the AM, PM, and Daily periods were based on the City of Fontana’s “Truck Trip Generation Study,” dated August 2003. The referenced trip generation rates and equations from Fontana Truck Study are provided in *Appendix B*.

The trip generation for the proposed project is consistent with the North Apple Valley Specific Plan CMP TIA as such no significant impacts are anticipated for the Buildout Year 2030 Condition and no addition mitigation is required beyond the mitigations proposed in the North Apple Valley Specific Plan CMP TIA.

# PROPOSED LAND USE PLAN, PREFERRED ALTERNATIVE

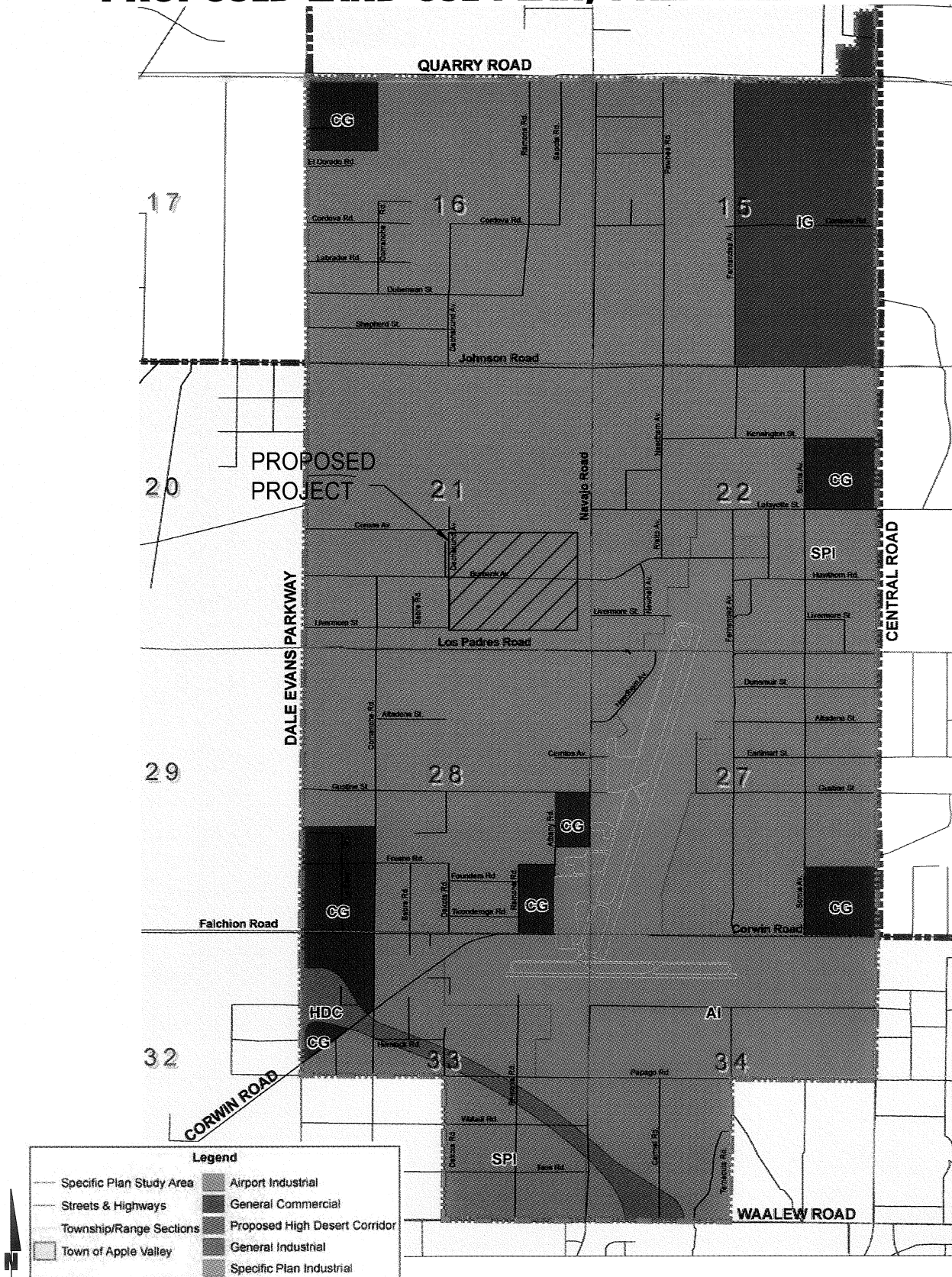


FIGURE 14: PROPOSED LAND USE PLAN, PREFERRED ALTERNATIVE



## 6.1 Buildout Year 2030 Regional Mitigations

Consistent with the North Apple Valley Industrial Specific Plan as provided in the North Apple Valley Specific Plan CMP Traffic Impact Analysis (TIA), by Urban Crossroads dated July 21, 2006 any roadway improvements within the Town of Apple Valley which are consistent with the above mentioned TIA are not considered significant impact, so long as the project contributes its “fair share” funding for improvements. The North Apple Valley Specific Plan CMP TIA Preferred Project Alternative proposed improvements are as follows.

1. Dale Evans Parkway and Johnson Road: Signalize the intersection. Provide an eastbound left turn lane, an eastbound through lane, an eastbound right turn lane with right turn overlap, and convert the eastbound shared left-through-right lane to a through lane. Provide an additional northbound through lane and northbound right turn overlap. Provide two westbound left turn lanes, a westbound through lane, and convert the westbound shared left-through lane to a through lane. Provide a southbound through lane, a southbound right turn lane, and convert the southbound shared through-right lane to a through lane.
2. Dale Evans Parkway and I-15 Freeway NB Ramps: Restripe the northbound off-ramp to provide a northbound left turn lane and a northbound right turn lane.
3. Dale Evans Parkway and I-15 Freeway SB Ramps: Restripe the southbound off-ramp to provide a southbound left turn lane and a southbound right turn lane.

## 6.2 Fair Share Analysis

The following is an outline of the Fair Share contribution for the above outline proposed for intersection improvements. The fair share percentage is calculated by intersection by peak period with project trips, as the numerator, and the total of the project trips and future development trips, as the denominator. This value is then converted into a percentage. The worst case, or higher percentage, fair share value is used to calculate the fair share cost. The Fair Share Contributions are provided in *Table 7*.

Table 7: Proposed Intersection Improvements Fair Share  
Traffic Study – Project Jupiter Distribution Center

<u>Location</u>	<u>Fair Share</u>		<u>Project Cost</u>	<u>Fair Share Cost</u>
	<u>AM</u>	<u>PM</u>		
Dale Evans Parkway and Johnson Road	$\frac{180}{180 + (4410 - 320)}$	$\frac{185}{185 + (4750 - 510)}$	\$1,150,000	\$46,000
Traffic Signal	4%	4%		
Dale Evans Parkway and I-15 Freeway NB Ramps	$\frac{100}{100 + (920 - 215)}$	$\frac{105}{105 + (940 - 255)}$	\$50,000	\$6,500
Intersection Improvements	12%	13%		
Dale Evans Parkway and I-15 Freeway SB Ramps	$\frac{50}{50 + (1090 - 105)}$	$\frac{50}{50 + (680 - 215)}$	\$100,000	\$10,000
Intersection Improvements	5%	10%		
<b>Total Fair Share Contribution = \$62,500</b>				

Source: North Apple Valley Specific Plan CMP Traffic Impact Analysis (TIA), by Urban Crossroads July 21, 2006



## 7 PROJECT MITIGATION AND SUMMARY

In summary, the project as presented will not cause significant impacts to the intersections. The proposed mitigations by condition are as follows.

1. Install curb and gutter and driveways on Navajo Road and Lafayette Street along the project frontage.
2. Extend Lafayette Street to Dale Evans Parkway, and construct intersection improvements at Dale Evans Parkway and Lafayette Street as illustrated on *Figure 15*.

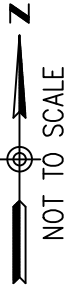
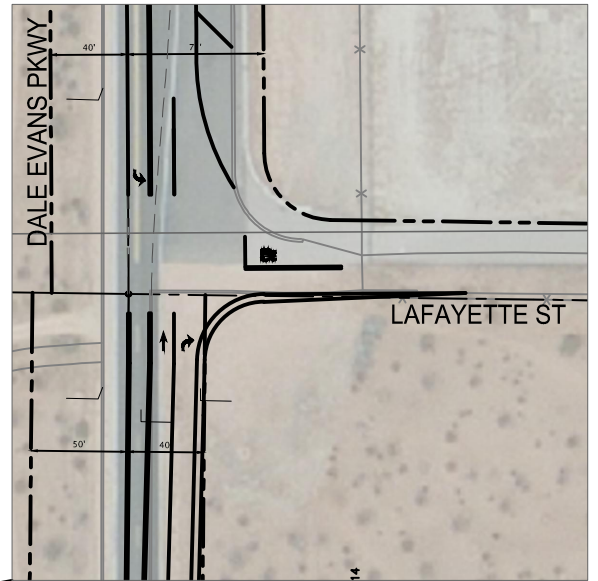
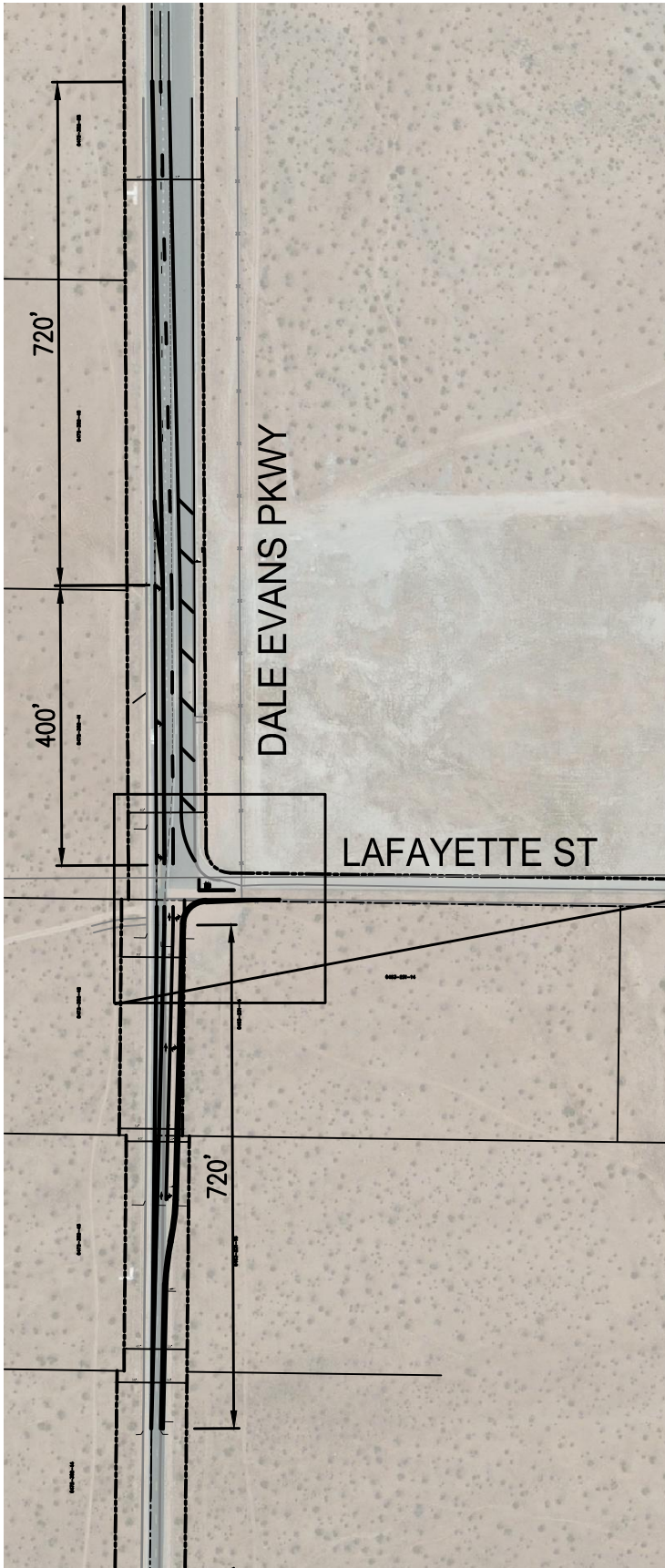


FIGURE 15: CONCEPTUAL PLAN



## **8 APPENDICES**

**A. Intersection Capacity Analysis Calculations**

**B. North Apple Valley Specific Plan CMP Traffic Impact Analysis (TIA), by Urban Crossroads July 21, 2006**